A Sheffield Hallam University thesis

Investigating the Lived Experience of an After-School Minecraft Club.

Christopher James Bailey

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Acknowledgements

'There is no difference between what a book talks about and how it is made.'
(Deleuze and Guattari, 1987, p.4.)

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;-)

Abstract

'Investigating the Lived Experience of an after-school Minecraft Club'
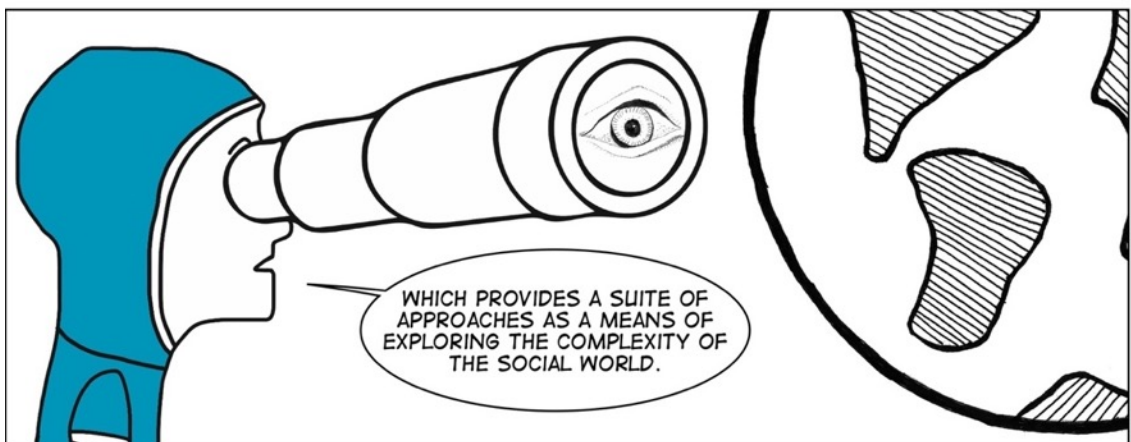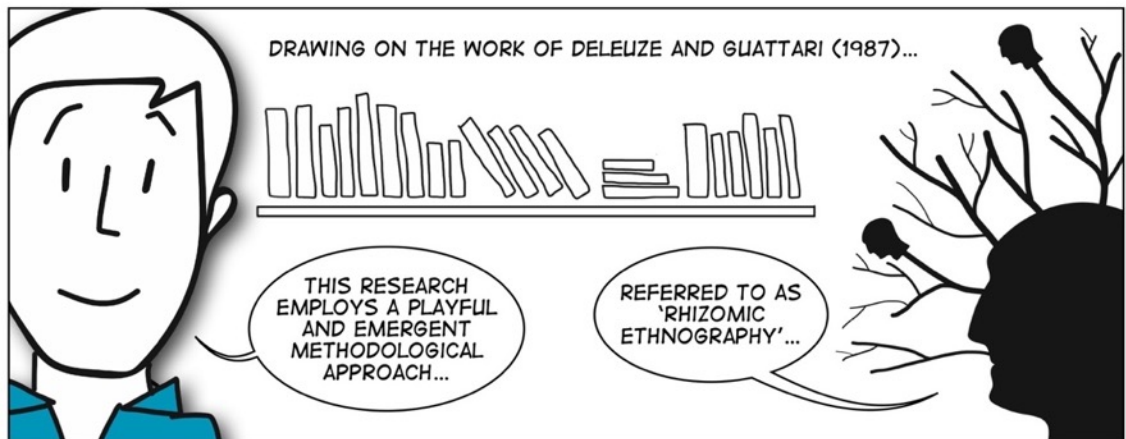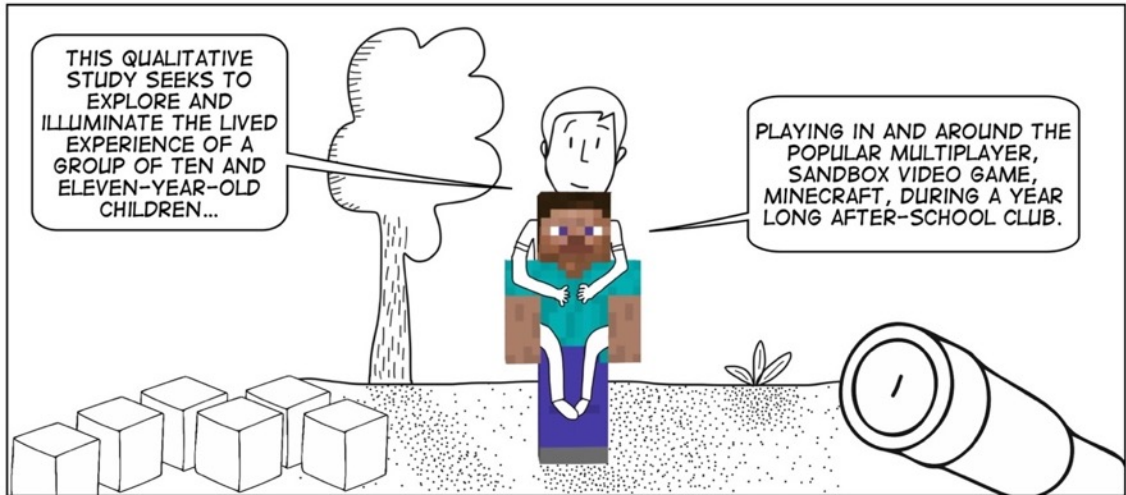
This qualitative study seeks to explore and illuminate the lived experience of a group of ten and eleven year-old children, playing in and around the popular multiplayer, sandbox videogame, *Minecraft*, during a year-long after-school club. Drawing on the work of Deleuze and Guattari (1987) the research employs a playful and emergent methodology, referred to as 'rhizomic ethnography', which provides a suite of approaches as a means of exploring the complexity of the social world. This poststructuralist study also builds upon existing research around play, New Literacy Studies, new literacies, space and place, multimodality, multiliteracies and virtual worlds. The accounts that constitute this thesis draw from a pool of rich and varied data, generated using a number of participatory and visual methods, including child-produced video, audio, screencasts, photography, fieldnotes and virtual model-making discussion sessions. In response to this data, this thesis takes a novel approach to representation, drawing on a range of modes. This results in a hybrid text that includes comic strips, illustration and audio, as a means of transcribing and representing the complexity that is the children's lived experience.
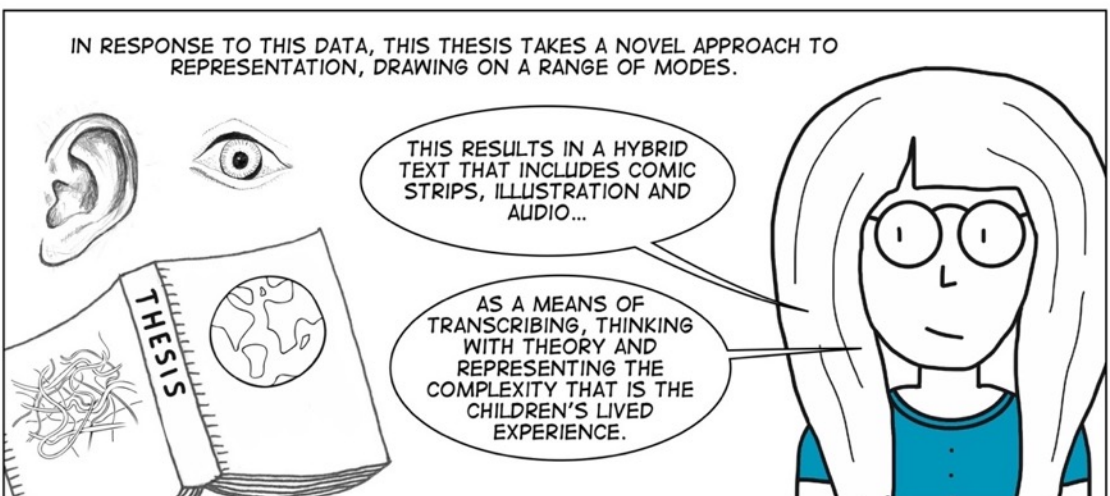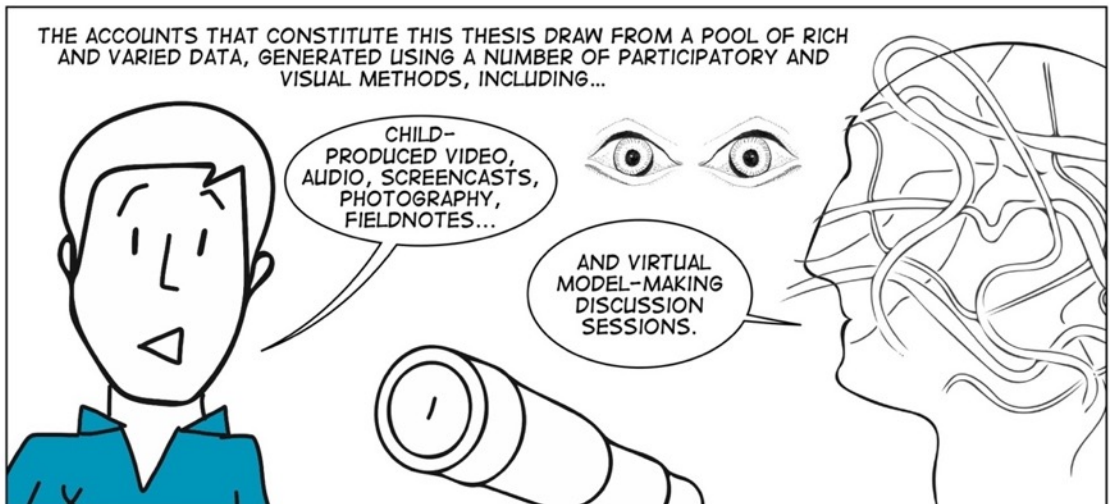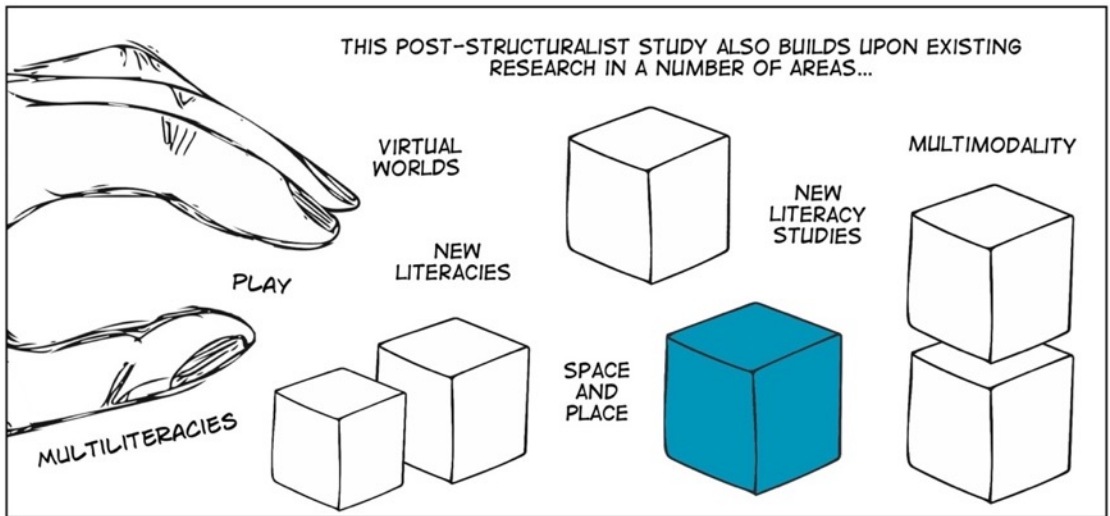
Using different selections of data, I investigate the lived experience from three alternative but interconnected perspectives, employing the Deleuzian trope of the plateau. Firstly, I examine how the children's play worked across the on and off-screen spaces in this complex hybrid site. With a particular focus on the children's construction of the virtual community that they named 'Banterbury', I demonstrate how the game itself shaped the club. Secondly, I show how the children's interactions regularly drew on aspects of their lives outside of the club, revealing the club as a social site of play, driven by a range of resources from children's everyday experiences and wider culture. Thirdly, through a focus on the club's soundscape, I reveal how the children's play often had a mischievous and exuberant quality. Finally, reading across, between and beyond these three plateaus, I conclude by examining how the lived experience of the club was characterised by an emergent playfulness. Therefore, as well as contributing to the existing literature on virtual world play and demonstrating methodological potential for application in other contexts, this thesis also offers new insights into what constitutes the emergent dimension of play. This has implications for how we consider the kind of opportunities provided for children to interact and drive their own play experiences, with or without technology.
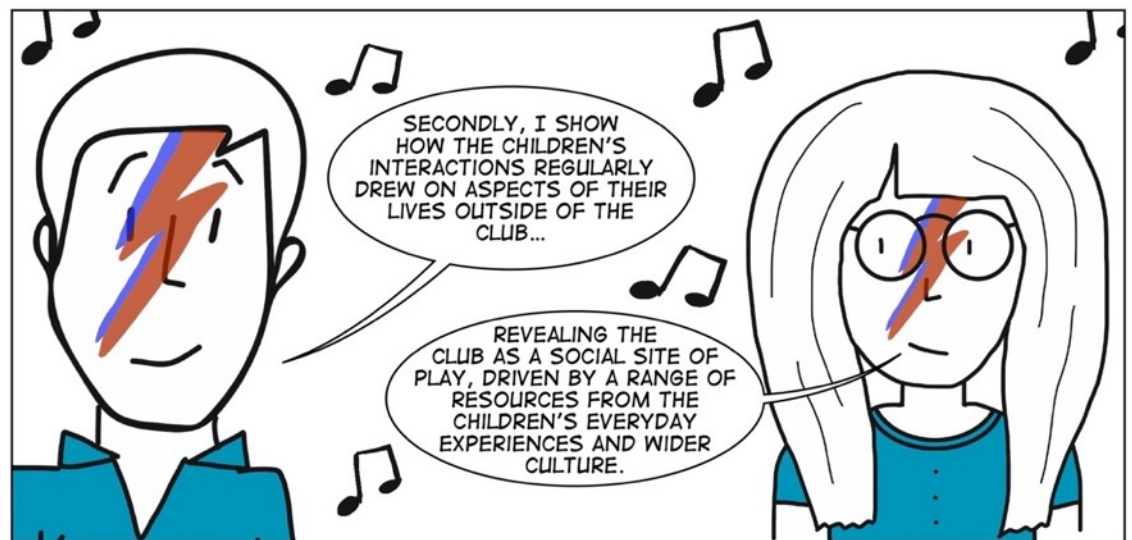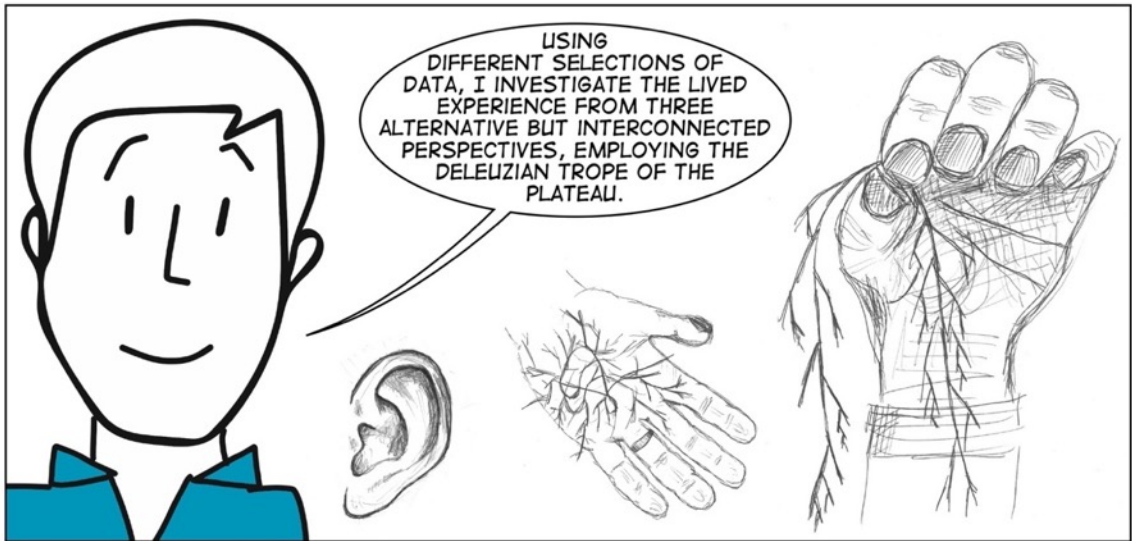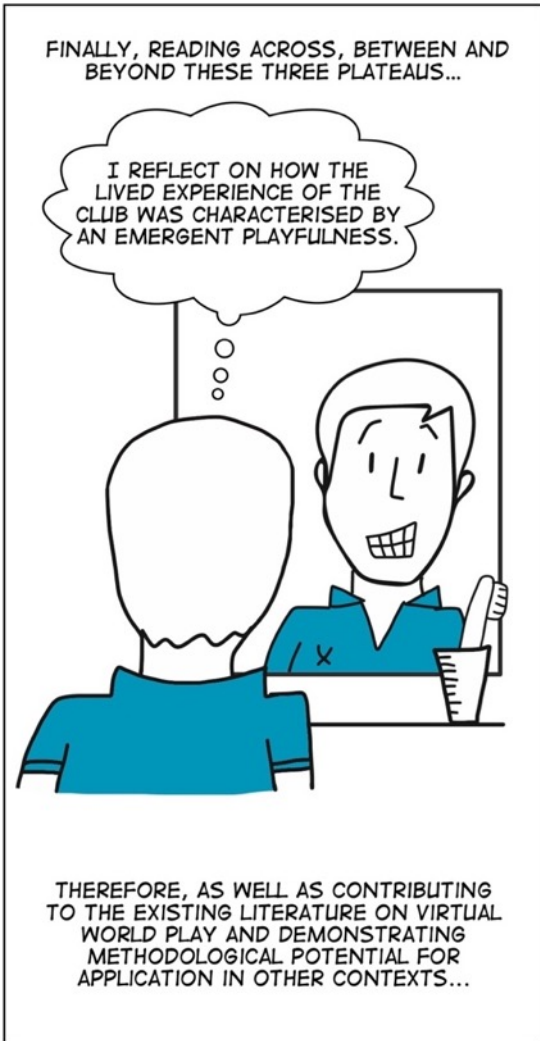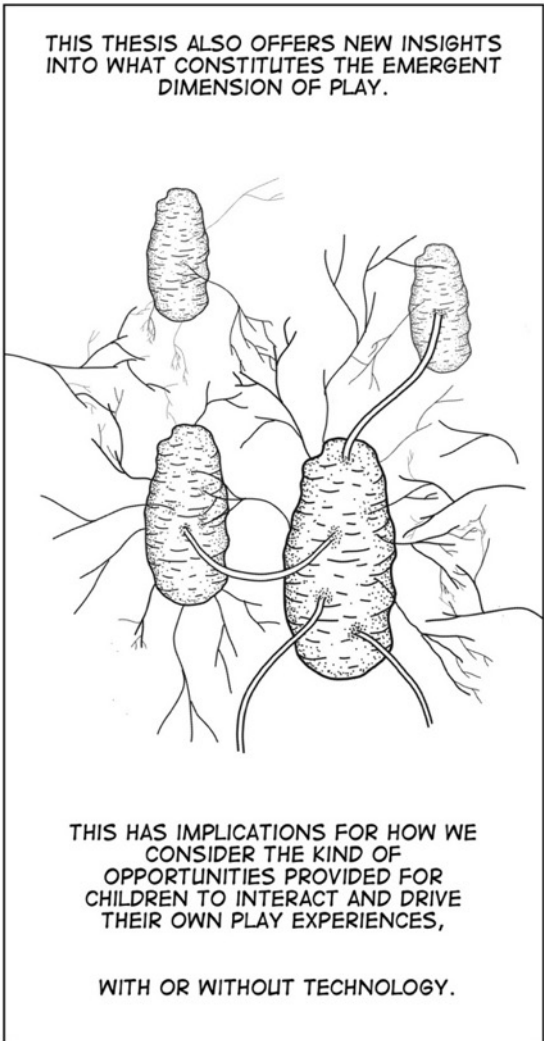
> **NOTE**: An alternative, comic strip version of this abstract, using the same text, can be found on the following four pages.

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INTRODUCTION

CHAPTER ONE: INTRODUCTION

1.1 Introducing Minecraft Club

In this study I investigate the lived experience of a group of participants in a year-long after-school club, involving the videogame *Minecraft* (Mojang, 2016). One potential way of introducing this club would be to utilise the kind of formal discourse often employed when talking about research in educational institutions, primarily addressing the school's socio-economic and geographical context. In this way I could introduce the participants, eight boys and four girls, as 'year six children' who were therefore entering their final year of primary schooling. The location could be stated as being a smaller-than-average primary school in a small village, located on the rural outskirts of a large city in the north of England. I might note that the school's catchment area was one of the largest in the region, with all of the children being of white British heritage. I could also mention that the number of children with special needs and / or disabilities in this school was below average and that very few were entitled to free school meals. Relating this formal content would impart some relevant contextual information. However, this kind of institutionalised discussion also begins to frame the setting and represent participants in a particular way, perhaps encouraging certain associations and assumptions about the character or diversity of the group, or lifestyles of the children involved.

Whilst the above information is accurate, verifiable from this anonymised school's inspection reports and website, it is not necessarily the most useful introduction for illuminating the club or the children's lived experience. I am not claiming that the club was free from the circulation of discourses relating to school, gender or socio-economic background; the club was indeed subject to multiple tracings of the children's schooled associations and the aforementioned kinds of controlled discourse. However, I am proposing that employing this kind of commonly used shorthand for context as a starting point has the potential to misdirect, allowing other things to escape our view. Such ordered and potentially

classifying ways of accounting may not encourage an exploration of, for instance, the children's references to their out-of-school experiences, their experiences of popular culture or their on-screen construction of a virtual community. I suggest that some of the formal discourses that permeate reports of educational research sites are not the same as the discourses that circulate in the sites themselves. Whilst these children were part of a particular school community, this should not necessarily be seen as a defining feature of the club, where they drew upon influences from diverse cultural and personal sources, from different times and different spaces.

Given this, it might be more relevant to impart that the group consisted of twelve children, all aged between ten and eleven. These children could be called 'Ben', 'Mia', 'Freya', 'Rob', 'Joe', 'Lisa', 'Molly', 'Callum', 'Ed', 'Tom', 'Jake' and, in one case, 'Unnamed'. These participants are individually profiled later, and their voices and actions are present (or at least represented) throughout this thesis. The group was often fun, friendly, good-natured, articulate, funny, inquisitive, knowledgeable, mischievous, insightful and a genuine pleasure to be around. During the club they engaged in lively and imaginative play, communicating whilst using laptop computers to play *Minecraft*. They often sang, danced, did impressions, told jokes, laughed and acted out roles. They frequently described their behaviour during the club as 'banter', a word which also partially formed the name they chose to give their virtual world: 'Banterbury'. The room was rarely quiet; conversation often digressed from *Minecraft*, even to the extent that *Minecraft* itself sometimes seemed a digression. Play was messy, inconsistent, exuberant, problematic and, sometimes, mundane. Of course, describing the club in this way also serves to position it in a certain light, as an introduction to this particular piece of research. However, this description is perhaps more in keeping with account of the club that follows.

I ran the year-long Minecraft Club that forms the basis of this study. I had previously supervised other Minecraft Clubs, in the same school, for two years

prior to this with different groups of children, originally at the request of a child in my class. I used to be a teacher at the school but left full time teaching to pursue this PhD, having become interested in the complex and compelling type of self-directed play I had seen manifest in and around the game. A focus on what I have called the 'lived experience' was a way of directing my gaze towards the children's participation, rather than a particular aspect of play or, indeed, the game itself. (I define my specific use of the term 'lived experience' in 3.6). The club ran for 26 weeks during the academic year 2014/2015, prefaced by two trial weeks to allow for testing of the data generation methods and familiarisation with the participants. The club met at the end of the school day on Tuesdays from 3.30pm - 4.45pm. Although I was familiar with the school, I did not know these children well, particularly not within the context of a club. All children in the class of 18 were invited to participate; those who did not attend suggested that they had other commitments on the same night, which prevented them from participating. Although ideally I would have rearranged the session to enable all children to attend there was no night on which all children were free. Whilst most of the children had played *Minecraft* in some form before, there were differences in the participants' levels of proficiency and I emphasised that prior experience of the game was not necessary. Initially eleven children joined the club. After a few weeks, one child left due to other commitments. Another member joined a few weeks after, meaning that eleven children were present for the majority of the weeks. (A specific breakdown of the detail of the club is provided as a table in Appendix 1).

1.2 Introducing *Minecraft*

Whilst this research is not specifically about *Minecraft*, it played a significant role during this club. The game has been a commercial success; its profile has grown exponentially from its inception in 2009 as a one-man project by programmer Marcus 'Notch' Pearsson, through to the creation of games studio 'Mojang', purchased by Microsoft in 2015. The game has more than 100 million users

(Mojang, 2016), spread across multiple cross-platform versions. Due to its creative potential, the game has established itself as a familiar presence in homes, but also in institutions; schools, museums and galleries. Recent studies examining children's videogame preferences have seen *Minecraft* rated highly by both boys and girls (Holloway, Green, and Brady, 2013; Beavis, Muspratt and Thompson, 2015). Likeminded players have found opportunities to connect remotely to collaborate on shared maps, resulting in the completion of construction projects that would not have been viable for players working alone (Mashable, 2013). The game has also inspired popular YouTube channels, with *Minecraft* used as a tool for producing creative, video-based content (Guardian, 2015). Its appeal and subsequent cultural significance are arguably a result of the game's associations with a particular type of creative play.

Minecraft is a first-person perspective, virtual world videogame that can be played by single or multiple players. The game's landscape is constructed using coloured blocks (representing wood, grass, gold etc.), and the game is sometimes likened to a kind of virtual Lego (Garrelts, 2014, p.43). When played in multiplayer mode, a group of individuals can inhabit, interact, communicate (via text) and create in a common world. There are two main modes of gameplay: survival and creative. In survival, the aim is to collect resources to enable the player to survive the threat of the monsters that come at night. In creative, players create with the threat removed. Gameplay during the club swapped between these two modes, at the request of the children. Within the confines of the game, much is possible, as the game's visuals act as a stimulus for imaginative virtual world play. Steve is the central controllable avatar in the game; his blocky appearance, rejecting real-life representational detail in favour of a cartoon-like abstraction, providing the recognisable eight-by-eight-pixel square 'face' of *Minecraft* (Bailey, 2017). In the version played by these children, *Minecraft Edu* (Teacher Gaming, 2016), the children could choose from a selection of different 'skins' and were also able to rename Steve with their own choice of name.

Notch has explained that he wanted to make 'games where you can do anything...' (Pearsson, 2013, n.p.). This kind of open exploration has long been a motivation for game designers and players; the creator of Nintendo's successful *Super Mario Bros*. franchise, Shigeru Miyamoto, has reflected on how his games were influenced by his own experiences of exploring caves and urban landscapes (Sheff and Eddy, 1999). *Minecraft* extends this idea of exploration, in scale and style. In *Minecraft*, the player can explore any aspect of the procedurally created, three dimensional terrain that forms the game's vast landscapes. By using in-game tools, the player can enact changes on any aspect of the game's virtual space. Particularly in creative mode, the accessibility of the game as a creative tool enables all manner of imagined spaces to be represented on-screen.

Given the game's infiltration into the popular consciousness it also regularly features in mainstream media. However, where videogames are a regularly enlisted as a scapegoat, historically blamed for all manner of social ills (Parkin, 2015), *Minecraft* breaks this mould. Whilst some concerns persist about the popularity of *Minecraft* leading to 'addiction' (Mirror, 2014; New York Post, 2016), much of the related media content is suffused with enthusiasm and positivity (Guardian, 2014; BBC, 2016). As such, *Minecraft* has helped to partially reframe popular perceptions of gaming, providing the basis for a more positive narrative, one that is increasingly sympathetic to the positive possibilities of videogames. In spite of this popularly, paralleled by growing academic interest in the game, there is currently no longitudinal work that examines collaborative use of the game from a socio-cultural perspective. There is also very little work that examines the potential of *Minecraft*, or similar creative virtual world environments, in groups involved in co-located participation.

1.3 The Study

1.3.1 Aims

This project aims to illuminate the lived experience of participants involved in the distinct play environment generated through the club. This small scale, longitudinal study aims to provide rich description of the club and the group's experience; it may be of use to academics interested in such contexts, teachers and parents of primary age children, those interested in organising play opportunities for children in after-school settings and those who have an interest in the affordances of on-screen videogames and virtual worlds for young people.

The study was driven by a number of questions, building on my previous experience of running the club and a systematic review of the literature. These open questions guided my observation and analysis, relating in particular to the group's play and their use of space:

- What is the nature of the children's play in the club? What motivates this play?
- What do the children draw upon in the club; what ideas and resources fuel their play? How is *Minecraft* implicated in their play?
- How do the children use the on and off-screen space? What is the nature of the group's interactions in this space?

Early on in the study I added another question that drew upon ideas of group identity and a wider methodological concern relating to my representation of their experience:

- What constitutes lived experience? How can I take account of the lived experience of a group? How can I best represent this experience?

These broad questions, with their often interrelated concerns, shaped my observations and focused my analysis of the data.

1.3.2 Contributions

This thesis offers four contributions to knowledge.

Firstly, a contribution is made through this thesis' exemplification of the emergent dimension of play. In the case of Minecraft Club, this emergent dimension was largely characterised by collaboration, spontaneity, exuberance, imagination, performance and mischievousness. Furthermore, it involved collaboration that spanned difference spaces, drawing upon a diverse range of resources from aspects of the children's lives and their experiences of wider culture.

Secondly, this thesis makes a contribution to the literature on virtual world play. It provides distinct and rich accounts of the club as a longitudinal case study of co-located play, in and around a virtual world environment. These accounts help us to consider the potential for the use of similar technologies with groups of players in similar contexts, with a particular focus on the possibilities for creative play and social interaction.

Thirdly, a contribution is made through my methodological approach, which I refer to as rhizomic ethnography. This constitutes a flexible array of methods, underpinned by an epistemological perspective that draws on Deleuze and Guattari's (1987) rhizomic 'image of thought' (p.16). This emergent approach could have affordances in other contexts as a means of tackling complexity. I demonstrate, for instance, how it enabled me to approach the project's data from multiple directions, thereby exploring the multiple and complementary ways of understanding the fluid and complex concept of 'lived experience'. This approach allowed for new understandings of the fieldsite, as exemplified in the first two contributions, that could potentially have been missed or written out of accounts using other methodological approaches.

Finally, a contribution is made through the presentation of this thesis as a hybrid form. This results in a text that employs multiple modes: words, images (in multiple forms, including comic strip) and audio are used at different points, for multiple purposes. This experimentation with different ways of conveying research also serves to challenge the dominance of the written word in the thesis format.

1.4 The Thesis

1.4.1 Organisation

This thesis consists of eight chapters, across two volumes. Following this introduction, in Chapter Two I review the relevant literature to locate the work in relation to previous thinking and research. I draw on work in play, New Literacy Studies, new literacies, multimodality and multiliteracies and theories around place and space. I then explain how this work sits alongside other poststructural accounts of literacies. This is followed by a comprehensive literature review that takes account of existing work on play in and around virtual world environments. I conclude this chapter by reiterating how this relates to the aims of the study.

In Chapter Three I introduce my methodological approach. I provide details of the club. Club members are introduced through a series of pen portraits and I consider my role and positionality as a researcher. I describe how an ethnographic approach was used, outlining the data generation methods employed during the project.

Throughout the thesis I draw on a number of ideas from Deleuze and Guattari's (1987) book 'A Thousand Plateaus'. In Chapter Four, for instance, I build on the methodological ideas already outlined, explaining how my eventual methodological conceptualisation was characterised by emergence (Deleuze and Guattari, 1987). I also use Deleuze and Guattari's (1987) concept of 'the rhizome' (p.6) to explain how I came to understand and articulate my own approach,

which I refer to as 'rhizomic ethnography'. I describe the processes around data selection, analysis and representation. I then consider the emergent nature of my own identity as a researcher, explaining my use of visual methods of representation. Next, I discuss the ethical implications of this project and how they were addressed. I also address this project's validity, considering what sort of criteria might be used to judge the authenticity of a study of this kind. Finally, I prepare the reader for the chapters that follow, providing an overview of the three 'plateaus' presented in Volume Two of this thesis, each of which takes an alternative perspective on a selection of the project's data, providing a commentary whilst drawing on particular theoretical lenses.

Volume Two begins with Chapter Five (Plateau 1: 'Building Banterbury and the BwO'). Here I approach the lived experience of the club from the perspective of the children's creative play, examining on and off-screen instances of meaning making that relate to the children's interactions with the game. This helps to illuminate how the group's play is entangled across on and off-screen spaces. This leads to a reconceptualisation of the group as a connected entity, drawing on Deleuze and Guattari's (1987) concept of the 'Body without Organs' (BwO) (p.175) to consider the lived experience of the group, rather than of individual participants.

In Chapter Six (Plateau 2: 'Playing with the World') I focus on how the children draw on elements of their lives outside the club, using them as resources for their social play that enable them to reflect and examine aspects of their everyday lives. This leads to a consideration of how the group mobilise such resources, using Deleuze and Guattari's (1987) concept of the 'plane of consistency' (p.269) to describe the social experience of the group in terms of a process of 'becoming' (p.21).

In Chapter Seven (Plateau 3: 'Visualising Soundscapes') I explore the club's lived experience via its soundscape, to illuminate how sound was a vital component in

the participant's lived experience and how it contributed to the often exuberant nature of the children's play.

Chapter Eight concludes this thesis. I begin by summarising what I hope the reader will have taken from each individual chapter. I then consider the chapters together to discuss what they tell us about the club. Here I elaborate on the emergent dimension of play, considering the implications in terms of the kind of opportunities that we provide for children to interact and drive their own collaborative play experiences. Finally, I restate my contributions and consider the implications of this research to illuminate the possibilities for using virtual worlds, like *Minecraft*, with groups of co-located players. I argue that there is considerable potential for the use of virtual world games to enhance and stimulate creative play and social interaction. Finally, I reflect on how my approach to this project could have methodological affordances for future research.

1.4.2 Multiple Modes

As highlighted above, this thesis employs multiple modes, using written word, image and sound. With this in mind, it is necessary to alert the reader to the sometimes unconventional nature of this thesis. The reader will have already encountered the comic strip version of this project's abstract, and may have reflected on the relationship between this and the text only version. From Chapter Three onwards, comic strip transcripts are used to present data. A rationale for this approach is presented later (4.4.3 b.), after these have been seen in action. Whilst these particular comics could be considered 'ancillary data', I have included them in the main body of the thesis to encourage the reader to engage with them in advance of the commentaries that follow them in Chapters Five, Six and Seven. These transcripts are labelled clearly with a figure number, in the same way that tables or other data would be in any study. These comic strip transcripts complement or exemplify points made in the text, as well as giving

the reader an insight into which elements of the data are being considered, and which are not.

Secondly, comics are also used as part of the main text of the thesis. For instance, in Chapter Three I use comics that compile screenshots from *Minecraft* and other photographs to develop points about my approach. Illustrations and illustrated comics are also used throughout the thesis. A rationale for my use of images is provided later (4.5). These particular comics and images should be considered integral to the thesis, rather than as a supplement to the text. Therefore, where a comic (or visual element) is presented *without* a figure number, this is intended to be read as if in line with the typed text. Finally, given the focus on the club's soundscape, Plateau 3 takes an approach that is both visual and aural; a link is provided to a short soundscape compiled from the data to contextualise the chapter's commentary and discussions.

This said, aside from its illustrated title page, the next chapter continues in a conventional written form, synthesising the literature that has informed this project.
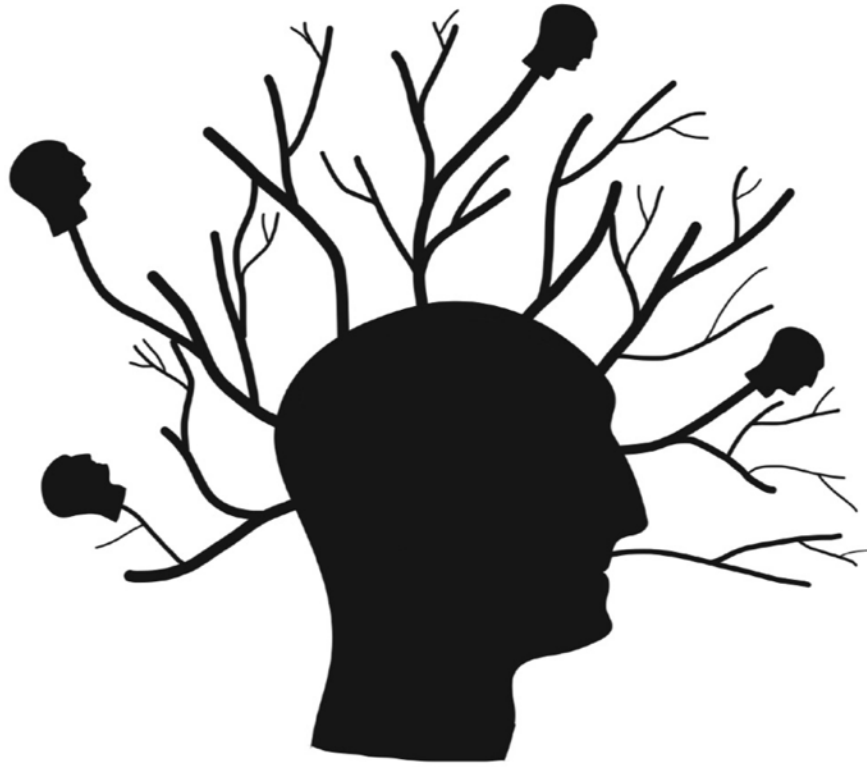
SITUATING THE STUDY

CHAPTER TWO: SITUATING THE STUDY

2.1 Introduction

This chapter consists of three main sections. The first locates this work in relation to wider theoretical perspectives. This includes theories around children's play, New Literacy Studies (NLS), multimodality, multiliteracies, new literacies and place and space. In the second part I seek to establish this work alongside other poststructuralist work. After defining poststructuralism, I argue that this paradigm offers a way of understanding the world that is appropriate for this study. In the third section I outline the research that has informed this project, beginning with an overview of classroom based studies employing an ethnographic approach to examining the social worlds of children. This leads to a systematic examination of research around virtual world play, identifying a number of emerging themes. The chapter concludes with a focus on recent, relevant research related to *Minecraft* in educational contexts.

2.2 Framework for Research

2.2.1 Children's Play

This research provides a close examination of children engaged in ongoing, collaborative, playful activity. As such, it is influenced by theoretical work relating to children's play. Here, the word 'play' is used in its broadest sense to cover a multitude of on and off-screen playful interactions engaged in by the group. Sutton-Smith (2001) suggests that 'play' is a name applied to 'a conglomerate of activities' such as 'exploration, practice, manipulation, mastery, experimentation, reading and listening, making music, painting, dancing, roughhousing and so on' (p.134). Such definitions appear to be broad and inclusive, and there have been a 'multiplicity of concepts' applied to play (Sutton-Smith, 2001, p.221). In spite of this, much of the discussion around children's play tends to focus on developmental progress. Such work is influenced by

developmental psychology (Sutton-Smith, 2001), and Piagetian approaches that link different kinds of play to cognitive development (see for example Piaget, 1951).

There is growing scepticism around such potentially constricting discourses, as play is 'seldom the only determinant of any of the important forms of learning that occur in young children' (Sutton-Smith, 2001, p.41). Piaget's (1951) theory has been criticised for neglecting to account for potentially important cultural and social factors present in the environments where play usually occurs (Nicolopoulou, 1999). Whilst Vygotsky's (1967) work examines certain activities from a social cultural perspective, he still focussed on 'play as a source of development' (p.16) and, more specifically, the complex and indirect impact on 'higher psychological functions' of pre-school children (Nicolopoulou, 1999). Such work has fed into what Sutton-Smith (2001) calls the 'rhetoric of progress' (p.51), relating to discourses around children's play that frame its value in terms of development, obscuring other valuable perspectives that could provide insights into play. For instance, one alternative perspective positions play as a form of phantasmagoria, including elements of 'ludicrous distortion, exaggeration, and extravagance at times bordering on the bizarre' (Sutton-Smith, 2001, p.158). This concept perhaps more effectively describes much of the play seen during Minecraft Club. Hughes (2013) also suggests that play is multiple; 'not one thing, but several different things' (p.80). His taxonomy outlines sixteen categories of observable play types: symbolic, rough and tumble, socio-dramatic, social, creative, communication, dramatic, locomotor, deep, exploratory, fantasy, imaginative, mastery, object, role and recapitulative play (Hughes, 2002). The majority of these are applicable during this study, observed either on-screen, off-screen or across these spaces. Marsh, Plowman, Yamada-Rice, Bishop and Scott (2016) suggest an addition to Hughes' list, in the form of 'transgressive play', whilst noting that 'it is not necessarily the types of play that have changed as a result of new digital contexts as the nature of play' (p.242). Again, there were examples of play that could be called transgressive identifiable during the club.

Play, in the literature, is often conflated with the idea of playfulness. An understanding of the words 'paidia' and 'ludus', regularly used in relation to play, is helpful for clarifying my use of the terms 'playful' and 'playfulness' in this thesis. Caillois (2001) uses the term ludus to describe play that is often controlled and rule bound, involving repetition and practise. Paidia, meanwhile, describes more free-form, spontaneous and improvisational types of play (Caillois, 2001). Sutton-Smith (2001) uses the word "playful" to describe a wide range of behaviours that involve play, from playing football, a musical instrument, a game of chess or 'messing about' with friends. In other words, he uses the word "playful" to describe engagement in/with both paidic and ludic behaviours. When I refer to playfulness in this thesis I am mobilising the word in a similarly broad way, for instance to describe the playful nature of the club itself. However, my usage tends to refer to behaviours orientated more towards the paidic end of the spectrum when, for instance, referring to my own playful methodology or the children's playful conversations.

Throughout the literature, a number of different terms are used to describe the type of play that is the focus of this work. Each has distinct meanings, dependent on the context. Giddings (2007) uses the term 'videogame play' (p.1) to signpost play that involves interaction with a screen based game, and 'gameplay' (p.1) to describe play that happens, often away from the screen, in relation to instances that draw upon videogame texts. Marsh et al. (2016) use 'digital play' (p.241) to describe the play related to technology. Pearce (2010) uses the phrase 'virtual play', which is also mobilised by Merchant (2015 b) to describe how 'play and play-related activities and interactions' (p.301) are supported by digital media and networks.

In this thesis I often use 'virtual play' to describe the children's participation in the club. Here, 'virtual play' frequently relates to play in or around the virtual world. This said, there are times when I simply use the word 'play' to describe

what the children are doing in the club; sometimes children were engaged in activities that seemed to have no direct relationship to the game (eg. playing with a pack of cards). In these cases, I would not add 'virtual' to the description of this act. At other times, children seemed engrossed in their *Minecraft* play, in a 1:1 interaction with their keyboard and screen. In these cases, I may use the term 'videogame play'. In other words, the club featured 'virtual play', which included 'videogame play'. However, not all of the play in the club was of a nature that seemed to require either of these qualifying words. Such terms are slippery; whilst this explanation is provided to give the reader some clarity there should also be recognition of some fluidity between the behaviours that these unavoidably rigid terms have been chosen to signify.

Given the above, in this thesis I do not seek to accurately classify play based on pre-determined types. Neither do I intend to establish a link between these children's play and their cognitive development. Instead I hope to develop an understanding of the character, value and the meaning of play for the group of children. In other words, I am seeking their lived experience of the club. To do this I take a New Literacy Studies perspective on the group's play, to move away from theories of progress towards a focus on the social significance of play. Whilst the content of Geertz's (2005) observation of a Balinese cockfight is a world away from that of a group of children engaged in virtual world play, the principle he raises is universal; that an analysis of play activities can shed light on the culture of the groups involved. Examples of research that explores children's social and virtual play are woven throughout the following sections of this chapter. In the next section, however, I will explain in more detail how work on literacies helped to define the focus of this research.

2.2.2 New Literacy Studies (NLS)

This research is influenced by work on New Literacy Studies (NLS), as a means of focusing on the lived experience of the group. Prior to NLS (Gee, 1991; Street, 1984), literacy was largely understood, using a psycholinguistic model, as a set of

skills to be acquired (Gee, 2003, p.77). This included 'phonological awareness, decoding, word recognition, and literal comprehension' (Gee, 1999, p.355). Literacy was defined with little consideration of social context. However, largely due to Street's (1993) ground-breaking work, NLS emphasised literacies as an evolving set of social practices, as opposed to the more traditional concept of a single literacy and the formal, academic content of school-based literacy. As such, whilst I have described a contemporary, NLS understanding of literacy, other conceptualisation of the word dominate in different contexts.

NLS distinguishes between autonomous and ideological models of literacy. The limited, autonomous model of literacy (Street, 1993) is exemplified by the mainstream educational model of literacy, outlined and enforced by the current National Curriculum in England (Department for Education, 2013). This increasingly focuses on the structured, technical aspects of language and treats literacy (singular) as a set of skills to be learnt and applied. The ideological view of literacy (Street, 1993), however, describes how literacies (plural) are actually shaped by how and where they are used. From this perspective, school literacy is just one instance of literacy. NLS view language in actual use as complex, messy and diverse, dynamic and constantly remade (Kress 1997). In this manner, literacies exist in the interactions between people, rather than being a fixed set of properties residing in (or taken on by) an individual (Barton and Hamilton, 2003). This study considers the uses of literacies employed by the club participants during their play, rather than attempting a more formal assessment of the impact of their gameplay, as might be consistent with an autonomous model of literacy. Whilst the club members' interactions were, at times, influenced by curriculum based literacy, this is just one of many diverse resources that they drew upon during the course of the club.

Literacies are also seen as situated in both time and place. In NLS, literacy is conceptualised as being purposeful, historically and culturally located and contextualised within specific domains (Barton and Hamilton, 2003). Literacy is

not 'context free' (Street, 2011, p.108); it is shaped by the place in which it is enacted. These ideas provide a vital foundation for this project, providing the rationale for why a 'domain' such as children's after school club presents a valid focus for study. Although literacy is often thought of in terms of education, the school 'domain' of literacy is just one of many in which literacy comes into being (Street, 2011, p.106). The durability of the approach that views literacy as situated is exemplified by the broad contexts that in which it has been mobilised. Examples include an ethnographic study of families in Lancaster (Barton and Hamilton, 1998); the social uses of literacy in contemporary South Africa (Prinsloo and Breier, 1996) and an examination of children's text creation in home environments (Pahl, 2003).

Whilst literacies are situated, bounding the domain of study can be challenging, as literacy practices often span domains (Burnett, Merchant, Pahl and Rowsell, 2014). For the majority of this study, the club was located in the classroom. However, the lived experience of the club extended beyond the classroom's physical space and the club's allotted time; into the corridor, where the children collected and returned their laptops, had discussions and made plans; into lessons prior to the club, where they anticipated the club; into their home lives, aspects of which influenced their participation. As such, literacies can be seen as 'multiply and flexibly situated' (Burnett et al., 2014, p.90). This project's data were generated only during the club and the discussion sessions, in the confines of the school, at specifically allotted times. It is important to note, however, that these were limitations necessitated by the research approach and, as such, were artificial barriers imposed on the more expansive realities of the club itself. The virtual aspect of the club adds complexity to the idea of the domain. Space is extended virtually beyond the embodied space of the club's location. Similarly, the immaterial resources used by the children were not physically present in the room but drawn from their experiences from other times and places. This enmeshing of the material and immaterial (Burnett et al., 2014) further highlights the need for a framework to take account of how the literacies are situated. In

light of these particular complexities, a more detailed examination of space and place follows later in this chapter (2.2.5).

Literacies are also subject to power relations, with some literacies being 'more dominant, visible and influential than others' (Barton, Hamilton and Ivanic, 2000, p.12). This is exemplified by Pahl's (2014) work on literacy in communities, which highlights the potential for power imbalance between the speaking of regional dialects and standard English. Pahl (2014) presents an example where a cohort of local teachers in a Northern English school were instructed, by Ofsted, to model the speaking of standard English for the pupils (p.47). Regional dialects were positioned as less desirable and therefore less powerful. In this study, the classroom used for the club already had associations as a location where the children spent their time on a range of other activities. Certain activities were prioritised over others and it was therefore not a neutral space. These activities often drew upon an autonomous conception of literacy, implicitly valued above other literacies bought to the classroom by the children.

Burnett et al. (2014) suggest that 'literacies are materialised in things' (p.93) and, in this way, objects in the room were often involved in the literacies. Chairs and tables were organised by adults to facilitate certain types of learning. Work on the walls largely represented a particular, schooled implementation of literacy synonymous with educational success, as measured by governmentally produced criteria. A range of individual children's work, predominantly writing of different genres such as newspaper articles, stories and recipes, was backed and displayed by the teacher in a neat, uniform, ordered manner on the boards in the classroom. This work was often the final, 'polished' version, adhering to a prescribed assertion of what it means to be 'literate' in a Year 6 classroom in 2014/2015. Other display boards made evident the formulaic nature by which this literacy success, defined in restrictive curricular terms, was to be achieved. For instance, through the construction of 'super sentences' that follow a particular grammatical structure, using a correct choice of punctuation mark from the

confusingly hierarchical 'punctuation pyramid', or through the use of correct spelling of one or more of the 'words of the week'. These physical manifestations of literacy, read in isolation, could suggest that this was a location which privileged an autonomous, enforced version of literacy. Of course, these traces of particular discourses on the walls represented just one policy-driven strand of the multiple types of literacy that manifested during the school day between pupils and teachers.

NLS is often concerned with how literacy is used in everyday life. Literacy is understood as consisting of literacy practices, a large system comprising of multiple literacy events that happen over time (Pahl, 2007). Although these literacy practices are often internalised, they are observable through literacy events, which arise from these practices (Barton and Hamilton, 2003). Literacy practices, therefore, describe broadly 'what people do with literacy' (Barton, Hamilton and Ivanic, 2000, p.7) and involve attitudes, values, feelings and social relationships (Street, 1993). In this way, literacy practices could be said to be 'infused' by people's identities (Powell and Rowsell, 2005, p.12), enmeshed with the identities of those performing them, forming (and being formed by) people's identities. In this context, identity is often understood as emerging through ongoing negotiation between an individual's self-perception and how others view them, with identity development being both individual and social (Maybin, 2006), socially constructed, rather than 'natural or inevitable' (Branaman, 2012, p.37). Holland (2001) suggests that identities take form 'in the flow of historically, socially, culturally, and materially shaped lives' (p.5). This perspective looks beyond the idea of 'cultural identities', (Holland, 2001, p.7) not to ignore issues of ethnicity, gender, race, nationality and sexual orientation but to encompass these within broader 'socially enacted, culturally constructed worlds' (Holland, 2001, p.7). Identities are also not confined to the body, but are 'spread over the material and social environment' (p.8), thereby helping to explain how they are implicated in shaping, and being shaped by, literacy practices.

As mentioned above, literacy practices are understood as being enacted through discrete, observable literacy events; these often involve interaction with, or creation of, print based text. For example, Heath's (1983) work with communities in Carolina, USA, focussed on literacy events involving the production or comprehension of print texts by individuals and groups (p.386). The identification of literacy events can be problematic and inevitably involves subjective judgments made by the researcher. This subjectivity emerges temporally, with decisions made regarding when a perceived 'event' begins and ends. There may also be complexities in relation to who is participating in the event: does it, for instance, include others present in the room overhearing a particular exchange, even though they are not directly included in it? There are similar challenges in ascertaining presence when virtual space is involved, as exchanges and interactions around texts occurs in and across multiple and varied spaces, on-screen and off.

Whilst observing a traditional understanding of text, as employed by Heath (1983), it is also possible to employ a broader definition, conceptualising texts as 'multimodal artefacts' (Pahl, 2007, p.87). With this in mind, literacy events could be understood to encompass a more diverse range of activities including, for instance, the writing of a shopping list; the reading of a page from the bible in church; singing a song as part of a birthday celebration; a child producing a drawing of their family or a customer writing a cheque in a shop. This more generous understanding of literacy, and the related texts, is particularly appropriate for this project. The scope of the literacies under examination during Minecraft Club was diverse, involving interactions on and off-screen between multiple participants, interacting with and creating a range of different types of multimodal artefacts. In this way, this thesis presents diverse episodes, such as children spontaneously collaborating on a performed song about an on-screen sheep and a group of children using their avatars to visually represent an on-screen funeral for a virtual horse, to add to the varied examples of literacy events outlined above. As may be evident from the above descriptions, these examples

from the club involve the use of texts in multiple modes. With this in mind, the concepts of multimodality and multiliteracies are explored in the next section (2.2.4) in more depth.

Acknowledging the complexities explored above, this work also contributes to New Literacy Studies by describing the play of a group of co-located children in a specific extra-curricular (albeit school) context, revealing diverse literacies that draw on many aspects of the children's experiences, schooled and otherwise. Whilst other school based studies have drawn on a NLS framework, this project is distinct in its focus on a group of children engaged in social virtual world play over an extended period of time.

2.2.3 Multimodality and Multiliteracies

The concept of multimodality provides a framework for understanding communication as consisting of more than just language (Jewitt, 2013). Whilst multimodal theory considers speech and writing as significant elements of communication and making meaning, they are viewed as being parts of a more expansive 'multimodal ensemble' (Jewitt, 2013, p. 251). Other modes include 'image, moving image, sound… gesture, gaze and posture in embodied interaction' (Jewitt, 2013, p. 257). Multimodality also acknowledges the situatedness of meaning making and communication, with the modes and their interpretation being highly contextualised and socially shaped (Jewitt, 2013). According to Kress (2009), for instance, 'writing, image and colour lend themselves to doing different type of work' (p.1). In other words, multimodal theory suggests that we choose different modes depending on the context and the message we are trying to convey.

Ideas from multimodality fed directly into the concept of multiliteracies (New London Group, 1996). Multiliteracies proposes an approach to literacy pedagogy that takes account of the complex, culturally diverse nature of communication, again using multiple modes of representation, including linguistic, visual, audio,

gestural and spatial methods (New London Group, 1996). Multiliteracies seeks to extend the scope of literacy teaching and learning to 'include negotiating a multiplicity of discourses' (p.61) in order to generating educational experiences that equip learners with the skills to enable them to 'participate fully in public, community and economic life' (p.60).

Work around multiliteracies helps to take account of the multiple actions and interactions taking place in the club by providing a rationale for also understanding them as literacy events. Drawing on multiliteracies, therefore, helps to make explicit the link between multimodality and a New Literacy Studies approach. As outlined above, literacy events involve interactions around texts. Whilst some texts in Minecraft Club were print based (for example the *Minecraft* user guides read by the players, their written notes in notebooks, the in-game chat and the virtual books they create), much of their play did not involve written or typed text.

Multiliteracies therefore offers a broader conceptualisation of text that encompasses multiple modes. This makes the boundaries that define the term less rigid than those around definitions of text purely as written or printed words. Here, then, a provisional but flexible conceptualisation of text is employed, understood as the product or process arising from an attempt to make or convey meaning. This allows for account to be taken of interactions between individuals and screen based action, verbal conversations between participants and in-game interactions with the virtual world's visual representations. In these ways, this research demonstrates a broadening of conceptions of literacy (Kress, 2009) to encompass different semiotic modes of meaning making.

This is useful when looking at the children's lived experience of the club, where meaning was made not just through speech or written text, but through the use of other modes, on and off-screen. Taylor (2014) suggests that multimodality allows us to take account of 'embodied modes such as gesture, posture, facial

expression, gaze and haptics that work in conjunction with speech in children's collaborative construction of knowledge' (p.1). A perspective that takes account of multimodality therefore provides a means of observing the children's play focussing on different modes, rather than relying solely on the interpretation of the spoken word. Although I do not generate the kind of fine-grained multimodal analysis that is sometimes associated with multimodal studies (Jewitt, 2012; Taylor, 2014). I do, throughout the thesis, approach the data with a consideration of different modes. This is made particularly explicit through the commentaries provided about play episodes which draw on the visual data, and also Chapter Seven that examines the club by focussing on sound.

By mobilising the concept of multiliteracies it is possible to see the interactions between participants as consisting of literacy events, both on and off-screen (Pahl and Rowsell, 2012). The played videogame can be framed as an 'authorless text', 'written only in narrative terms when read (played)' (Berger and McDougall, 2013, p.142). Wohlwend (2010) states that, in videogames, 'the text is co-played, always under construction, and responsibility is shared as two or more people must participate to jointly produce the text-in-process' (p.148). This is particularly true of virtual world play where multiple users interact in one on-screen location.

The concept of design, both as an 'organising structure' and a 'process' (Cope and Kalantzis, 2000, p.20), lies at the heart of multiliteracies. This applies to this project in a number of ways. The club itself was constructed around the idea of children creating a 'virtual community'. This intentionally open instruction initially positioned me as a designer of the type of environment that forms this particular implementation of Minecraft Club, rather than as a 'boss... dictating' to the participants what should be done (Cope and Kalantzis, 2000, p.19). The club participants were also empowered as designers of the virtual space, using *Minecraft*'s building blocks to construct this virtual location. *Minecraft* provided one of the main 'resources for design' (Cope and Kalantzis, 2000, p.20) that the children drew upon in their creation. The participants were also directly involved

in the design of other literacies around the club, drawing on material and immaterial resources from the range of the available 'modes of representation' (New London Group, 1996).

Finally, concepts around multimodality and multiliteracies are particularly important when considering the modes of representation used in the final presentation of this thesis. As I explore in more depth elsewhere (4.5), this thesis constitutes a hybrid text that uses visual and aural elements alongside traditional text. By valuing different modes, a multimodal perspective provides a rationale for taking this approach.

2.2.4 New literacies

Whereas New Literacy Studies deploys a paradigmatic use of the word 'New' to provide a way of thinking about literacy as a social phenomenon, the 'new' in new literacies indicates an ontological application (Lankshear and Knobel, 2011). In other words, the term 'new literacies' reflects the nature of the literacies under examination. How individuals communicate and engage with texts is increasingly mediated by screen based technologies (Pahl and Rowsell, 2005, p.4). Work on 'new literacies' (Lankshear and Knobel, 2011) predominantly explores literacy practices that are afforded by such technologies. Examples that demonstrate the diverse scope of studies involving new literacies include: the use of Facebook by a group of hairdressers in the North of England (Davies, 2014); young children's interactions with iPad story apps (Merchant, 2015a); children's creation of film using puppets (Wohlwend and Buchholtz, 2014) and the creation of fan fiction based on science fiction television shows (Jenkins, 2006).

As well as focussing on the nature of the texts, new literacies are also characterised as being concerned with 'ethos stuff' (Lankshear and Knobel, 2011, p.29) around the enactment of such literacies, often exploring how new technologies enable different forms of collaboration. Sometimes technology is not involved, such as Pahl's (2002) examination of children's use of Pokemon

card games. New literacies are broadly considered to be more collaborative, participatory and distributed in nature, and less published, individuated and author-centric than is the tendency for conventional literacies (Lankshear and Knobel, 2011). Together, these two strands that constitute new literacies are relevant to this study's focus on the literacies around the group's videogame play, and the focus on the 'social and cultural relations' (Lankshear and Knobel, 2011, p.29) that form around this pursuit; here the literacy practices involve the gameplay itself, as well as the play that occurs around it.

As with NLS, identity is also a prevalent theme in new literacies. As Han (2012) suggests, new technologies have created new forms of identity construction (p.220) afforded by the possibilities for extending presence via screens in multiple contexts. Much of the earliest work on virtual identity around virtual worlds involves players accessing largely textual virtual worlds from remote locations (Turkle, 1994; Rheingold, 1993), providing individuals with the opportunity to reinvent themselves to form 'second selves' (Han, 2012, p.221), thus involving a 'delinking of identity with the physical human body' (Han, 2012, p.224). However, Han (2012) argues that more recent work on virtual identity (for example Hansen (2000)), re-emphasises the presence of the body (p.224), perhaps also reflecting the presence of the virtual body in more complex, visually represented virtual spaces. In such spaces the avatar gives the participants new opportunities to communicate in multiple modes whilst exploring or expressing themselves, as an extension of their embodied selves. Work around new literacies and the connection between avatar play, identity and text is relevant here in helping to inform my understanding of this dimension of the children's play in the club.

2.2.5 Space and Place

In examining the children's lived experience, this study focussed partly on the spatial practices of participants, in the room in which the club was situated, and in the on-screen play-space of the virtual world. An understanding of space and place is important, to frame how I am understanding the context of the group's

lived experience. Therefore, it is necessary to establish a framework for thinking about space and place that specifically takes account of these complex social contexts. The following theory underpins this project's understanding of space as social, constructed and distributed.

a. Space

This project employs a conceptualisation of 'space' that is socially produced, drawing on Lefebvre's (1991) assertion that '(social) space is a (social) product' (p.26); this statement incorporates two significant ideas. Firstly, the idea of space being 'produced' is important. Lefebvre (1991) suggests that 'physical space has no 'reality' without the energy that is deployed within it' (p.13), therefore positioning space as being under constant production by those in and around it. This production of social space, however, is not an uncomplicated, neutral process; it is subject to a number of internal and external influences and, as a 'tool for thought and of action' (p.26), it is therefore subject to issues of power and dominance (p.26). Massey (2005) also suggests that space is 'the product of social relations which are conflicting and uneven' (p.152) whilst asserting that all space is 'socially regulated' (p.152).

Secondly, a notion of 'social' space provides a useful focus for examining the club's physical and virtual elements, both as distinct and 'hybrid' (Burnett and Bailey, 2014) spaces. The club members interact with each other in the room and in the game. The virtual space is conceptualised by me, through my inital instruction to the group, as a 'community' space, thus emphasising the social nature of the site(s) under examination. Lefebvre (1991) suggests that 'space is social morphology: it is to lived experience what form itself is to the living organism' (p.94). Understanding the club's spaces as products of the 'social relationships' (p.27) of the group provides a strong rationale for including the examination of space, in an attempt to investigate the 'lived experience' of the group.

Whilst Lefebvre's (1991) work sought to explain expansive spaces produced in wider society, it is nevertheless useful as a means of focussing on the space produced by the club's much smaller group, understood as a 'social formation' (p.33). Conceptualisations of space as socially constructed have informed a range of literacies research (Leander and Sheehy, 2004), for example, to trace literacies outside of school in a Latino community (Moje, 2004); to examine literacies in a prison (Wilson, 2004) and to trace the spatial histories of a classroom literacy event (Leander, 2004). Although Lefebvre (1991) was not writing about virtual space, his work still resonates when applied to the gamespace created by the players, particularly due to the over layering of ideas accounted for by his notion of 'representational space' (p.39) which 'overlays physical space, making symbolic use of its objects' (p.39). As well as accounting for the presence of conceptual ideas, this over layering could also be used to take account of the concurrent presence of the virtual (in terms of the on-screen) alongside the physical, perhaps as a means of virtually represented imagination. Massey (2005) suggests that 'space is the sum of all our connections' (p.195) and therefore not bound to a specific location - embodied or otherwise. Therefore, adding to Lefebvre's (1991) ideas of space as social and produced, the notion of space being distributed is significant here. Distinctions between the virtual and physical also become less significant later on as I argue that, at least in this context, these spaces are much more co-dependent than such binary distinctions may initially suggest.

b. Place

The words 'space' and 'place' are often used interchangeably in geographical literature (Agnew, 2011, p.5). Whilst Lefebvre does not use the term 'place' (Agnew, 2011, p.18) it is important to clarify the distinction here, rather than to treat it as synonymous with 'space' or to avoid using it all together. A conventional view positions 'place' as specific in relation to the more general 'space' (Agnew, 2011, p.6). However, this common sense definition begins to fall apart when applied in this context, as the question arises of exactly how specific a

place has to be to qualify. More useful, therefore, is a definition of place that, as with the ideas of 'space' discussed above, also takes account of the social.

Tuan (1977) takes a broad view of place, asserting not only that 'place exists at different scales' (p.149), but also that place can be defined as space that has become 'thoroughly familiar to us' (p.73). In other words, place is not absolute, it is relational, not fixed in size and is dependent on individual and social experience. This familiarity can also be conceptual, rather than directly, physically experiential. Tuan (1977) suggests that 'the mind frequently extrapolates beyond sensory evidence' (p.16), using the example that 'the vastness of the ocean is not directly perceived' (p.16). This definition is also therefore inclusive enough to allow the application of the word 'place' to the virtual world. This familiarity, however, is not applied here to suggest a fixity or stability of place. Throughout the year of observing the club, the place (physical and virtual) was constantly being made and reconstructed. Massey's (2005) idea of place as 'a constellation of processes rather than a thing' (p.141) is also useful, therefore, in describing the version of 'place' that is implemented here. For example, whilst 'space' could describe the virtual on-screen environment, over time elements of this space were determined socially to be a 'place' named 'Banterbury'. This 'place' was not marked by boundaries, either virtual or physical, and was subject to a 'constellation of processes' through the children's on and off-screen play.

2.3 Poststructuralist Paradigm

Whilst drawing on the theoretical perspectives outlined above, this study works within the poststructuralist paradigm, alongside other works that provide alternative accounts of meaning making that exceed the scope of more patterned accounts. Here I begin by defining poststructuralism. I then draw on a number of contextually relevant poststructuralist studies before, finally, considering what these studies suggest this approach can offer in this particular context.

2.3.1 What is poststructuralism?

Poststructuralism is often described in terms of its relationship with structuralism; both concepts have their origins in structural linguistics, drawing largely on the work of Saussure (1974). Saussure (1974) reasons that words are conventionally conceptualised as signs, pointing towards an underlying 'presence that exist[s] elsewhere' (Belsey, 2002, p.10). However, Saussure (1974) suggests that, rather than being secure signs of pre-existing meaning, words are actually understood in relationship with each other, specifically in terms of their difference; this undermines the idea that there is a direct link between a word and its referent. Given this, Saussure (1974) divides the word, as a sign, into two parts: the 'signifier' and the 'signified' (p.115). Whilst the former term relates to the shape and the sound of the word itself (how it is written or spoken), the latter refers to its meaning. However, Saussure's (1974) argument that the sign is only understood in relationship to other signs troubles the concept of a stable signifier; it undermines the idea that secure and consistent ideas exist, beyond language. This understanding of language as deferential rather than referential has implications for how we understand the world (Belsey, 2002, p.10).

Whilst both structuralism and poststructuralism draw on Saussure's (1974) work, the difference in the approaches stems from how these ideas are mobilised. Structuralism, as practiced by anthropologists like Levi-Strauss (1955), became as a means of understanding culture. This approach was inspired by structural linguistics in its intention to find a common, underlying pattern to the organisation of cultures; just as Saussure (1974) sought to classify and deconstruct language in terms of its underlying system, structuralists theorised that it was also possible explain the world through the identification of underlying patterns. However, whilst structuralism sought 'secure knowledge through the charting of differences within structures' (Williams, 2005, p.1), this difference was often sought through the identification of binary terms: for example, through Levi-Strauss's examination of the terms raw/cooked, legitimate/forbidden, hostility/reciprocity (Belsey, 2002, p.45). As such, it is

suggested that structuralism dealt superficially with the complex nature of difference (Belsey, 2002, p.42) as proposed by Saussure (1974). Structuralism has therefore been criticised for claiming to generate secure conclusions about culture by drawing on the 'normal' patterns that lay at its core, whilst sidelining exceptions that exist at its limits (Williams, 2005, p.2).

Structuralism's claims to form secure knowledge arising from the 'normal' or regular patterns observed in culture is directly challenged by poststructuralism. As a concept, poststructuralism also deals with the relationship between human beings, the world and meaning making (Belsey, 2002, p.5). However, it differs from structuralist approaches largely in its rejection of binary differences, instead seeking to generate more nuanced meaning through the identification of difference in context. As such, poststructuralist approaches reject structuralism's attempts to discover an underlying or secure pattern to explain culture, instead seeking to challenge accounts of what is often presumed as 'stable truth and value' (Williams, 2005, p.3). This exploration of a culture arguably makes the accounts more complex, potentially messy, partial and less securely bounded. Whilst this could be seen as a criticism of poststructuralism, Law (2004) suggests that its use acknowledges that the world is so rich that our theories about it will always fail to catch more than a part of it (p.8). Similarly, Clarke (2005) suggests that 'methods are needed that intentionally aim at capturing complexities rather than aiming at simplifications; that elucidate processes of change in situations as well as they elucidate patterns and stabilities' (p.xxix). As such, poststructuralist accounts may also draw on Saussure's (1974) reasoning about the unstable relationship between the signifier and the signified, which can be seen to challenge the sufficiency of the written word (or, at least, conventional conceptions of the written word) as a means of representing the world. Therefore, poststructuralism also opens up the possibility for employing alternative means of representation. I will explore this more directly later (see section 4.5) when I discuss the composition of this thesis.

2.3.2 Exemplifying poststructuralist studies

This study aligns with a number of other poststructuralist accounts of literacy and meaning making, in terms of its approach to complexity and the form in which these accounts are presented. The accounts referred to here are not a comprehensive selection, rather they provide an overview of some recent and / or influential accounts that draw on poststructuralism in contexts relevant to this study. These accounts do not always necessarily self-define as poststructuralist, perhaps because of the slipperiness of the term itself. Nevertheless, they are included here based on their demonstration of an underlying philosophical perspective that aligns with poststructuralism, as outlined above, or through their mobilisation of theorists who have also been associated with poststructuralism. For instance, a selection of poststructural work around literacies employs the work of Deleuze and Guattari (1987) to provide a theoretical framework. The work of Deleuze and Guattari (1987) also underpins the work in this thesis.

Masny and Cole (2009) draw on poststructuralism in their development of Multi Literacies Theory (MLT) by suggesting that literacy research has been dominated by an overemphasis on certain formal aspects of literacy, such as comprehension. This leads them to take an approach that involves 'going outside of the norm' (p.1), reflecting poststructuralism's focus on that which exists on the periphery, rather than at a predefined centre or core, as directed by binary discourses. In particular, they cite Deleuze and Guattari (1987) and their idea of 'multiplicity' (p.30) as a way of conceptualising literacy as complex and multiple. This suggests that literacy can be explored, explained and understood from a number of different perspectives, rather than necessarily being defined in simple, singular terms. They suggest that using the 'spontaneous and joyful approach to theorisation' (p.3) offered by Deleuze and Guattari (1987) is useful in helping to understand the construction of literacy in contemporary life. Leander and Rowe's (2006) study of a classroom performance also draws on Deleuze and Guattari (1987), this time for the concept of 'rhizomic analysis' (p.428) which provides

them with a way of 'asking different types of questions and engaging in a different mode of thought regarding literacy performances' (p.41). Here we see poststructuralism, via Deleuze and Guattari (1987), being used to generate a complex understanding of a particular concept.

Similar ideas in relation to complexity are also present in Hollett and Ehret's (2014) use of the concept of 'assemblage' (Deleuze and Guattari, 1987) to consider the complex multiplicity presented by an individual's participation in an instance of gameplay. Conceptualising the event as an assemblage allowed them to 'de-centre the role of the human player (p.1851), thus enabling a consideration of the agentic relationship between other aspects of the gameplay assemblage, including the role of objects and technology to achieve what they call an 'agentive (re)balancing' (p.1851). This perspective helped to generate new insights, particularly in relation to affective engagement with gameplay, higlighting the complex role played by multiple-bodily experience during certain kinds of literacy events. Taking a poststructuralist perspective therefore enabled a focus on the physical, felt aspect of the episode, rather than focussing solely on the textual aspects of the site under examination.

Similarly, Ehret, Hollet and Jocius (2016) use similar concepts to consider the 'entanglements' between bodies, materials and place, in the context of young people's new media making. Likewise, Kontovourki (2014) examines the way that multiple subjects 'intertwine' (p.4) in a school space, taking into account how the school curriculum and aspects of popular culture intersect to 'exert power on students' bodies' (p.4). These perspectives can again be considered poststructualist in their adoption of a viewpoint on literacy and play that differs from other more established ways of seeing the world; focussing, in these examples, on an assemblage of factors that incorporates and finds connections between concepts, places and bodies.

Whilst the above studies consider the relationship between multiple human and non-human bodies, Wyatt, Gale, Gannon and Davies (2010) also draw on Deleuzian concepts to help them to focus on the flow generated in and between multiple bodies during writing composition. Asking 'what concepts can we use to grasp the fluidity of being and becoming' (p.10) they consider the relationship and experiences of multiple participants. Here, again, the emphasis is on felt experience, with the addition of the concept of 'becoming' helping them to consider these relationships as ongoing and changing rather than fixed and certain. This focus on change, alongside a continuing focus on the body, is present in Perry and Medina's (2011) work around dramatic performance. Here they draw on the notion of 'emergence' as a way of describing 'the change inherent in embodied experience' (p. 65) in their mapping of participants' performances. Here, then, a poststructural account enables description of felt processes in action.

Also significant in Wyatt et al. (2010) is the genre of representation; rather than taking the form of a traditional journal article, this piece is presented as a script depicting an ongoing conversation between its four authors, with Deleuze as a fifth voice. The account reflects on the act of collaborative writing whilst *being* an act of collaborative writing. A similarly playful method of representation is used by Guttorm (2016), representing the process of writing a PhD thesis. Suggesting that 'often, the becoming of the thinking is not documented' (p.354), Guttorm (2016) writes in a fluid, hybrid form that includes 'poems, or movements-toward-poems, and love letters, as well as digressions, and steps "back and forth."' (p.353).

In their reflection on poststructural accounts of literacy, Burnett and Merchant (2016) introduce their 'stacking stories' approach to meaning making as a means of highlighting the 'gaps, contradictions, continuities and discontinuities' (p.258) between their accounts, considering what this can reveal about literacy. This again speaks to the poststructural concern with what is missed in more

simplified, structured accounts of literacy. Presenting a number of different takes on children's participation in a virtual world, they suggest that 'baroque' (p.260) sensibilities can help to challenge portrayals of literacy as singular and simple. In doing this, Burnett and Merchant (2016) present rich, complex and evocative accounts of the sites under examination that feature 'unanswered questions, undeveloped ideas, and vague hints of feelings and responses' (p.270).

2.3.3 What does poststructuralism offer for this study?

Reading across these studies it is possible to identify how a poststructuralist perspective resonates with this project. Poststructuralism provides a way of conceptualising complexity (Leander and Rowe, 2010; Burnett and Merchant, 2016), particularly through the mobilisation of ideas of assemblage and multiplicity (Hollett and Ehret's, 2014; Masny and Cole, 2009). Poststructuralism has enabled researchers to examine practices that could be seen as outliers (Masny and Cole, 2009), rather than necessarily drawing on existing dominant discourses, thus enabling accounts in/through which new perspectives emerge. It has also led to a focus on affect and felt bodily experience (Perry and Medina, 2011; Kontovourki, 2014) and a consideration of the connections between the human and non-human aspects of a culture (Hollett and Ehret, 2014; Hollett et al., 2016; Wyatt et al., 2010). Poststructuralist perspectives have potential for considering action and process, and events as ongoing (Wyatt et al., 2010; Guttorm, 2016) and incomplete (Burnett and Merchant, 2016). They also open up possibilities for alternative ways of representing concepts and the subjects of research (Guttorm 2016; Burnett and Merchant, 2016). Finally, they offer the possibility of mobilising alternative ways of engaging with, presenting and representing experience (Wyatt et al., 2010; Guttorm, 2016; Burnett and Merchant, 2016).

2.4 Existing Research

This thesis builds on existing research in two main areas: the social worlds of children and work on virtual world videogames.

2.4.1 Social Worlds of Children

Minecraft Club took place in the social context of a classroom; this research therefore builds upon existing ethnographic studies that examine children's social lives, both in and out of school. Rather than focussing on learning, such studies seek to outline children's wider experiences by observing interactions and engaging in discussions with participants, often treating them as 'experts in their own cultural practices' (Marsh, 2012, p.508). Space precludes extensive discussion of this expansive pool of literature, but a sample of relevant examples is considered, to examine what we know about children's lived experience of schooling.

A number of ethnographic studies explore the lived experience of children by employing a wide lens. These often reveal the impact of particular discourses circulating in and around schooled contexts, demonstrating how these impact on children's lived experience. For instance, Dixon's (2011) classroom-based study seeks to explain how schools educate and train children to function in society, examining the effects of space and time on classroom management, discipline and regulation. This reveals children's lived experience of school as subject to control, through the imposition rules and regulations. Pascoe's (2007) study of a single school examines performances of masculinity and sexuality in the school community, demonstrating how discourses relating to gender influence children's lived experience of school. Meanwhile, Nespor's (2010) examination of the webs of social relations across a whole-school community, and the related discourses, raises questions about where to draw the boundaries of school, and about how school fits into children's lives.

Another varied group of studies focus in detail on classroom life, from a socio-cultural perspective. These often reveal how children's lived experience of formal schooling is interwoven with less formal discourses, as children draw upon wider cultural and media resources in their day to day lives. These studies often illuminate how children draw on aspects of popular culture, understood here as 'cultural texts, artefacts and practices which are attractive to large numbers of children' (Marsh, 2005), including songs and other media, such as films, online videos and videogames. For instance, Dyson (1999) seeks to understand children's experiences and interests as they negotiate between 'unofficial peer worlds' and schooled academic spaces (1999, p.367), acknowledging the complexity of children as social and cultural beings. She examines how children's engagement with media-influenced practices influences their participation in schooled literacy. Taylor (2014) explores how children make meaning through the multimodal, embodied nature of their communication, as they draw upon wider media influences from their lives out of school. Daniels (2014) examines how young children collaborate, using narrative play and the space and materials around them to exert cultural agency. Here, children were observed actively participating in their own schooling by creating texts that drew on their own diverse interests. Maybin (2007) describes a wide range of 'official' and 'unofficial' literacies in the primary classroom, where children draw on a range of influences, including those from popular culture. Across all of these examples there is a common focus on what goes on in classrooms alongside work on the curriculum and an interest in how children draw upon their wider experiences in schooled contexts.

Another aspect of school where children's social worlds are examined is the school playground. For instance, the Opies' (1959) work, grounded in folklore studies, provides insights into the lived experience of children, drawn from ethnographic observation of their daily playground activities. Particularly pertinent here is the exemplification of children's performance, adaptation and creation of rhyme and song texts, practices which appear in the data from this

project. Other contemporary research has examined children's self-directed play using similar ethnographic methods (Marsh, 1995; Meckley, 1994). Notably, Willett, Richards, Marsh, Burn and Bishop (2013) provide a detailed ethnographic account of children's self-directed play across two school playgrounds. They considered the children's incorporation of 'media referencing play' as part of their 'contemporary media cultures' (p.2). As such, their work considered the wide range of generally commercially produced media that influenced children's play, including 'TV, toys, films, comics, computer games and online play' (p.2). Similarly, Willett's (2013) study of playground culture in a London primary school examines how children incorporate media into their playground games, whilst Marsh and Bishop (2013) note that such play performances often constitute a parody or homage to the original text. This is relevant to this study's focus on children engaging with *Minecraft*, in itself an example of new media. However, this study's relevance is also reflected by the wide range of reference points that become incorporated into the children's play during the club, both in-game and out. Meanwhile, Grugeon's (1993) work on the playground focusses on the issue of gender, exploring the differences in boys and girls play. Here the playground is seen as 'the site for the rehearsal and exploration of adult roles' (p.11) and as a site where the 'alternative literacies that children have access to outside the classroom' often come to light (Grugeon, 2002).

Whilst there are many studies that examine children's interactions in classroom and playground spaces, there is a smaller number of school based studies that deal specifically with children's interactions in the social worlds that form around technology. For instance, Merchant (2010) shows the kind of playful, on-screen social interactions afforded by social media impact on teenagers' friendships. Marsh (2011) demonstrates how literacies in virtual world play helped to establish an 'online interaction order' (p.101) that was inseparable from their offline lifeworlds. With a focus on 'classroom-ness' (p.192), Burnett (2014) reveals how shared engagement arises from a group of children's actions and interactions with technology. Burnett (2015) also considers collaboration and 'the process of

being together at the interface of the physical and virtual' (p.566), observing how children managed this process in a number of different ways. These processes are understood as being entangled with other practices associated with other spaces, including the classroom. A similar relationship between on and off-screen is emphasised by Giddings (2014), albeit in a home context, as he observed how his children's on-screen play was regularly drawn on as a resource for off-screen play and action in a range of spaces and contexts. Each of these studies therefore highlight the relatively unexplored connectedness between on and off-screen experiences of children engaged in interactions around technology.

And whilst this body of literature relating to children's uses of technology in school is growing, there are even fewer studies that investigate children's participation in technology based after-school clubs. Shaffer (2008) examines the use of what he terms as 'epistemic games', videogames which teach children to skills that can be transferred to non-gaming contexts. However, the focus here is on learning rather than on the wider experience of the players. As with all 'domains of activity' (Barton and Hamilton, 2003), clubs are places where literacy is located in the social interactions between people (p.3). Shaffer (2008) refers to such clubs as 'the third places of childhood' (p.212), positioning them as spaces where innovation can occur, aside from the type of restrictive, curriculum-driven work of the school day and the varied demands of home life.

Other studies suggest that such assumptions are perhaps overly simplistic or optimistic. For instance, Wohlwend, Zanden, Husbye and Kuby (2011) examine children's play around a game called *Webkinz* in an after school club. Here they reveal how children's social play was influenced by discourses that permeated the club from the various interrelated sites in which the club took place, including corporate influences associated with the game itself. Simiarly, Wohlwend and Kargin (2013) identify the problematic 'consumerist enticements' (p.17) that often accompany commercial technological tools. Jenson, Fisher and Castell (2011) examine the gendered experiences of gamers at an afterschool videogames club.

Whilst they found that boys and girls played together infrequently, relationships were invested with power relations between participants. These examples demonstrate that clubs are not entirely independent spaces, rather they are bound up with the lives of participants and the cultures that they are part of, not to mention the origins of the resources used and the associations that they carry with them. With this in mind, there is a definite need to further examine these environments to increase our understanding of such spaces.

2.4.2 Virtual World Videogames
a. Defining Virtual Worlds

Minecraft itself was outlined in some detail in the introduction. For the purpose of this project, *Minecraft* is conceptualised as a virtual world, a specific type of videogame that tends to put aside many of the mechanics of videogame play and challenge in favour of social and collaborative pursuits such as virtual exploration and creation. In lacking the element of 'prescribed challenge' that many understand as characterising videogames, virtual worlds could perhaps more accurately be understood as 'toys' rather than 'games' (Habgood and Ainsworth, 2011, p.121) Nevertheless, during this study, the word 'game' and 'videogame' are retained and often used synonymously with 'virtual world'. Whilst there is an acknowledgement that virtual worlds, virtual toys and videogames are not the same thing, *Minecraft* is marketed, and understood by the club participants, as a videogame.

Whilst *Minecraft* itself is relatively easy to describe, a coherent definition of the term 'virtual world' is harder to pin down, as each virtual world implementation has its own set of specific characteristics. Carrington (2012) remarks that 'not all virtual worlds are the same', rather they are 'increasingly differentiated, both in terms of the audience to which they appeal and in relation to the types of textual identities and practices encouraged within them' (p.52). Dickey (2011) reminds us that 'virtual worlds are not value neutral and each has differing affordances and constraints' (p.18); there are restrictions and agendas engendered in the

commercially manufactured spaces that can impose limitations on participants. Whilst Boellstorff's (2008) definition of virtual worlds as 'places of human culture realized by computer programs through the internet' (p.17) works for his focus on *Second Life*, it does not fully describe this particular implementation of *Minecraft*, which takes place offline, across an enclosed local network. Castronova's (2005) definition of virtual worlds as 'any computer-generated physical space, represented graphically in three dimensions, that can be experienced by many people at once' (p.22) is appealing but also problematic, primarily due to the use of the word 'physical'.

For the purpose of this study, virtual worlds are conceptualised as visual, three dimensional, virtual third places (Steinkuehler, 2005) that allow individuals to interact with a virtual landscape and with other players. This process is mediated by a device with a screen, with players represented by avatars. Whilst defining the term 'virtual world' is potentially problematic, it is useful here for locating this study in the context of other literature, much of which refers specifically to 'virtual worlds'. Nevertheless, conscious of the issues discussed above, care was taken during the literature search to also use the term 'videogame' to discover additional relevant work.

b. Alternative approaches

Media narratives and research about videogame play often focus on perceived negative outcomes (Parkin, 2015), regarding issues such as addiction (Van Rooij, Schoenmakers, Vermulst, Van Der Eijnden and Van De Mheen, 2011), violence (Anderson and Bushman, 2001) and anti-social behaviour (Anderson, Shibuya, Ihori, Swing, Bushman, Sakamoto, Rothstein and Saleem, 2010). Nevertheless, this thesis works from the assumption that there are positive and negative examples of human relationships with any form of media, be it television, film, music or the written word. Clearly such issues may have relevance in the lives of the club's participants. However, by focusing on one implementation of one

particular videogame, such issues are sidestepped in favour of a more nuanced look at the social relationships that form around it.

Putting negative issues aside, there is a large body of research on videogames that takes an experimental approach to exploring the impact of videogame play; this tends to focus on learning by examining specific outcomes. For example, Habgood and Ainsworth (2011) explore the impact of intrinsic motivation on children's participation in a mathematics-focused educational videogame. Similarly, a range existing research aims to isolate subject-specific ways in which virtual world videogames can address learning objectives in schools, for instance in Science (Kafai, 2010; Short, 2012; Krange and Arnseth, 2012), Art (Hsiao-Cheng, 2011) and Geography (Dittmer, 2010). Virtual Worlds have also been used as tools to support individuals with special educational needs (Moore, Cheng, McGrath and Powell, 2005). Whilst these examples explore the potential for using resources that are similar to those used here, their focus on measuring specific learning outcomes, often using experimental methodologies, means that they have not directly influenced this study, which takes a socio-cultural perspective. This is also true of much of the research that specifically relates to *Minecraft* itself, explored at the end of this chapter.

Conversely, there is relatively little work that takes a socio-cultural perspective on virtual worlds with children (Dickey, 2011). Therefore, whilst mindful of the fact that younger children's requirements in virtual worlds may be distinct from those of other players (Jackson, 2012, p.210), this strand of the literature review was expanded to cover the use of virtual worlds and videogames in broader contexts (for example, with adults and / or where the gameplay occurs in remote locations), where the focus is primarily exploring and understanding the social impact on participants. The following section explores the resulting literature.

c. Emerging themes

Four interconnected themes emerged from my reading around the literature on virtual worlds. Due to the nature of qualitative studies that often have a broad focus, these themes are not securely bounded and there is much fluidity between them. As such, they are presented here as a means of managing and engaging with this large body of literature, rather than as a suggestion that such categorisations are securely defined or easily compartmentalised.

i. Virtual World play as Social Experience

At the forefront of many accounts of participation in multi-participatory virtual worlds lies a focus on the virtual world's social aspects and the interactions between participants, often through a focus on the community created within the virtual space. This could perhaps be best understood as an attempt to understand the gameplay experience in terms of the relationships between multiple players. The earliest work on virtual worlds focused on multi-user domains (MUDs, sometimes called multi-user dungeons); these word-only virtual spaces enabled participants to connect and communicate remotely, with the imagined spatial landscape being described using typed text, on-screen. In what is widely considered to be the first ethnography of a virtual world, Rosenberg's (1992) 'ethnography of a computer society' suggests that computers have enabled the development of 'entire social systems' (n.p.). Rosenberg (1992) work on a MUD called *WolfMOO* describes the 'culture' (n.p.) that developed within the virtual world, with 'socialising' taking up much of the participants' time. Whilst Rosenberg (1992) notes that players were predominantly male college students, 'intelligent, fairly young, [and] fairly imaginative group of individuals', he also suggests that there was a small yet 'diverse' membership of players from 'all over the world' and that it was difficult to make generalisations about the backgrounds of the participants.

In the same year, Curtis' (1992) focus on another MUD, *LambdaMOO*, sought to examine the 'social phenomena in text based virtual realities'. Curtis (1992)

framed these virtual spaces as 'new societies' that were 'both like and radically unlike the environments that have existed before' (p.20). His observations led him to conclude that virtual spaces 'become true communities after a time' (p.16), with group consensus being formed around a common language, acceptable social roles and standards of behaviour. Curtis (1992) also suggests that the activities enacted by groups often reflected those of real life, using the example of a wedding as a type of group gathering that was replicated in the virtual space. Also in *LambdaMOO*, Dibbel (1999) outlined the actions of a group of university students' participation. This virtual world, positioning itself as 'a new kind of society' (p.10), is described as 'a strange ethereal universe' (p.16) with the focus being on the experience of the users. In the opening chapter, this is painted as being turbulent and traumatic, due to a hack that results in a 'rape in cyberspace' (Chapter One). There is a sense here that the societies being produced in these spaces are not unproblematic or particularly diverse. While the appearance of these early, word based virtual worlds positions them as visually rather primitive compared to more recent graphically represented spaces, the sociability afforded by the connectivity remains a feature, as does the literature's presiding interest in the societies formed in (and occasionally around) these spaces.

Contemporary work on the kind of visually represented spaces, of which *Minecraft* could be considered an example, continues to focus on the social experience of the group involved. For instance, Pearce's (2011) ethnography of a 'community of play' examines the 'social emergence' (p.42) in massive multiplayer online worlds (MMOW). Social emergence is understood here as a set of collective behaviours that arise as a result of individual interdependent behaviours in the virtual world (p.43). Pearce's (2011) work (sometimes also credited to Artemesia, Pearce's avatar name) is distinct in that it tracks a group of players who move from one virtual world to another when the first is shut down, making the group experience of particular interest. Here, play was an important part of the virtual world's society, in terms of 'creative enterprise' and 'community building' (p.125). Participants were also observed engaging in play

activities which replicated real life experiences, such as hide and seek and bowling (p.186). Boellstorff's (2008) work around *Second Life* views the participants as a diversely located community, suggesting that 'community has never been reducible to locality' (p.180). Boellstorff (2008) notes the existence both 'kindness' and 'griefing' within the virtual world's society, the latter term describing antisocial behaviour that arises from the 'disinhibition' afforded by participation online (p.187). Official (identified through the game's mechanics) and unofficial groups (formed through informal player agreement) also manifest within the wider community of *Second Life*, often based on shared interests or beliefs. Here, the virtual world society is seen as diverse and varied in nature. Nardi's (2010) anthropological account of *World of Warcraft* also examines the group experience, with a focus on different guilds that form within the game. Again, there is an emphasis, from participants' accounts, on the importance of interacting with others and socialising within the game (p.22), alongside the more formally structured elements of the gameplay.

Even where the gameplay itself is not inherently social, videogame play is sometimes depicted as a social, group pursuit. For instance, in Thornham's (2011) ethnographic accounts of adult videogame play in the home, all gameplay is positioned as social, with a focus on the small-group social relations that contribute to the 'lived relations of gaming' (p.9). Stating that 'gaming is defined, not only, or primarily by the game, but by the power dynamics in which, and through which, gaming is experienced' (p.1), Thornham (2011) advocates a move away from a focus on the game, in favour of an examination of the context of play, to understand the relational social experiences that form around the gameplay.

In research around virtual worlds and children, the intention to reveal what participants do in and around a virtual world is perhaps more problematic. Children under examination have generally been bought together as a group for the purpose of the research, rather than adults who have generally sought out the

virtual world for themselves. Nevertheless, the existence of virtual worlds as social places for children, enabling and promoting communication, interaction and collaboration, is seen by some as a significant area to explore. Dickey's (2011) work around *Active Worlds Educational Universe* and *Second Life* suggests that the value and appeal of virtual worlds is based on an assumption that players construct understanding through interaction with resources, and collaboration and reflection with others (p.2). Her discussions with teachers emphasise the social aspect of the participation, as they reveal their concerns that 'virtual worlds were created as social environments and not as educational environments' (p.17). Jackson's (2012) work on *Adventure Rock* also highlights the important role that social interaction plays in a virtual world, suggesting that this particular virtual environment was lacking in appeal due to the absence of opportunities for sociability.

Burke's (2013) study of children's school-based play in Disney's *Club Penguin* virtual world shows children forming 'social connections' (p.58) that allow them to 'build social leverage from playing online' (p.68), thus making direct links between the children being located both in the virtual and school communities. For some children, the game provides 'another space to extend relationships and play together outside of the classroom and afterschool' (p.69). Therefore, for this group of participants, virtual world play is seen as an additional site for continuing their existing socialisation, rather than a separate space. Clearly, where players are located in the same physical space, virtual world play is not simply an online, virtual pursuit but one that is highly context dependent. Burnett (2015) highlights the importance and complexity of 'being together' for a group of children collaboratively playing a videogame. Similarly, in work around the virtual world *Barnsborough*, Merchant (2009) states that participants inhabit a number of 'inter-related social realities' (p.42); those of the physical site of play, and the 'social reality' of the virtual world (p.42). This recalls the notion of virtual world play occurring in and across 'hybrid spaces' (Burnett and Bailey, 2014).

Echoing the notion of adult virtual world societies being unsettled (Dibbell, 1999) or subject to griefing (Boellstorff, 2008), Marsh's (2012) work on *Club Penguin* in a primary school paints a picture of 'chaotic social systems' (p.85) forming around the game, with the children creating a 'social order' (p.85) to impose some sense of 'normality'. Marsh's (2011) work on children's home use of *Club Penguin* emphasises the contribution of literacy to the construction of an online world's social order (p.114) and the interplay between online and offline relationships, as children co-construct 'social webs of meaning' (p.114). This focus on literacies present within the game suggests an emphasis on the possibilities for communication within the group. Bailey and Moar's (2001) study of children working observes that technologically-mediated communication is popular with participants, commenting that children's favourite sessions were those where they would work online with others.

Virtual worlds are also identified as places to actively promote 'positive' social behaviours, including social skills such as negotiation and risk avoidance (Jackson, 2012, p.223); discussion, planning and negotiation (Bailey and Moar, 2001, p.26); leadership skills and multiple literacies (Burke, 2013, p.68) and 'skills and attitudes parallel [to] those identified as core to engaging meaningful in the contemporary civic' (Carrington, 2012, p.51). Moore et al. (2005) outline how virtual worlds have the potential as an assistive, educational tool to support children with Autistic Spectrum Disorders (ASDs) in developing social and emotional skills. Mitchell, Parsons and Leonard (2008) build upon this work, identifying 'significant improvement in judgments and explanations' (p.589) in a study of six teenagers with ASD's participation in a 'virtual café'. Kandalaft, Didehbani, Krawczyk, Allen and Chapman's (2013) study of young adults outlines findings that 'suggest that the virtual reality platform is a promising tool for improving social skills, cognition, and functioning in autism' (p.34), suggesting that virtual world interactions can aid social development but are also appropriate sites for learning for some individuals with specific needs. In these cases, there is a focus on how the social nature of virtual worlds can be used for

other means, rather than sociability itself being an end it itself. What is not evident from the literature is any study which takes a longitudinal approach to examine the social play of a group of children.

ii. Virtual World Play and Identity

It is difficult to separate the themes of identity and society particularly if, as explored earlier, identity is understood as being culturally constructed. Nevertheless, there is a regular preoccupation in the literature relating to player identity, relating to the exploration of alternative roles through gameplay, the player / avatar relationship and issues of gender. These studies draw on a theorisation of identity, described earlier in the context of New Literacy Studies and new literacies. That is, identity as socially mediated, socially constructed and, in the case of virtual identity (Hansen, 2000; Nakamura, 2008), distributed between physical and virtual space.

Since the earliest accounts of textual virtual worlds (MUDs), there has been interest in exploring issues relating to identity. Curtis' (1992) work on *LambdaMOO* asserted the importance of anonymity regarding participation in the game, whereby participants were unaware of each other's real world identities. This 'protective anonymity' was seen at times to encourage negative behaviours in participants, suggesting that players had the opportunity to enact alternative identities that would not - positively or negatively - be possible in their real lives. Players were also said to be protective over their player name and there is evidence of playing with gender roles, with some of the players from the overwhelmingly male community choosing to portray themselves as female. This would suggest that virtual worlds offer an opportunity for some players to perform alternative identities that are unfamiliar to them.

The advent of visually represented virtual worlds enabled the projection of identity onto a player's anthropoidic avatar. Considering player / avatar relationships, Gee (2007) suggests a complex conceptualisation of identity,

exploring a 'tripartite play of identities (a virtual identity, a real-world identity and a projective identity)' (p.53) Similarly, Newman (2002) suggests that the player's relationship with the game is of 'a continuous interactive feedback loop' (p.410) rather than a directly representational or transformative relationship. For Pearce's (2011) participants, interest in avatar appearance was 'primarily aesthetic' (p.113) and 'a form of expression' (p.114), with many players creating 'modified versions of themselves' (p.115). Unlike in Curtis' (1992) work on *LambdaMOO*, however, gender play was only seen in a very minor number of cases, suggesting an avatar that mirrored the player it represented (p.116). Some players talked of 'living vicariously' through their avatar (p.116) and there is a sense that the avatar played an important part in many players lives, offering a form of 'reembodiment' (p.117) rather than the disembodiment that a virtual identity might suggest. Whilst being similarly distributed and networked in nature, rather than located physically in a single site, Pearce's (2011) focus on identity highlights its socially constructed nature, with individual identity being framed by the group identity (p.189)

Boellstorff's (2008) work suggests that there is a less secure relationship between avatar and player identity, again suggesting that experimentation and exploration of alternative identities is a significant factor in virtual world engagement. Also addressing the issue of embodiment, Boellstorff (2008) talks of a 'corporeal immediacy' (p.134) through which participation may occur and, therefore, identities can be explored in a way that feels more than virtual. This allows, for instance, participants to experience - as opposed to simply observing - alternative identities by acting out different roles, genders or races, often initiated by their visual choices in relation to their avatar. In some cases, the virtual world is painted as an almost neutral space where anything goes in terms of identity expression. However, this is not true of all accounts. Nardi's (2010) focus is also on gender in *World of Warcraft*; here female players were in a minority, with male behaviour setting 'the rhetorical tone' (p.153) through the use of sexualised, often homophobic and aggressive language. Here, then, the exploration is of

gender in terms of the female player's experience, dominated by the male players' enactments of a particularly masculinised form of identity play. The experience of this female player in a virtual world is not one of free identity exploration, as she was forced to respond to the amplified aggressive gender play of others, perhaps in reaction to the nature of the gameplay embedded in the game's design. This focus on identity in relation to the game is also explored by Thornham's (2011) ethnographic work. Thornham's (2011) focus on identity comes also primarily from the perspective of gender, with an examination of the identities being constructed around videogame play. She identifies, however, that player's self-constructed identities were often at odds with their gameplay choices and demonstrates distinct differences in the ways that male and female players conceptualise gameplay itself (p.157).

The focus on gender as identity in the literature around adult participation in virtual worlds is also present in the literature that relates to the children's experience. Walkerdine's (2007) study of videogame play in afterschool clubs takes a gendered perspective to examine the impact of videogames on players. She suggests that many videogames are a site for the production of masculinity (p.46) and considers girls' enjoyment of gameplay as being constantly subverted by 'a femininity which is its opposite' (p.71). Also in relation to the different gendered experiences, Burnett and Bailey (2014) observed how girls were excluded, or self-excluded from some elements of gameplay – perhaps due to the lack of anonymity when children are using a virtual world together in a classroom context. This meant that 'identities constructed in Minecraft Club intersected with other perceived norms and how they positioned themselves in relation to these' (p.66). Beavis and Charles (2005) focus on gender identity construction in and around the game *The Sims*, arguing that the gameplay they observed did not suggest rigid gender divisions in the way that students played. Again, this construction of gendered identities happened both in the game and beyond, in the classroom where the play was situated (p.366) as part of a wider formation of the participant's identities.

Identity in children's gameplay is also explored beyond issues of gender. Pahl and Rowsell (2012) suggest that identities are bound up in to we speak and act. It seems logical, then, that speech and action in a virtual context could equally have been seen to contribute to identity formation in pupils. Wohlwend et al. (2011), for instance, suggest that a virtual world environment can 'shape children's identities' (p.161). Similarly, Peppler and Solomou (2011) described a virtual world environment designed to facilitate 'evolving one's identity in the play space' (p.4) Carroll (2002) suggests that 'dramatic play may prompt active and imaginative meaning making beyond the relatively limited narrative of the game and involve the construction of alternative role identities' (p.136), stating that 'the presence of the self in online environments is mutable and may challenge notions of single identity, especially in the context of race, class, gender and sexuality' (p.137). Gauntlett (2007) suggests that popular media narratives, including videogames, provide players with an opportunity to consider what makes a 'good life' or a 'desirable identity' (p.194) and sees them as places where people can construct their own 'narrative identities'. As virtual world narratives are generally more socially constructed than some other types of videogame, this suggests that participants may be considered co-participants in collaborative identity play.

There is some disagreement, however, about the extent to which players are immersed in gameplay and fully represented by an avatar. At one extreme, Xu, Park and Baek (2011) state that the avatar is 'the agent of students. Therefore, when students are totally involved in the activity of the virtual world, they can't even be conscious of themselves' (p.189). However, such unproblematised views of complete immersion are challenged by the idea of 'multiplicity of presence' (p.227) outlined by Martin, Williams, Ochsner, Harris, King, Anton, Elmergreen and Steinkhueler (2012), where a player participates simultaneously in online and offline spaces, using the 'methodology of presence' (p.242). When a virtual world is 'played', the physical experience is aligned with the virtual; the player does not simply become their avatar. Burke (2013) explains that, through exploration of

the projective identity, 'students use personal aspects of their lives, their history, and some attempt to compensate for limitations in the real world characteristics' (p.60). Therefore, through virtual world identity play, pupils are given the opportunity to use their existing knowledge and skills in conjunction with those projected by their character and the virtual setting.

Research exploring the virtual world *Adventure Rock* (Jackson, Gauntlett and Steemers, 2009) identifies eight player 'orientations' in the game: explorer-investigators, social climbers, collector-consumers, life-system builders, selfstampers, fighters, power-users and nurturers. This identification of individual differences in the nature of engagement with the game suggests that children's participation in some way indicates individual preference that may feed into different player identities. The study outlines children's interests in selecting an avatar that represented them, with a particular focus on 'looking good' (p.25), with older children requiring their avatars appearance to directly reflect their own interests and fashions (p.25). This implies that the avatar is being positioned as an extension of the player's 'real world' identity.

As with children's play in general, much of the discussion about the value of virtual world identity play draws on the rhetoric of play as development (Sutton-Smith, 2001). For instance, Jackson (2012), drawing virtual-world parallels with the physically-grounded work of Piaget, discusses how play is 'an essential element of the maturisation of children, arguing that 7-11 year-olds accumulate conceptualizing skills through their physical experience and from there the begin to solve problems' (p.211). Jackson believes that play is highly important for learning, possessing 'cathartic properties' (Jackson, 2012, p.211) Carroll (2002), however, refers to Caillois (2001) use of the terms 'ludus' and 'paidia', where play is viewed on a continuum between the regulated or controlled and anarchic or unrestrained (Carroll, 2002, p.138). Although Carroll suggests that some videogame play lies towards the ludic end of the scale, it could be argued that

virtual world environments approach the more paidic realms. This echoes Sutton-Smith's (2001) idea of phantasmagoria, introduced earlier.

Whatever the nature of identity expression, there is some suggestion that virtual world environments may be used to contribute to the adaptation of certain attributes of children's individual identity. Lee (2013), for example, suggests that *Second Life* has been used as 'a good environment to enhance self-expression in students, particularly those with degrees of high shyness' (p.254), through the 'indirect self-expression in virtual-worlds' (p.257). However, whilst Lee's (2013) study relied upon anonymity to liberate the participants from their real-world identities, this is often not possible in a classroom context.

The work relating to identity, particularly in relation to young people, provides valuable insights into how individual children may use the club as an opportunity for identity play. However, given the predominance of this focus in the literature, adopting identity as a discrete directing concept during this study risks re-working known classification rather than generating new understandings. Therefore, whilst aspects of identity in respect of individual players are important for this project, I respond most directly to this theme by considering how we might instead work to conceptualise the collective experience of this club's co-located group.

iii. The Creation of the Virtual World

Ideas around creation and the possibilities for creative play offered by virtual worlds appear in some of the literature, although it is perhaps the least well-developed of the four themes presented here. Some virtual worlds, including *Minecraft*, allow for the manipulation or construction of the game's own topography (Giddings, 2014, p.100). Giddings (2014) encourages a focus on these games own virtual 'gameworlds' (p.100), rather than simply on the avatar, to ensure that account is taken of the role that the game itself has during the gameplay. In much of the literature that deals with adult participation in virtual

worlds, these gameworlds are seen as socially mediated spaces, many of which enable collaborative creation, with the ability to stimulate participants' imaginations through creative play. Even the earliest word-based virtual worlds allowed for manipulation of the virtual environment, through typed-text description. Rosenberg (2002) work on *WolfMOO* explains that it was possible, through programming, for participants to create and inhabit additional rooms that formed part of the games 'large convoluted mansion'. The emphasis here was on creation as a means of place construction, with participants inhabiting and even sleeping in the rooms they create.

Boellstorff (2008) work on *Second Life*, explains how all of the game's virtual space could be bought or sold, and that any creation occured within an economic framework. He outlines how participants created 'builds', such as 'buildings... waterfalls, parks, forests and plazas' (p.98) and objects, such as furniture, vehicles, 'jewellery, glasses, weapons, shoes and other items' (p.99). The emphasis here was on making 'authentic' places (p.101); in common with *WolfMOO*, many of these places provided homes for the virtual participants. Boellstorff (2008) mobilises the concept of 'techne' (p.25) to understand the nature of this creation, whereby participants 'create their lifeworlds through intentional creativity' (p.25) using the game's available technologies.

Pearce (2011) explores creative processes in the virtual world, positioning these as 'productive play' (p.141), describing the move from 'interactivity to content creation' (p.141). This is aligned with other creative Web 2.0 practices, albeit emerging from virtual play. Here, the creation of artefacts is seen as 'an expression of social agency' (p.189). Participants in the *Second Life* element of Pearce's (2011) study also created the landscape, in a way in which the game mechanics of the previous virtual world had not permitted. Pearce (2011) discusses the importance of 'spatial literacy', with players demonstrating 'a very deep connection and understanding' of the places they created (p.167).

These examples of adult creativity in virtual worlds demonstrate how these virtual play practices are bound up with issues of place, space and identity. This again exemplifies how discussion around virtual worlds involves an interconnected range of recurring themes. Nevertheless, in the literature relating to children's participation, there are very few studies that focus on the kind of virtual environment that allows for the type of topographical manipulation afforded by *Minecraft*, with many virtual worlds for children involving exploration of (and interaction in) a pre-created space, rather than providing opportunities for creation. Many of the significant studies of children's virtual worlds (for instance *Barnsborough* (Merchant, 2009); *Club Penguin*, (Marsh, 2014)) were unable to explore the meaning around children's active, collaborative on-screen creation simply because this was not a feature of the virtual environment under examination. Therefore, whilst this type of creative play is increasingly becoming a feature of virtual worlds, the creative potential for such environments remains relatively unexplored.

Furthermore, the limited number of studies that directly explore this theme do not fully elaborate on the complexities involved in such creative spaces, or examine the impact of this creation on the participants themselves. Bailey and Moar (2001), for instance, investigate children's design and creation of 'structures and spaces' in an ActivWorlds virtual world. However, due to the relatively undeveloped nature of virtual world technology at the time of this study, building was an 'involved and complicated process' (p.25) that was not up to speed with the children's ambitious ideas. Beavis and Charles' (2005) work around *The Sims* details the creation of largely 'domestic space' by a group of teenagers. While some children created spaces reflecting reality, other play involved subversion of this place-making task by producing a 'fantasy world characterized by chaotic, exaggerated, and irresponsible lifestyles' (p.365). The scope for examining the nature of creativity in this research, however, was limited both by *The Sims*' relatively restrictive focus on domestic place creation, and the studies' predominant focus on gender.

Peppler and Solomou's (2011) study of *Quest Atlantis* focuses on the social and cultural nature of creativity around the virtual community where the children create their own 3D virtual buildings (p.4). They highlight how creative ideas spread between participants, suggesting this was a sign of an 'ever-evolving' creativity (p.10) present in connected digital spaces. They also assert the importance of the 'act of conversation' (p.12), suggesting creativity is bound up with the affordances of social communication in and around virtual spaces. Similarly highlighting the value of the sociable creativity afforded by virtual world participation, Ito (2009) observes a 'personal identification with and a sense of ownership over a unique creation' (p.177) in children creating collaboratively using virtual worlds that are distinct from other potentially more competitive contexts.

In spite of being given relative freedom to create, however, Peppler and Solomou (2011) note that participants do not necessarily fully take up the expansive, creative possibility of virtual spaces. Burke (2013) also raises the possibility that virtual spaces may actually 'stagnate' the imaginative play of some children, because of their sometimes prescriptive nature. Further work is necessary to examine these concerns, specifically in relation to children's virtual world participation. The limited nature of the literature in this area suggests the need for a focus on what creative or imaginative play looks like in a virtual world that allows for significant freedom in terms of on-screen construction, and how this creation relates to the 'real' world.

iv. Virtual Worlds and Learning

Virtual worlds are often positioned as potentially 'powerful learning environments' (Dede, Clarke, Ketelhut, Nelson and Bowman, 2006), particularly in the literature relating to children's use. In this respect, there is a presiding focus on finding out what virtual worlds could be useful for, rather than necessarily understanding how children already engage with virtual worlds. The

literature's focus on learning is partially explained by the manner in which the studies are conducted. Whilst there are studies that focus on virtual worlds and learning involving adults (for example Warburton's (2009) examination of the possibilities for learning in *Second Life* in higher education) there is also a body of work on virtual worlds involving adults that focuses on communities of play that are already established (Pearce's, 2011; Boellstorff, 2008). However, children's groups that form the basis of research are frequently assembled for the purpose of the project itself, albeit drawn from a pre-existing group within an educational establishment (a class or a club). This reflects the fact that it is harder for children to elect to self-assemble as a group around a virtual world than it is for adults.

In addition, in studies in educational contexts, the virtual world is often introduced by the researcher with a specific focus; the project is often designed to impact on an aspect of learning, rather than stemming from the children's pre-existing interest. Or, as Merchant (2009) implies, the involvement of dominant classroom discourses come in to play to direct a study, as an initial intention to implement a virtual world to 'provide a place to enact loosely structured open-ended and multi-layered narratives' soon becomes 'more consistently anchored to classroom literacy routines' (p.40). In this section I trace a series of strands that highlight the varied ways in which virtual worlds are considered to be significant for learning: as spaces for learning in general; with the potential to transform learning in relation to a narrow curriculum; as resources that offer motivational potential; as spaces with narrative potential and, finally, as resources used in relation to their wider contexts, through associated texts that are generated around the game.

Some studies consider learning generally as an intention or possibility. For instance, Gee (2007) calls videogaming 'multimodal literacy par excellence' (p.18) suggesting 'good videogames build into their very designs good learning principles and that we should use these principles, with or without games, in

schools, workplaces, and other learning sites' (p.215). Outlining 36 'learning principles' (p.221), he advocates the use of games for learning and learning from games. Shaffer (2008) builds upon these ideas, using 'epistemic games' to provide 'epistemic frames: collections of skills, knowledge, identities, values and epistemology that professionals use to think in innovative ways' (p.12). He suggests that 'videogames are significant because they let us think in new ways. Computers make it possible to create virtual worlds and to think and learn by inhabiting these worlds' (p.191), advocating 'learning in virtual worlds for a changing world' (p.11). Ligorio and van Veen (2006) explore the use of an ActivWorlds environment with primary and secondary pupils, with one strand being a focus on the knowledge building potential it presents for learning. They suggest that the virtual world generated 'a learning environment that the students experienced as challenging and meaningful' (p.124)

Some of the literature suggests that school curricula needs to change to adapt to take account of 'new' digital literacies, of which virtual world environments play a part. Wohlwend (2010), for instance, suggests a need to learn from the literacies that children are already using (p.149). Ito (2009) notes that the content and format of learning in schools is out of step with children's out of school experiences (p.192), with the more innovative practice taking part in what Shaffer (2008) refers to as 'the childhood equivalent of third places: clubs, after-school programs, summer camps, and community centres' (p.183). For some, then, exploring computer game use in out-of-school environments could help educators and policy makers in this process of curriculum redesign. A 'reconfiguration of literacy curricula' (Kendall and McDougall, 2012, p.89) is seen as being necessary in a world where 'digital media are now commonplace and pervasive' (Ito, 2009, ix) and where gaming is cited as a prevalent practice in the lives of young people (Kendall and McDougall, 2012).

Merchant (2009) sees potential for education being 'improved or transformed' (p.38) by such new technologies, suggesting that the curriculum is 'obliged,

sooner or later, to acknowledge and explore how technology changes the text that are produced and consumed in educational contexts' (p.38). There is an acknowledged tension between this outlook and the view of some teachers who see the virtual world environment as 'a stimulus for classroom literacy, rather than as a literacy experience in and of itself' (p.50), to 'serve existing curriculum goals' (p.50). This is perhaps unsurprising given the defined outcomes demanded by the curriculum and the schooled context in which the gameplay is enacted, and the 'general educational climate in which they are embedded' (p.53). Merchant (2010) continues to outline how teachers were 'constrained by institutional norms and routines' (p.142) of 'official discourses' (p.143) around education. This perhaps explains why Burke (2013) suggests that teachers saw a virtual world, *Club Penguin*, as 'a play-space in which children could develop friendship and citizen skills' (p.70) but were less willing to see a virtual world as a place where 'children engage in a plurality of activities and literacies that draw from many aspects of their lives, including classroom learning' (p.70).

The motivational aspect of virtual worlds is often linked to their learning potential. O'Mara (2012) states that building and exploring virtual worlds provides 'the most engaging and rich model of teaching and learning' (p.532). Bailey and Moar (2001) observed children 'responding with excitement and enthusiasm', remaining 'highly motivated and engaged' (p.23) throughout their use of a virtual world. Similarly, Merchant (2009) addresses educators' intentions to 'actively engage pupils' (p.43) with a virtual world. There is an unstated assumption that 'engagement' is better than 'disengagement', and an underlying implication that some classroom practices lead pupils to the latter state. Xu, Park and Baek (2011) observed students 'motivated and engaged' with digital storytelling (p.184). Similarly, Jackson (2012) suggests that 'children experienced peaks of motivation, which could potentially be moments when more complex tasks could be introduced' (p 223). Some, however, urge caution about aiming purely for extrinsic motivation, due to the implicit message that learning is not something worth doing for its own sake (Ash, 2013). In spite of this focus on

motivation, there is little examination of what makes virtual environments so engaging or enjoyable. Further research in this area would help to shed light on the nature of engagement and its relevance to the lives of participants in such environments.

The virtual world itself is understood in much of the research as multimodal text, constructed by participants (Wohlwend, 2010; Merchant, 2009). Merchant (2009) defines one virtual world environment as a 'complex 3D multi-modal text' (p.42) whilst Beavis, Apperley, Bradford, O'Mara and Walsh (2009) suggest that 'computer games are texts in the broadest sense… cultural objects which both reflect and produce the meanings and ideologies of the settings in which they are produced and received' (p.169). Jackson (2012) states that virtual worlds offer 'opportunities for Multimodal Literacy' (p.225) while Marsh (2011) identifies the potential for further exploration into how virtual worlds 'shape the literacy practices in which the children engage' (p.114). Beavis et al. (2009) talk of the implications of young people's videogame play for literacy and the English curriculum (p.164).

Emerging 'sandbox' games, such as *Minecraft*, allow for narratives and more localised 'micronarratives' (Jenkins, 2004) to emerge. Jenkins (2004) notion of 'environmental storytelling' may be useful here. He talks of games enabling the creation of 'spatial stories' (p.122), identifying ways in which videogames 'enable players to perform or witness narrative events' (p.124), suggesting that 'gamespaces are rich with narrative potential' (p.129). Similarly, Pahl (2005) suggests that children recontextualise experiences from gameplay into their own text creation, with virtual spaces offering 'richness and diversity' (p.143) to participants. Working with university students, Xu, Park and Baek (2011) use virtual world based digital storytelling as a means of developing writing, stating that a virtual world can be 'an ideal medium for digital storytelling', particularly for reluctant writers. These assertions suggest the need for a reformed curriculum where games exist as part of a 'flattened hierarchy' (Berger and McDougall, 2013,

p.148) alongside other more traditional forms of text. The extent to which the created game text can be studied as text is influenced by curriculum constraints, as well as the nature of the played game or virtual world.

O'Mara (2012) considers the wider 'cultural and critical aspects of literacy' beyond 'the dominant operational view of a literacy (as a set of skills to be learned)' (p.521). Here, videogame play is also positioned as a form of drama creation, introducing the concept of 'ergodic' texts (O'Mara, 2012), where children's interactions result in the formation of individual texts (O'Mara, 2012) and collective textual landscapes (Carrington, 2005). In this way, O'Mara (2012) considers how the use of games can influence traditional literacy outcomes, by exploring the potential commonalities between digital games and drama theorised as 'text-in-action' (p.517) or 'texts in the moment' (p.522). Videogames are positioned as 'cultural texts that can be studied, explored, analysed, described, critiqued, deconstructed and even played and part of the English curriculum' (p.518). Carroll (2002) further explores the potential for virtual environments as drama, albeit acknowledging that the type of interactivity offered by interactions is virtual worlds may not be compatible with more traditional notions of dramatic performance (p.134). Acknowledging the 'inherently dramatic and performative' (p.133) aspect of gameplay he identifies that both drama and methods of technologically mediated interaction share 'conventions that negotiate constantly shifting identities' (p.138). Again, such conceptions of videogame play pitch it against a more traditionalist school curriculum (Berger and McDougall, 2013) where the teacher is positioned as the authority and the holder of knowledge to pass on the pupils.

A number of studies take account of a wider transmedia intertextuality (Kinder, 1991) in which a virtual world exists, with a narrative present in a virtual world extending across a number of related media artefacts: in film, on television, on websites etc. 'Paratexts' (Beavis et al., 2009) are related media artefacts associated with, or arising from, virtual world gameplay; 'the system of media products –

'communications and artefacts' – which emerge about videogames that frame their consumption' (p.170). Young et al. (2012) recommend that any application of videogames in the classroom should involve the use of paratexts and attribute much of the learning from videogame play to 'metagame sources such as blogs, wikis, and discussion pages that support hints, cheats and modding' (p.83). A number of studies have explored the educational potential of associated texts. Gillen, Ferguson, Peachey and Twining (2012) outline a virtual world project that was 'accompanied by other online communication domains, including wiki and asynchronous fora' (p.198). Similarly, Gillen (2009) explores the potential for using a virtual world, *Schome Park*, as a site of largely textual creation, using the environmental print, the wiki and a forum, as well as the game's chat function.

Apperley and Beavis (2011) identify three main potential applications to literacy learning in educational settings: 'Using paratexts, paratextual design and game design' (p.133), with the former two involving the use or creation of associated texts. Similarly, Jackson (2012) outlines the participants' production of paratexts using 'a mixture of elicited techniques' (p.209) such as 'drawing, creating media, diaries,' (p.209). Some paratexts may be more traditional, or established, in genre: Peppler and Solomou's (2011) virtual world project used Ayn Rand's novel "The Fountainhead" (1943) as a basis, exploring the novel's themes of personal integrity vs. social alignment, creativity vs. constraint. This examination of paratexts recalls Gee's (2007) 'Intertextual Principle' (p.110) where texts are understood as a family of related texts, with the learner relating any single text to the others to help them to construct meaning. (p.110). These information sources form a 'constellation of literacies' (Martin et al., 2012) providing a space for successful understanding of the game. As such, this intertextuality seems to be important in understanding one element of the learning potential around virtual worlds. Again, Young, Slota, Cutter, Jalette, Mullin, Lai, Simeoni, Tran and Yukhymenko (2012) suggest 'educational research must begin to determine the role of social learning to discover how metagame learning as well as game play can be exploited for instructional goals' (p.83).

Many of the examples in this section demonstrate that children in virtual worlds are often positioned as 'learners', whilst adults are more often considered as 'players' or 'participants'. This framing is worth challenging, the implication being that virtual worlds should be about learning for children, but about other pursuits for adults. By examining the lived experience of this group of children, rather than their learning, this study makes a distinct contribution to the literature relating to children's play in and around virtual worlds.

d. Recent *Minecraft* Literature

Research around *Minecraft* is expanding with the game's increasing popularity. Whilst there is work that deals with the use of *Minecraft* in different contexts exploring a number of educational applications in lessons such as Maths (Bos, Wilder, Cook and O'Donnell, 2014) and Science (Short, 2012) using a number of different methodologies, the focus here is on the research around *Minecraft* that takes a broadly ethnographic, socio-cultural or theoretical approach to examine the impact of those who engage with the game.

In a study of a group of children playing *Minecraft* together, Burnett and Bailey (2014) focus on the nature of collaboration around the virtual world. Here, this interplay between the 'real' and the 'virtual' is complex, and potentially problematic, as 'there has been very little discussion about what this might look like as children work across hybrid physical/virtual sites.' (p.50). Identifying a number of dimensions of 'being together', in response to observations of children's interactions around a virtual world (*Minecraft*), they recommend that literacies are considered as a 'communal process: collaborative, provisional, negotiated and lateral' (p.16) While acknowledging that 'being together may suppress as well as enable and distract rather than enrich' (p.17), they conclude by advocating that 'the process of creation would be valued, as well as the product' (p.17). This focus on 'fragmented' collaboration repositions the participation in the virtual world as the 'work' itself, rather than a pedagogical

approach towards a learning goal, working against an idea of traditional, schooled literacy.

Quiring's (2015) research around *Minecraft* uses video analysis of YouTube play-through videos, supplemented with reflections on his own gameplay to explore 'place-making' in *Minecraft*, looking particularly at alteration/change, proximity and conflict/cooperation. He also problematises issues of 'actual' and 'virtual' and considers the relative importance of landscape or social construction in the role of place-making. Whilst Quiring's (2015) rationale as to why virtual places are as 'real' as physical places, there is no clear attempt to acknowledge that virtual presence is always conducted with a physical place - the individual does not physically disappear from physical space to inhabit a virtual equivalent. Using a similar approach, Wernholm and Vigmo (2015) examine methodological issues around researching *Minecraft*. Conceptualising gaming as a 'complex cultural activity' (p.244) their methodologically focussed paper considers the use of screencasts published to YouTube as a source of data. As with Quiring's (2015) study, however, this focus on player curated materials does not allow for a consideration of the context in which the gameplay was conducted. Lundgren and Bjsrk's (2015) study of 'pottering' in games uses *Minecraft* play as one of five studies that examine gameplay patterns of players, exploring the idea of 'pottering' as a virtual pursuit. Whilst this study focuses on the impact of the game mechanics rather than the outcomes itself, it does take account of one type of player experience, whilst providing a reminder that the game itself is not a neutral artefact but one whose mechanics and design patterns lend themselves to generating, or at least affording, certain types of player behaviour.

Pellicone and Ahn (2015) use the notion of 'affinity space' to help conceptualise the 'meta-game' gameplay that happens 'across the many physical and digital contexts' of a player's life, away from the 'single game environment' (p.1). They employ an ethnographic account of one *Minecraft* player to help describe the 'stitching together' (p .2) of the spaces in which this meta-game is played. They

observe Ben using Skype during gameplay, to enable him to connect verbally with other players. This combining of on and off-screen data allows them to consider the contextual impact of the player's gameplay, exemplified by an instance where another player makes 'a racially charged' comment about overhearing his Grandmother's voice via Skype.

Hollett and Ehret (2014) outline how multiple individuals participating in a *Minecraft* gameplay event in a hospital room share in an affective experience, thus positioning engagement with the game as an interaction between many individuals rather than a 1:1 transaction between the game and the player. This work has implications for how gameplay of this kind is perceived, particularly in light of the project outlined in this thesis that involved multiple participants in the same setting. Given the complexity of the children's interactions in and around the game, further work is required to explore how children negotiate the complex relationships between material and virtual place and space, particularly with multiple participants.

Dezuanni, O'Mara and Beavis (2015) investigate a group of girls' *Minecraft* play in home and school spaces to explore processes of identity construction. They examine the children's participation in the game and in embodied gameplay spaces, suggesting that 'an important part of the pleasure gained from playing *Minecraft* is being social' (p.153). Also drawing on the theory around 'affinity groups' they outline a number of ways in which children 'establish knowledge and expertise' though *Minecraft* play, concluding that 'an individual can only become recognisable and therefore socially viable when there is someone else to recognise them' (p.161).

Trcek (2014) considers *Minecraft* in the lives of children in Solenia, from a 'cybersociology' perspective (p.162). Trcek (2014) forms short narrative case studies from interviews conducted with young players relating to *Minecraft*, conceptualised as 'bildungsromans' (p.162), or 'coming-of-age stories'. These

stories are presented as a way of understanding the 'everyday e-lives' (p.163) of children. Whilst there is an attempt to highlight the learning potential for such virtual worlds, *Minecraft* is again positioned as a site of 'very intensive peer socialisation' (p.175) and 'an important space of... creative activity'. Trcek (2014) also suggests that 'teachers are unprepared for such challenges' (p.175), partly stemming from the lack of sufficient research in the area. Further work is clearly necessary to support calls for any move towards curriculum redesign that legitimises the use of virtual worlds in classroom spaces.

2.5 Implications

It is clear that further work needs to be done to explore more widely, and in more depth, the experiences offered, particularly for groups of children, by such continually emerging and developing technologies. Much of the research around virtual worlds seems to speak strongly of a potential that is yet to be harnessed or defined. But whilst the literature does not offer many definite conclusions, it certainly appears that virtual worlds can offer distinct and worthwhile experiences for players. In light of this review of literature there is a need to know more about how contemporary virtual world environments are implicated in children's gameplay and to investigate how children interact in and around such environments, over an extended period of time. Building on these concerns, I have formulated a number of research questions to guide the study. In exploring the group's lived experience, this research is shaped by the following questions.

- What is the nature of the children's play in the club? What motivates this play?
- What do the children draw upon in the club; what ideas and resources fuel their play? How is *Minecraft* implicated in their play?
- How do the children use the on and off-screen space? What is the nature of the groups interactions in this space?

- What constitutes lived experience? How can I take account of the lived experience of a group? How can I best represent this experience?

In the following chapter I explain the methodological approach taken to address these questions and the project's overarching focus on the lived experience of the club.
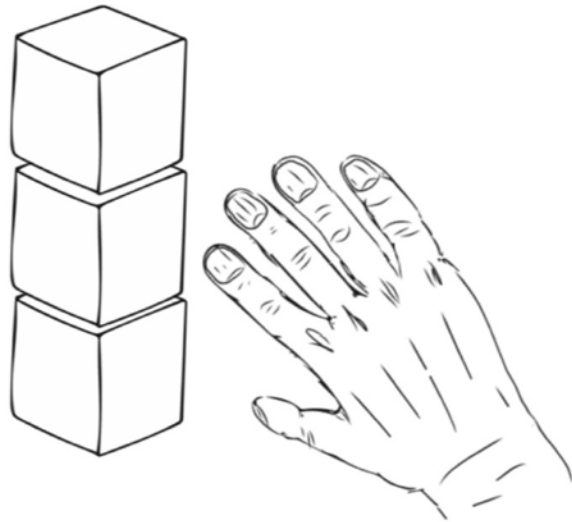
METHODOLOGY

CHAPTER THREE: METHODOLOGY

3.1 Introduction

In this chapter I begin by describing the origins of Minecraft Club. I then provide the specific details of the club that was the focus of this year-long study. This is followed by an introduction to the club's members, through a series of pen portraits. I also explain why I have extended these profiles to include some of the club's non-human participants. Following this I consider my own role and my positionality as a researcher and I also explain how an ethnographic approach was used, outlining the affordances of this type of research. I then describe each of the data generation methods and introduce the reader to the comic strip approach to transcription. I conclude this chapter by returning to a number of examples that led me to a more specific conceptualisation of ethnography that resulted in my eventual use of the term 'rhizomic ethnography'. This prepares the reader for Chapter Four, where this concept is outlined in more detail.

3.2 Minecraft Club History

I first ran a Minecraft Club during the 2012/2013 academic year, when I worked as a primary school teacher. I organised the club in response to a request from a child in my class who expressed an interest in using *Minecraft* in school. I was not aware of the game at the time but, after some investigation, became eager to organise a club. I saw this as a way of extending the wider opportunities offered by school and as a means of valuing their interests. The club took place in the classroom, with the game's virtual world hosted on my laptop, acting as a server. The children each used a laptop running the game to connect wirelessly to my computer, accessing the same virtual space whilst being located together in the classroom.

The club's stated objective was to create a 'virtual community', with the children taking up this invitation in a variety of ways, building and exploring within the game whilst interacting in and around the virtual space. This 'community' aspect of the club's design arose largely due to the positive connotations inherent in the word 'community' (Barton and Hamilton, 1998, p.15). I felt that this might help to negate potential (though perhaps imagined) parental concerns in light of the sometimes negative perceptions of videogames (Gee 2007, p.10), whilst also facilitating an experience that differed from the children's use of videogames outside of school. As I informally observed children interacting in and around the game, I noticed that the club offered experiences that were distinct from the group's more formal schooling and other extra-curricular provision available to them at the time. Although I left the school in 2013 to undertake this doctoral study, I continued to run the club for a second year, in an after-school timeslot, with a new group of children. This study took place in the third year of the club.

3.3 This Minecraft Club

As in previous years, I supervised the club and was usually the only adult in attendance, although members of the school staff (including the class teacher, trainee teachers, the headteacher, parents and teaching assistants) were occasionally present in the room for other purposes. In line with the club's previous two years, the 'virtual community' quality was retained. This prompt provided enough guidance to act as a starting point for the group's gameplay, whilst also being an open enough suggestion to enable a range of group and independent activities. This objective was shared verbally by me during week 1, and also on a sign placed in the game (Figure 1).

Figure 1: A sign introducing the virtual community space

The children eventually gave this virtual town the name 'Banterbury' (Figure 2). The choice of the name 'Banterbury' reflected the children's regular use of the word 'banter' (and its informal derivative 'bants') during the club. Defined as 'the playful and friendly exchange of teasing remarks' (Oxford Dictionary, 2017), banter was an important concept for the children that often described the nature of their play in the club, although there was often discussion and disagreement around what the word 'officially' meant.

Figure 2: 'Banterbury' sign created by players

The club took place in the children's classroom for twenty-three of the twenty-six weeks. On three occasions we relocated when the room was being used for meetings; twice to the school's group room (Weeks 4 and 14) and once to the hall (Week 16).

A modified version of *Minecraft*, *Minecraft Edu*, was used during the club. *Minecraft Edu* is a build of the game designed for use in educational contexts. In most ways it is identical to the commercial version of the game, however the ability to easily host a local server and its compatibility with school networks were the main reasons I chose it over the standard version of *Minecraft*. *Minecraft Edu* also makes it easier for the administrator to manipulate aspects of the game, such as turning on and off weather or day/night cycles; enabling or disabling the creation ('spawning') of animals and other non-playable characters (NPCs, known as 'mobs', short for 'mobiles'); enabling or disabling spells and teleporting players to different locations. Following the established practice of the previous iterations of the club, I used these features occasionally, largely at the request of the children.

The main alteration made during the club involved switching between game modes, from 'Creative' to 'Survival'. Although the threat to players was disabled for the full duration of the club (no player could die), to reduce the potential for in-game conflict, the two game modes still differed in terms of the materials and movement available to the children. Creative Mode offered unlimited resources for construction, whereas Survival Mode required players to collect resources from the game's landscape. Creative also allowed for avatars to move by flying, whereas Survival required the player to negotiate the landscape more slowly by walking and jumping.

Although the club began in Creative Mode, and I had originally envisaged the full club taking place in this mode, the children negotiated the change of gameplay mode on a number of occasions. As outlined below (Figure 3), from week two,

some children argued that their in-game behaviour would 'be a lot more sensible' and present a number of new opportunities if we switched from Creative to Survival, where they had to collect their own resources rather than being given them. Although initially reticent to alter my original plans, I gradually become comfortable with adapting my approach, allowing children to negotiate changes, based on consensual group agreement.

Figure 3: 'Survival Negotiation' Comic Strip
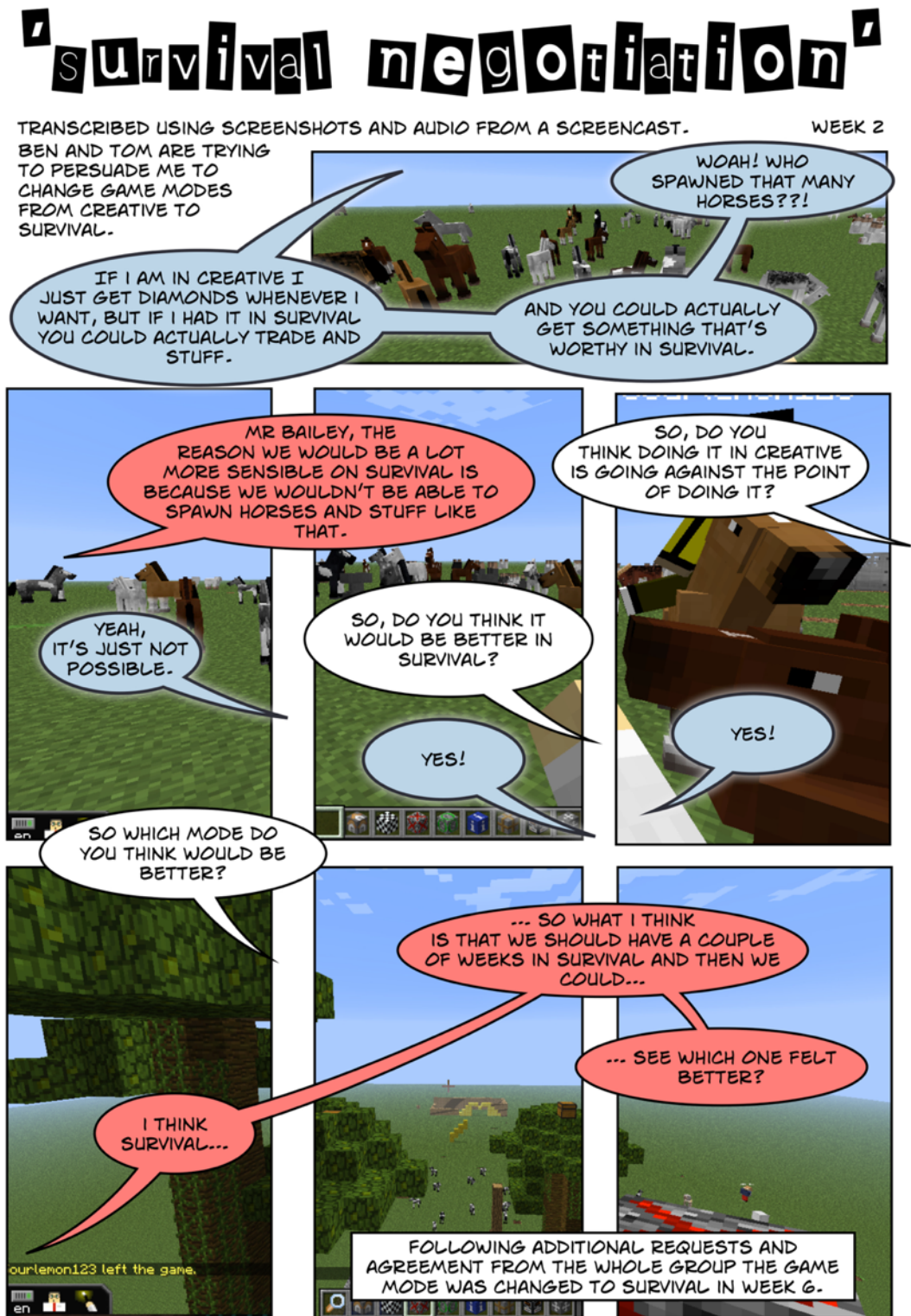
As predicted by Ben, the change of game mode did indeed lead them to 'trade and stuff', (seen later in an episode called 'An Emerging Economy' (6.7)) creating an opportunity that would not have emerged had I insisted that they remained in the play mode.

As a means of supporting and supplementing the children's *Minecraft* play, a number of commercially published paper-based texts were also available for the children to use, including *Minecraft* annuals, player's guides, stories and construction blueprints. The children were able to use the internet, giving them access to sites such as the popular video hosting website YouTube. Lined reporter notebooks, biro pens, pencils and highlighters were provided to the children for use in any way they wished. These resources were intended as a means of enhancing the children's play experience, providing them with texts and materials that were often available to them when they played in their own homes. Children also occasionally bought in these texts themselves. The 'how-to' texts, though used infrequently, provided the more novice players with a means of finding out about the basic functions of the game (although the children more often simply asked each other how to play). More experienced players sometimes referred to these paratexts for advice on how to access more complex elements of the game (
Figure 4), such as using 'redstone', the game's version of electricity, for making circuits involving switches and lights.
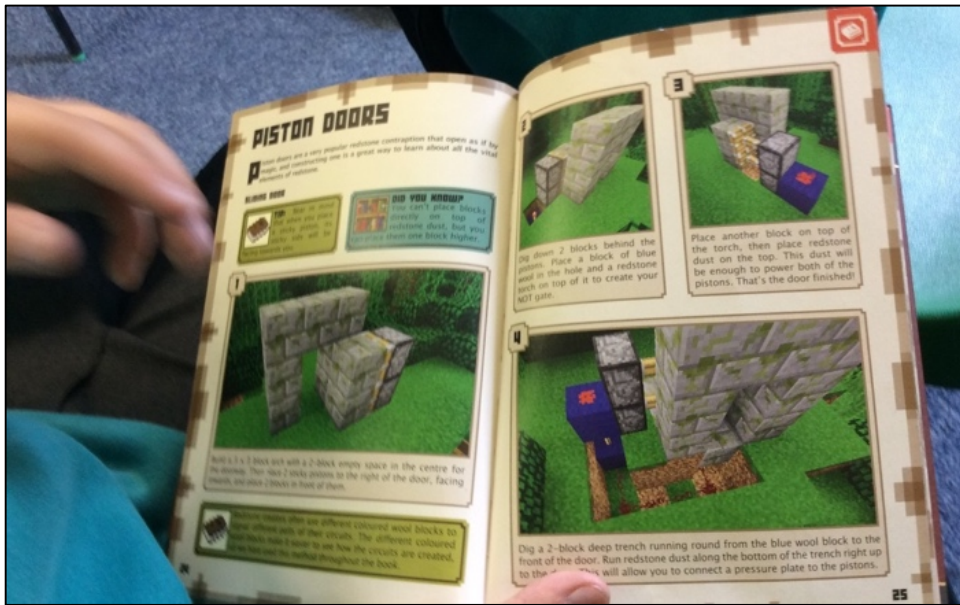
Figure 4: A player demonstrating a Minecraft guide book

I originally envisaged that YouTube would provide a source of instructional videos to support children's in-game creations. However, as demonstrated in Figure 5, YouTube was more frequently used for playing *Minecraft* related videos for the amusement of their peers.

Figure 5: 'Villager News' Comic Strip
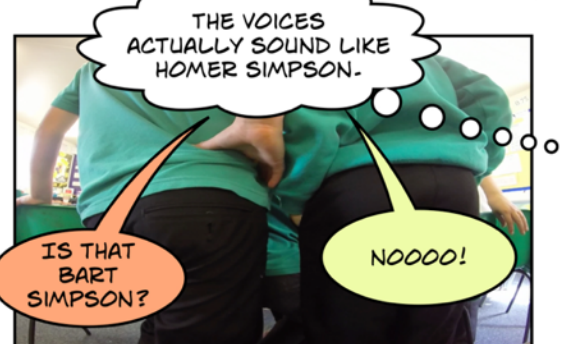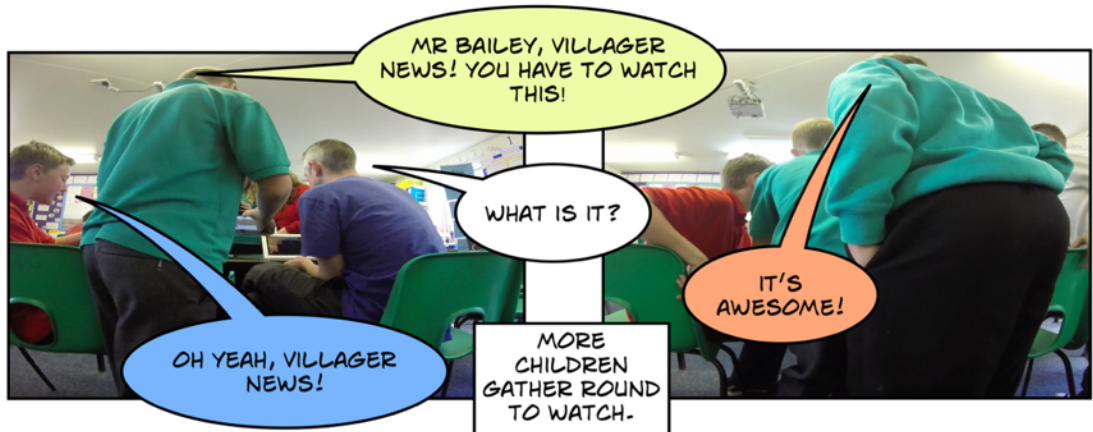
3.4 The Participants

As the two preceding short transcripts hopefully illustrate, club members were integral in shaping and directing the club. The following set of participant profiles (Figure 6) was assembled from comments made by the club members themselves, together with my observations made during the club and discussion sessions. Of course, such brief summaries, created from my perspective, can only provide a very limited account of the club members. In retrospect, I regret not having asked the children to write their own, to allow them to decide how they wanted to be portrayed. Unfortunately, this was an opportunity I missed as I did not begin to write these profiles until six months after the children had moved on to their new secondary schools. Therefore, these profiles are presented to give the reader an (admittedly restricted) sense of these individuals as they featured in the life of the club, as perceived by me.

Figure 6: 'The Banterbury Players' Pen Portraits

'The Banterbury Players'

THE CLUB MEMBERS ARE PRESENTED HERE IN NO PARTICULAR ORDER. THEIR PSEUDONYM IS PRESENTED ALONGSIDE THE AVATAR NAME AND A SCREENSHOT OF THE 'SKIN' MOST REGULARLY USED BY THE PARTICIPANT. AVATAR NAMES THAT REFLECT THEIR REAL NAME HAVE ALSO BEEN ANONYMISED ACCORDINGLY.

<CBTEKKERSOP>

BEN

BEN WAS A VERY SOCIABLE AND VOCAL MEMBER OF THE CLUB, WHO WAS NOT AFRAID TO LET OTHERS KNOW HOW HE FELT. HE OFTEN HAD AN EMOTIONAL REACTION TO EVENTS AND HAD A KEEN SENSE OF WHAT SHOULD AND SHOULD NOT BE ALLOWED. HE WAS AS LIKELY TO BE OUT OF HIS SEAT, INTERACTING WITH OTHERS, AS HE WAS TO BE SEATED LOOKING AT HIS OWN SCREEN. HE HAD HIS OWN YOUTUBE CHANNEL WHERE HE TALKED ABOUT 'MATCH ATTACKS' CARDS.

<MIA>

MIA WAS A SKILLED PLAYER OF THE GAME, REFLECTING THE FACT THAT SHE PLAYED IT AT HOME. SHE HAD HER OWN YOUTUBE CHANNEL (NOT RELATED TO MINECRAFT) AND WAS A REGULAR USER OF TECHNOLOGY OUT OF SCHOOL. SHE ENJOYED OTHER VIDEO GAMES, SUCH AS THE SIMS. MIA COULD BE FOUND SEATED NEXT TO FREYA DURING MOST CLUB SESSIONS. SHE ALSO OFTEN INTERACTED WITH OTHER PLAYERS, IN THE GAME AND IN THE CLASSROOM.

MIA

<LOVE1DFREYA>

AS FREYA'S AVATAR NAME SUGGESTS, SHE WAS A BIG FAN OF THE BAND 'ONE DIRECTION'. ALTHOUGH SHE SOMETIMES PLAYED MINECRAFT AT HOME SHE WAS A RELATIVELY NOVICE PLAYER AND ASKED OTHERS FOR HELP WITH THE GAME QUITE REGULARLY. SHE COULD BE FOUND SEATED NEXT TO MIA DURING MOST CLUB SESSIONS, ALTHOUGH SHE ALSO REGULARLY ENGAGED IN DISCUSSION WITH OTHERS.

FREYA

<SOURLEMON123>

ROB WAS A MISCHIEVOUS MEMBER OF THE GROUP, PARTICULARLY IN RELATION TO HIS GAMEPLAY WHICH OFTEN INCLUDED PLAYING TRICKS ON OTHERS, SETTING TRAPS AND LOW LEVEL GRIEFING. HE WAS AS LIKELY TO BE FOUND TAKING SOMETHING APART AS HE WAS PUTTING SOMETHING TOGETHER IN THE GAME. HE ALSO ENJOYED WATCHING THE GAME ON OTHER PLAYERS' SCREENS, JOINING IN ON DISCUSSIONS ABOUT THEIR PLAY. HIS TALK WAS OFTEN RELATED TO THE GAME.

ROB

JOE

JOE WAS A QUIET MEMBER OF THE CLUB; WHILST OFTEN ENGAGED IN DISCUSSION WITH OTHERS HE ALWAYS KEPT HIS VOICE LOW DURING THE SESSIONS. HE SPENT MORE TIME IN HIS SEAT PLAYING THE GAME THAN HE DID VISITING OTHERS. HE OFTEN WORKED ALONGSIDE ED, BOTH IN THE ROOM AND IN THE GAME. TOGETHER THEY BUILT 'THE MOCKING ROOM' WHERE THEY WROTE LIGHT-HEARTED REFLECTIONS ON THE PERSONALITIES OF THEIR FELLOW PLAYERS.

<BBQBOY>

LISA

< SKYLATHECHICK >

Skylathechick

LISA WAS AN EXPERIENCED MINECRAFT PLAYER. FOR THE FIRST 15 WEEKS SHE WAS COLLECTED 45 MINUTES EARLY BY HER MUM IN ORDER TO ATTEND DANCING LESSONS. LISA'S SPOKEN VOICE WAS PERHAPS THE LEAST AUDIBLE DURING THE CLUB AS SHE WAS QUIETLY SPOKEN AND ALMOST ALWAYS ENGAGED IN GAMEPLAY. HER ABILITY TO CONCENTRATE ON LONGER TERM CONSTRUCTION PROJECTS WAS SOMETHING THAT INTRIGUED MANY OTHER PLAYERS. HER PLAY ALSO OFTEN REVOLVED AROUND ANIMALS IN THE GAME.

< MOLLYMOO >

MOLLY COULD BE FOUND SEATED NEXT TO LISA FOR MOST CLUB SESSIONS. SHE WASN'T AFRAID OF MAKING MISTAKES AND LAUGHED AT HERSELF IN A GOOD NATURED WAY WHEN OTHERS POINTED OUT HER ERRORS. SHE OFTEN WORKED ON CONSTRUCTION PROJECTS THAT WERE LOCATED AWAY FROM THE REST OF THE GROUP, AGAIN PRESENT IN THE GAME CLOSE TO LISA. SHE ENJOYED PLAYING AROUND IN THE GAME AND SPENT A WHILE DURING A DISCUSSION SESSION TRYING TO ATTRACT ATTENTION TO HER AVATAR'S ABILITY TO DIVE BOMB FROM THE TOP OF A MOUNTAIN.

MOLLY

< YOLOFACE >

CALLUM WAS NEW TO THIS CLASS AT THE BEGINNING OF THE YEAR, HAVING ATTENDED ANOTHER SCHOOL ELSEWHERE IN THE CITY. HE WAS A VERY KEEN MINECRAFT PLAYER AND HAD ALSO SET UP HIS OWN MINECRAFT 'COMMUNITY' AT HOME WHERE HE PLAYED ALONGSIDE HIS MUM, DAD AND YOUNGER BROTHER. IN THE GAME HE ENJOYED MISCHIEVOUS PLAY, SUCH AS SPAWNING MULTIPLE ANIMALS OR TRYING TO FIND WAYS INTO THE NETHER. HE WAS RESPONSIBLE FOR CREATING 'YOLOFACE'S ROOM OF DOOM' – A MYSTERIOUS ROOM IN BANTERBURY.

CALLUM

< GRIZZLYBEAR100 >

ED'S PLAY OFTEN REVOLVED AROUND HORSES IN THE GAME, MOST NOTABLY AROUND 'THE HORSE FUNERAL' DURING WEEK 4 OF THE CLUB. ED PLAYED MOST OFTEN ALONGSIDE ROB. OUT OF SCHOOL HE ENJOYED FOOTBALL AND ATTENDED FOOTBALL CLUB AFTER MINECRAFT CLUB, FOLLOWING A QUICK CHANGE IN TO HIS KIT. IN THE CLUB ED STATED THAT HIS AVATAR WAS A VERSION OF HIM, IN SPITE OF THE FACT THAT THEY HAD DIFFERENT NAMES.

ED

< FAMALAMLAD >

Famalamlad

TOM WAS PERHAPS THE MOST VOCAL GROUP MEMBER, OFTEN HEARD DOING IMPRESSIONS, QUOTING FROM TV AND FILM, USING RHYME AND RAPPING. HE FOUND TECHNICAL PROBLEMS FRUSTRATING AND OFTEN COMPLAINED LOUDLY WHEN HIS COMPUTER WAS LAGGING. HE FREQUENTLY USED THE WORD 'BANTER' AND WAS LARGELY RESPONSIBLE FOR NAMING THE TOWN 'BANTERBURY'. HE ENJOYED USING THE GOPRO CAMERA AND WAS OFTEN FOUND IN CONVERSATION WITH IT! HE ALSO SOMETIMES GAVE THE IMPRESSION OF BEING THE GROUP'S LEADER.

TOM

< ABC123 >

abc123

ALTHOUGH THIS PARTICIPANT'S OWN CONSENT WAS GIVEN ENTHUSIASTICALLY, PARENTAL PERMISSION WAS NOT PROVIDED, THEREFORE THIS PLAYER DOED NOT FEATURE IN THIS DATA, BEYOND BRIEF GLIMPSES OF THEIR AVATAR. THEY LEFT AFTER ELEVEN WEEKS TO ATTEND A DIFFERENT AFTER-SCHOOL ACTIVITY, OUTSIDE OF SCHOOL.

UNNAMED

83

JAKE

JAKE WAS ONLY PRESENT FOR THE FINAL FIVE SESSIONS OF THE CLUB, AND ONE DISCUSSION SESSION. HE WAS EAGER TO BE INVOLVED FROM THE START BUT HAD ANOTHER AFTER SCHOOL COMMITMENT. WHAT WAS NOTABLE WAS THE EASE IN WHICH HE FITTED INTO THE GROUP. HE WAS A KNOWLEDGEABLE MINECRAFT PLAYER. HE HAD HIS OWN YOUTUBE CHANNEL, WHICH FEATURED A GOPRO VIDEO OF HIM ON HIS SCOOTER. (ALTHOUGH JAKE ENJOYED USING THE VIDEO CAMERA HE WAS NOT KEEN ON BEING FILMED AND THEREFORE I HAVE NOT INCLUDED HIS PHOTO HERE).

<JAKE>

<MR B>

I STILL CONSIDER MYSELF A NOVICE MINECRAFT PLAYER AS I HAVE NEVER PROGRESSED TO USING THE MORE COMPLEX ELEMENTS OF THE GAME. IN THE CLUB I HAD CONTROL OF THE SERVER AND THEREFORE HAD MORE POWER OVER THE GAME THAN THE OTHER PLAYERS, ALTHOUGH I ONLY USUALLY EXERTED THAT POWER AT THE REQUEST OF THE CHILDREN. I ENJOY THE MUSIC OF THE BAND MANIC STREET PREACHERS, THE NOVELS OF DONNA TARTT AND THE FILMS OF ANDREI TARKOVSKY. I LIKE RUNNING AND PHOTOGRAPHY.

CHRIS (AKA MR BAILEY)

It is the above club members whose experiences, collectively and individually, constitute the 'lived experience' of the club. These individuals all maintained a presence in the room and, through their avatars, in *Minecraft*, on-screen. As the weeks progressed, however, I began to see numerous examples that suggested that the events in the club were not only shaped by these human participants but also by other non-human participants present during the club. This led me to broaden my conceptualisation of 'participant' to include more than just the human players. Below I describe a number of non-human participants that were present.

Firstly (Figure 7) I outline some of the non-playable characters (NPCs) present on-screen, in *Minecraft*, also known as mobiles (mobs). These characters

inhabited the game, alongside the player's own avatars and regularly influenced events. Although these NPCs were only visible on-screen, their actions often had repercussions for the club members, both on and off-screen. Secondly (Figure 3.7) I position a number of physically material objects as non-human participants, given their ability to direct events. Miller (2010) suggests that 'things do things to us' (p.94); these non-human 'doing things' could therefore be considered to have an agency of their own. I explore this idea in more detail later in this chapter, as well as in Chapter Five where I examine the children's in-game participation.

This is not an exhaustive list for either type of non-human participant. However, I have exemplified the NPCs and objects that seemed most regularly present or exercised the most visible impact on the group, to provide a flavour of the kind of non-human participant present during the club.

Figure 7: In-game NPCs as participants

Figure 8: Material objects as participants

THE GOPRO

ORIGINALLY ENVISAGED PURELY AS A RESEARCH TOOL FOR GENERATING VIDEO DATA, THE GOPRO QUICKLY BECAME A SIGNIFICANT PARTICIPANT IN THE CLUB. PERHAPS DUE TO THE ASSOCIATIONS THAT THE CHILDREN HAD OF A 'ACTION CAMERA' NAMED 'HERO', THEY TOOK TO USING IT IN A NUMBER OF WAYS. CHILDREN WOULD OFTEN ADDRESS THE CAMERA BY NAME: 'HELLO GOPRO' AND TOOK ADVANTAGE OF ITS MOBILITY, RECORDING THEIR MOTION AS THEY MOVED ABOUT THE ROOM.

DEVICES AND CHARGERS

LAPTOPS AND TABLETS WERE USED IN THE CLUB AND DISCUSSION SESSIONS. THE PRESENCE OF DEVICES WAS OFTEN EVIDENT THROUGH THEIR REGULAR ERRORS AND LIMITATIONS. THE GAME OFTEN RAN SLOWLY, CONNECTIONS WERE LOST, BATTERIES RAN OUT (REQUIRING THE SEARCH FOR A CHARGER AND A RELOCATION TO A NEARBY PLUG SOCKET).

AS MILLER (2010) SUGGESTS 'OBJECTS CAN BE OBDURATE LITTLE BEASTS' (P. 93) AND THESE PARTICULAR OBJECT SEEMED DETERMINED TO PURSUE THEIR OWN PATHS IN ORDER TO ACHIEVE EVERYTHING OTHER THAN TO RUN SMOOTHLY.

connect.endOfStr
2015-06-30 16:13:00 [V
is the server overloaded?
2015-06-30 16:13:06 [I
...5-06-30 16:13:0...

CHAIRS AND TABLES

CHAIRS AND TABLES WERE OFTEN MOVED BY THE CHILDREN, TO ENABLE THEM TO SIT NEXT TO OTHERS IN A GROUP. AT TIMES CHAIRS WERE CARRIED AND PLACED IN A MANNER EVOKING THE USE OF BLOCKS IN THE GAME, THUS TAKING ON ADDITIONAL MEANINGS. THE ORGANISATION OF THE FURNITURE DEPENDED ON THEIR ARRANGEMENT DURING THE DAY'S LESSONS. OFTEN THESE FACILITATED GROUP WORK. AS THE STATUTORY ASSESSMENT TESTS (SATS) APPROACHED, THE CLASSROOM WAS MORE OFTEN ORGANISED IN ROWS, WITH ALL SEATS FACING THE BOARD.

3.5 My Role and perspectives

After leaving my teaching role I continued running the club and also occasionally returned to the school to provide supply teaching cover. As I was no longer a full time employee of the school my role shifted to include almost no formal teaching, and I spent significantly more time in school running the club and playing *Minecraft* with children than I did teaching them. During this time a new headteacher was also employed and, as I was no longer part of the daily running and decision making in the school, I soon felt more like a welcome visitor than an employee. With my transition in role from teacher to researcher my perception of the school, and teaching in general, began to shift; I became detached from the day-to-day routine of formal schooling as the pace of my life altered to allow for reflection and learning, rather than what felt like a rapid cycle of planning, teaching and assessing that had been my reality for the previous nine years. Although I did not formally collect data during the second year of the club, continuing immersion in the club allowed me to reflect on my positionality and to consider the methodological approach I would eventually take to research the children's participation in the club during the following year.

Moving from my formal teaching role freed me up to become more of an observer of the club. The presence of an observer in any situation will always have an impact on the scene being observed, and any researcher is 'burdened with pieces of ready-made identities' (Nespor, 2010, p.203). This is especially true where an individual is required to 'extend and redefine already existing relationships' (Nespor, 2010, p.203), in addition to establishing, and accounting for the impact of, a researcher identity. With this in mind, my role as researcher was informed by considerations of reflexivity, taking account of the 'intimate relationship between the researcher and what is studied' (Denzin and Lincoln, 2011, p.8). I was familiar to most of the children in this study in my previous role as a teacher, and through my continued presence as occasional supply teacher at the school. I was still seen as a teacher, or at least as having been a teacher, by some of the

children; one child even bought me a 'Thank You Teacher' during the final week of the club (Figure 9). However, whilst it is important to take this into account in terms of how it influenced the events in the club, it would inconsistent with the conception of 'identity' being applied during this project (2.2.2 and 2.2.4) to suggest that my 'teacher' identity was fixed in time, or even that the identity implied by the role of teacher is consistent and unchangeable across all educators, and with all children.
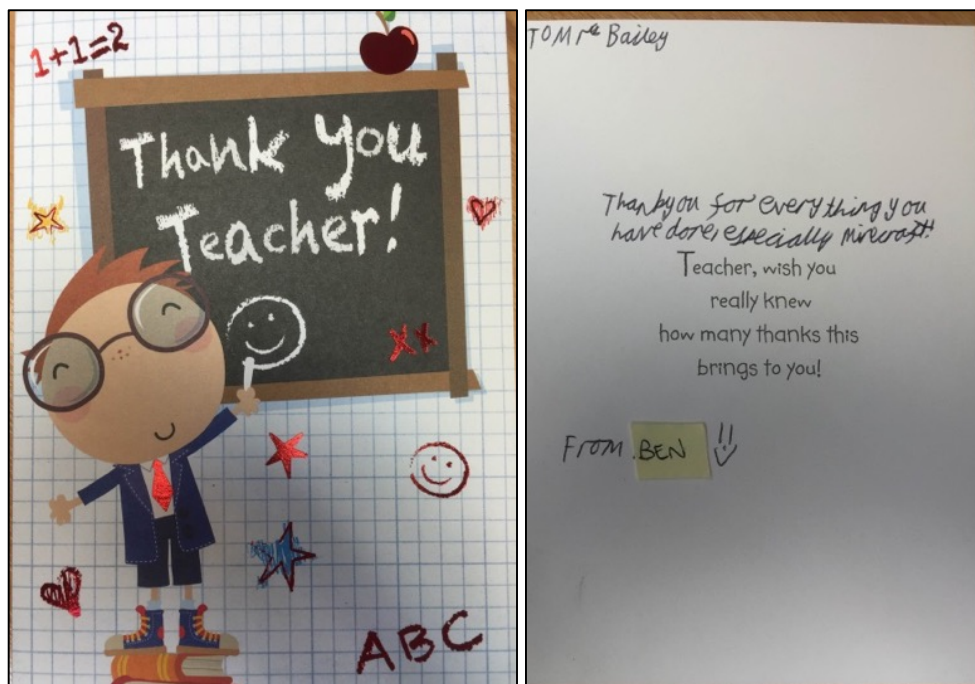
Figure 9: Thank you card (note the '... especially Minecraft' comment)

The meaning of 'teacher' was demonstrably not fixed with the children; on rare occasions when I taught the class on supply, my role seemed more defined and our relationships more formal than during the more relaxed extra-curricular club environment, in spite of the fact that the same children were present in the same room. For instance, children had allotted seats in which to sit during their lessons, whereas in the club they were able to sit wherever they chose. During lesson time there were also already established (although not necessarily always strictly adhered to) rules about when to speak and when to listen, all of which seemed connected more to their associations with school than to any fixed conception of my 'teacher-ness'. These rules did not apply during the club.

Indeed, my initial concern that my presence as a 'teacher' could lead the children to foreground certain types of schooled practice largely seemed unfounded, as any rare instances involving the children outwardly linking the game to their classroom learning were addressed to their class teacher during the times she occasionally passed through the classroom, rather than to me. Although I was perhaps still seen as a teacher, I was not viewed as being their teacher and therefore demonstrating their academic ability to me maybe seemed less rewarding. The group's understanding of my role seemed to be that I was there to see what they did in the club, rather than to encourage them to demonstrate their proficiency in educational matters.

Whilst suggesting that children's associations of the role of teacher are not necessarily fixed, as the only supervisory adult present for much of the club I was inevitably still a figure with some authority. First and foremost, as the club supervisor, I was responsible for the safety and wellbeing of the children. I was not, and did not try to be, an equal member of the club; during the fieldwork I acted in a hybrid role as a club leader and a researcher who was open to contribution, co-construction and participation at the invitation of the children. My role inevitably had an impact on the club, just as any club is shaped by the necessary presence of a supervising adult. I therefore carried with me a complex set of interconnecting associations, through (however slight) the remnants of expectations from my previous role, my role as the club leader and my emerging identity as researcher.

As well as the children's knowledge of my previous role influencing the children, I was aware that my own observations might also be coloured by my previous experiences. Firstly, part of my initial motivation for setting up a club revolving around *Minecraft* stemmed from my own interest in videogames. Although I would no longer consider myself a regular gamer, I do still play videogames and have a somewhat nostalgic relationship with such media, particularly in relation to their aesthetic elements, given that they provided a main form of

entertainment for me as a child, both on computers and game consoles. I was also an avid reader of videogame magazines and, in the pre-internet age of my early teenage years, I was a regular contributor of reviews and articles to paper based computer game fanzines. Although other forms of media, namely novels and music, would eventually largely supersede my interest in this area, this long-standing personal relationship with videogames demonstrates that I embarked on this research with a positive view of the activity that was at the heart of this club. I had been impressed by what I saw as the playfully creative potential for a game such as *Minecraft*. This was not necessarily as part of the growing dialogue around how it could be used as a tool to facilitate learning, rather that it seemed to offer the potential for stimulating, collaborative and digitally mediated play.

Secondly, my previous role as an educator had potential to influence my perspective. Jones, Holmes, MacRae and Maclure (2010) suggest that the 'spectre' of a teacher's previous experience 'haunts... their perspectives' (p. 482). Similarly, Mannay (2010) suggests that, whilst researching a familiar site can be beneficial due to the ability to 'elicit greater understandings' that comes from the reduction of cultural and linguistic barriers (p.93), the researcher may also retain 'preconceptions about the topic' (p.93) that influence how they view the research site and participants. Conscious of this, I employed reflection as an essential mediating tool in the research process (Watt, 2007, p.83) to repeatedly scrutinise my perspective and to consider whether I could see things differently as the research was ongoing. This happened during the fieldwork, where I used a reflective journal as a 'second level of reflection' (Watt, 2007, p.83) on the process of conducting this research. In addition, when reviewing, analysing and representing the data, I often highlighted my presence in the events under observation, in an attempt to acknowledge and evaluate the development of my own contribution to the meaning making processes. This said, self-reflection alone cannot entirely overcome issues of reflexivity (Siraj-Blatchford and Siraj-Blatchford, 1997, p.238), understood here as the process that involved examining my own role in the research process and the construction of knowledge. I was

particularly conscious of the difficulty involved in reflecting on my closeness to the site and the remnants of my 'teacher' perspective, as I was inevitably bound to be reflecting from my perspective.

With this in mind, in an effort to take on different ways of seeing the club, I approached this research with an intention to 'make the familiar strange' (Mannay, 2010, p.91). Whilst making choices about what was 'worth' observing (perhaps drawn in by the extremes, the source of the loudest voice, the liveliest action or those perceived to be the most engrossed individuals), I also attempted to observe and record with an open mind to what could later be significant. In particular, Mannay (2010) suggests that using 'participant-directed visual data' (p.107) can assist with this process, providing 'windows to new worlds' (p.100). Therefore, elements of the research design also took account of issues relating to power, agency and pupil voice (Marsh, 2010) by handing control over to the children. Spreading the balance of power, children were positioned as active participants in the club, given free-reign within the virtual world, whilst largely controlling the direction of the club themselves. This enabled them to derive power from their deeper expertise and knowledge of the game, and the wider network of related media that surrounded it. Furthermore, the group of children was already established to some extent, having been together in school as a class for six years. As such, I was seeking permission from this group of children to gain entry into an aspect of their world.

3.6 Ethnography

Ethnography offered a valuable opportunity to explore the complexity of the lived experience, through my role as a participant observer. Ethnography is concerned with investigation the lives of a group of people, describing what participants do and the meanings they ascribe to their actions (Wolcott, 2008), whilst locating a site within the wider social, cultural and historical contexts

(Flewitt, 2011). It assumes that the researcher can gain some insight of the lives of participants by spending time observing and discussing their actions.

Ethnography has a long history and has been associated with a number of different epistemological underpinnings. 19th Century forms of ethnography took a naturalistic approach, seeking to explore the social world 'in its natural state, undisturbed by the researcher' (Hammersley and Atkinson, 2007, p.6). More recent conceptualisations of ethnography, however, have acknowledged the researcher's role in constructing the social world 'through their interpretations of it' (p.11), where 'ethnographers portray people as constructing the social world' (p.11). As well as having a history grounded in anthropological understanding of societies (Malinowski, 1913; Mead, 1928; Levi-Strauss, 1955; Geertz, 1973), ethnography is used in a wide range of contexts, such as education (2.4.1), health (Bloor, 2007), and industry (Smith, 2007). Different versions of ethnography are often indicated by appending the word with the epistemological viewpoint (eg. Realist Ethnography, Feminist Ethnography) from which it operates.

Whilst ethnography itself is therefore not characterised by any one epistemological standpoint, early studies using ethnography tended to be driven by more hierarchical epistemological approaches. Such approaches can be traced by examining an ethnographer's conceptualisation of the culture they seek to explore. Faubion (2007) attempts to define the word 'culture' by exploring how it is used in a number of different ethnographic accounts. Examining the commonalities of usage, he identifies three main elements. Firstly, cultures are defined though the 'property of boundedness' (p.44). Whilst there is an acknowledgement that these boundaries are 'permeable and fuzzy' (p.44) where one set of established values changed to another, the culture was historically often defined by existing physical or geographical boundaries. The second presumption is that the culture is 'integrated', that is to say 'coherent' and consistent enough that its experiences enabled stability for those who formed it. Thirdly, the historical trend has been for culture to be understood as closed,

systematic and mechanical, although Faubion (2007) suggests that more recently there has been a move to define culture as a more 'open system' (p.48).

Anthropologist Levi-Strauss, in particular, viewed culture as 'a minimal analytical unit... construed as a group of people who share, and mutually understand, the same system of signs' (Faubion, 2007, p.43); in other words, he was looking for the patterning of culture as a bounded system, in an attempt to describe the culture's underlying logic. In turn, this form of structuralist epistemology mobilised ethnography to generate an arborescent ethnographic output. Although Faubion (2007) suggests that since 1960 there has been a general theoretical move in ethnography to understand culture as less spatially bounded and therefore more 'temporal and processual' (p.46), a particular structure is still often assumed. For instance, Pascoe's (2007) ethnography of masculinity in schools pays attention to 'larger structural patterns' and 'multiple levels of analysis' (p.16). Similarly, in relation to ethnography of virtual worlds, Boellstorff, Nardi, Pearce and Taylor (2012) position ethnography as a means of exploring 'cultures of interest' (p.1), conceptualising cultures as 'shared systems of meaning and practice' (p.1), again suggesting an epistemological assumption reliant on the presence of decipherable underlying structures.

Ethnography's extensive history and multiple guises mean that it is not easy to discuss in terms of a fixed set of methods of a definitive approach. Nevertheless, whilst there certainly exist 'differences and tensions' (Atkinson, Coffey, Delamont, Lofland and Lofland, 2007, p.4) between ethnographic traditions, Atkinson et al. (2007) outline three common strands that position ethnography as distinct from other types of qualitative research. Firstly, there is a common conception of ethnography as a qualitative approach that involves 'first-hand experience and exploration of a particular social or cultural setting' (p.4). Secondly, ethnography involves the observer talking with research participants, positioning them as 'co-researchers' (p.5), or valued commentators on the social context of the fieldwork. Thirdly, ethnography involves the researcher drawing

on textual sources from the site under examination 'for information and insight into how actors and institutions represent themselves and others' (p.5).

As well as being characterised by participation, another feature of ethnography relates to the significant amount of time spent participating in the field. Green and Bloome (2004) suggest that fieldwork relating to ethnography involves 'long-term study of a social or cultural group' (p.4). I am classing this study as 'ethnography', as opposed to describing the work in terms of an ethnographic approach or an 'ethnographic perspective' (Green and Bloome, 2004, p.4), due to the time spent in the field. During this study I was present and acting as a researcher for the full duration of every session of the Minecraft Club. As such, I spent as much time 'doing' Minecraft Club as the human participants. In fact, I was present at the club for more time than any other participant as each of the children were absent from the club at least once (usually due to illness), whereas my two instances of illness resulted in the club being cancelled. I was also present at each of the discussion sessions relating to the club. A longitudinal approach afforded by ethnography provides a means of illuminating the actions of groups of individuals, interacting over time (Creswell, 2013). The 'thick description' (Geertz, 1973) that results from this long term participation allows a researcher to provide expansive and detailed accounts of the lives of those engaged in the cultures under examination.

Ethnography also allows the researcher to engage in a process of experiencing, enquiring and examining (Wolcott, 2008) the socially and materially constructed aspects of a setting. This enables the presentation of a complex, heterogeneous account of groups whose reality is continually constructed and reconstructed, over time. Here, this reality is understood as being constructed through participants' actions and interactions with each other and with the resources they draw upon. By focussing on developing relationships (Angrosino and Rosenberg, 2011), the longitudinal nature of ethnography helps to construct an account of a group's ongoing lived experience.

The term 'lived experience' is often associated with phenomenological methodologies, where 'priority is given to actors' accounts of social reality' (Scott, 1996, p.64). However, my use of the term is not grounded in phenomenology; here I am using the term 'lived experience' to describe what human participants do in the club. Here, this term includes their expressed motivations, understandings of and feelings towards club's events, with a particular focus on their cultural practices, understood here as the shared behaviours developed and expressed by the group. The group itself is multiple, made up of a number of individual members who each have their own experiences that contribute to the lived experience of the club. As such, the lived experience itself is made of multiple experiences. Whilst there was some commonality of experience in the club, and therefore a need to take account of this, I am not seeking to provide a uniform account but one that acknowledges the diversity of the multiple individual and co-constructed experiences that made up the group experience.

In seeking this 'lived experience', ethnography has a number of affordances; it allows the researcher to gain insights from participants by spending time alongside them engaged in similar practices. The researcher is therefore able to consider both 'How do I feel?' and also 'How might this feel from the participants' perspectives?' The ability to discuss the participants' experiences also allows the researcher to ask directly 'How does it feel to you?' Whilst these questions give a simplified account of what is actually a long, complex and extensive process, taking into account multiple participants in multiple places at multiple times, it does demonstrate how the researcher's unravelling of the lived experience ultimately concludes with a subjective account assembled by the researcher, albeit a subjectivity informed by first-hand experience in the field.

Finally, there are some specific variants of ethnography which may have been appropriate to this particular study. For example, virtual world ethnography (Boellstorff et. al. 2012), has been designed to take account of participation in

virtual worlds. However, this tends to focus on remote participation and thus can 'despatialise notions of community' (Hine, 2000, p.61). Therefore, with the focus on-screen, this approach may not have adequately taken account of the physical, embodied interactions present in the club. In seeking a focus both on what happened on and off-screen, this methodology had some commonality with the idea of 'connective ethnography' (Hine, 2000), which seeks to take account of multi-sited virtual world participation. Connective ethnography (Leander and McKim, 2003) looks across online and offline spaces and attempts to 'disrupt the binary between offline and online practices' (p.224). However, connective ethnography generally focusses on remotely connected participants who are not physically co-located, as they are in this club. Furthermore, the objective of connective ethnography is primarily to understand online practices through a co-consideration of the virtual and the physical, whereas this project seeks equally to understand the on and off-screen experience, a subtle but important difference in emphasis. Aside from this, the *Minecraft* world used by the children was on-screen but not strictly online, as it was hosted locally. This therefore prohibits the possibilities of wider connectivity that are characteristic of internet usage. In addition, none of the approaches outlined above are necessarily tailored towards issues relating to the use of space or the important on and off-screen material elements that contributed to the lived experience of this club.

I specifically address my own take on ethnography in the next chapter. Before that I intend to discuss the particular methods employed during this project. I have purposefully chosen to address method first as this illustrates how I arrived at my particular approach, referred to as rhizomic ethnography, given that this approach predominantly emerged during fieldwork rather than being entirely formulated prior to the club.

3.7 Methods

Josephides (1997) suggests that 'there can be no blueprint for how to do fieldwork... we have to construct our theories of how to do fieldwork in the field' (p.32). To ensure that this ethnographic approach captured the lived experiences of the group involved, my initial tentative 'blueprint' included a range of methods to take account of the multiple modalities, interactions and perspectives that arose in this hybrid space. As the project progressed these methods were adapted to suit the needs of the project and the children. Stirling, Yamada-Rice and Walker (2015) suggest that 'researching social lives means working alongside people to engage with, explore and communicate their lived experiences. Using a visual approach to data collection... can offer ways beyond text-based understandings of these lives.' (p.3). With this in mind, a number of methods used involved engaging with the visual aspects of the club, as a means of exploring the children's lived experience.

Figure 10 provides a summary of the data collection methods used and the quantity of data generated by the project. (A more detailed outline of 'what happened when' is also provided in Appendix 1). Following this, I outline each of these methods in more detail, explaining why I considered them to be the most appropriate. I outline how I took account of the limitations of each method.

3.7.1 Methods Overview

Figure 10: Methods Overview

METHODS OVERVIEW

AN EASY-REFERENCE OVERVIEW OF THE PROJECT'S DATA COLLECTION METHODS.

WEEKLY SCRATCH NOTES AND REGULAR BLOGGED ACCOUNTS OVER THE 26 WEEKS (32.5 HOURS) OF THE CLUB.

FIELDNOTES

SEVEN SMALL GROUP DISCUSSION SESSIONS WHERE CHILDREN BUILT VIRTUAL MODELS AND TALKED ABOUT THE CLUB.

DISCUSSION

27 HOURS OF VIDEO, MAINLY USING A GOPRO CAMERA AND FILMED BY THE CHILDREN. INCLUDED AUDIO.

VIDEO

SCREEN

435 SCREENSHOTS AND 16 HOURS OF SCREENCASTS OF GAMEPLAY. SCREENCASTS INCLUDED AUDIO.

RECORDING

284 STILL PHOTOGRAPHS IN THE ROOM, TAKEN BY ME.

PHOTOS

COLLECTED OBJECTS AND ARTEFACTS FROM THE CLUB, SUCH AS NOTEBOOKS AND PARATEXTS.

ARTIFACTS

3.7.2 Virtual Models Discussion Sessions

As well as the club's twenty-six sessions, seven small group discussion sessions were conducted throughout the year, each lasting between thirty and forty minutes (see Appendix 1 for specific dates). The purpose of these discussion sessions was to gain the children's perspectives on the club. Each session involved a different, self-selected group of up to five of the club's human participants who met me at school during their lunchtime, aside from the club's regular time. By the end of the research, each participant had attended at least one discussion session. These were inspired by Gauntlett's (2007) identity models work, where research participants created Lego models to help them to express their ideas on a subject. This method encouraged participants to use their 'visual voice' (Gauntlett, 2007, p.107), circumventing the 'inherent linear mode of speech' by presenting 'a set of ideas all in one go' (Gauntlett, 2007, p.126). This method of combining the visual and the verbal was employed to assist the children with the significant, transductive (Bezemer and Kress, 2008, p.175) challenge of communicating their experience of a multimodal, social experience. Just as I was later presented with the challenge of turning the multimodal experience of the club into written words, so I felt that the children's experience of verbally expressing their multimodal participation may have also proved difficult. The use of these visual models was employed to support this process.

During these discussion sessions, the mobile version of *Minecraft* ('*Minecraft*: Pocket Edition') was utilised as the building tool, rather than Lego, to capitalise on the existing popularity of *Minecraft* with the participants and to pursue the idea of a playful methodology. Hall, Pahl and Pool (2015) suggest that 'making sense of children's meaning making also involves understanding the stuff they use to make meaning' (p.164) and in this way this use of *Minecraft* helped to increase my understanding of how they engaged with the game. Children were volunteering their own time to participate in these discussions, so using *Minecraft* provided a mutually beneficial means of compensating them, providing

them with an additional opportunity to participate whilst engaging with a product that they enjoyed. Using *Minecraft* as a means of exploring ideas about the club also provided a fruitful opportunity to explore the children's relationships with the game, whilst using iPads rather than laptops differentiated the discussion sessions from the club itself, prompting comparisons by participants between this project's two differing uses of *Minecraft* (the club and the discussions), and even between the two different game formats.

The smaller group environment offered by these sessions gave participants an opportunity to speak and discuss their ideas, in a way that was perhaps less likely to occur when the whole group were present during in the club. Although there was scope for such discussion during the weekly club, these opportunities were sometimes hindered by my attempts to participate, whilst the group dynamic sometimes meant that some children's responses dominated meaning that others voices were rarely heard. Small group discussions provided 'rich, detailed data direct from participants' (Heyl, 2011, p.369), whilst enabling me to experience their non-verbal responses alongside the verbal (Jupp, 2006) by observing their embodied reactions and the action on-screen. Group discussion took 'the interpretive process beyond the bounds of individual memory', calling upon participants' 'collective memories and desires' (Kamberelis and Dimitriadis, 2011, p.903), by seeking meanings about the club, related to participants' feelings, perceptions and emotions (Brewer, 2000).

For these sessions, I set up a game map on my iPad as a space for children to create their models, and they connected to this using their school iPads. I talked to the children in the room whilst viewing their models on my screen. This was screen recorded from my perspective (using a connected Macbook Air), whilst the video camera was also set up to record in the room. This same virtual space was used for each of the seven sessions, so children could see what had been created during previous sessions (Figure 11). This often led to children trying to interpret other models, often trying to guess which of their peers had built them.

This also gave the children the opportunity to work together on their models. At the beginning of each session I invited the children to build a model to help them express ideas based on a verbal prompt from me: 'Create a model to help you to show me something about *Minecraft*' or 'Create a model to help you to tell me something about Minecraft Club'. This prompted different responses and interpretations of the task. During each session I would also ask more specific questions, often to help me understand an incident I had observed during a recent club session, or to explore an issue introduced by the participants. Beyond this, the children guided the discussions.

Figure 11: An iPad screenshot of the virtual space

Allowing the participants to set the frame for the conversation (Marshall and Rossman, 2006), without a formal schedule of questions, helped to open up the discussion, as a means of investigating the children's lived experience of the game and the club. This avoided over prescriptive questioning that could have constrained the nature of the children's answers. When designing this project, I had originally planned a number of interview sessions to supplement these less formal discussion sessions. However, when asking for volunteers to attend interviews the children's reluctance to do so made me reconsider this request, increase the number of discussion sessions rather than trying to persuade the children to attend interviews, thus adapting the methods in response to the children.

(JAUME PLENSA, YSP)

I CONCEPTUALISED THIS SPACE AS A...

'VIRTUAL SCULPTURE PARK'

... CREATED BY THE CHILDREN BUT CURATED BY ME, IN ORDER TO DIFFERENTIATE IT FROM THE VIRTUAL WORLD 'COMMUNITY SPACE' CREATED DURING THE CLUB SESSIONS.

I INTRODUCED THE PROPOSED MODELS TO THE CHILDREN AS BEING...

"LIKE SCULPTURES"

... SIMILAR TO THOSE THAT MANY OF THEM HAD SEEN AT THE NEARBY YORKSHIRE SCULPTURE PARK...

(SOPHIE RYDER, YSP)

... WHERE WORKS OF ART ARE EXHIBITED IN A NATURAL LANDSCAPE.

VARIANCE OF SIZE WAS ALSO PERMITTED, BOTH BETWEEN THE CHILDREN'S INDIVIDUAL CREATIONS AND IN RELATION TO THE SURROUNDING VIRTUAL LANDSCAPE AS THE SCULPTURES CONCEPT NEGATED THE NEED FOR REALISM.

THE MODELS WERE ALSO THREE DIMENSIONAL REPRESENTATIONS SO, UNLIKE A DRAWING, COULD BE VIEWED FROM MULTIPLE ANGLES.

RESOURCES WERE ALSO UNLIMITED, WITHIN THE CONFINES OF THE GAME, AND MINECRAFT'S BLOCKY APPEARANCE MEANT THAT ALL PARTICIPANTS WERE A ABLE TO CONTRIBUTE, REGARDLESS OF THEIR EXPERTISE IN TERMS OF DESIGN.

FROM AN AVATAR'S PERSPECTIVE MANY OF THE MODELS CREATED RECALLED THE ARTIST ANTHONY CARO'S TERM...

'SCULPTECTURE'

(WILKIN, 2002, P. 422)

... WHERE ARTEFACTS CREATED COMBINED ELEMENTS OF SCULPTURE AND ARCHITECTURE.

(ANTHONY CARO, YSP)

SOME CHILDREN BUILT LITERAL MODELS...

... WHILST OTHERS CREATED MORE COMPLEX CONCEPTUAL REPRESENTATIONS.

AS DISCUSSED EARLIER, SOME CHILDREN ALSO TOOK THE OPPORTUNITY TO PURSUE THEIR OWN PLAY INTERESTS DURING THESE SESSIONS. THIS ALSO HELPED TO PROMPT DISCUSSION AND ALSO ALLOWED THE CHILDREN TO TAKE MORE CONTROL OF THE DISCUSSION TASK.

SOME OF THE MODELS CREATED INCLUDED...

... A GALLERY TO REFLECT THE SUPPOSED 'INFINITE POSSIBILITIES' IN THE GAME...

Steve

... A MUSHROOM HOUSE TO REPRESENT VARIETY AND COMMUNITY...

Cataway118

A FEMALE FIGURE TO REPRESENT THE PLAYERS...

ALL THE PEOPLE ARE BROUGHT TOGETHER BY PLAYING

AND A CHICKEN...

I LIKE CHICKENS!

... WHICH LED TO A DISCUSSION ABOUT DESIGN AND WHERE IDEAS COME FROM...

I DID NOT ATTEMPT TO INTERPRET THE MODELS MYSELF, INSTEAD REPLYING ON THE CHILDREN'S EXPLANATIONS BOTH DURING THE PROCESS OF CREATION AND AFTERWARDS.

IN ALL THESE CASES, THE MODELS ACTED AS PROMPTS FOR THE CHILDREN'S WIDER DISCUSSIONS THAT WOULD NOT HAVE BEEN PRESENT IN A MORE FORMAL INTERVIEW OR DISCUSSION SESSION. DURING THESE SESSIONS ALL CHILDREN WERE ENGAGED IN SUSTAINED THINKING, REPRESENTING AND PROCESSING OF THEIR IDEAS.

THESE SESSIONS THEREFORE SUPPLEMENTED THE DATA COLLECTED DURING THE CLUB, ENABLING A CONSIDERATION OF THE CHILDREN'S VIEWS AND IDEAS RATHER THAT SIMPLY FOCUSSING ON MY OBSERVATIONS.

3.7.3 Fieldnotes and Blogging

Scratch notes were made during each session, as a means of turning a 'passing event... into an account, which exists in its inscription and can be re-consulted' (Geertz, 1973, p.19). Although I started by writing these notes by hand I soon switched to typing them, using my iPad, as this allowed for easy mobility in the field whilst also providing the ability to easily make additions, elaborations and amendments to the often hurriedly composed text, once the session had ended. The fast paced, busy nature of the club and my attempts to participate in the game meant that, rather than providing an ethnographic 'thick description' (Geertz, 1973) in themselves, these notes were actually comprised of an incomplete, running description of events, people and conversations (Fielding, 1993, 162). Emerson, Fretz and Shaw (2010) suggest that 'putting too much effort into writing fieldnotes can interfere with the fieldwork' (p.355). With this in mind, and due to the 'impossibilities of capturing everything' (Jones et al., 2010, p.487), fieldnotes therefore provided 'a loose collection of possibly usable materials' (Emerson et al., 2010, p.353) drawn from my observations in and out of the game, rather than providing a comprehensive or coherent account of a session. As well as providing this substantive element, there was also an in-the-moment analytic nature to these texts, in that they also often outlined my brief, initial thoughts, accompanied by questions to pursue later and reminders to re-examine events by focussing on particular segments of the video data (Figure 12, left panel).

Brewer (2000, p.87) advocates the rewriting of fieldnotes as soon as possible after the event as 'memory fades quickly' (p.88), thus reinforcing the fact that fieldnotes are a means of constructing an account and not the end result. While they may be an ethnographer's raw inscription, written 'contemporaneously with the events, experiences and interactions they recount' (Emerson et al., 2010, p.354), they are not the final inscription of social discourse referred to by Geertz (1973, p.19) or the final version of the account presented to the world. Immediately following the club, I would re-read these notes and add to them

with thoughts and reflections. As an additional step, I would then, often during the next day, or at least during the following week, use these fieldnotes as the foundation for a blog entry (see: http://mrchrisjbailey.co.uk/category/weekly-report/) about the club session or discussion session, either by providing an overview of the full session or focussing on one element in more detail (Figure 12, right and centre panels). These posts frequently drew on the other data sources collected during the club, and often involved me trying out different ways of looking at the data.
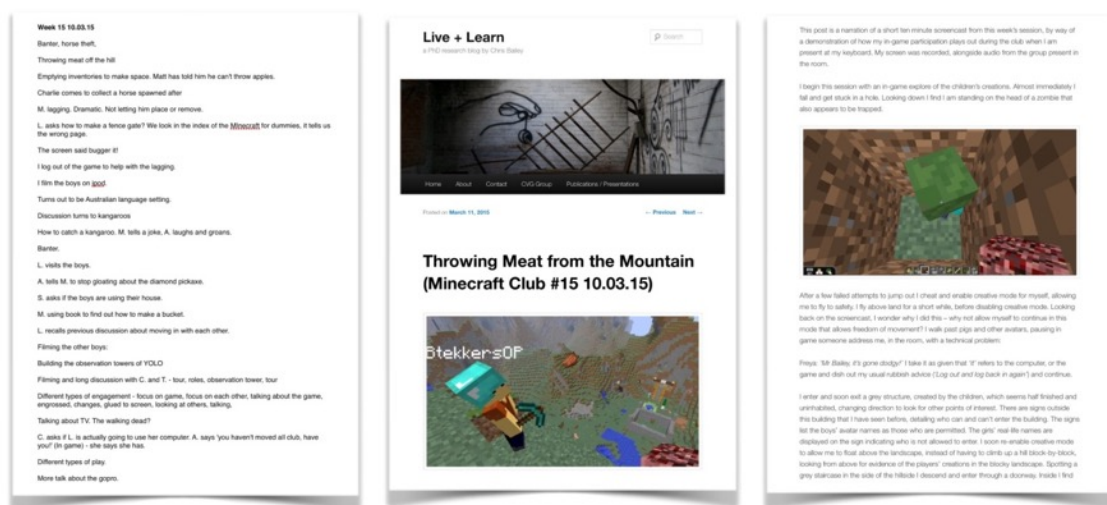

Figure 12: Unedited fieldnotes (left) and related blog post (centre and right)

As new data were being generated on a weekly basis, this process was useful as a means of establishing and maintaining an ongoing 'familiarisation process' (Braun and Clark, 2006) with what became a large corpus of data over the full year. This blog, therefore, provided a useful means of engaging in a weekly re-reading of fieldnotes, leading to a diarising of my weekly accounts of the club, based on memories and repeated reflections on the textual, pictorial, video and artefactual data collected. In addition, these secondary accounts provided a means of 'immersion' in the data (Braun and Clark, 2006, p.18), also forming texts to draw upon at later stages of the data analysis process whilst helping to make transparent 'the transition from data to text' (Boellstorff et al., 2012, p.159).

This 'making public' of the data was always conducted with careful consideration of ethical implications and I ensured that participants identities were not shared, nor any data that could potentially shed a negative light on the children. These posts in themselves were therefore not intended to provide a full account of the club, although in their regular acknowledgement of technical problems (eg. the slow running computers, the game crashing, the laptop batteries running down), neither were they intended to present an overly idealised or polished version of the club. As well as providing a means of thinking through the data, this method of 'thinking out loud' enabled the sharing of more of the data than could possibly be accounted for in this thesis. They also became a means of making rhizome-like connections, gaining feedback or occasionally having discussions with others who were interested in this work, or conducting similar studies. In this respect they worked in similar ways to conference presentations (albeit in bite-sized form) and the conversations that arise around these. More often, responses came as a result of sharing a link on Twitter, rather than on the blog post directly (Figure 13). Each post also provided a small snapshot of the club and the research as they unfolded.

Figure 13: Response to data via Twitter

Like any data sources, it is important to acknowledge the 'inevitably selective' (Emerson et al., 2010, p.353) nature of fieldnotes. As the observer I was filtering at the point of writing, including some things and not others - unable to make note of everything. As Jones et al. (2010) suggest:

> 'Fieldnotes do not approximate to moments of 'pure inscription' where the world becomes text. Other discourses and texts have always already shaped the researcher's modes of seeing and representational practices. Observation notes are no more 'innocent' that any other texts therefore: they are invested with power, desire, subjectivity and writing's fraught relation to reality' (p.481).

I include this quote in full as it makes a number of important points that could equally apply to any of the data sources outlined here. With this in mind, I have taken a number of steps to ensure that this methodological approach is the most

effective means of developing an account of this setting that appropriately represents the human participants' 'lived experience' of this club. I have acknowledged my presence in the club, taken a reflexive approach throughout to consider my impact on the research, valued the role of the participants and employed a number of complimentary data collection techniques. The lack of 'innocence' (p.481) present in fieldnotes is also true of the blog posts, which were often framed in a certain way, beginning with my choice of title. These titles were designed to draw attention to the content, or specific elements of the content, and to make the accounts readable; hence, for example, the use of alliteration: eg. 'Throwing Meat from the Mountain' as a story telling device.

3.7.4 Photographs

Photographs were used for creating snapshots of the club and discussion sessions. Photographs were taken by me, using either my iPad or a Nikon DSLR camera. These were most useful for recording things such as who was present during a session; the participants' groupings; the static physical location; participants' physical orientation or interactions with the technology; gestures, frozen in time and physical objects and artefacts present in the room. These photographs acted as an aid to memory, as well as allowing close analysis of a snapshot of moment that would not be possible during an ongoing session.

Photography, as with all data collection methods, has its own limitations. Pink (2007) suggests that photographs should be treated as 'representations of aspects of culture; not recordings of whole cultures or of symbols that will have complete or fixed meanings' (p.75). Photographs provide temporal and spatial fixity; movement is frozen in time and set in a rectangular frame, meaning it can have limited use in isolation from its context. Nevertheless, in combination with the other sources of data it played a valuable role. Considering photography, Barthes (1981) ponders 'of all the objects in the world: why choose (why photograph) this object, this moment, rather than some other?' (p.6). This dilemma presents itself to the qualitative researcher, not just in relation to the use of photography but

also to any data collection method at their disposal. With this in mind, when taking photographs in the club, I took a mixed approach, sometimes taking photographs of things I felt drawn to, whilst at others taking photographs at random, or deciding to photograph the whole group, or every individual from the same perspective. This provided me with a range of photographs for each session that could be drawn upon later to form part of the data representation and analysis processes (4.4.3 b. and c.).

Goldstein (2007) suggests that 'every image is the result of a large number of technical and aesthetic choices made by the photographer' (p.65) and that a camera is a way of making 'your own truth' (p.80). However, I would argue that the device also plays a pivotal role in this truth making process, with its physical properties affording different opportunities relating to framing and perspective. This issue will be exemplified in more detail when considering the project's utilisation of video.

3.7.5 Video

Video was taken of the action in the room. Initially an iPod touch was used. However, having bought a GoPro camera for purposes unrelated to this research, I decided to introduce this to the club (during Week 9), initially due to its durability and mobility. Whilst still providing a fixed frame for the action, the wide angle allowed for the capture of additional visual information than was possible with cameras with less expansive resolutions. Its lack of LCD screen or viewfinder also ensured that, whilst the operator could select the direction of the filming, they were never entirely able to fix the frame of reference. The camera allowed the capture of action in the club from a number of perspectives. Sometimes I would carry the camera round with me. More often, I would leave it set up in a static location (Figure 14). Pink (2007) outlines how participant photography can allow researchers into spaces it is otherwise 'difficult for them to enter physically themselves' (p.91). With this in mind, I had planned to encourage the children to use the camera, with the simple brief being to show me

the club from their perspectives. They did this in a number of ways, with an enthusiasm that I had not predicted. Sometimes they wore the camera on their heads using the attached head strap. At other times they carried it around with them. They filmed their screens during play, positioning the camera next to their laptop keyboard, at times also providing audio commentary. Sometimes, children directed thoughts directly to the camera, even addressing it by name as 'GoPro'. These interactions produced pathways through the club as the children explored new possibilities, treating the camera as a resource whilst also generating data as part of the research process.

Figure 14: The GoPro camera in a static location

It is not only the presence of the researcher that can influence the site under examination; it is also possible for the data collection methods to directly influence events and the video camera 'is not a natural object in the field' (Boellstorff, 2012, p.116). One striking illustration of this came when the children invented 'The GoPro Song' and danced around the room singing: 'I'm on a GoPro / I'm on a GoPro'. He was then joined by one and then three other boys, who formed a procession, dancing and singing the same song (Figure 15).

Figure 15: 'The GoPro Song' Comic Strip

This song was sung frequently during the weeks that followed when children caught sight of the GoPro. Clearly, such a song would not have occurred during the club had I not introduced a GoPro camera as a research tool. This again shows how material objects were taken up by the children to change the direction of the club.

Initially I had reservations about the children's use of the camera in this manner. A line from my fieldnotes from Week 9, in response to the spontaneous rendition of the GoPro song, reads: 'Should I insist they put the camera down?' and my reflective notes after the session read: 'The gopro was played with quite a lot - not sure how much this is useful, will need to take a look at the footage'. I recall being troubled by this challenge to the expected 'systematic' recording of events (Marshall and Rossman, 2006) apparently characteristic of an ethnographic approach. However, reflecting on the role of the camera was instrumental in helping with the formation of the project's rhizomic approach. I rationalised that instructing the children how I wanted them to use that camera would be similar to telling them not to sing, as that wasn't what was expected in a videogame club. Eventually embracing these instances meant that, not only were the children providing insights into the club on their own terms, this method was congruent with the playful tone of the club.

In addition, just as surrendering control of the virtual world had produced new directions and opened up new possibilities for the research, so too did being open to different possibilities for the project's methods. Whilst the GoPro had initially been introduced with some consideration of its technical affordances it was actually the manner of the children's manipulation of it that was most significant for the development of the club's methodology and its eventual role in the representation of the data produced; I explore this in more detail in the next chapter.

Video also offered audio in the context of action, and this proved essential where close analysis of action or interaction was required. As well as being a means by which to reflect on the dialogue occurring during a session, it also allowed for consideration of the participants' multimodal actions and interactions, enabling a consideration of the 'embodied modes such as gesture, posture, facial expression, gaze and haptics that work in conjunction with speech in children's collaborative construction of knowledge' (Taylor, 2014, p.1). As previously discussed (2.2.3), this project was informed by concepts of multimodality (Kress, 2009) and multiliteracies (Cope and Kalantzis, 2000) as a means of examining children's meaning making in multiple modes; verbal, gestural, spatial etc. Video therefore allowed me to examine the multiple modes of representation present in the club, different modes through which the children made meaning.

3.7.6 Screencasts

To record in-game events, external screen casting software applications were used (Quicktime on my Macbook Air; Screencast-O-Matic on the other laptops) to record the gameplay on-screen. This data generation method could be thought of as the in-game equivalent of the in-room video recording. Not every computer was screencast during every session as this would have produced an unmanageable amount of data. For this reason, Boellstorff et al. (2012) suggest that screencasts are 'best used selectively' (p.116). During most sessions, the play of at least one player (chosen randomly from the ever-eager volunteering participants) was captured either in whole or in part, providing an insight into the gameplay from their perspective. This was accompanied by the audio (technology willing) soundtracking the in-game sound effects alongside the children's speech as they played. These screencasts were particularly useful for examining in-game creations and creative processes as it allowed for a direct and prolonged insight into children's gameplay in a way that the physical presence required by over-the-shoulder observations did not allow.

I also regularly recorded my own screen, recording in-game action from my perspective. I would travel around in the game and observe, on-screen, the action that was unfolding, knowing that this was being captured by the software. Children were often eager to show me what they had been doing, sometimes initiating guided tours of the virtual world. This involved the child's avatar leading my avatar through the virtual landscape, recounting recent events or explaining choices they have made. These instances provided an interesting insight into the group's motivations and as such were a kind of in-game observation, but with the children again choosing the focus.

3.7.7 Screenshots

Screenshots were taken of the gameplay, using my laptop, from my perspective (Figure 16). In common with all of the data collected, 'screenshots are never simply representations of objective social facts' (Boellstorff et al., 2012, p.115), and they feature many of constraints of photography in terms of their fixed nature. Nevertheless, they were still 'incredibly rich data points' (Boellstorff et al., 2012, p.115), providing reminders of in-game events as well as providing records of on-screen chat logs or in-game constructions.

Figure 16: Screenshots from the game

3.7.8 Artefacts

Examples of on and off-screen artefacts created or drawn upon by the children were collected to build a collection of items that supplement the other data being generated. These included written notes made by the children in notebooks (Figure 17). Where originals were not available, artefacts were recorded using photographs. References to songs, YouTube videos mentioned or watched during the club and paratexts bought in by the children were also noted down to allow

me to review these at a later date, rather than trying to explore them whilst the club session was ongoing.

Figure 17: Photographs of extracts from children's notebooks

I also had access to the game's server log (Figure 18). This lengthy document, something of a collaborative text produced by the game and the children, provided me with some potentially useful information about the children's in-game behaviours. In terms of the children's typed text chat interactions, I could filter out the chat logs for any given week, allowing me to examine children's in-game conversations without having to keep up in real time.
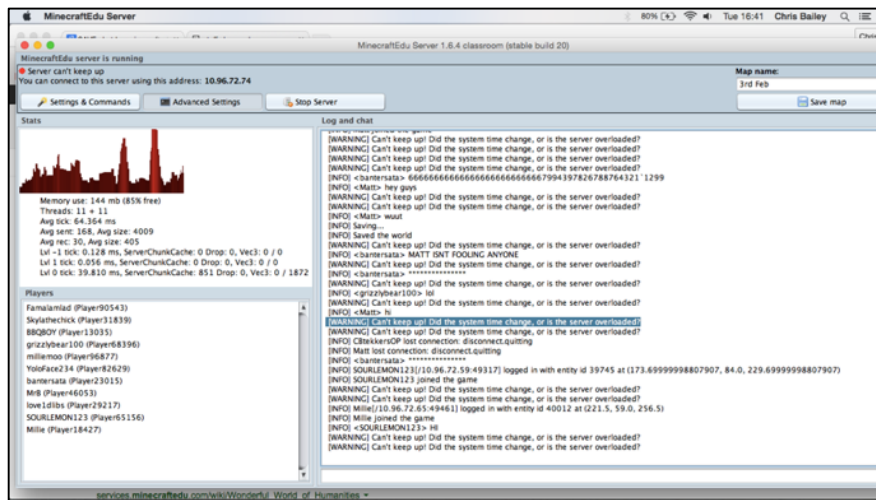
Figure 18: Screenshot of the server log

3.8 Adaptation and Emergence

A recurring idea in this chapter is that of adaptation. I have detailed a number of occasions where my initial plans for the club and this research changed in response to requests from the children. As the weeks progressed, I took an increasingly flexible approach, driven primarily by the children rather than my initial design. At the beginning of the project I conceptualised the club as 'child-led'. As the fieldwork processed I began to see ways in which the children could be given even greater autonomy. For instance, I had initially envisaged a club that ran for the full year with the children playing in Creative mode. However, I eventually allowed the children to change the mode of play, at their request, rather than adhering rigidly to my original design. Initially concerned that I was surrendering control of my carefully planned research project, I soon became more comfortable with such an approach as I began to see the potential of this direction for generating new lines of inquiry, taking the club in unexpected directions. Similarly, I did not insist that the children return to the game when they were out of their seats, not 'playing *Minecraft*'. Participants explored pathways independently of my design as I learnt to loosen my grasp on events, using my initial project template as a suggested way of proceeding rather than a script to be adhered to.

As I described in this chapter, I also cancelled plans for more formal interviews in favour of more popular discussion sessions (3.6 ii) and allowed the children to share YouTube videos with each other, rather than being required to adhere to my original assumptions about their internet use during the club (Figure 5). I have explained how the children were empowered to use the GoPro camera as a research tool but also as a resource to feed their play (Figure 15). I have also described how, as events unfolded, I came to change my idea of what constituted a participant (3.3) to include game characters (Figure 7) and objects (Figure 8). All of these examples of adaptation stem from developments in the field, as I responded to the unfolding events in the club. In later chapters, with close reference to the project's data, I will demonstrate how an emergent dimension ran through the children's play in Minecraft Club.

Firstly, however, I will explain how the above examples of adaptation, and ones like them, prompted me to consider my methodology, ultimately setting me on the path to a more flexible, responsive and emergent approach. In the next chapter I seek to describe the nature of this emergence, using the work of Deleuze and Guattari (1987) to explain my particular approach to this research that I refer to as rhizomic ethnography.
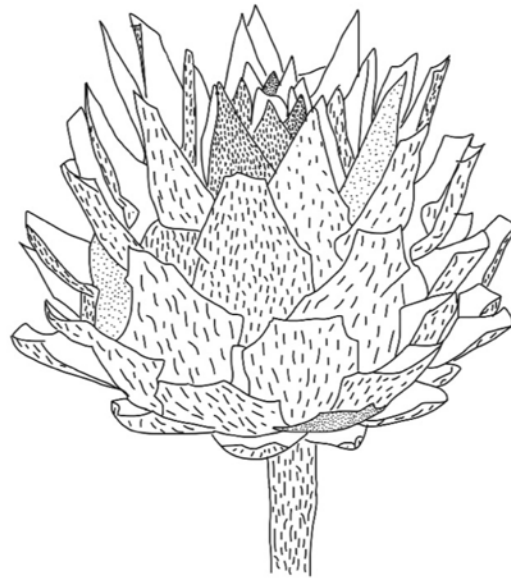
EMERGENCE AND THE RHIZOME

CHAPTER FOUR: EMERGENCE AND THE RHIZOME

4.1 Introduction

In this chapter I build on the methodological ideas already outlined, explaining how I came to understand and articulate my approach to ethnography. A number of shifts led to my conceptualisation of this project as one characterised by adaptation and emergence. Whilst reflecting on my early participation in the club I noticed how ideas, themes and events would often arise spontaneously, quickly changing direction or double back, combining and recombining with other ideas, themes and events to generate new directions in the children's play. In light of these observations, I felt that the project required an emergent methodology as a response to take account of these. Here, I begin by introducing 'the rhizome', Deleuze and Guattari's (1987) 'image of thought' (p.16). I use this concept to describe my specific take on ethnography, referred to as rhizomic ethnography. I describe how this has three main features, relating to epistemology, fieldwork and the processes around dealing with the data and representing ideas. I explain how data was selected, represented and analysed, leading to an approach that employed Deleuze and Guattari's (1987) concept of the 'plateau' (p.22). I then consider the emergent nature of my own identity as a researcher, addressing my use of visual methods of representation. Next, I discuss the ethical implications of this project and how they were addressed. I also consider this project's validity before finally preparing the reader for the chapters that follow by providing an overview of the three 'plateaus' presented in this thesis.

4.2 The Rhizome

In the previous chapter I described a number of occasions where this project took unexpected turns; rather than being the result of prior design these instances were driven by spontaneous ideas and events and could therefore be said to have

been characterised by emergence; for instance, the children's emergent use of the GoPro camera and negotiations around the game mode. The concept of emergence became increasingly important as a defining feature of my methodological approach, as well as providing an apt description of the character of the group's play. With this in mind, I developed a conceptual framework that could help to explain and validate this approach, building on my initial methodological design. Ideas of emergence appear frequently throughout the work of Deleuze and Guattari (1987); for example, their related concepts of 'immanence' (p.2) and 'stratification' (p.21) are derived from the 'phenomena of emergence' (Holland, 2013, p.58). In particular, the 'image of thought' (Deleuze and Guattari, 1987, p.16) called 'the rhizome' became key, providing an effective way of conceptualising many elements of the project.

Given its significance I will begin by outlining the concept of the rhizome, before moving on to provide a more detailed description of the characteristics of emergence in the next section. Here I use a comic strip to introduce the rhizome's defining characteristics, applying the concept whilst using visual elements from *Minecraft* as a means of illustrating this 'image of thought' (p.16). Using text and image together, rather than text alone, allows me to visually represent, and further elaborate on, the terminology introduced in the text. I suggest that employing the visual mode here is appropriate as a means of conveying the visual nature of this conceptual model, rather than using descriptive text in isolation. Introducing the rhizome visually as well as textually is intended to provide clarity to a concept that can appear complex when explored in abstract terms; utilising the visual aspect of *Minecraft* itself also serves to anchor the concept in a particular context, one which is also relevant to this study. As such, the reader is given an opportunity to view my application and interpretation of the theory, rather than relying only on descriptive language.

'The Rhizome'

'THE MAP IS OPEN AND CONNECTABLE IN ALL OF ITS DIMENSIONS; IT IS DETACHABLE, REVERSIBLE, SUSCEPTIBLE TO CONSTANT MODIFICATION. IT CAN BE TORN, REVERSED, ADAPTED TO ANY KIND OF MOUNTING, REWORKED BY AN INDIVIDUAL, GROUP OR SOCIAL FORMATION'.

(DELEUZE AND GUATTARI, 1987, P. 12)

THE EXTRACT ABOVE IS DRAWN FROM DELEUZE AND GUATTARI'S (1987) DESCRIPTION OF A RHIZOME. THIS IS INTRODUCED AS AN...

'IMAGE OF THOUGHT'

(P. 16)

A COUNTERPOINT TO THE DOMINANT 'ARBORESCENT SYSTEMS' (P. 16) OF VISUALISATION THAT PROVIDE...

A HIERARCHICAL, TREE-LIKE MODEL OF THINKING.

GIVEN THAT MINECRAFT ITSELF COULD BE DESCRIBED AS HAVING RHIZOMIC QUALITIES, MY INTENTION HERE IS TO USE SOME OF THE VISUAL ASPECTS OF MINECRAFT TO DESCRIBE THE PROPERTIES OF DELEUZE AND GUATTARI'S (1987) RHIZOME...

... AS A PRECURSOR TO EXPLAINING HOW THIS CONCEPT CAME TO UNDERPIN THIS PROJECT'S METHODOLOGICAL APPROACH.
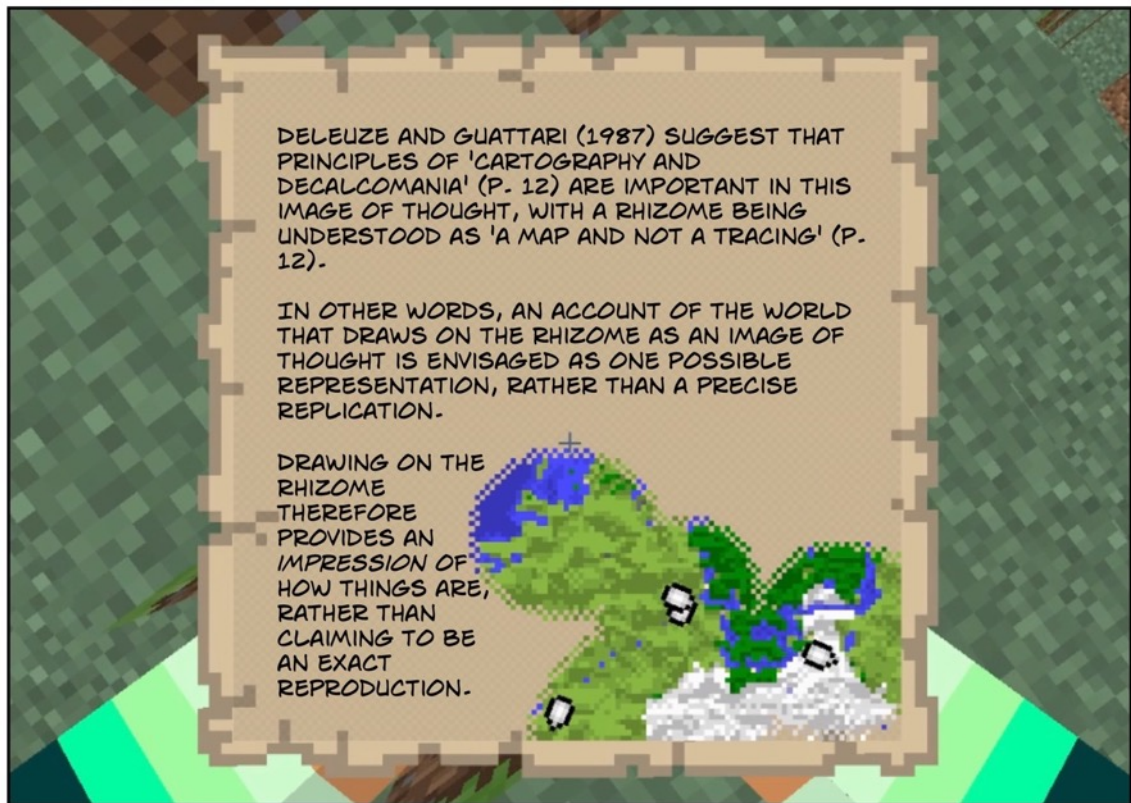
DELEUZE AND GUATTARI (1987) SUGGEST THAT PRINCIPLES OF 'CARTOGRAPHY AND DECALCOMANIA' (P. 12) ARE IMPORTANT IN THIS IMAGE OF THOUGHT, WITH A RHIZOME BEING UNDERSTOOD AS 'A MAP AND NOT A TRACING' (P. 12).

IN OTHER WORDS, AN ACCOUNT OF THE WORLD THAT DRAWS ON THE RHIZOME AS AN IMAGE OF THOUGHT IS ENVISAGED AS ONE POSSIBLE REPRESENTATION, RATHER THAN A PRECISE REPLICATION.

DRAWING ON THE RHIZOME THEREFORE PROVIDES AN IMPRESSION OF HOW THINGS ARE, RATHER THAN CLAIMING TO BE AN EXACT REPRODUCTION.
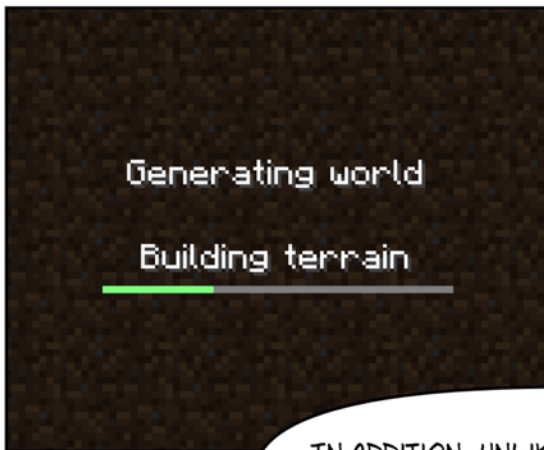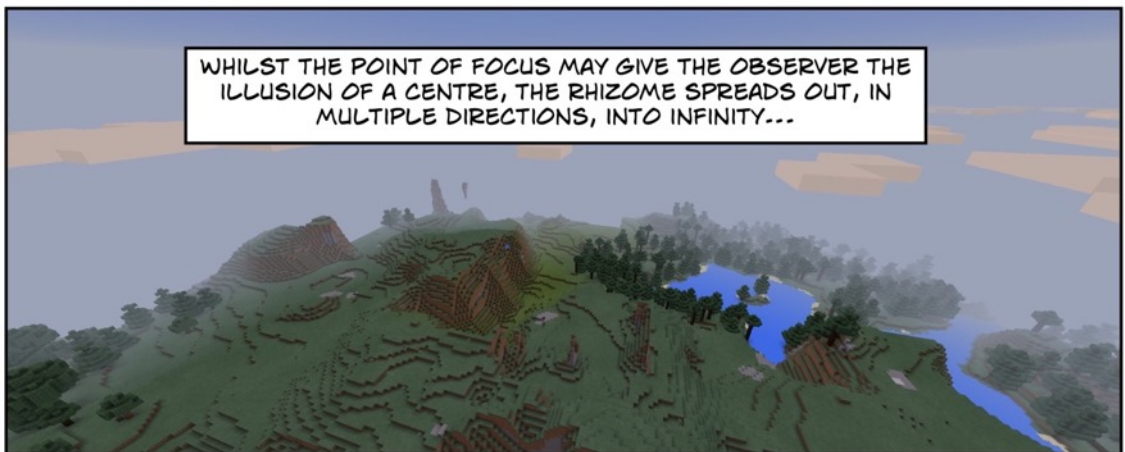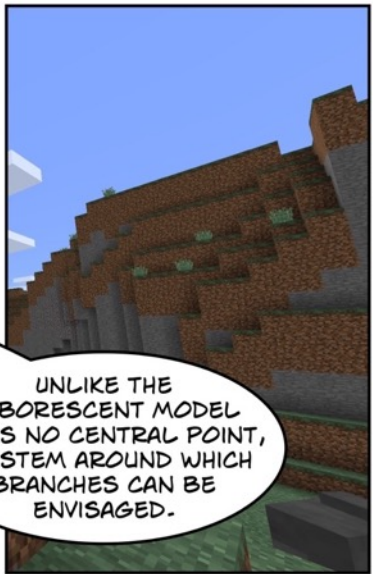
MAKING IT POSSIBLE TO SEE THE WORLD FROM ALTERNATIVE PERSPECTIVES.

A RHIZOME ALSO HAS 'NO BEGINNING OR END; IT IS ALWAYS IN THE MIDDLE, BETWEEN THINGS, INTERBEING, INTERMEZZO' (P. 25), PRESENTING 'AN ACENTERED SYSTEM' (P. 18).

UNLIKE THE ARBORESCENT MODEL IT HAS NO CENTRAL POINT, NO STEM AROUND WHICH BRANCHES CAN BE ENVISAGED.
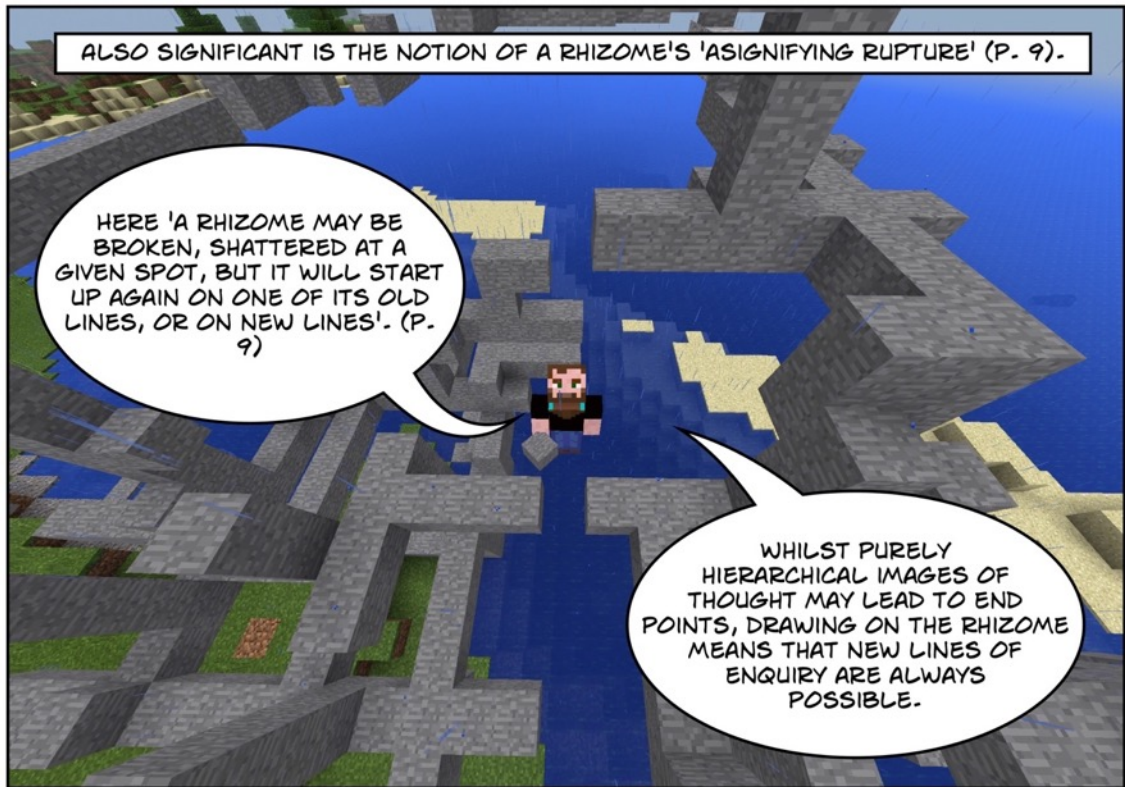
WHILST THE POINT OF FOCUS MAY GIVE THE OBSERVER THE ILLUSION OF A CENTRE, THE RHIZOME SPREADS OUT, IN MULTIPLE DIRECTIONS, INTO INFINITY...

Other researchers have used Deleuze and Guattari's (1987) rhizome as an image of thought to shape aspects of their studies. For instance, in a study of adolescents' uses of popular culture, Hagood (2004) draws on the 'principles of connection and heterogeneity' (Deleuze and Guattari, 1987, p.7). She describes how the rhizome allowed her to make connections between the fluid and frequently changing concepts of 'identity and subjectivity' (Hagood, 2004, p.145). Leander and Rowe (2006) demonstrate how the rhizomes' 'directions in motion' (Deleuze and Guattari, 1987, p.21) helped them to shift their focus away from fixed meanings, in their study of students engaged in public performance. Reilly (2014) uses the non-hierarchical properties of the rhizome to describe the 'fluid and dynamic' (p.293) nature of the work of a literacy coach. In each study, the properties of the rhizome help researchers to conceptualise the subject of the research as complex, changing and multiple, in order to reach new understandings and generate new insights.

Having described the rhizome I will now explore the related concept of emergence in more detail, considering the significance of this concept to the project's methodological approach.

4.3 Emergence

The concept of emergence is important for this project for two main reasons. Firstly, it helps to explain the process by which my methodological approach was generated, over time, in response to changing events and contexts. Secondly, emergence is invoked towards the end of this thesis to illuminate the emergent dimension of play that underpinned the participants' lived experience. This is described in relation to both emergent systems and emergent processes. Given this, I will now focus more closely on emergence as a concept before, in the next section, addressing my emergent methodology. Later, I also return to the idea of emergence in relation to my own emergent identity that led to the multimodal aspects of this thesis.

As outlined in the comic above, Deleuze and Guattari (1987)'s 'image of thought' (p.16) 'the rhizome' has a number of qualities that make it useful in describing a type of emergence, with its multiple entryways, its acentred system, its constant reconfiguration, multiple connections and ability to create new lines of flight, in multiple directions. Deleuze and Guattari (1987) use the word 'emergence' to describe the appearance or occurrence of a new or unexpected aspect or idea. As is the nature of their writing, however, they stop short of providing a definition of emergence itself as a phenomenon or a concept, instead offering the rhizome as an exemplification. As such, it is helpful to look elsewhere for other definitions of the word.

Corning (2002) suggests that there is no universal consensus on the meaning of emergence. Initially this is complicated by the fact that, in everyday language, the word means 'appearance' or 'growth' (Corning, 2002, p.6). Whilst these synonyms do provide some sense of the meaning, the definition of emergence as a concept is less straightforward. Corning (2002) proposes that a definition should include a consideration of how 'constituent parts with different properties are modified, re-shaped or transformed by their participation in the whole' (p.10). This suggests that, when conceptualised as a system, emergence describes the relationship between the whole system and its constituent parts. Corning (2002) also suggests a relationship between emergence and complexity, noting that 'complexity, it is said, is an emergent phenomenon' (p.2).

Continuing this theme, Goldstein (1999) describes emergence as a defining feature of complex systems, where emergence involves 'a process of self-organisation' (p.49). Drawing on Lewes (1875) as the originator of the phrase, developed in relationship to complex chemical compounds, Goldstein (1999) suggests emergence is defined by 'non-linear interactivity' leading to 'novel outcomes that are not necessarily understood as a sum of their parts' (p.53). In other words, an emergent system is aligned with unpredictability but

nevertheless consists of the available components in the complex system. For Goldstein (1999) an emergent system is also characterized by a form that is impossible to anticipate; it evolves over time to develop some kind of coherence and is observable and, therefore, recognisable. Furthermore, the emergent phenomena are 'neither predictable from, deducible from, nor reducible to the parts alone' (p.57); that is to suggest that the emergent system should be considered as a whole, at the macro level, revealed and described through the connection of its component parts.

More recently, Leander and Boldt (2013) bring the term 'emergence', as a process, to their study of youth identities and literacies research; the 'excitement of emergence' (p.26) is contrasted with engagement with a text that is intended to generate signs or meanings. In other words, this emergence is an end in itself, one related to the 'affective intensities' (p.34) of a moving, feeling body. Leander and Boldt (2013) also suggest that 'indeterminacy and emergence' is oppositional to 'stasis and determination' (p.32); this suggests, therefore, that emergence is characterized by movement and change. They also warn against relying on 'overly determing linguistic models' (p.32) implying that emergence, as a process, is in opposition to rigid frameworks of analysis or representation. Here, they argue that the principle of emergence requires 'a nonrepresentational reading' (p.34) leading them to 'reassert the sensations and movements of the body in moment-by-moment unfolding or emergence of activity' (p.34) rather than trying to assigning or attributing meaning. In this way, emergence is positioned as spontaneous and reactive.

Having introduced the characteristics of the rhizome, the related concept of emergence and given the characteristics and affordances of ethnography outlined in the previous chapter, I will now explain how I used these concepts to formulate an approach that I refer to as rhizomic ethnography.

4.4 Rhizomic Ethnography

As conceptualised for this project, rhizomic ethnography is characterised by three main aspects, each employing the rhizome as an image of thought. In each of these areas I will explain how the rhizomic approach builds on other approaches to ethnography, in combination with what happened in the field. I am not arguing that any of these strands are entirely unique, rather their combination here constitutes an ethnography that is consistently rhizomic in character. Whilst the term 'Rhizomatic Ethnography' has been used before (Akindes, 1999; Griffiths, 2009), it has not been clearly defined as a concept or mobilised as a response to the challenges posed by research in a site such as Minecraft Club.

4.4.1 Epistemology

Here I explain my epistemological approach, outlining my conception of how it is possible to claim to come to know something about the lived experience of this club. St Pierre (2014) states that 'methodology should never be separated from epistemology' (p.3), suggesting that a project's epistemological perspective should be coherent with its overarching methodology. With this in mind, rhizomic ethnography (as a description of this project's methodology) is characterised by a similarly rhizomic approach to knowledge formation (its epistemology).

Earlier I discussed how ethnography has historically drawn on largely structuralist epistemological approaches (3.6). However, there are ethnographic studies that take a more poststructuralist approach. Rosaldo (1993) suggests that rather than seeing culture in broadly structuralist terms, 'as a self-contained whole made up of coherent patterns, culture can be conceived as a more porous array of intersections, where distinct processes crisscross from within and beyond its borders.' (p.20). For instance, Nespor's (2010) ethnography of a school takes a more flexible epistemological approach, viewing school not as 'having clear

boundaries and identifiable contents' (p. xiii) but as 'an intersection in social space.... extensive in space and time, fluid in form and content' (p. xiii). He talks of 'looking for flows rather than states' (p. ixv), bringing to mind the rhizome's capacity to connect multiple elements. Whilst Nespor (2010) does not mobilise the rhizome as an epistemological metaphor, there is a rhizomic quality to the way he conceptualises the site under examination.

Tsolidis (2008) reflects upon a poststructuralist approach taken during an ethnographic study of an 'after-hours' school located within a 'transient site' (p.280). Here, Tsolidis (2008) considers how taking a more 'creative' approach (p.280) shaped by poststructuralism enabled her to avoid presumptions of stability, in relation to the school's site. This helped her to take account of the complexities of the 'marginalised' participants under examination, rather than being led to study the site in 'undemocratic ways' (p.280). Here, poststructuralism helped to avoid assumptions of stability, in order to explore the complex array of experiences that contributed to the school.

Building on these ideas, this project does not seek to explore a bounded culture, rather it is seeking to examine the cultural practices of a particular group and their relationships with other participants, both human and non-human. In my work the rhizome is used as image of thought that helps to formulate and, ultimately, to articulate an epistemological approach in relation to the club and the participants' cultural practices, in preference to looking for an underlying order or structure.

This approach emerged as a result of my observations and repeated reflections during fieldwork. I observed as children created on-screen constructions based on their off-screen discussions. Likewise, I saw how on-screen construction generated off-screen discussion. I saw how the group drew on reference points from outside the club, sourced from their own lives and wider culture. I watched as participants interacted both on and off-screen, with their play evolving

seamlessly across these multiple spaces. I witnessed how objects, such as the GoPro camera, generated action in the room and were recruited into the club by the children. I also experienced how words typed on-screen could generate song in the room, and vice versa, demonstrating how play seamlessly flitted between and across different modes. Examples such as these led me to understand the children's knowledge formation as an assemblage of emergent actions and interactions between multiple people, in multiple modes and spaces, together with material objects, cultural artefacts and ideas. In turn, I came to understand that I was using similar approaches to create knowledge about the club, and the wider world.

In order to explain my approach to knowledge formation, I conceptualised my epistemological approach using a rhizomic image of thought, tracing connections between these non-hierarchical, multiple elements. As Akindes (1999) suggests, a rhizome connects 'ideas, things, people, places, without biases and pre-judgements' (p.147). Specifically, in relation to this club, these rhizomic connections worked to take into account participants' complex and multiple roles as they interacted with each other, on and off-screen. As such, the human and non-human participants were jointly responsible for the construction of the experiences that could be said to constitute the club. These relationships also involved me (3.5) as an individual whose participatory role as leader and researcher was also integral to the club, particularly in terms of my relationship to the participants and my role in shaping ongoing events. The motif of the rhizome is appropriate as a way of taking account of these relationships, whilst also including other factors that contributed to the creation of the club.

The following comic strip develops these ideas as continued explanation of the project's epistemology. Here, I begin by addressing what could be considered the material dimension of *Minecraft*, including the on-screen objects and artefacts, before moving on to describe the game's rhizomic relationship with the off-screen objects, ideas and action present during the club.

LEHDONVIRTA (2010) SUGGESTS THAT 'VIRTUAL SPACES HAVE MATERIAL CULTURE' (P. 886)

Famalamlad
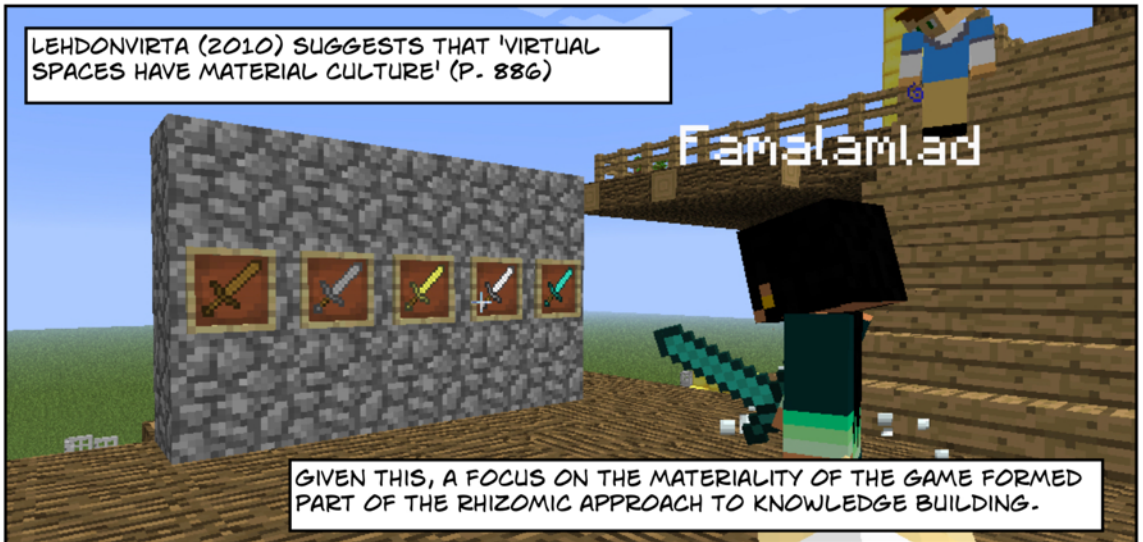
GIVEN THIS, A FOCUS ON THE MATERIALITY OF THE GAME FORMED PART OF THE RHIZOMIC APPROACH TO KNOWLEDGE BUILDING.
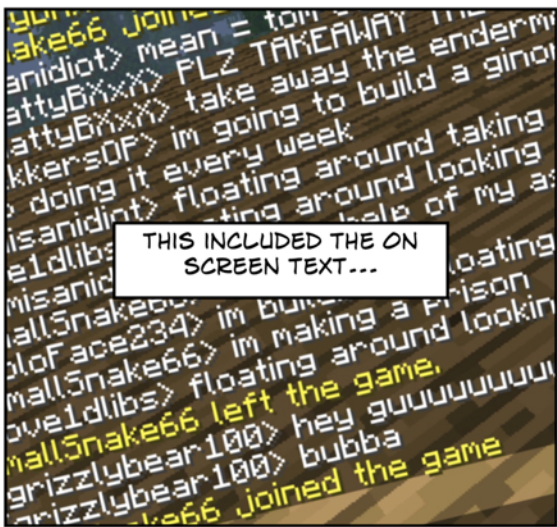
THIS INCLUDED THE ON SCREEN TEXT...

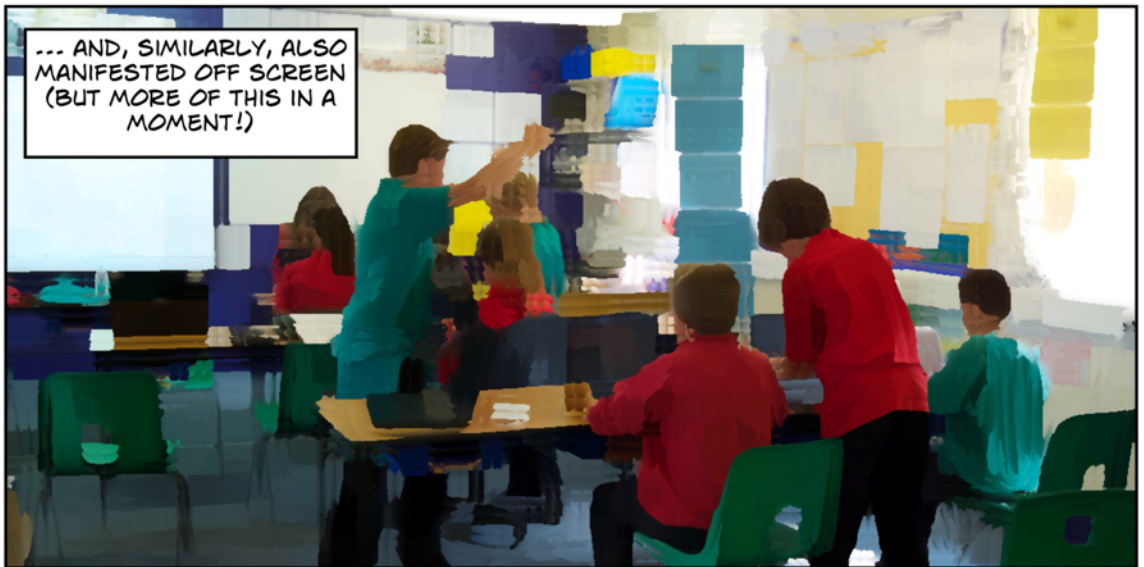... THE NON-PLAYABLE CHARACTERS (NPCS) OR 'MOBILES' (MOBS) PRESENT IN THE GAME...

... THE VIRTUAL BUILDING BLOCKS AND THE CREATION OF MODELS...

...THE VALUE ASSIGNED TO THEM BY PARTICIPANTS...

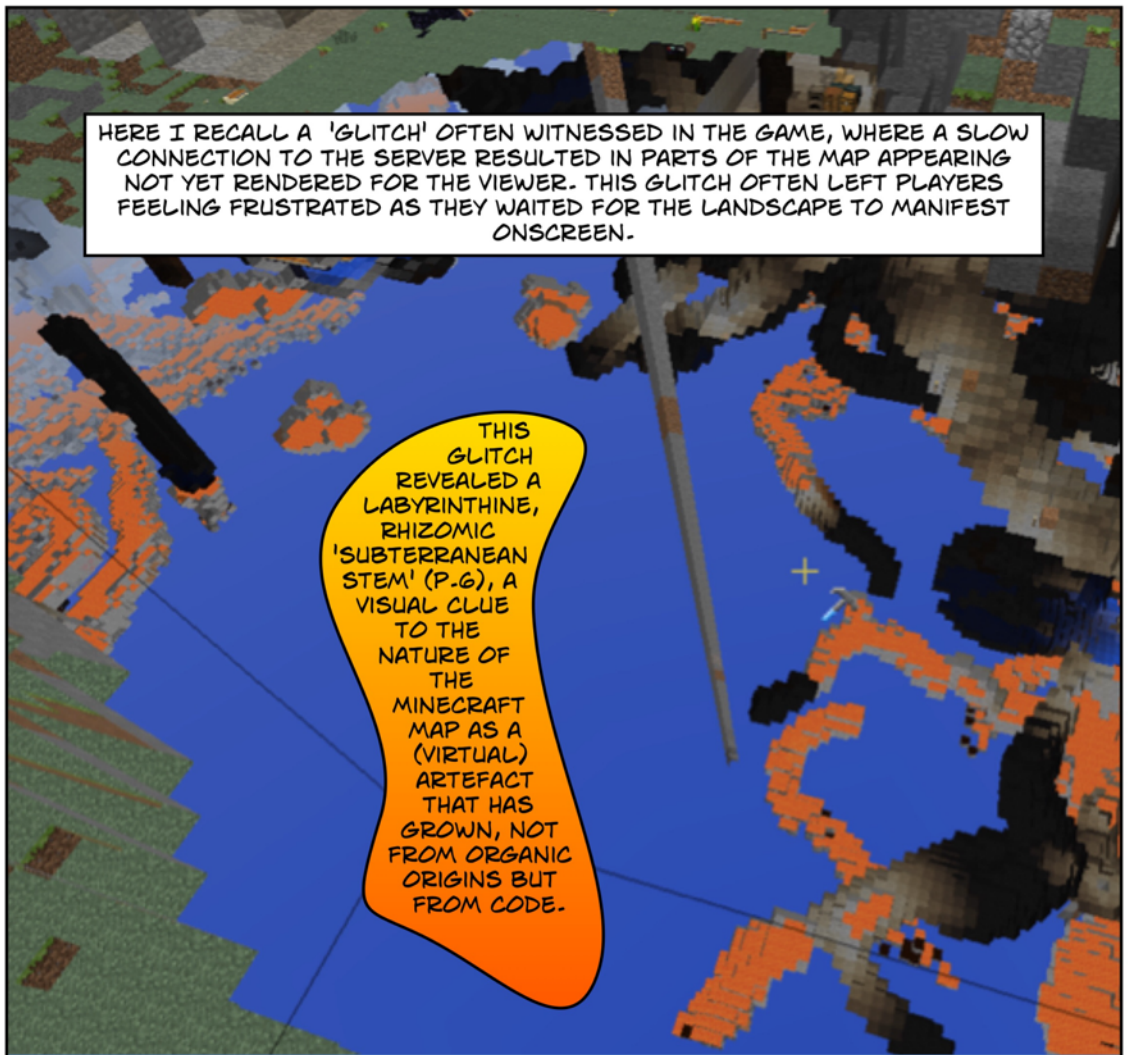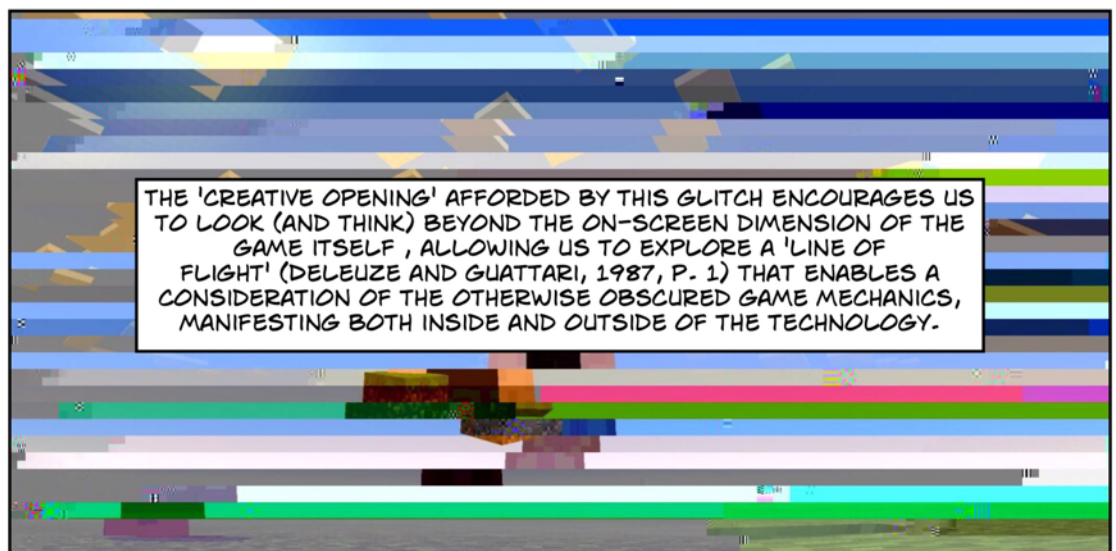Sourlemon123

... AND THE TRADING PRACTICES FORMED AROUND THEM.

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ALTHOUGH THE PLAYERS OFTEN APPEARED TO BE IN CONTROL OF THE GAME THROUGH THEIR ON-SCREEN MOVEMENTS AND ONGOING CONSTRUCTION...

THERE WERE ALSO REMINDERS THAT THE GAME ITSELF ALSO HAD THE CAPACITY TO ACT UPON THEM.

HERE I RECALL A 'GLITCH' OFTEN WITNESSED IN THE GAME, WHERE A SLOW CONNECTION TO THE SERVER RESULTED IN PARTS OF THE MAP APPEARING NOT YET RENDERED FOR THE VIEWER. THIS GLITCH OFTEN LEFT PLAYERS FEELING FRUSTRATED AS THEY WAITED FOR THE LANDSCAPE TO MANIFEST ONSCREEN.

THIS GLITCH REVEALED A LABYRINTHINE, RHIZOMIC 'SUBTERRANEAN STEM' (P.6), A VISUAL CLUE TO THE NATURE OF THE MINECRAFT MAP AS A (VIRTUAL) ARTEFACT THAT HAS GROWN, NOT FROM ORGANIC ORIGINS BUT FROM CODE.

WHILST A MINECRAFT MAP IS MADE OF BLOCKS AND, IN TURN, THESE BLOCKS ARE, VISUALLY, COMPOSED OF SMALLER UNITS CALLED PIXELS, THIS RAW GLITCH STATE REMINDS US THAT THESE PIXELS MANIFEST THROUGH THE EXECUTION OF CODE (RUNNING INSIDE THE COMPUTER OR DEVICE), AND SPECIFICALLY CODE WHICH AROSE AS A RESULT OF HUMAN CREATION (EXTERNAL TO THE TECHNOLOGY).

THIS RECONFIGURES OUR THINKING TO REVEAL THE MINECRAFT MAP AS SOMETHING NOT ACTUALLY COMPOSED OF SIMPLE DIVISIBLE UNITS (BLOCKS OR PIXELS), BUT RATHER AS SOMETHING ARISING AS A RESULT OF MULTIPLE MUCH-LESS TANGIBLE OR REDUCIBLE DECISIONS AND INTERACTIONS, OUTSIDE OF THE GAME.
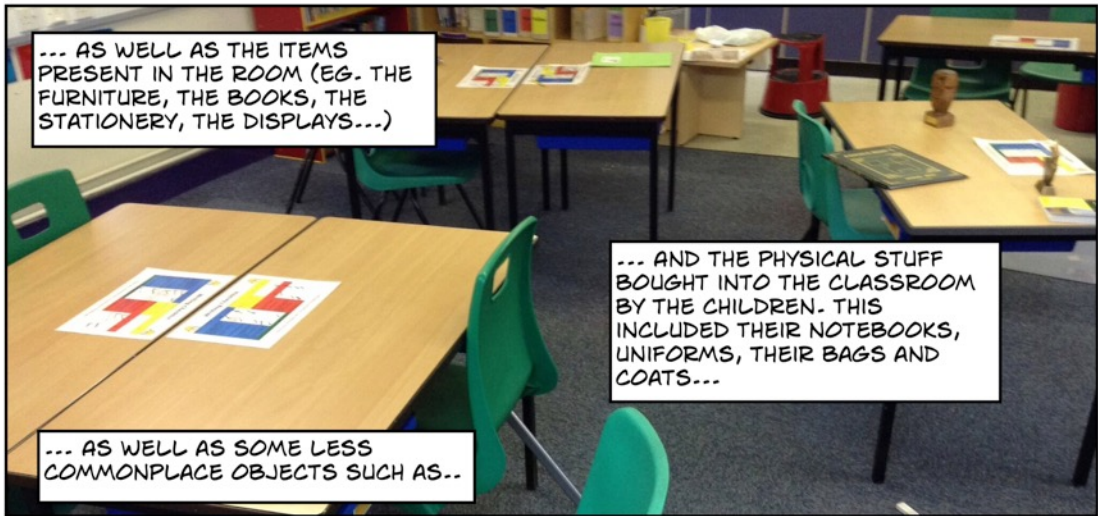
THE OFF-SCREEN MATERIALITY INCLUDED THE EVER PRESENT DEVICES AND TECHNOLOGY...

(EG. LAPTOPS, IPADS, CHARGERS, WIRELESS ROUTER, THE VIDEO CAMERA...)

... AS WELL AS THE ITEMS PRESENT IN THE ROOM (EG. THE FURNITURE, THE BOOKS, THE STATIONERY, THE DISPLAYS...)

... AND THE PHYSICAL STUFF BOUGHT INTO THE CLASSROOM BY THE CHILDREN. THIS INCLUDED THEIR NOTEBOOKS, UNIFORMS, THEIR BAGS AND COATS...

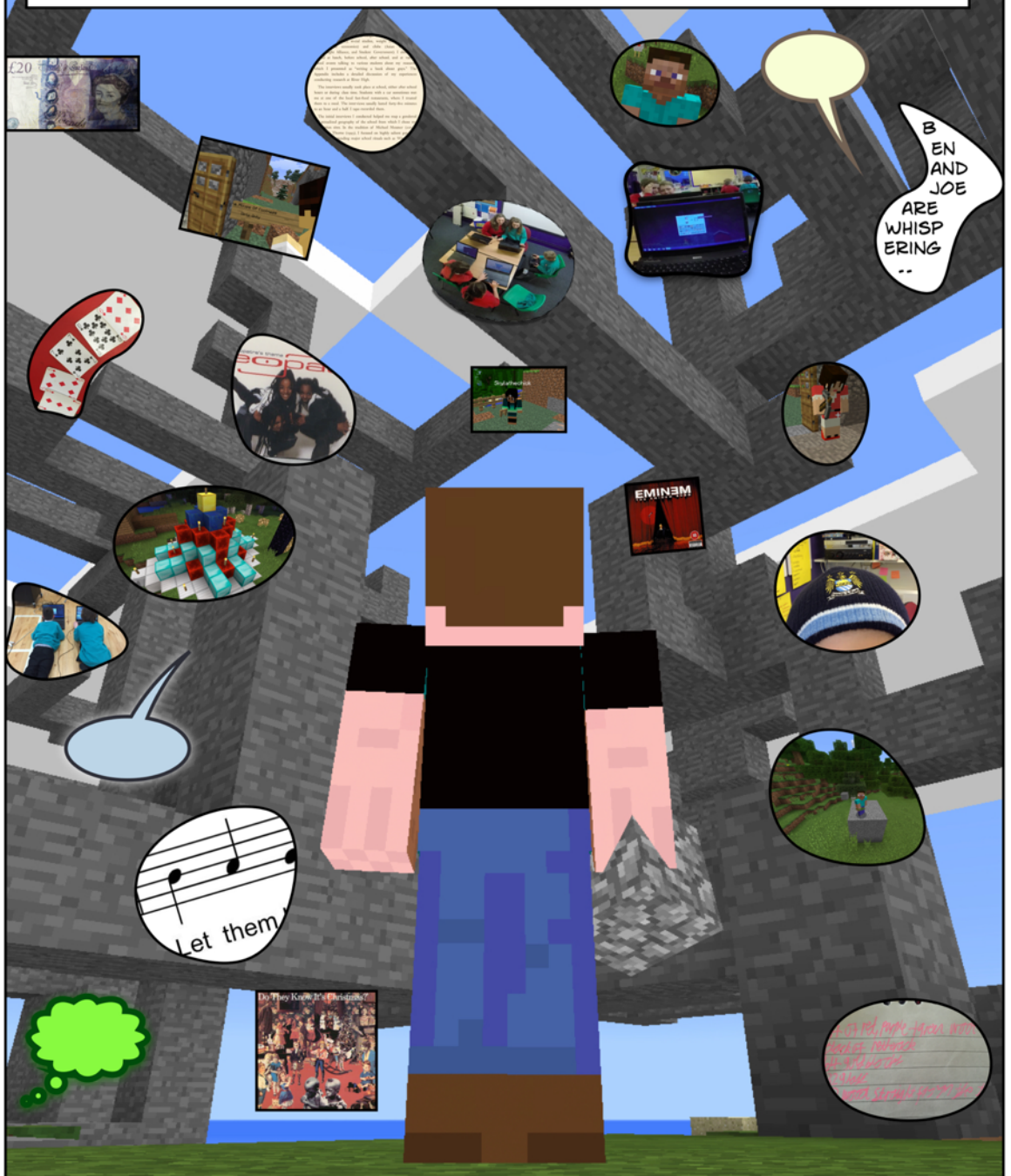... AS WELL AS SOME LESS COMMONPLACE OBJECTS SUCH AS...

... A FAKE £20 NOTE, A PACK OF PLAYING CARDS...

AND A 'MAGIC' HAT.

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In this section I have demonstrated how the characteristics of the rhizome helped to describe my epistemological approach by taking in to account the material and immaterial, the on and off-screen, the physical and conceptual, allowing for connections to be made between the complex, diverse and multimodal aspects that constituted the club's lived experience. Having described how the rhizome shaped this project's epistemology, I will now explain how the rhizome was also used as an image of thought during this project's fieldwork.

4.4.2 Fieldwork

Just as my epistemological approach developed during the fieldwork, my relationship with the fieldwork also changed over time. Working with the rhizome, as an image of thought, I became more open to proceeding in emergent and unplanned directions during the fieldwork. This relates to both aspects of my hybrid role: as club supervisor and also as researcher of the club. In this section I explain how a rhizomic approach to fieldwork was characterised by flexibility and emergence in terms of the club's design and the data generation, whilst emphasising the appropriateness of exploring the concept of playfulness in relation to Deleuze and Guattari's (1987) particular definition of the rhizome.

a. Emergent Design

Reflecting the conception of the rhizome as 'susceptible to constant modification' (Deleuze and Guattari, 1987, p.12), flexibility was employed during the fieldwork to allow the human and non-human participants to influence the club in a number of ways. As outlined earlier (3.8) children predominantly negotiated and drove the direction of play in the club. In his ethnography of music, identity and tourism in Hawaii, Akindes (1999) reflects with regret that he was not more flexible in his selection of research participants, commenting 'it would have been the rhizomatic thing to do' (p.155). As fieldwork began to draw to a close I began to see that 'the rhizomatic thing' was a way of describing the approach I had taken.

b. Emergent Data Generation

Similarly, principles of flexibility and emergence were employed in the process of data generation, particularly involving children. Children were invited to actively participate in the data generation processes during the fieldwork. By actively seeking their ideas and opinions they were framed as 'competent informants about and interpreters of the own lives and the lives of others' (James, 2001, p.250). This model of social research, where people are seen as 'active, creative, insurgent and knowledgeable' (Brewer, 2000, p.22), is also compatible with the New Literacy Studies conceptualisation of literacy as socially constructed and collaborative. In particular, emergence is demonstrated by the way that children were allowed to develop their own relationships with the GoPro video camera, using this on their terms to generate data, rather than operating it in the rather more conventional ways I had originally envisaged (3.7.5). I had naively imagined that my introduction of a video camera to the room would be exercised in a reasonably formal and organised manner. Although I had made provision for the children to use the camera, I had not foreseen a situation where the camera would prompt spontaneous, and frequent, outbreaks of song and dance. Faced with the decision of whether to allow this emergent behaviour to continue or to revert to my original plan, I am (now) happy to say that I chose the former option, although at the time there was admittedly a fairly strong undercurrent of self-doubt as I began to wonder whether by taking this approach I was actually undermining the whole research project!

Griffiths (2009) describes her rhizomatic approach to research, stating that 'just as the direction the next stem from the rhizome takes is unexpected, so my research designed itself and I reacted to it' (p.42). Similarly, using what I later came to articulate as my rhizomic approach to the fieldwork meant that the research could evolve in response to events, meaning that it was not entirely led by predetermined lines of enquiry. This, in turn, reflected the emergent,

explorative and adaptive nature of the club itself whilst acknowledging the impact that some of the tools of the research had on the life of the club.

As another example, I responded to the children's reluctance to attend formal group interviews by cancelling these, replacing them with additional discussion activities (3.7.3). Again, I was guided by the children's wishes rather than running with the scheduled written version of events. These choices reflect the nature of the rhizome as being 'reworked by an individual, group or social formation' (Deleuze and Guattari, 1987, p.12). In addition, the open, participatory nature of the discussion sessions allowed children to take charge of events, in terms of on-screen action in the game and the topic of discussion. For example, I also accommodated emergent behaviours. They were particularly evident on-screen; during one discussion activity, one child spent time dive-bombing their avatar from the top of a hill. In another, a child filled a secret underground room with zombies and Endermen. Rather than insisting that children spend the whole time building models to discuss (as I had, again somewhat naively, planned) I allowed these transgressive and creative opportunities to continue.

c. Playfulness

These examples demonstrate another feature of the rhizome as an approach to fieldwork, currently underexplored by other ethnographies of a rhizomic nature: the principle of playfulness. The club itself was inherently playful and I began to see not only the need to ensure that my approach to fieldwork did not impose any unnecessary formality on the relationships, but also that (as in the above examples) the research approach could actually promote and, in itself, be play. Again, the rhizome proved to be an appropriate image of thought for articulating this. The rhizome, as conceptualised by Deleuze and Guattari (1987), is inherently playful; through their declarations such as 'RHIZOMICS = POP ANALYSIS' (p.2) and the references to a diverse range of historical and cultural reference points (eg. William Burroughs, Kafka, the Pink Panther, Joyce, Nietzche, Chomsky and Patti Smith) the rhizome was therefore compatible with

my emerging desire to describe a playful methodological approach that reflected the playful nature of the club.

The presence of such reference points in Deleuze and Guattari's (1987) text reflected the similarly diverse reference points drawn upon (in multiple modes) by the children during their play in the club (eg. Eminem, J.K. Rowling, McDonalds, Band Aid, the Rubik's Cube, Deirdre Barlow from Coronation Street and YouTube celebrity @stampylongnose), thus emphasising the significance of these cultural references as part of the rhizome. Therefore, this conceptualisation of my approach to fieldwork allowed me to consider such reference points as existing in rhizomic relationship with their manifestations in the club, encouraging me to follow up links or references included by the children to investigate their potential significance.

Also with relation to the club's playful approach, I was an active participant during the club, maintaining a presence both on and off-screen. By playing the game alongside the children I established a playful relationship with them, reflecting the generally playful mood of the club whilst also helping, partially, to address issues of power, positioning myself as a co-participant rather than a leader. (The fact that I wasn't very good at the game also helped here.) By participating in the club myself, a playful approach helped me to maintain an on and off-screen presence similar to that of the children. This meant I was able to explore the virtual world constructed by the children, whilst also being present in the room to observe the children's interactions. As a playful co-participant I had the opportunity to explore directly the complex relationships between on and off-screen place and space, alongside the children.

Inevitably, the nature of my participation differed from the rest of the class. As an adult, I was not part of their wider social group. Although I did discuss *Minecraft* and some elements of my life with them (they often wanted to know how my baby daughter was and enjoyed hearing about what she had been doing) I did not

confide in the children in the same way they did with each other; I did not discuss my anxieties about life or mobilise my own cultural reference points in the same way as them: to clarify, I did not sing or dance. I did not wear a uniform like the children; in fact, I dressed informally for the club sessions to differentiate from my teacher role where I always wore trousers, shirt and tie. The children referred to me as Mr Bailey rather than Chris, another remnant from my previous role and also in line with the school policy of how children should refer to adults. I was generally reactive in social conversation, rather than pro-active, although I did often ask questions about what they were doing in the game. Underlying this was the fact that I was ultimately in charge of them during the club, a role that none of them had. The way in which I played the game was also reactive, punctuated by long stretches of time spent observing or assisting with technical problems.

There were elements distinct to this project that allowed me to develop this approach. Primarily, my familiarity with the school and therefore the implicit trust placed upon me by the headteacher and parents to take full responsibility for the club meant that I was in a distinct situation, as the supervisor of the club, where I was allowed to make space for playful emergence. Had I been a researcher observing a teacher's classroom practice (or even another adult's club) I (and the children) would have been required to adhere to their rules and structure. In such a scenario, I may not have been in a position to equip children with a camera, as this could have distracted from their tasks; I almost certainly would not have been able to allow them to sing and dance with it. This said, there was not complete freedom during my study; the club was still bound by space and time; children were not permitted to leave the room without asking (primarily for their own safety) and the club had to finish when their parents arrived to collect them. I would ask the children to reduce the noise level when I got worried about what other adults in school might be thinking (although my threshold shifted as the fieldwork progressed, from a relatively accepting starting point), and I certainly would have had something to say if children had started

balancing on tables or climbing out of the windows! Nevertheless, I was still afforded more freedom that many other ethnographers of school based practice.

As such, I am not suggesting that a rhizomic approach to fieldwork is an appropriate way of exploring all situations, school based or otherwise, or that it is entirely new; elements of this this rhizomic approach are similar to other models of ethnography. For instance, the fieldwork involves observation, pupil discussion and is located in a classroom. However, I refer to it here as rhizomic to foreground the extent to which it allowed emergence in the field, with human and non-human participants controlling both the direction of the club and the process of the research. Certainly, school ethnographies do include pupil participation in the research process. Nespor's (2010) ethnography, for instance, included group interview sessions. These afforded some participant autonomy as they became 'free exploitable spaces where kids could physically do things they couldn't do elsewhere: move around, sit in the office chairs, draw and write on chalkboards' (Nespor, 2010, p.227). This element of Nespor's study could be said to have some rhizomic quality as the students were able to negotiate new relationships with space. However, the bulk of his participant observation sessions were classroom and lesson based and therefore the tone of these sessions was dictated by the presence of the teacher and the more formal context. This suggests that, in this case, a rhizomic approach to fieldwork would perhaps not have been plausible, or desirable. I do believe, however, there are situations where it can provide insights, such as those that are already characterised by participant autonomy or a playful approach, or where there are opportunities for flexibility and emergence both in the subject and manner of the research.

To summarise, the rhizomic approach to fieldwork was characterised by three main principles. Firstly, flexibility, particularly by enabling participants to drive the nature of the club's events, even when these ran contrary to the project's initial design. Secondly, emergence in the field, particularly with relationship to the nature of participants' engagement with the research processes, and my own

response to these. Thirdly, a commitment to pursuing an approach, to the project in general and to the research in particular, that reflected the playfulness of the rhizome, as conceptualised by Deleuze and Guattari (1987).

Having now expanded on this project's rhizomic approach to fieldwork, I will discuss the third element of my approach to rhizomic ethnography: the process of dealing with data.

4.4.3 Dealing with data

This section deals with processes relating to data generated during the project. These should not be seen as distinct stages; in line with the project's driving concept of emergence, these processes were not strictly bounded or distinct. Ringrose and Reynold (2014) suggest that 'meaning making emerges over time: before "research" begins, during live research encounters, and afterward' (p.2). In this way, the processes relating to this project's data were also understood as being ongoing and fluid. Nevertheless, the different strands relating to my use of data are presented to provide an insight into this project's take on data analysis.

Rhizo-analysis (a broad term often used to refer to approaches to data analysis influenced by the ideas of Deleuze and Guattari) is already an emergent approach to data analysis that has been used by a number of researchers. For Leander and Rowe (2006), rhizo-analysis involves less of a preoccupation with reading and identifying meaning and more of a focus on affect, seeing a site as a 'constantly moving configuration' (p.435) generated by the relationships between things. Similarly, Medina and Perry (2011) pursue a kind of rhizo-analysis to pursue an analysis of dramatic inquiry that focusses on affect. Meanwhile, Ringrose and Reynold's (2014) take on rhizo-analysis involves a move away from established approaches involving coding to pursue a type of analysis that involves a consideration of 'affective intensities' (p.7) that exist within a particular 'research assemblage' (p.7). They emphasise how this type of analysis is always ongoing, never complete or static. Honan's (2007) 'rhizo-textual analysis' (p.532) involves,

not surprisingly, the rhizomic analysis of texts. Here, this approach enables a consideration of the text as non-chronological and encourages connections to be made between its different elements, whilst also following connective pathways between her own told stories, the words of research participants and other related texts.

As these examples demonstrate, rhizo-analysis often involves making connections and considering affective relationships between people, texts, objects and ideas. Rhizo-analysis is often positioned as an approach that avoids narrowing the focus of the research; Masny (2013) suggests it 'opens potentialities to thinking beyond what is already known or assumed' (p.345). Leander and Rowe (2006) suggest that it is an approach that can be used to 'ask new kinds of questions' (p.435) and 'spark thinking in new directions' (p.434). Sellars and Honan (2007) meanwhile suggests that it allows '(im)plausible readings of connections between and across and within various data' (p.146).

As well as helping to explain an analytical process, ideas related to the rhizome have also been used to describe the data itself. Ringrose and Reynold (2014) conceptualised their corpus of data as 'a research assemblage where we could follow particular analytic trails in the field' (p.7). In a similar way, I used the rhizome as the conceptual shape for the project's data. Given the project's epistemological approach, the rhizome provided an appropriately flexible and open conceptual shape by which to organize and examine this data. The rhizome's multiple entry points suggest multiple ways in to the rhizomic assemblage formed by this project's data. The connected and heterogenetic nature of the rhizome enabled the connection of multiple pieces of data, from different points and locations during the fieldwork, thus enabling me to pursue a number of different pathways through the data. Having generated such a large corpus of data, however, it was not possible to use all of the data in this final account. I therefore needed a rationale for focusing on particular elements of the data.

a. Selecting data

Here I consider the process of data selection that constituted my first analytical moves of the project. The research methods generated a large corpus of data, with numerous textual, image and video files produced during each session (see section 3.7.1). A rhizomic assemblage of data, by definition, has multiple entry points; there is no fixed or correct way of organizing the data, or of seeing it. With this in mind, I turned to the video data and selected a number of episodes from the club as potential ways in to the data. I focused here on the video data (both in the room and in the game) as this provided a visual account of the club alongside audio, showing the development of an episode over time in the way that a still photograph or artefact did not. For Masny (2013) these episodes are 'vignettes... part of an assemblage, no more no less important than the other parts of the assemblage' (p.343). They were drawn from across the data in four ways.

Firstly, I selected a number of moments that sparked my interest, either during fieldwork or whilst reviewing data. I saw these as significant moments, with some relationship with what MacLure (2013) calls 'a potentiality' that '...seems to reach out from the inert corpus (corpse) of the data, to grasp us... and have a capacity to animate further thought' (p.228). Many of these instances could be described using Jenkins' (2004) term 'micronarrative' (p.125), conceptualised as 'localised incidents' or 'short narrative units' based on perceptions or sensations and narrative hooks' (p.125). Whilst originally used to exemplify elements of in-game videogame play, this term also works when applied in the wider, embodied context of the club. Just as Jenkins suggests that in-game micronarratives 'shape the player's emotional experience' (p.125), these micronarratives were both drawn from, and representations of, the experience of being present in the club. Often these were moments of convergence, where an event seemed to manifest and emerge from the multitude of interactions between bodies, objects and ideas that made up the complex and busy club environment, often through the involvement

of multiple individuals in multiple locations. Rather than directly addressing a particular research question, these instances stood out in as much as they seemed to offer something which warranted further examination. For example, when the children spontaneously staged a funeral for a virtual horse during Week 4, I decided to return to this as an episode to look more closely at how this came about and how the children were involved in this event that played out on-screen and in the room (see section 6.6).

Of course, if I only relied on examining data that jumped out at me there would be a risk of focusing only on things that I was interested in. Secondly, therefore, as a counterpoint to my selection of the events, I asked the participants themselves to identity events or moments from the club that they felt I should examine more closely. In some cases, these were instances that I had already identified, suggesting that I had, as a club participant, been drawn to events that were also important to many of the children. Sometimes they suggested a specific incident, such as their reactions to destruction of the waterslides in the game (see section 5.5), or another player's meticulous creation of a collaborative gamespace (see section 5.4). Sometimes their suggestions involved a broader theme, such as looking at their use of text in the game, in a particular context.

Whilst these two methods of selection took in multiple perspectives, I felt that there was still a possibility that being led only by what stood out meant there was a chance of missing some more nuanced, less pronounced or more routine elements of the data that, whilst being less visible, nevertheless formed an important part of the lived experience. Thirdly, therefore, I examined some moments using the video data that had not stood out for me during the fieldwork. I did this by choosing short clips of video data that did not appear to have fieldnotes related directly to them and were therefore examples of episodes that had either evaded my gaze or had simply not stood out at the time, due to their mundane or regular nature. These slices of data meant that I was also able represent some of the quieter, focussed or individualised moments that might

otherwise have been neglected if I had only chosen moments that stood out. Finally, when I found that the above three approaches had meant that data from some weeks of the club had not featured, I returned to the data from those weeks and either chose a random piece of video or went in search of something of interest based on a re-reading of the corresponding fieldwork and blog posts.

In all of these cases, the boundaries of these episodes were set by me, based on my own subjective judgement; I decided when to begin and end the slicing of the data based on different criteria. In the case of the micro-narratives, I selected start and end points that seemed to suggest themselves as natural beginnings and endings to the stories that played out. In cases where I chose unrepresented moments, I often elected to look at a short slice of video of a fixed duration, usually around 3-5 minutes. I made these decisions with careful consideration in each case regarding how these choices altered the presentation of the event in question. These moments used video data as a starting point. However, I felt that I needed a way of representing these moments on paper that accounted for the data's visual nature, but also took account of data from the other data sources. Exploring the varied data involved looking at representations of action in and across multiple spaces. This included what happened on and off-screen, from multiple perspectives, in multiple modes and at different scales. Whilst attempting to transcribe this rich, multimodal data I became frustrated that traditional text based methods did not feel satisfactory – a theme I explore below.

b. Representing data

Trying to represent and take account of multiple modes, spaces and sources on a page, in a written account, felt like a reduction of the data, rather than an expansion or enlivening of it. Whilst exploring alternatives I was inspired by Plowman and Stephen's (2008) storyboarding approach to video transcription. Over time I developed my own variation, eventually taking a similar approach inspired by the comic book form, as seen in the previous chapter (Figure 3, Figure 5 and Figure 15). Whilst storyboarding frames tend to remain a fixed size, comics

are more flexible in structure, therefore offering almost endless options for visual representation, providing a template for sequential narrative, or a more conceptual, non-linear form. Comic strips allow for the combination of the visual and the verbal, rather than using pictures simply as a substitute for the text. As Tversky (in Bitz, 2009) identifies, comics 'make use of a multi-modal language' (p.x). I suggest that it is this multimodal representation that is valuable for the use of comics as transcripts. Comics, as transcripts, also draw upon and enable representation of multiple data sources in one place, thus taking account of the virtual and embodied nature of the clubs spaces. Combining words and images in an account can result in a 'richer, deeper comprehension' of human experience (Kellock, 2011, p.45). In particular, these comic accounts enable a detailed focus on a single moment, taking account of the spatial and the temporal whilst also showing the bigger picture, at a glance. In this way, they acknowledge that the bigger picture is actually a complex assemblage of multiplicities (Deleuze and Guattari, 1987).

The resources required to assemble the comic strip transcripts were all taken from the data, compiled using a program called 'Comic Life'. (see Appendix 2 for an illustrative example of how these comic strips accounts were assembled). The process of construction, transcription of the audio, selection of the still shots from videos and the choice of photographs, necessitated a repeated and close reading of the original data. This meant that an initial process of data analysis was embedded in the act of creation. Using comic strips also felt appropriate because it reflected the playful nature of the club, coexisting appropriately with the project's playful approach to fieldwork (4.4.2 c.). Of course, Comic Life could be considered to be a participant in my research, working with me to produce an account of the lived experience, in a particular style. These accounts could also be seen as having similar origins to the user generated content using *Minecraft* as a resource or starting point for other creative ventures, for example the YouTube videos (Figure 5) or the instructional paratexts created around the game (

Figure 4). The popularity of this form of transmedia artefact with club members may help to explain why these comic strips were well received when shared with participants, whose positive reactions suggested that they preferred these expressions of their experience to the alternative written accounts that I shared with them. Comic strips also, therefore, enabled feedback to participants in a way that made sense to them, ensuring that the research was accessible to those whose lived experience I was hoping to represent. Furthermore, in using this method, the spaces between the panels, the gaps created by the gutters, the overlaps and the overall fluidity, serve as a reminder that this is not an account that claims to be the whole, compete picture, but one person's attempt at representing a complex reality.

These comic strips also enabled participant involvement. As well as gaining feedback on the comics during club sessions, children were also involved in their creation through their generation of the video and screencasts that resourced them. As I explain in the previous section (4.4.3 a.) children also helped to decide what should be transcribed. Children were not involved directly in the process of assembling of the comic strips, however. I did consider this as an option; in fact, the reason I was aware of the Comic Life software was because I had used it with children when teaching. Although adapting my approach further to involve the children may have been 'the rhizomic thing to do' (Akindes, 1999, p.155), I decided that I was already taking up enough of their time with the club and discussion sessions. I felt that adding additional sessions to create comic strips would be asking too much. Had they suggested creating comic strips as part of the club I would have seized the opportunity. However, I did not want to turn Minecraft Club into Comic Club, just because it suited my purposes. Had I envisaged from the beginning that this project would involve comics to such an extent then the children's participation would no doubt have been built into the initial blueprint (albeit to perhaps make way for some other unforeseen emergent possibility after a few weeks).

The titles of comic strip accounts can be seen in Appendix 1. A number of these comics are presented in this thesis. In a number of places these have been abridged with consideration of brevity for the reader. In many cases these comics spanned multiple pages, affording me an in depth examination of the episodes represented.

c. Analysing data

Drawing on the image of the rhizome helps to describe the emergent nature of my process of data analysis. At the beginning of this process I utilised the comic strip episodes as my 'way in' to the rhizomic assemblage formed by this project's data. As such, they became starting points for considering the other data that I had not transcribed in this way. Each comic strip transcript could be understood as an assemblage of multiplicities, with the collected comic strips acting as part of a larger rhizomic map formed by the large corpus of data, consisting of the other videos, photos, fieldnotes and artefacts.

As described above, the process of transcribing audio data and selecting the accompanying still images necessitated a repetitive and detailed process of viewing and re-viewing of the data, requiring me to reconsider each episode in detail. Through a process of repeated familiarisation, I read and re-read the comic strips multiple times, each time seeking to make connections between the other episodes and other pieces of data. Throughout this process I was looking to identify common stands or ideas that were suggested by the data. This process occurred at different scales; I focussed closely on individual panels and also considered the episodes as a whole, looking within individual episodes and across to others. I undertook these steps manually, annotating and making notes on paper copies of the comic strips and other pieces of data. In keeping with the projects epistemological perspective, it proved to be messy and emergent. As such, this process was also informed by my knowledge of the wider corpus of data and the fact that I had been present during the club.

As I continued to revisit the data, I began to generate themes by making connections within the data. This process was directly informed by my experience of the club, rather than being a something that could necessarily be replicated by a different individual given the same data. As I made these connections and followed pathways through the data I also made connections with my wider reading. Often this involved drawing on work from Deleuze and Guattari (1987). At other times, my reading was driven by the specific concepts being considered. Describing this process as a rhizome helps to emphasise the expansive relationship that was formed between the data and broader theoretical pathways. Data often led to the exploration of theory, or an idea presented as part of the theory helped me return to different aspects of the data. As part of this process I sometimes followed unexpected lines of enquiry in my reading, on the assumption that this may (or may not) lead to something that provided new insights for this project. This process was repeated multiple times, along multiple pathways, in conjunction with further thinking and reading of theories that might help explain the ideas that emerged. For example, a number of pieces of data seemed to relate to children drawing on aspects of their lives outside of the club. This led me to reading literature that explored concepts such as everyday life, leisure and performance. The rhizomic approach led me to consider these examples in conjunction with a diverse range of theory. Regular movement between theory and data generated fluid, ongoing and emergent processes of meaning making around the project. This enabled me to 'bring to life the experience of performances as embodied, rapidly moving, affectively charged, evolving acts that often escape prediction and structure' (Leander and Rowe, 2006, p.428), particularly relevant to this complex site of virtual play.

A rhizomic approach to data analysis also provided ways to consider issues of power that ran through the data. Deleuze and Guattari (1987) suggest that a rhizome 'ceaselessly establishes connections between semiotic chains, organisations of power, and circumstances relative to the arts, sciences, and social struggles' (p.7). For example, rather than thinking of the autonomous

model of literacy (2.2.2) as a layer or structure, as it might be in more arborescent models of thinking, adopting a rhizomic approach led me to consider how these ideas manifest and intersect in the form of objects (eg. the work on the walls, the 'school priority' posters, the writing checklists on the tables) or through the interactions between people (the participants, the school staff, the researcher present in the room). So, using the rhizome as an image of thought not only bought issues of power directly into the assemblage under examination but also allowed for the unravelling of the points where these 'organisations of power' (p. 7) interact. The rhizome provided a way of visualising non-hierarchical connections between different strands of the data, enabling meanings to emerge through an examination of relationships between people, objects and ideas.

When considering power relations, Deleuze and Guattari's (1987) concept of 'lines of flight' (p.1) was also useful. As described earlier (see section 4.2) lines of flight emerge in instances where power comes into play, due to 'the struggle produced by a power relation' (Avalos and Winslade, 2010, p.72). In the club, lines of flight could be said to have been generated at points where issues of conflict, disagreement or challenge were evident. Ringrose and Reynold (2014) refer to such instances as 'hot spots' (p.4) in the data. Recognising the lines of flight that emerged from such 'hot spots' in the data provided a way of identifying the impact such instances. My analysis of such hotspots also generated new lines of flight, as I pursued new directions of enquiry in order understanding such instances.

Here I have explained how a rhizomic approach to analysis provided ways of looking at the data that involved making connections and exploring relationships, resulting in lines of enquiry that may otherwise not have emerged. In the next section I describe the process by which I sought to select the data that forms the basis of this thesis.

d. Writing plateaus

It is clearly not possible, or desirable, to provide a chronicle of the lived experience of the group that conveys every perspective on every moment of the club. This reflects Deleuze and Guattari's (1987) suggestion that using the rhizome involves the creation of maps rather than tracings (p.1). For Deleuze and Guattari (1987), maps are aligned with (and, indeed, part of) the rhizome and therefore provide accounts that are flexible, fluid and open to possibilities. Tracings, meanwhile, are associated with more arborescent, hierarchical models of thinking and therefore provide fixed, bounded and, arguably, limited accounts of the world. With this in mind, the aim of data analysis here is to construct an account, rather than seeking a precise reproduction of events. During and following the process of data analysis outlined above I began to write about different elements of the club's data from different perspectives. I called these 'plateaus', again drawing on the work of Deleuze and Guattari (1987). In the following illustrated comic strip I explain how I applied this concept, beginning with Deleuze and Guattari's (1987) own definition of the term.

'WRITING PLATEAUS'

'WE CALL A 'PLATEAU' ANY MULTIPLICITY CONNECTED TO OTHER MULTIPLICITIES BY SUPERFICIAL UNDERGROUND STEMS IN SUCH A WAY AS TO FORM OR EXTEND A RHIZOME.'

(DELEUZE AND GUATTARI, 1987, P. 22)

IT MAY HELP TO RETURN TO THE *ORGANIC* IMAGE OF THE RHIZOME....

... AS A PLANT...

... WITH AN INTERCONNECTED NETWORK OF ROOTS AND SHOOTS.

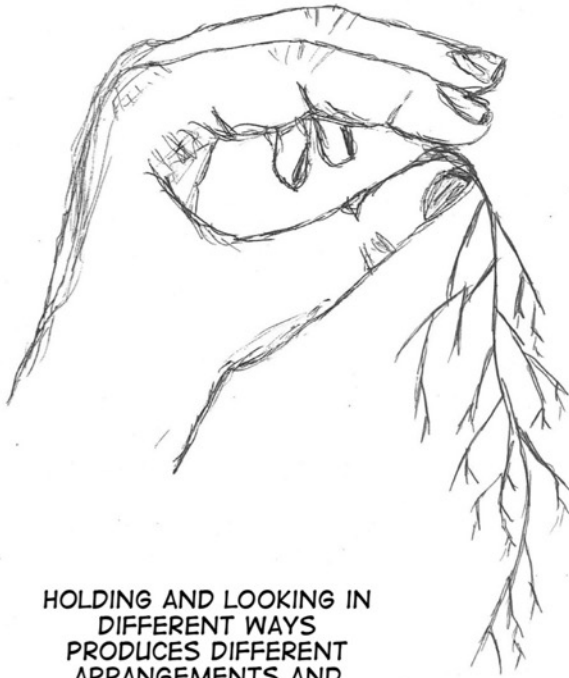IMAGINE TAKING A SHOVEL TO DIG BENEATH THE SOIL...
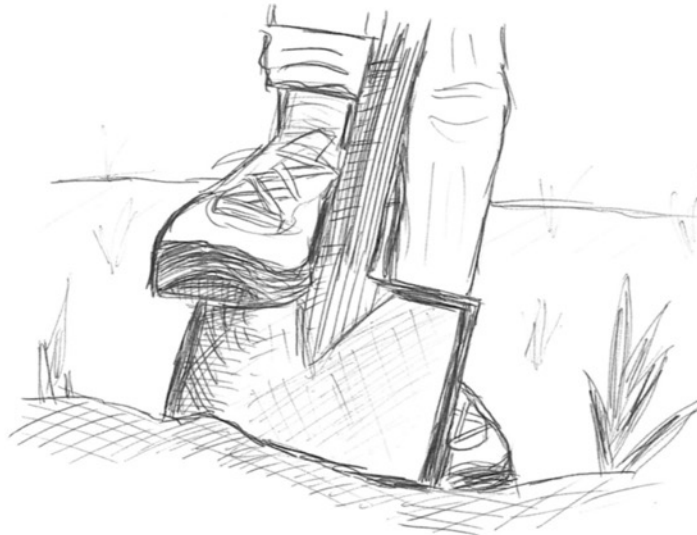
... REACHING DOWN INTO THE EARTH AND PULLING UP A SMALL HANDFUL OF ORGANIC MATTER.

THEN OPENING YOUR HAND TO REVEAL...
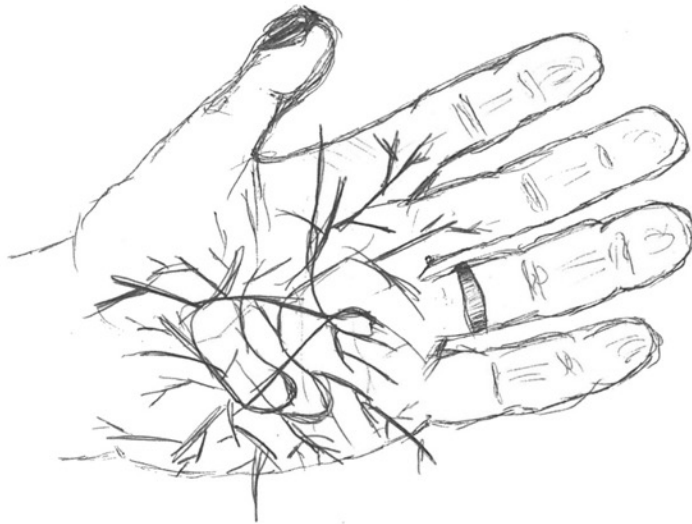
. A TANGLED, INCOMPREHENSIBLE NETWORK OF ROOTS RESTING IN YOUR PALM.

BUT HOLD THEM UP BETWEEN
YOUR FINGER AND THUMB AND
THEY TAKE A DIFFERENT FORM.

THE ACT OF HOLDING GIVES IT
A KIND OF ORDER.

HOLDING AND LOOKING IN
DIFFERENT WAYS
PRODUCES DIFFERENT
ARRANGEMENTS AND
ORIENTATIONS – EACH A
DIFFERENT WAY OF SEEING
THE SAME THING.

NONE OF THESE WAYS IS MORE
'CORRECT' THAN THE OTHERS, AS
EACH IS JUST AN ORDER
IMPOSED BY THE WAY IT IS
BEING HELD AND SEEN.
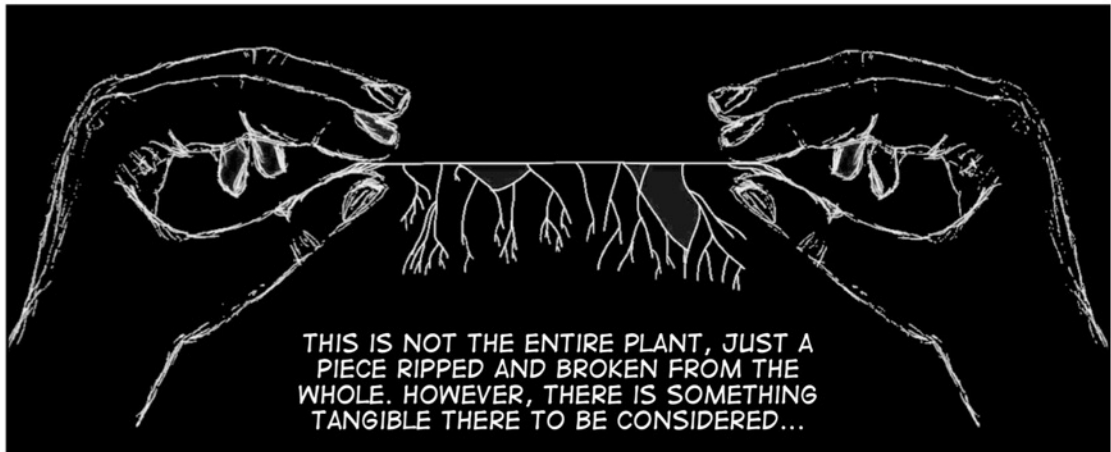
THIS IS NOT THE ENTIRE PLANT, JUST A
PIECE RIPPED AND BROKEN FROM THE
WHOLE. HOWEVER, THERE IS SOMETHING
TANGIBLE THERE TO BE CONSIDERED...

NOW MAKING THE CONCEPTUAL JUMP BACK TO THE RHIZOME AS AN IMAGE OF THOUGHT...
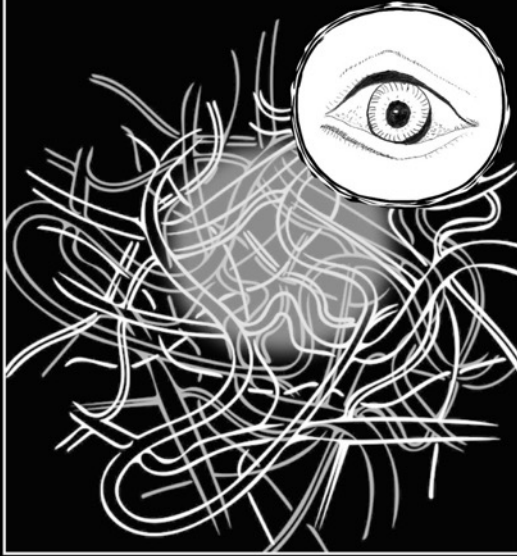
... WHERE, AS BEFORE, WHAT WE SEE DEPENDS ON WHERE AND *HOW* WE LOOK.

AGAIN, WE CAN IMAGINE REACHING IN AND REMOVING PART OF THE RHIZOME...

... PULLING OUT A LINE THAT BRINGS WITH IT A FLOW OF CONNECTED DATA, IDEAS, PERSPECTIVES, CONCEPTS...

ACCORDING TO DELEUZE AND GUATTARI (1987) 'A RHIZOME IS MADE OF PLATEAUS' (P.21).

THEREFORE WE COULD CONSIDER THESE PIECES OF THE RHIZOME AS PLATEAUS.

EXACTLY *HOW* WE CONSIDER THESE DEPENDS ON HOW WE 'HOLD' AND POSITION THEM.
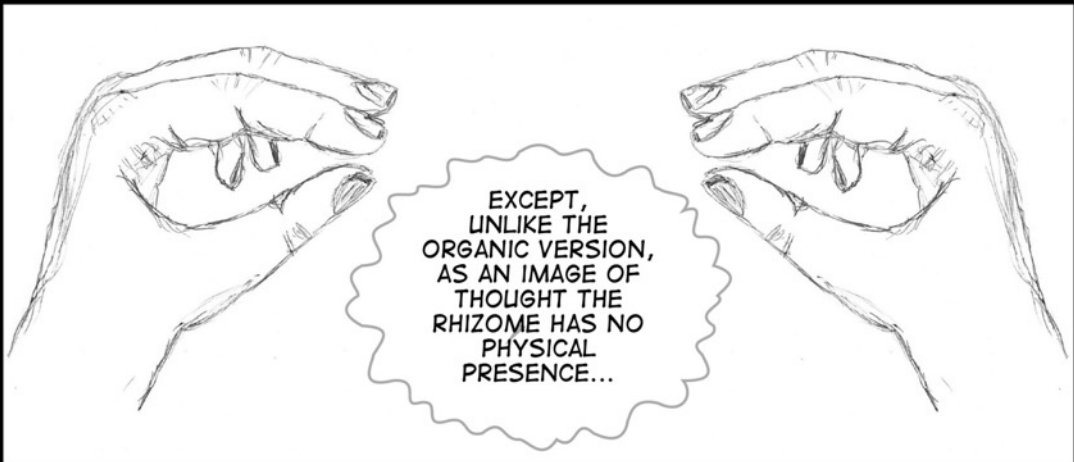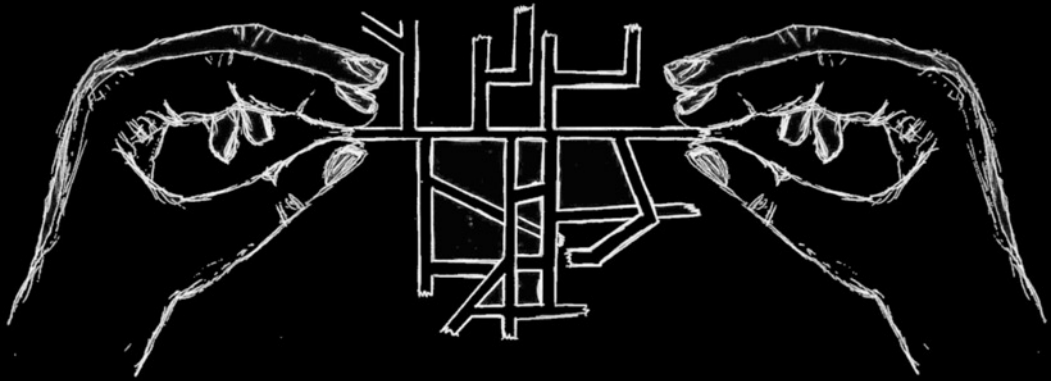
EXCEPT, UNLIKE THE ORGANIC VERSION, AS AN IMAGE OF THOUGHT THE RHIZOME HAS NO PHYSICAL PRESENCE...
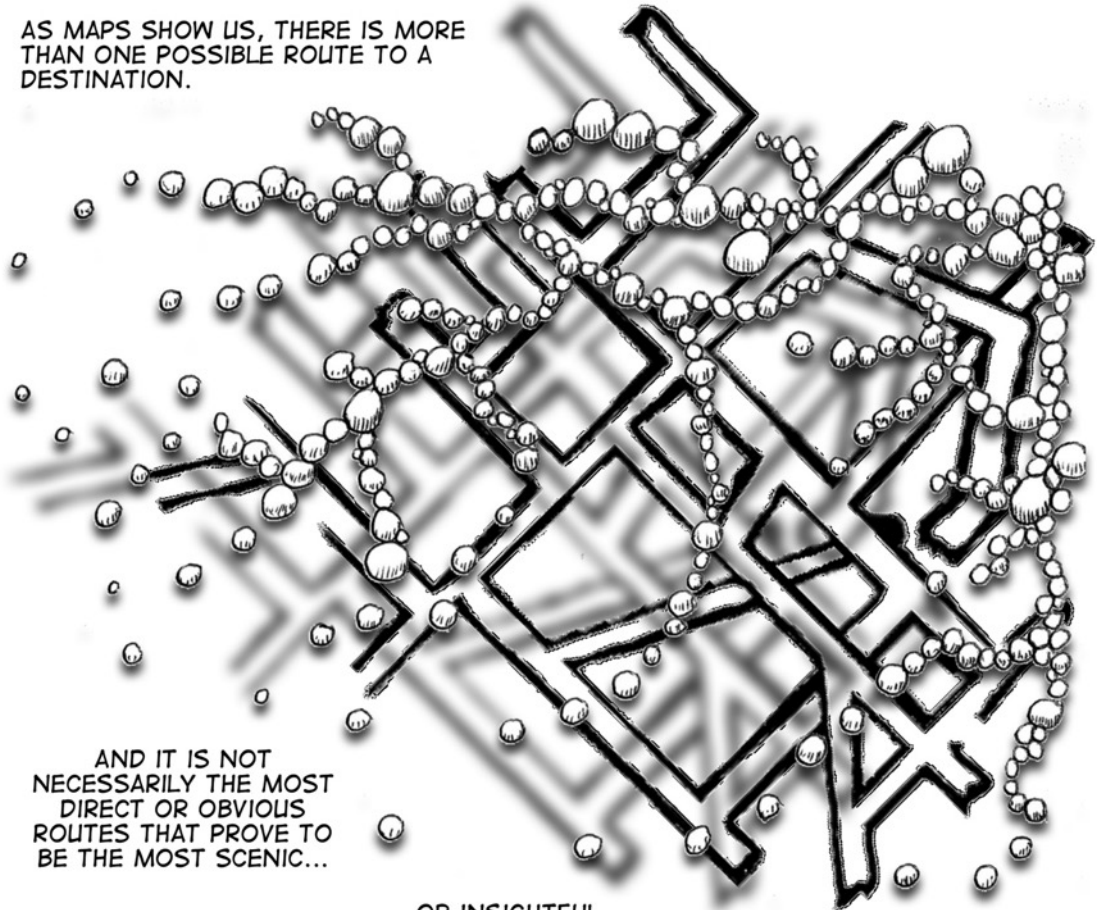
AND THE CONNECTING CONCEPTS ARE A CONSTRUCT OF THOUGHT RATHER THAN ORGANIC GROWTH...
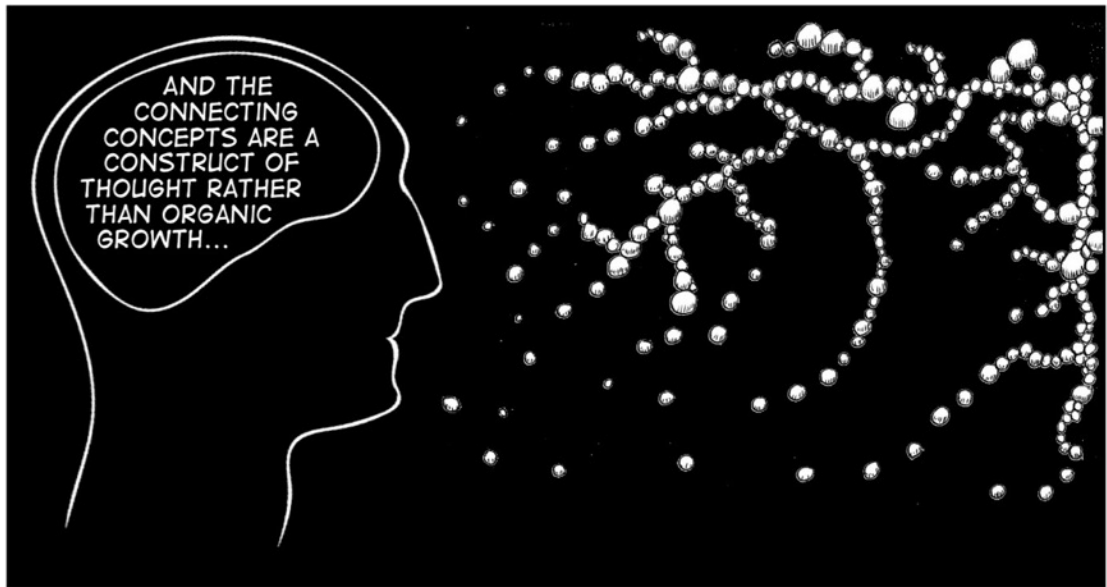
MEANING THAT WE
NEED TO FIND WAYS OF DESCRIBING
WHAT WE HAVE 'SEEN' AND THOUGHT...
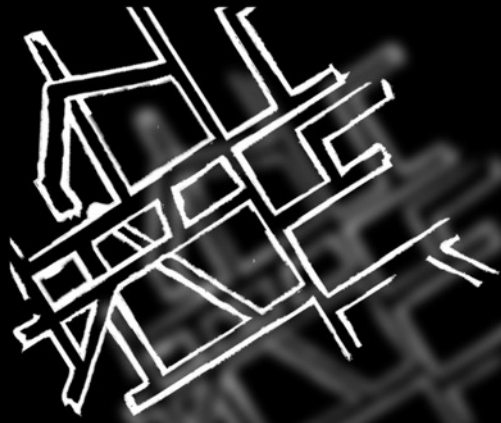
WHATEVER FORM THAT THINKING PROCESS HAS TAKEN...
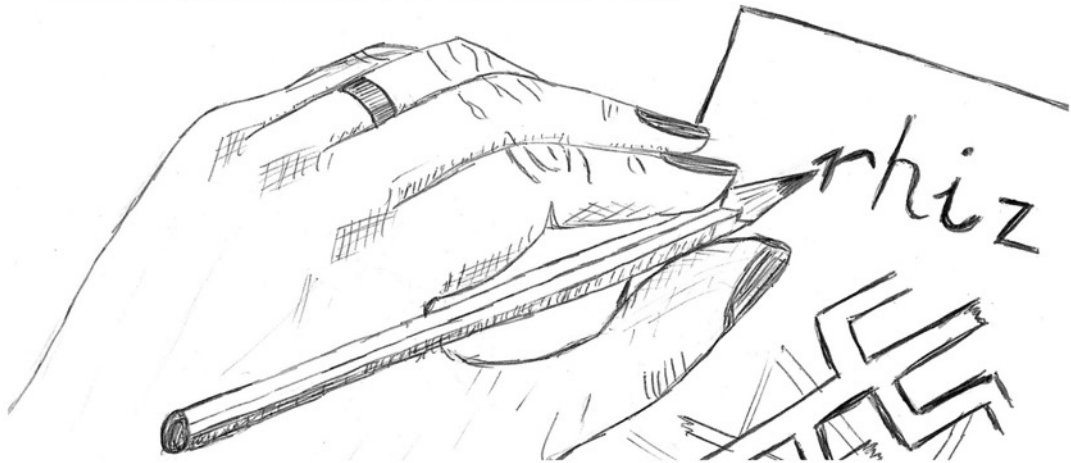
MAKING MAPS...

... NOT TRACINGS.
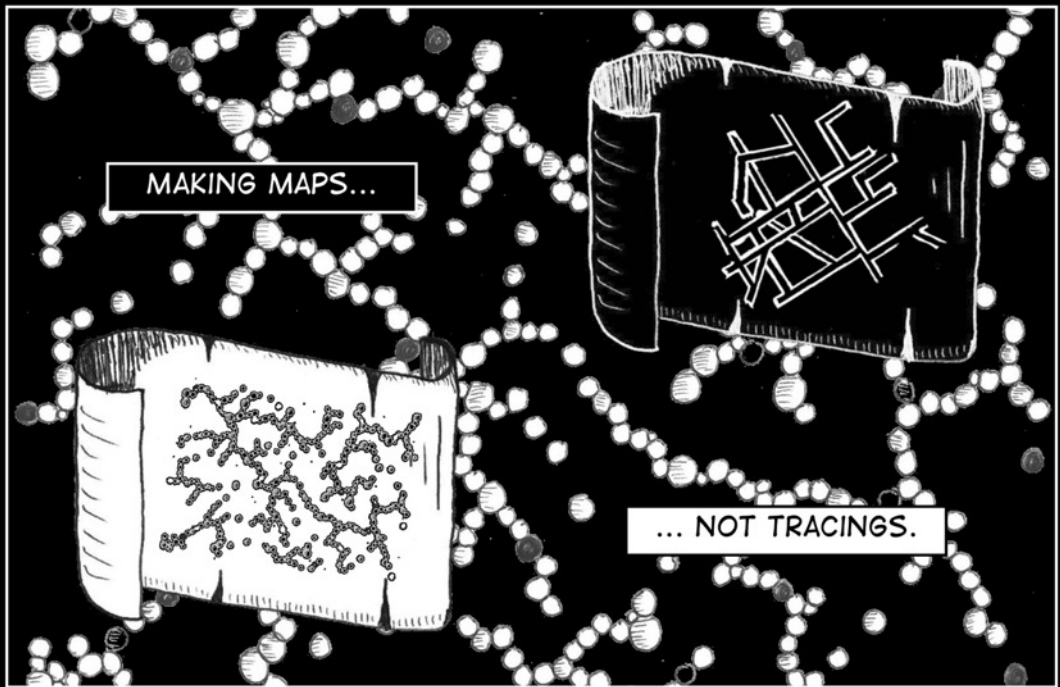
AS MAPS SHOW US, THERE IS MORE
THAN ONE POSSIBLE ROUTE TO A
DESTINATION.

AND IT IS NOT
NECESSARILY THE MOST
DIRECT OR OBVIOUS
ROUTES THAT PROVE TO
BE THE MOST SCENIC...

OR INSIGHTFUL.

WITH THIS IN MIND, THE FOLLOWING CHAPTERS
ARE WRITTEN BASED ON PLATEAUS DRAWN
FROM THE RHIZOME MADE BY THE CLUB'S DATA.

rhiz

Each plateau I created reflects a different way of looking at the lived experience of the club, using different selections of data. As acknowledged above, each plateau contains elements of multiple other potential plateaus; certain issues are pursued whilst others are only hinted at, acknowledging the necessary incompleteness of the accounts. In total, three plateaus have made it in to this thesis; these are introduced in more detail at the end of this chapter and each constitutes one of the three following chapters. This approach, of constructing plateaus, could have generated many more ways of looking at the data. Indeed, I also began plateaus that explored ideas relating to the children's use of writing, the presence of rhythm in the club, the club's 'social imaginary' and the concept of error. However, the three perspectives that made it in to this thesis were those deemed to shed light on lived experience of participants, whilst also generating potentially new knowledge of this context of play.

At the end of this chapter (4.8) I introduce the three specific plateaus that feature in this thesis. Next, however, I seek to explain how the adoption of Deleuze and Guattari's (1987) theory influenced my approach to research.

4.5 Artistic Emergence

'Can this becoming, this emergence, be called art?'

(Deleuze and Guattari, 1987, p.316)

Figure 19: Self-Portrait of the emergent 'artist'...

As will become evident in the following chapters, 'the rhizome' was not the only concept that proved useful in this project. St Pierre (2014) suggests that 'the rhizome brings with it Deleuze and Guattari's entire ontology' (p.10); similarly, as explored earlier (2.3) it is not possible to adopt a partially poststructural approach as this would be incompatible with the assumptions of 'humanist qualitative methodology' (p.4). As I worked towards constructing a coherent conceptualisation the project's methodology, I came to understand that a project drawing on the concept of emergence also required the researcher to surrender

themselves to such principles. As explored earlier, the project's multimodal concerns led to the creation of a multimedia comic strip transcription technique (4.4.3 b.). Later, I found it useful to use similar techniques to explore and exemplify theory, as in 'the rhizome' comic (4.2). As I continued to theorise around the data in the later stages of the project I was eager to continue working using multiple modes, but also conscious of the limitations of a visual approach that relied on the aesthetics of *Minecraft*.

In particular, I recall the point at which I visualised the image of a hand reaching in to soil to pull out organic matter, as seen in 'Writing Plateaus' comic strip (4.3.3. d.). Thinking with this specific metaphor helped me to conceptualise my relationship with the data. However, when I came to convey this image using writing alone it felt frustratingly distant from the original idea; no matter how precisely chosen, the words remained a description of an image, inferior to the (imagined) image itself. I was aware, however, of my own limitations as an artist. I have always reserved a jealous admiration for those able to represent their ideas visually, with what I perceived as my lack of talent meaning that I could not effectively use such visual techniques. The word 'artist' itself feels like a term that applies to others, and I remain hesitant in claiming it as a description for myself (Figure 19). Regardless of such reservations, the will to achieve, growing from what felt like methodological necessity, helped me to overcome my long standing fear of drawing and I began to put pen and pencil to paper.

The example below (Figure 20) lays out the progression towards a short extract, from the aforementioned comic. My initial attempts (Figure 20, left) were unsatisfactory, serving to compound my longstanding negativity; nevertheless, I reasoned that with persistence it would surely be possible to make marks on a page in a formation that resembled the image I wished to represent. As this particular image involved hands I found it helpful to photograph my own hand (Figure 20, centre), carefully sketching the image with close reference to the photograph. With time I eventually felt able to tentatively share my illustrated

work. Sharing my first illustrated piece with my supervisors was a strangely emotional experience. I felt I was laying myself open to having my work dismissed in a way that I had not felt previously. My relationship with the illustrated work felt somehow more intimate and emotional than with the written word, or the multimedia comics; this, in itself, felt like a good reason to persist.
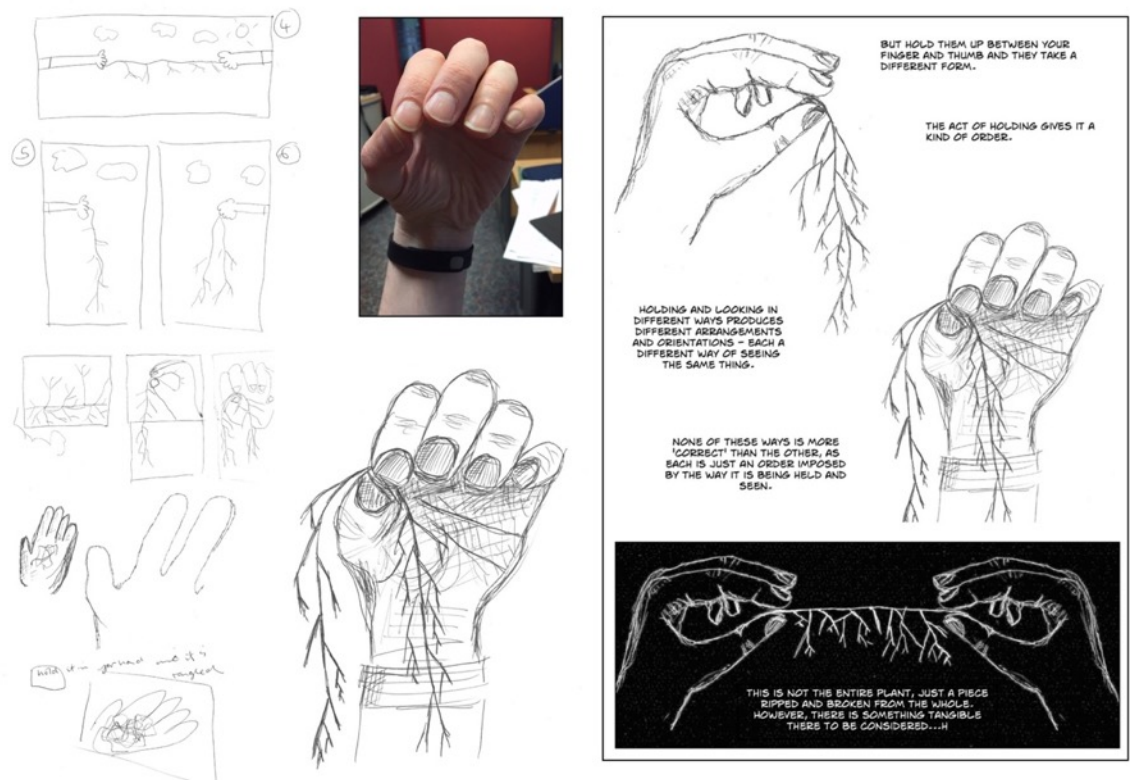

Figure 20: Progression of the hand

The second example (Figure 21) also shows progression of an idea from an initial page of notes, this time using an extract from Plateau 1. Rather than demonstrating growing proficiency in drawing, this series of images exemplifies how the process of drawing was tied up with the thinking process. The central image of the hand with the hammer was one that came to mind very early on, whilst considering the children's construction play. This metaphor for creativity became a starting point for exploring ideas in relation to the children's creation in *Minecraft*. Different iterations of the page depicted show the same central

image but feature different notes in relation to the wider theme, showing how I was used the image as a prompt for thinking. The inclusion of the image itself in the final account allowed me to convey more than just the words alone, with the repeating strikes on the nail, for instance, representing the often repetitive properties of the construction process. As such, images serve to expand on the text, providing an exemplification and exploration of theory that compliments the words. (Additional visual notes and drafts can be seen in Appendix 9).
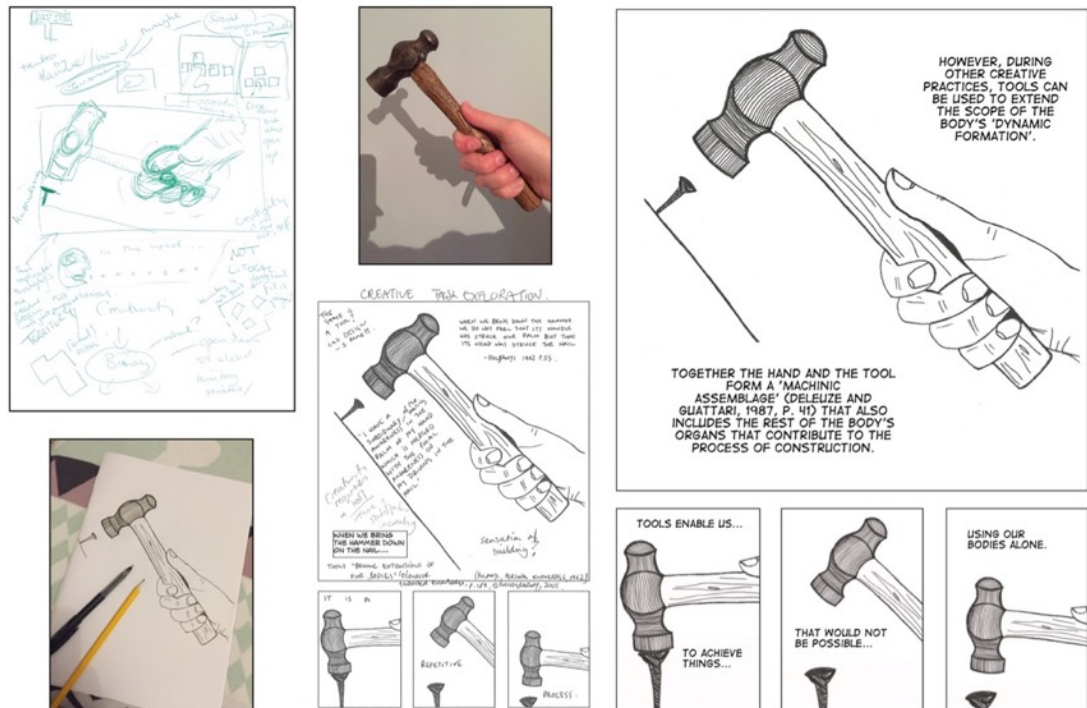

Figure 21: The centrality of images in the thinking process

Visually, the illustrated work in this thesis has multiple inspirations. This includes academic and theoretical work that sets a precedent for using comics and illustration (Sousanis, 2015; Al Jawad, 2013; Koster 2013; McCloud, 2013; Madden, 2006); my own growing interest in non-academic comics (work by independent comic artists such as Anders Nilsen, Jeffrey Brown, Daniel Clowes and Anthony Tomin) and my similarly emergent interest in street art (by artists such as Phlegm, Roa and Coloquix). Different styles of comics are used in different places in the chapters that follow, again responding to requirements of

the data and my wider reading. At some points I also move away from the comic form altogether, presenting visuals without text, where I feel a more flexible approach benefits the account.

Each plateau takes a number of different approaches to representation. This includes the use of text, image and sound. Again, these different modes emerged in response to the data. For example, the visual responses to theory, particularly in Plateau's 1 and 3, took a more diagrammatical approach that seemed to suit the theory being exemplified. The more colourful, character led comic strip approach taken in Plateau 2, and elsewhere, felt appropriate given the content of the data and the ideas under discussion, thereby acting as a visual kind of 'evocative representation' (Richardson, 2000, p.931). The brief comic extract in the final chapter combines these approaches, as does the comic version of the abstract. When talking about sound, in Plateau 3, it seemed appropriate to provide the reader with an example of the sound of the club, thereby adding an aural aspect to this work through the linked sound file.

Whilst I have worked to achieve a visual style that is presentable and interpretable, no specific attempt has been taken to provide a uniform or consistency in the method of presentation, reflecting the emergence and responsiveness of the research, and of the club itself. This results in what Lincoln and Denzin (2000) might refer to as a 'experimental or messy' text (p.1050). The nature of this particular 'messy' text arises in response to a particularly important question: 'How best to describe and interpret the experiences of other peoples and cultures?' (Lincoln and Denzin, 2000, p.1050). Employing different modes is my attempt do this in a way that remains true to the experience of the participants, and my own experiences of the club.

Such an approach should not be considered new, as it has precedents in what Richardson (2000) calls 'Creative Analytic Practices' (p.929) which feature qualitative work in 'different forms... poetry, drama, conversations, reader's

theatre, and so on' (p.929) that are 'both creative and analytic' (p.930).
Richardson (2000) argues against the use of the word 'experimental' to describe
such accounts, suggesting that they are 'valid and desirable representations of the
social' (p, 930) and that the use of written word should not be considered the
default mode in which ethnographic accounts are produced. Using visual
methods as both an 'interpretive practice' (Denzin and Lincoln, 2000, p.6) and a
representational tool also, hopefully, serves to engage the reader with this
research by providing them with different ways of seeing, and thinking about,
this project.

4.6 Ethics

Conducting ethnography in any site inevitably involves ethical challenges
(Murphy and Dingwall, 2007, p.347). Specifically, with regards to ethnography
involving children, the researcher carries with them the 'burden of responsibility'
(James, 2007, p.253), relating to issues such as justice (power), informed consent,
anonymity, non-maleficence (non-harm and safety) and beneficence (Murphy
and Dingwall, 2007; James, 2007). Furthermore, ethical principles are
'inextricably related' to the ethnographer's epistemological viewpoint (Murphy
and Dingwall, 2007, p.337). Therefore, this study's rhizomic underpinnings had
implications for its ethical approach. As with any study, it was not possible to
foresee all of the potential ethical issues that such an approach may entail. Ethics
approval was sought and granted by the Sheffield Hallam University ethics
committee (Appendix 3). Here, I introduce each of the above principles, in
relation to how they were addressed during this project. I also relate these
principles to ethical dilemmas that arose in the field, outlining how I dealt with
each as a means of illustrating how my ethical approach was also underscored by
principles of responsivity and flexibility, reflecting and reacting to the emergent
rhizomic nature of the project.

4.6.1. Justice (Power)

The issue of power in ethnography is twofold. Firstly, there is the need to ensure that all participants are treated equally (Murphy and Dingwall, 2007, p.346) and that this equal treatment involves respect (Brewer, 2000, p.89). Secondly, there are 'power differentials' (James, 2007, p.253) inherent in the relationship between participants and researcher, particularly in schools where adults hold positions of power and children are expected to follow instructions. With this in mind, this project's participatory nature gave children an opportunity to play a significant part in the research, allowing their voices to be heard (Kellock, 2011) by organizing and passing on knowledge about their own cultural practices (Marsh, 2010). Methods used during fieldwork provided ways for them to make a contribution, as co-constructors of knowledge. Ethnography also offers a less clear-cut distribution of power than, for example, an experimental approach (Murphy and Dingwall, 2010, p.344) and, in this case, the children were given the opportunity to exert some 'self-definition' (Murphy and Dingwall, 2010, p.344) through a project design that regularly sought their opinions and ideas.

Acting on children's ideas by taking a responsive, rhizomic approach to fieldwork also showed that the children's ideas and opinions were valued. For instance, the children used the video camera themselves to record the club (3.7.5). They were able to make their voices heard using this method, and also through the discussion sessions (3.7.3) where they were able raise their own issues. Children were also asked to suggest episodes that acted as my way in to the data (4.4.3 a.), meaning that they were able to highlight what was important to them in the research.

As an observer conducting qualitative research I was inevitably part of the scene being observed (Watt, 2007, p.90); rather than attempting purely detached subjectivity (Boellstorff, 2008, p.71) I was acknowledged as being present, visible and active. This was an appropriate approach here, as it meant that children were aware of my presence as a researcher. Furthermore, the researcher is not

necessarily regarded as a 'normal' kind of adult (James, 2007, p.253) and I therefore reflected regularly on the specifics of my role in the club (3.5) to maintain a 'reflexive awareness' (James, 2007, p.254) in relation to issues of power.

Ethics Example 1: Power and Fieldwork

Children were given the power to renegotiate the direction of the club, to change the game mode from Creative to Survival. This approach was contrary to the original research design, in which I envisaged the children playing in creative mode for the full duration of the club. However, driven by the wishes of the group, taking a flexible rhizomic approach meant that I was able to hand some of the decision making power over to the children. Changes of this nature were therefore put in the hands of the group, rather than me as researcher or any individual group member. Although I still had the ultimate power, in that I was able to say 'no' to such decisions, I instead sought the views of the group and was driven by their wishes.

Ethics Example 2: Power and methods

When children appeared to be reluctant to attend the proposed interview sessions, I cancelled these in favour of the more flexible (and more popular) discussion sessions. In addition, I sought the children's opinions about exactly why they were so reluctant to attend interviews, to ensure that I did not simply replicate the unpopular practice during the discussion sessions. This demonstrates that the participants' voices were not only reflected in the data collected but also that they were given genuine power to change the manner in which data was generated, as a result of taking an adaptive approach to ethics.

4.6.2 Informed Consent

The principle of informed consent influenced this project's ethical approach. It is important to acknowledge that 'signed consent forms do not guarantee participants' understanding' (Murphy and Dingwall, 2007, p.342), and therefore participants should be informed about what they are consenting to. However, the notion of 'what' is often complex and problematic; it should be acknowledged that there is not one 'simple unmediated truth' about the research (Murphy and Dingwall, 2007, p.342) and the process of communication should also be ongoing and negotiated. This is particularly true in this case as the rhizomic nature of the fieldwork meant that the version of the research communicated to participants at the beginning of the project was adapted and emergent throughout fieldwork. As ethnography could be considered to predominantly be an overt form of research, this project followed a principle of openness (Murphy and Dingwall, 2007, p.342). Participants were informed about the objectives of the research, the nature of the fieldwork, the research methods and how the data would be represented, at the outset and as the project unfolded and developed.

Written consent was initially sought from the headteacher at the school (Appendix 4), following a discussion about the nature of the study, and research methods. Written consent was next sought the children's parents or guardians, with a letter outlining the purpose of the study and the research activities (Appendix 5). They were asked to consent to each of the research methods and were given the opportunity to discuss the research in more detail with me. Where consent was given by a parent, children were then able to opt in or out of each element of the project, using a written response form that was appropriately worded for the children's age group (Appendix 6), taking into account the needs of any children with additional needs. James (2007) suggests that 'children may be vulnerable to the expectations from authoritative adults that they will participate in the research. They may not be able to opt out' (p.255). With this in mind, I made it clear to the children that they were welcome to participate in the club even if consent was not given for them to be involved in the research and

participants were made aware that they could withdraw from the research at any point.

I talked to the children about the research before the club began. Two club sessions at the beginning of the school year were also set aside as an opportunity to pilot the research methods. These gave the children an opportunity to ask questions about the research and to become more familiar with me and to allow a 'dry run' for the research methods. These preliminary sessions gave the children the opportunity to experience the research, rather than to simply hear about it. To ensure that the children were informed about the nature of the research I regularly informed the participants about what I had been considering in relation to the club, sharing my notes and pieces of data with them. They often found my notes funny, recognising themselves in the writing or laughing at something that I had chosen to focus on that they had forgotten. When I got the opportunity to attend an international conference to talk about the club they were excited by this prospect; however, as their subsequent references to 'Mr Bailey's Press Conference' suggested, the technicalities of academia were not always easy to understand. Nevertheless, I encouraged an ongoing dialogue with the children about the research, regularly discussing things I had seen and asking them for feedback and opinions. Whilst this dialogue did not strictly relate to consent, it did ensure that the children were as informed as possible about the ongoing research, thus ensuring that their consent was meaningful.

Understanding consent as an ongoing, emergent process, I also ensured that I was sensitive to any children's implied withdrawal of consent, as evidenced by their behaviour, to note any non-verbal signals as the club progressed. For instance, if I was filming and a child turned away or attempted to conceal their actions from the camera I took this as withdrawal of permission, and was also conscious of the child's wish not to be filmed in future. In light of written consent being given it is also important for the researcher to reflect on the scope of this consent. For instance, whilst a child at the age of eleven may be happy for

their image to be shared, that same individual may not feel the same about the same image being used to represent them in future, as they become a teenager or move into adulthood. Whilst this could be used as an argument for never using pictures of children in research, I have taken an approach whereby I have considered the potential impact of the images I have used in terms of the content they are linked to – even though children's identities were largely obscured (see 4.6.3).

Ethics Example 3: Negotiated Consent and video

The evolving nature of the club's methodological approach meant that consent needed to be continually negotiated. For instance, although children had consented to be filmed during the club, the participants themselves began to take increasing control of the camera as the weeks progressed. Whilst this had affordances in terms of providing those behind the camera additional control, there could have been issues relating to pupils being uncomfortable about being filmed by their peers. With this in mind, I regularly checked with children how they felt about the data collection and the direction the club was taking. I also conducted conversations with the group about ensuring that their use of the camera did not become intrusive, reminding all participants that they had the right to ask for filming to stop, either by approaching me or the camera operator. In the event, some participants who had initially asked not to be filmed requested that they amend their permission to allow them to be included in videos, reflecting what appeared to be the group's growing understanding and enjoyment of the project's research methods.

Ethics Example 4: Consent and video

With relation to the emergent use of video by the children, there was one child who had given his own consent to appear on video, but I had not received completed parental consent forms, in spite of sending out duplicate copies. However, ensuring that he did not appear on camera was difficult, particularly given that the camera often filmed the whole class when used by a child, not to mention the fact that he regularly attempted to film himself! I decided that an appropriate approach was to accept, given his full knowledge and his personal approval of the presence of the camera (and his parent's consent for him to attend the club) that he would appear in the video but that his words or image would not appear in any of the data representation that formed this thesis or any future work that arose from it.

4.6.3 Anonymity and representation

The principle of anonymity in terms of research is intended to project research participants from identification. However, as it is not possible to guarantee absolute anonymity of participants (Murphy and Dingwall, 2007, p.341), this project's approach to research was informed by both concerns relating to anonymity and representation. To reduce the possibility of research participants being identified, identifying information about the children and the school was removed from data by using pseudonyms or obscuring non-essential data. I made it clear that it was not entirely possible to guarantee total anonymity as, for example, certain accounts may have meant that individuals were identifiable to other members of the group. This could have been problematic where, for example, perceived misbehaviour of individuals in the group might lead to a portrayal that, in the eyes of others, represented individuals in a negative light.

In such cases, I was sensitive about the use of this data, giving careful consideration to whether an account added to the research findings in any constructive way. Even reflection on the accounts presented could not guarantee

that every individual would be happy with this particular formulation of their social world, as it is not always possible for the researcher to decide what will or will not cause offence (Murphy and Dingwall, 2010, p.342).

Nevertheless, I carefully considered the potential impact of the portrayal of the group at all stages of this research, working with the intention that any data presented was more likely to be insightful to the individual than it is harmful, with a continuing consideration of ethical implications as the research unfolded. All images used, both in this thesis and elsewhere on my blog or in publications, have been obscured so that children cannot be identified. Whilst I had gained full permission to use the photographs it was a personal decision not to use them in their original form as I was not comfortable with the potential ethnical issues involved.

With relation to data storage and anonymity, digital files were stored securely on two external hard drives, protected by a password. Two copies were made for backup purposes. Data was organised in date-stamped folders and added to these hard drives as the project progressed. Video and screencasts were then deleted from the original devices on which they were captured. When using the data to construct the comic strips, these were also saved on a single device, protected by a password, and backed up the external drives.

Ethics Example 5: Representation of individuals

Children were given free-reign to experiment with their gameplay. This included the ability to write texts in the game. An on-screen book written by one individual included a homophobic reference from a song lyric (Figure 22). Although this example does appear in this thesis, I do not attribute this to a particular child, given the negative association that the creation of such a text could imply. Eg, It could suggest that the child held views that might lead to them being seen in a negative light. In this case I addressed the issue directly

with the child, not as a means of punishment but to discuss the issue. The resulting discussion involved the child insisting that he had not meant to cause offence but that it was 'a sick song'. I did not insist that the book was deleted and it remained in the game.

I have used this example here and provided the context to demonstrate how complex attribution of intention can be. This child's use of the phrase represents the complex moral territory that children have to navigate, particularly in relation to popular culture. By making the decision not to attribute this piece of data to an individual I hope that I have avoided portraying an individual in a (potentially) negative light whilst also allowing for a discussion of the issues surrounding representation to be visible.

Figure 22: Homophobic Lyric in an in-game book: 'You fags think it's all a game'.

4.6.4 Non-maleficence and beneficence

Murphy and Dingwall (2007) suggest that 'ethnographers can harm the individuals or groups they study' (p.340). This harm can relate to issues of 'anxiety, stress, guilt and damage to self-esteem' (p.340). Whilst ensuring that this research did not cause emotional harm I was also responsible for the children's physical safety. Given that it is the researcher's minimal responsibility

to protect participants from harm (Murphy and Dingwall, 2010, p.347), this study's ethical approach was underpinned by notions of non-maleficence and beneficence; to do positive good and no harm. The research was guided by these principles to minimise any possibility of anxiety, embarrassment or stress arising either from the research process or from the conclusions of the research. The club itself was designed as a voluntary, enjoyable and fundamentally child-led activity where the children were given considerable autonomy. Similarly, the research methods were planned with participatory and playful principles in mind.

Such emergent, rhizomic approaches were still bounded by a need to ensure children's safety. However, the children generally regulated themselves and were adept at working out what was and was not acceptable, seemingly also using safety as a yardstick by which to moderate their behaviour. To address this, simple rules were established during the first trial session, and then as an ongoing process, guided by the children to establish some mutually agreed guidance for conduct, in the club's classroom environment. Whilst these rules stemmed from the children's existing experience of schooled settings, they were not exclusively modelled on what might be considered to be 'traditional' classroom behaviour. For example, there was no enforced requirement for children to stay seated for the duration of a session. However, other rules, such as the requirement that they asked before they leave the room, were maintained for their own safety, in line with the school's overriding health and safety policies and my duty of care for the children. There were a few occasions when children became upset during the club, in relation to the behaviour of others in the game. In these cases, I spoke directly to those involved to seek resolution to ensure that the issues did not lead to further ill feeling.

In terms of safety in relation to interactions with videogames, mass media discourses often focus on the perceived negative aspects gaming in the lives of young people, positioning videogames as a cause for concern, relaying tales of

addiction, obsession and anti-social behaviour. Mindful of the potential for parental concerns in this area, the club's focus on community was a decision made to position the game as a positive influence. Nevertheless, it was possible that parents could have become concerned about the impact of the game on children's lives. Parents were invited to discuss any issues or concerns at the end of each club session. In the event, no concerns were raised. Parents were also free to withdraw their child at any point, although again this never happened, with those who stopped attending leaving due to other commitments rather than a concern about the club.

Ethics Example 6: Preventing Harm

This example relates to the need for the ethical approach to respond to specific and unpredictable events. Again with reference to an in-game book produced by the children, in some places these contained references that I was not comfortable with, including references to drugs (Figure 23). Although I had no reason to suspect that the presence of the drugs references involved the children having first-hand knowledge, I felt that I needed to discuss these issues with the teacher. She agreed that there was no great cause for concern regarding the references themselves, but we both talked to the children about the seriousness of the issues involved. The teacher also arranged to talk to the children about the specific issues raised during their forthcoming drugs education session. In no way were the children punished for making these references, rather they were taken as a signal that it may be appropriate to ensure that the children were fully informed about the issues related to drugs.
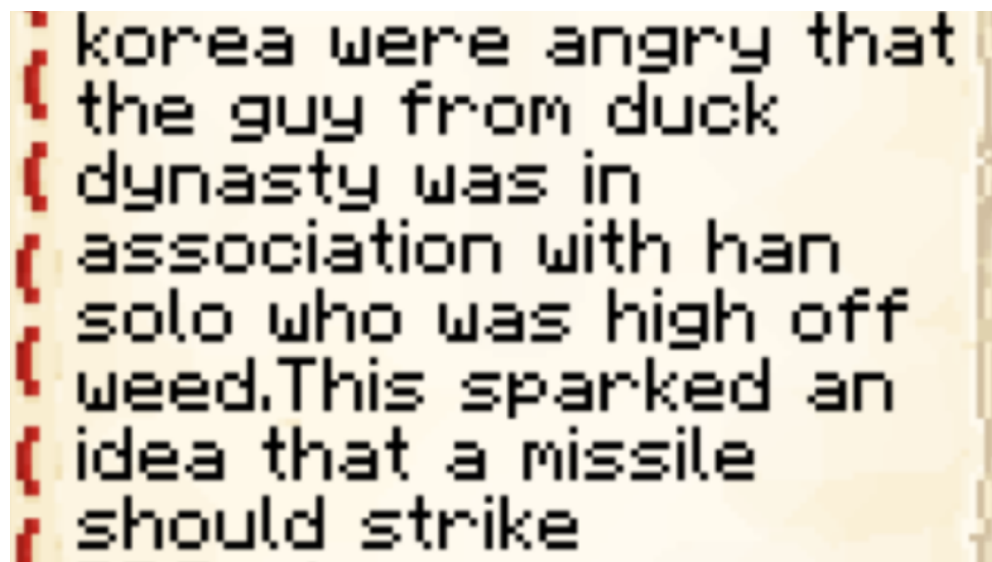
Figure 23: Reference to drugs in an in-game text: 'high off weed'

4.7 Validity

Given that I have outlined the strengths of an ethnographic approach and the specific details of this project's rhizomic design, it is important to explain how this project offers an authentic account of the lived experience of the club. Validity is often called into question in qualitative research (LeCompte and Goetz, 1982, p.31) and the assertion that a poststructural ethnographic approach is valid is very different in nature to a similar argument made about a quantitative approach. There have been a number of attempts to suggest frameworks for asserting quality in qualitative research. For instance, Lincoln and Guba (1985) outline four areas in which projects that mobilise qualitative research methodologies can assert their reliability and validity, involving consideration of credibility, transferability, dependability and confirmability (Lincoln and Guba, 1985). These criteria have been critiqued (Hammersley, 1992; Scott and Usher, 1996); Scott and Usher (1996), for example, suggest that this model is 'internally incoherent' (p.79) due to its attempt to transpose positivist principles to qualitative research. Lincoln and Guba (1989) amended these criteria, replacing them with an alternative set of 'authenticity criteria' whilst, Hammersley (1992) developed his own criteria.

Regardless of these amendments, it has been suggested that imposing such criteria for quality can shape the research design and influence the outcomes of research (Freeman, deMarrais, Preissle, Roulston and St. Pierre, 2007). Nevertheless, Tracy (2010) acknowledges that having a set of criteria is useful as a means of providing a shorthand to assert 'the core values of a certain craft' (p.838). With this in mind, Lather (1993) proposes four different 'transgressive' (p.676) framings for validity in poststructural work. This includes a concept of 'rhizomic validity' (p.680), which initially seems to provide a solution for describing this project's reliability. Here, Lather (1993) describes validity in relation to the extent to which an account 'undermines stability, subverts and unsettles from within' (p.680). In the case of this project, my use of multiple

modes to create this thesis, and the emergent approach taken during fieldwork, are compatible with this description. Certainly, this project included 1) an 'initial reflexive phase' (p.681) where I considered and unsettled my role as a researcher in depth, in light of literature and my relationship to the context of the research. It featured 2) 'an empirical phase' (p.681), where I focussed on the lived experience of the club whilst undermining its stability by enabling the children to take a lead in the action and the research methods. It also included 3) 'a final reciprocal phase' (p.681) involving my own reflection, theorising and challenging of my intial perceptions through a rhizomic process of making connections. Each of these phases 'paid particular attention to discrepant data' (p.681) and an attempt to 'decentre' (p.680) myself, through the involvement of participants and a process of analysis that was coherent with the overall design. I have also outlined how, during this phase, I constructed accounts which were inevitably partial, using selections of the data. Equally, I was 'more interested in networks than hierarchies' (p.681), using the model of the rhizome to underpin all stages of the research.

Whilst mobilising 'rhizomic validity' is undoubtedly methodologically compatible with this project, I am also concerned that relying solely on this explanation requires a reader to have already 'bought in' to this particular paradigm: it feels like an attempt to justify a rhizomic approach using the rhizome may appear a little too self-referential or conveniently circular. Therefore, my concern is also how validity may be asserted to a wider audience, in a way that remains methodologically coherent. Given this, whilst acknowledging that no criteria are able to provide a water tight measure of validity, Tracy (2010) provides eight useful "Big-Tent" criteria for describing quality in qualitative research, namely: ethics; a significant contribution; a worthy topic; rich rigor; sincerity; credibility; resonance; meaningful coherence (p.840). These are arguably less prescriptive that the criteria outlined at the beginning of this section (eg. Lincoln and Guba, 1985) and therefore provide a more flexible way of narrating this project's validity. The first two criteria are

dealt with elsewhere: ethics (4.6) and theoretical and methodological contributions to knowledge (8.5). Below I detail how this project relates to the additional six criteria, bringing these into line with a rhizomic approach by adapting and reinterpreting the criteria in relation to the theory that informed this research.

4.7.1 A Worthy Topic

This project offers a worthy topic for research. Its focus on virtual world gameplay, and specifically co-located *Minecraft* play, is relevant, timely and significant. This assertion is supported by a literature review (Chapter Two) which demonstrates how this project builds upon what we already know about play in this context, whilst locating it within contemporary discussions around the nature of literacy and children's play. As such, this study provides a coherent and evidenced rationale for its focus, meaning that the account provided will be of interest to a range of readers in both academic and non-academic contexts.

4.7.2 Rich Rigour

This research demonstrates rich rigor through its use of 'appropriate and complex… theoretical constructs' (p.840). This project's assumptions about the nature of reality are underpinned by a rigorous, rhizomic conceptualisation of epistemology, which views knowledge as arising from an assemblage of 'ideas, things, people [and] places' (Akindes, 1999, p.147), creating a subjective account that reflects one of multiple realities. Throughout this work I have taken a number of steps to assert the appropriateness of this approach, outlining its epistemological foundations, as well as the nature of the fieldwork and the data analysis processes. I have also acknowledged that rhizomic ethnography is not an entirely new approach, being closely related to the approaches used by others, underpinned by the ideas of Deleuze and Guattari (1987). With this in mind, I have located this study in relation to other types of ethnography, making transparent the similarities and differences between these approaches and therefore showing how it has built upon previously established approaches.

For Tracy (2010), rigor also relates to the generation of data and the fieldwork processes. In this respect, a wide range of data were generated during an extensive time in the field. I have outlined how I spent a year participating in the club and was present for every session, as well as a series of discussion sessions. This 'prolonged engagement' (Lincoln and Guba, 1985, p.304) resulted in the opportunity to understand the scope of the club, whilst the 'persistent observation' (p.304) helped me to develop a depth of understanding, which is expressed in the accounts of this club. Time spent in the field also gave me the opportunity to collect a significant amount of data that drew on the experiences of the club members.

4.7.3 Sincerity

This thesis offers an account that is constructed with what Tracy (2010) frames as sincerity. This involved reflexivity in terms of my own values and assumptions, as I outlined my role as a researcher and my continuing commitment to adaptivity and flexibility through a process of emergence. Sincerity is also linked to the transparency of a study's methods and challenges. Cresswell and Miller (2000) suggest that 'in establishing an audit trail, researchers provide clear documentation of all the research decisions and activities' (p.128). This project's audit trail has multiple dimensions: I have outlined how my approach evolved throughout the project, thus ensuring transparency in terms of my epistemology and the methods of data collection and analysis. In the appendix, I include a number of documents that detail the different stages of the research, including the forms used to seek permission (Appendices 4, 5 and 6) and an example of how I assembled a comic strip episode (Appendix 2). In addition, my blog posts written whilst the fieldwork was ongoing act as a record of my emergent thinking, alongside data from all stages of the project. By providing an ongoing record of my reflexivity in this manner, I make transparent the nature of my own subjectivity and the involvement of my positionality in the creation of the final accounts of the club. Acknowledging my position and making it present within

the research confirms my direct influence on the site, the research and the construction of the accounts that form the following chapters of this thesis.

4.7.4 Credibility

Claims of credibility are sometimes asserted through the use of data triangulation. However, this project's approach resonates more coherently with Richardson's (2000) concept of 'crystallisation' (p.934) where 'what we see depends on our angle of repose' (p.934). The different forms of data present alternative but related and connected perspectives on the lived experience. This project's use of 'plateaus' is relevant here, in that it provides a number of perspectives on the lived experience using different data and theory, leading not to a 'true' account but to an account that is credible in providing a 'thoroughly partial understanding' (p.251). For Tracy (2010) credibility also involves 'showing rather than telling' (p.84), an approach that is made explicit through my presentation of visual data and use of other images.

Tracy (2010) also talks of credibility in terms of 'multivocality' (p.844) through the inclusion of 'multiple and varied voices' (p.844). Although the final accounts presented here are mine, participant voices were present throughout the project, and this thesis. I was involved in an ongoing process of sharing data with participants, during club sessions and the supplementary discussion sessions. Their perspectives were frequently sought during fieldwork, using the video camera, informal talk during the club and the scheduled discussion sessions. They were also asked to suggest episodes that I should examine more closely in my data analysis. A number of videos and comic strip accounts were presented to participants. Whilst this was not to confirm these accounts as a 'faithful and accurate rendition of the participant's lifeways' (LeCompte and Goetz, 1982, p.54) it was intended as a means of gaining their perspectives on my accounts. These insights added to the credibility of the research, where credibility is defined in terms the perspectives offered by the research.

4.7.5 Resonance

Tracy (2010) suggests that resonance relates to the capacity of a piece of work to influence, affect or move a reader or audience. I have given significant consideration to how I represent the club, using words, images and sound. In this way I have attempted to use 'aesthetic, evocative representation' (p.840) as a means of communicating to ensure that these accounts resonate with readers and reach a wider audience. Creswell and Miller (2000) suggest that 'credibility is established through the lens of the readers who read a narrative account and are transported into a setting or situation' (p.129). I have outlined how my experimentation with data representation methods led me to create comic strip episodes, reflecting my feeling that the purely textual accounts did not sufficiently convey the 'life' of the club. In creating these visual accounts I have also, therefore, sought to represent the club in a way that makes the lived experience of the participants resonant for the reader.

Tracy (2010) also suggests that resonance 'emerges through a study's potential to be valuable across a variety of contexts of situations' (p.845). Ethnographic accounts are designed to provide a detailed, specific account of a site, based on the subjective and situated experiences of participants; they are not conducted to provide a typical account that can be transferred to other contexts or 'reconstructed precisely' (LeCompte and Goetz, 1982, p.35). Nevertheless, LeCompte and Goetz (1982) suggest that a meaningful equivalence to transferability can be supported by clarification of five factors: 'researcher status position, informant choices, social situations and conditions, analytic constructs and premises, and methods of data collection and analysis. (p.37). Each of these areas is addressed in depth, during Chapters Three and Four. Creswell and Miller (2000) suggest that researcher reflexivity can contribute to assertions of validity, with the researcher outlining their 'personal beliefs, values, and biases that may shape their inquiry' (p.127). In this work, my positionality is outlined in detail, whilst the reflections that formed the ongoing blog posts also provide insight into my ongoing perspectives on the club. By providing a clear account of my

positionality the reader is in a position to make a fully informed judgement on which elements of the account may provide insights on similar activities in other contexts.

4.7.6 Meaningful coherence

Finally, in terms of offering meaningful coherence, whilst acknowledging the complexity inherent in exploring a concept such as the lived experience, this thesis demonstrates the use of 'methods and procedures that fit its stated goals' (Tracy, 2010, p.840). In this way it makes meaningful connections between literature and practice to provide answers to the initial research questions whilst, ultimately, achieving its stated aim: to illuminate the lived experience of an after school Minecraft Club.

As LeCompte and Goetz (1982) suggest, 'no ethnographer works just like another' (p.36). This means that ethnography is not about producing a replicable truth; an ethnographic account of this kind relies on the subjective account of the researcher. This project's approach, therefore, presents a number of challenges to more traditional methods of asserting credibility. However, by paying attention to this project's validity from a number of perspective, drawing on Tracy's (2010) framework, my intention has been to assert its status as a valid account in an accessible and defendable manner.

4.8 Introducing the Plateaus

In this final section I provide a brief outline of the three plateaus that constitute the next three chapters of this thesis. As explored earlier, these chapters are envisaged as 'plateaus'. In Deleuze and Guattari's (1987) book 'A Thousand Plateaus', each plateau takes a different perspective on the world. In this thesis, each plateau takes a different perspective on the club, with the aim of illuminating the group's lived experience. In theory, this approach could generate any number of plateaus from any number of perspectives; nevertheless, three

plateaus were eventually chosen. Each of these three plateaus offers complimentary but interrelated perspectives that provide insights on the lived experience, whilst illuminating aspects of the children's play. Each plateau also relates to a range of different theoretical work from my wider reading, whilst also drawing on addition theory from Deleuze and Guattari (1987).

Each plateau begins with an illustrated comic, signalling the direction of the plateau. In the first two plateaus I then present a series of episodes, using comic strip transcripts. These are included, in the main body of the thesis, to help evoke the club and the events referred to in the plateau. Each comic strip is followed by a detailed commentary, which expands upon the comic. In these commentaries I re-tell the events, in relation to the focus of the plateau. The reader may notice that some aspects of the episodes evade this re-telling; as such, another intention of including these comic strips is to make transparent and acknowledge this inevitable process of selection.

In 'Plateau 1: Building Banterbury', I explore the lived experience of the club using children's interactions with *Minecraft* as a starting point. During the club children were engaged in construction projects of different types, using the game to create on-screen structures. These structures, and the characters present within the game, formed the basis of a type of creative and imaginative play that extended beyond the on-screen action. In this plateau the children are seen collectively making meaning in and around the game, remoulding *Minecraft*'s abstracted building blocks and recruiting the low fidelity non-playable characters (NPCs), conceptualised as non-human participants, for their own purposes. I demonstrate how the game itself acted upon the human participants, therefore directing their play whilst revealing how the children's play crossed multiple spaces.

In 'Plateau 2: Playing with the World' I explore the ways that children drew on their experiences outside of the club. This involves a social kind of play that

involves them using multiple cultural and personal reference points. The club was often used by the children as a space to explore issues and instances from beyond the club, both on and off-screen. Here I present selection of comic strip transcripts and other data that demonstrate the children's emergent performances around such examples.

Finally, in 'Plateau 3: Visualising Soundscapes' I explore the lived experience through a focus on the club's soundscape. Here, I move away from the comic strip transcripts, instead using written and visual methods to consider what we can learn from listening to sound of the club. Whilst touching on issues of representation, this also helps to illustrate the often exuberant nature of the children's play.

These particular plateaus are presented as they offer three different, rich perspectives on the lived experience and children's play. Taking this approach inevitably means that some alternative issues go unexplored, or are not detailed in the depth that they could be if made the main focus of their own plateau. There are endless possibilities for alternative plateaus, which could offer equally worthwhile explorations of the lived experience of the club. The scope and size of any account, or 'map', also depends upon the temporal and spatial constraints imposed by (or on) the person performing the analysis, and the underlying purpose of the analysis. Word counts and deadlines have therefore dictated how much can be presented as a description of this club's lived experience, as a doctoral level submission. Such constraints necessitate choices being made and therefore the plateaus that constitute the following three chapters represent my attempt to convey a range of episodes (selected by myself and the children) that can lead to a valuable discussion of the lived experience of the club.

Investigating the Lived Experience of an After-School Minecraft Club.

Volume 2
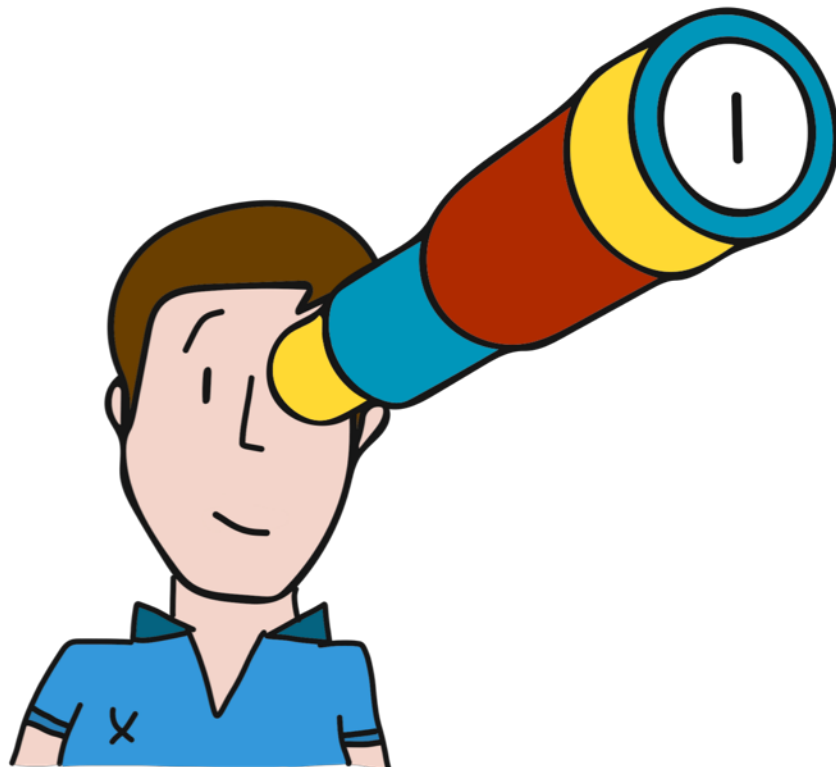
Christopher James Bailey

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the Degree of Doctor of Philosophy

February 2017

PLATEAU 1: BUILDING BANTERBURY AND THE BwO

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BUILDING BANTERBURY
AND THE BwO

PRACTICES INVOLVING CONSTRUCTION, INCLUDING CONSTRUCTION PLAY, REQUIRE THE MANIPULATION, REFORMING AND SYNTHESIS OF MATERIALS IN ORDER TO SHAPE OR CREATE NEW OBJECTS.

DURING THESE PROCESSES THE HAND BECOMES THE SITE OF CONTACT BETWEEN OUR OWN BODIES AND THESE PHYSICAL MATERIALS.

DELEUZE AND GUATTARI (1987) SUGGEST THAT...

'THE HAND MUST NOT BE THOUGHT OF AS SIMPLY AN ORGAN BUT INSTEAD AS A CODING... A DYNAMIC FORMATION...' (P. 61)

THIS HELPS US TO APPRECIATE HOW OUR HANDS HAVE DISTINCT AND MULTIPLE CAPABILITIES OF THEIR OWN, WHILST ALSO WORKING IN A 'SYNERGISTIC' (P. 61) RELATIONSHIP WITH OTHER ORGANS AND OBJECTS.
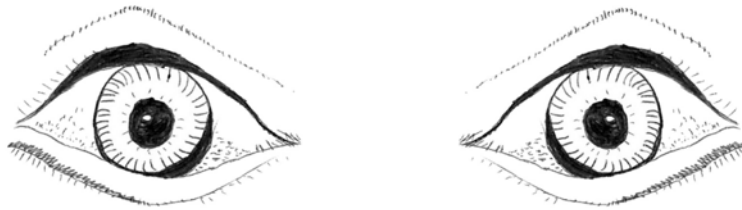
FOR EXAMPLE, AS WE CRAFT AND CONSTRUCT, WE ARE ABLE TO SEE THE RESULTS OF OUR EFFORTS. LOOKING FROM DIFFERENT VIEWPOINTS AND PERSPECTIVES ALLOWS US TO ADAPT AND REFINE THE PROCESSES BEING USED.

THIS PROCESS ALSO REQUIRES THE GENERATION OF IDEAS TO HELP SHAPE A PROJECT, AND WE THEREFORE DRAW UPON A RANGE OF SOURCES FOR INSPIRATION.

IN TURN, WE RESPOND TO MATERIALS WITH NEW THOUGHTS AND IDEAS, AS WE MAKE MEANING AROUND OUR ACTIONS, AS WELL AS WHAT WE SEE AND EXPERIENCE.

SENNETT (2009) REFERS TO THE 'COORDINATION OF THE EYE, HAND AND BRAIN' AS 'THE TRIAD OF THE INTELLIGENT HAND' (P. 175)
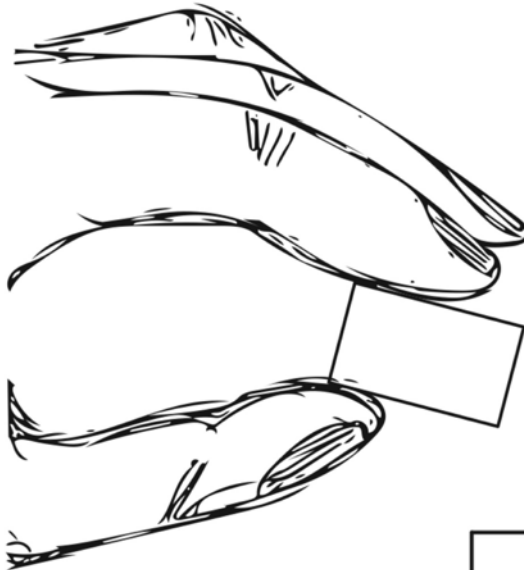
THROUGH THIS ONGOING RELATIONSHIP BETWEEN THE BODY'S ORGANS IT IS POSSIBLE TO ORGANISE MATERIALS TO REPRESENT OTHER OBJECTS OR IDEAS, THEREBY ENGAGING OUR 'VISUAL VOICE' (GAUNTLETT, 2007, P. 107)

IN THE CASE OF CONSTRUCTION PLAY, HANDS INTERACT DIRECTLY WITH THE BUILDING BLOCKS TO CREATE STRUCTURES.

HOWEVER, DURING OTHER CREATIVE PRACTICES, TOOLS CAN BE USED TO EXTEND THE SCOPE OF THE BODY'S 'DYNAMIC FORMATION'.

TOGETHER THE HAND AND THE TOOL FORM A 'MACHINIC ASSEMBLAGE' (DELEUZE AND GUATTARI, 1987, P. 41) THAT ALSO INCLUDES THE REST OF THE BODY'S ORGANS THAT CONTRIBUTE TO THE PROCESS OF CONSTRUCTION.

TOOLS ENABLE US...

TO ACHIEVE THINGS...

THAT WOULD NOT BE POSSIBLE...

USING OUR BODIES ALONE.

OF COURSE, TOOLS ALSO TEND TO HAVE SPECIFIC PURPOSES AND CAN THEREFORE DIRECT WHAT WE DO, WHAT WE PRODUCE OR HOW WE PLAY.

IN THE CASE OF DIGITAL PLAY, THE TECHNOLOGY BECOMES THE TOOL.
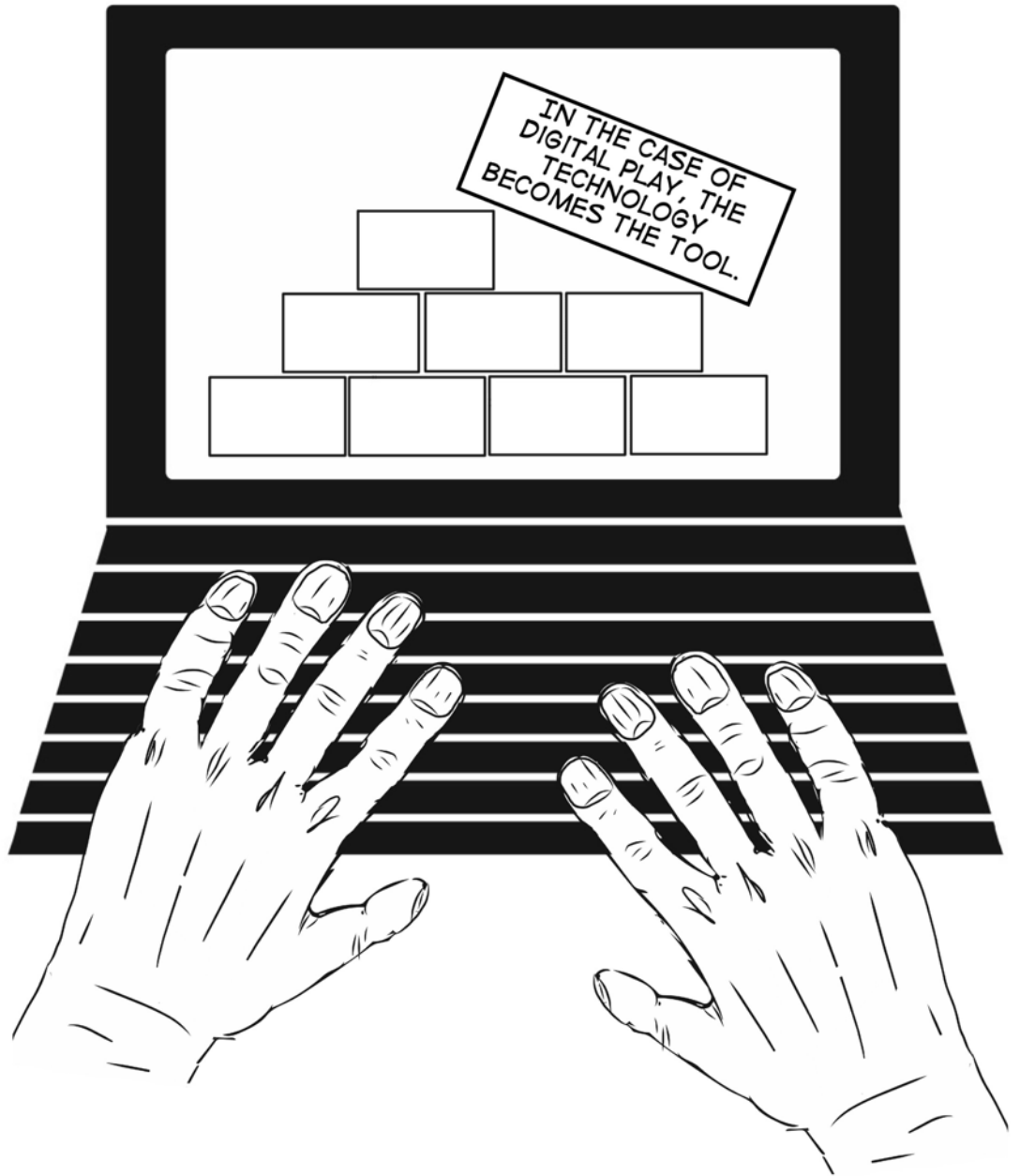
WHILST THE OUTPUT IS VISUAL AND VIRTUAL IT IS NO LESS
SUBJECT TO THE BODY'S CREATIVE PROCESSES.
FURTHERMORE, THIS KIND OF PROCESS STILL DRAWS UPON
EXTERNAL IDEAS AND, IN TURN, GENERATES MEANING MAKING
RESPONSES THROUGH
DIFFERING INTERPRETATIONS.

THE CONNECTIVITY AFFORDED BY TECHNOLOGY...
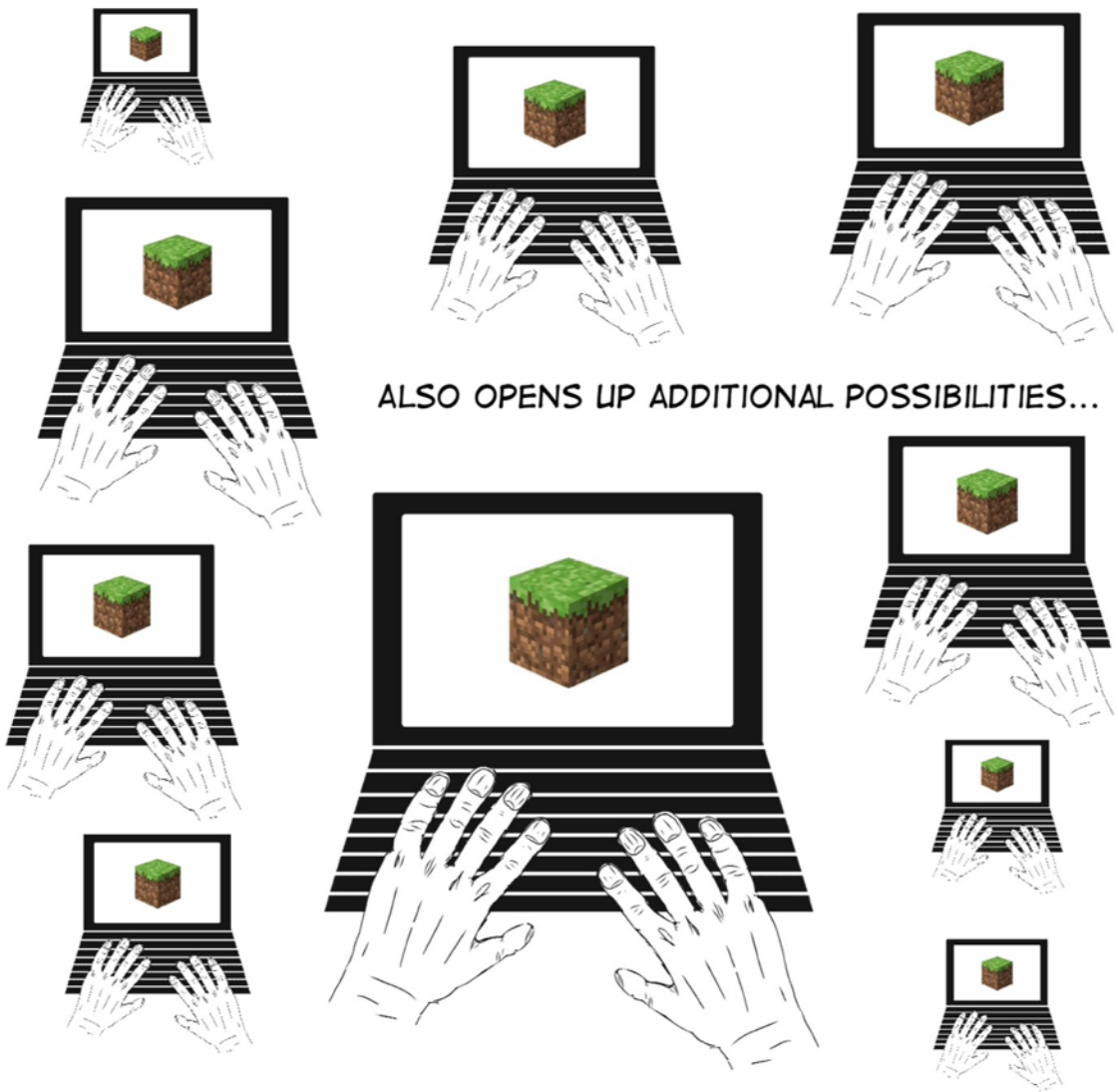
ALSO OPENS UP ADDITIONAL POSSIBILITIES...

ALLOWING MULTIPLE BODIES TO WORK TOGETHER...
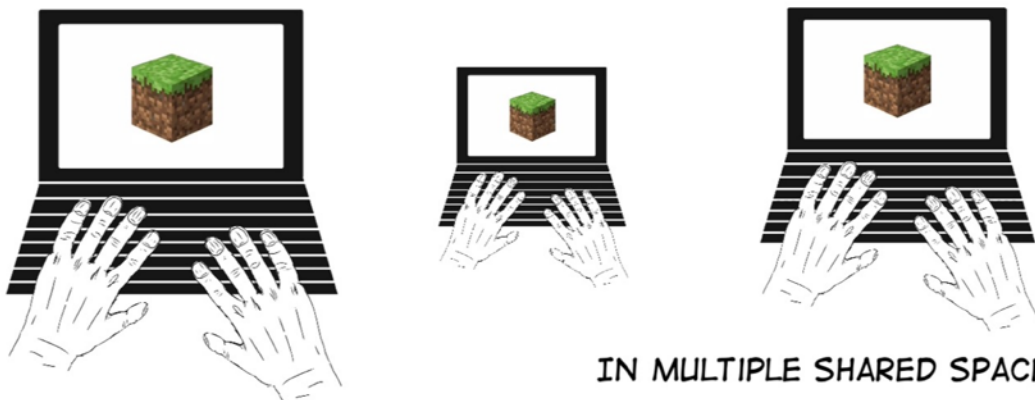
IN MULTIPLE SHARED SPACES.

CHAPTER FIVE: PLATEAU 1

5.1 Introduction

In this plateau I examine the lived experience, with a focus on how *Minecraft* is taken up by the group, and how it acts upon them during the club. Whilst other plateaus feature on-screen play to some extent, this aspect of the children's virtual play is chosen here as the intial focus. I examine aspects of the children's construction of the on-screen place they called 'Banterbury' and their play in and around this space, using Sennett's (2009) 'triad of the intelligent hand' (p.175) as a theoretical starting point. Here, I present five comic strip episodes, accompanied by written commentaries. These examples include (but are not limited to) direct on-screen interaction with the game. By outlining these specific examples of creative play I hope to shed light on the children's virtual play, in this specific context. I reveal how play in Minecraft Club was about much more than the construction of on-screen structures; the children's play is shown to be emergent, social and creative, drawing spontaneously on a range of imaginative ideas and varied resources whilst crossing the club's on off-screen spaces.

5.2 Building and Being in Banterbury

A distinct feature of *Minecraft* is the ease with which a player can shape the game's visual landscape. Not surprisingly, therefore, construction play was a feature of the children's on-screen play. However, the construction of the on-screen world proved to be just one aspect of the children's creative play in the club, which also saw children constructing concepts, stories, songs and relationships off-screen, perhaps prompted in part by my initial instruction to 'create' a virtual community. Notable, however, was how the children's play often had origins in, or was in some way connected to, the on-screen action.

Over the course of the club, children created a range of buildings and locations. Whilst Bailey and Moar (2011) observed that on-screen creation in their study was an 'involved and complicated process' (p. 25), the environment offered by *Minecraft* posed no such barriers. The proliferation of constructions included domestic spaces (eg. houses; arable and livestock farms; gardens; treehouses; a party room; a lounge; stables; a dog shelter); public spaces (eg. A library; a waterpark; McDonalds; a chippy; The Sheep Hotel; a zoo; a horse track; a maze; a large chess set; a theme park; Banterbury Baths; a plant emporium; The Central Plaza) and dark or creative play spaces (eg. YOLO Face's Room of Doom; The Banter Room; Observation Towers of YOLO; a zombie spawner; a dungeon; The Eternal Hole; BBQ BOY's Room of Doom and Destruction; The Mocking Room; secret tunnels). Buildings were often named in the game using text on a sign placed outside; others were named verbally, whilst some structures were not named at all. Beavis and Charles (2005) work on *The Sims* noted a similar mixture of domestic and fantasy world settings, with children subverting the game for their own purposes.

The on-screen structures themselves could be positioned as a product of Sennett's (2009) 'triad' (p.175), with children working with their hands, eyes and brains in 'machinic assemblage' (Deleuze and Guattari, 1987, p.41) with the technology. However, whilst varied in nature, many structures were unremarkable in appearance, if judged on aesthetic merit or complexity of the final product. Seen in isolation from the process of their creation, the viewer might mistakenly be led to believe that these particular hands were not so skilled or 'intelligent' after all. With few exceptions, the structures were relatively uncomplicated and largely functional, recalling Corbusier's (1931) phrase 'a house is a machine for living in' (p.95), a perspective on architecture's role as purposeful but not necessarily decorative or ornate, relying only on 'beauty in the sense of good proportion' (p.95). The first three episodes explored in this plateau feature the kind on-screen play that led to the construction (and de-construction) of these places. Although all comic strips presented in this thesis are abridged

versions of the originals, this chapter's first two examples (Figures 24 and 25) are longer than those that follow. This was a conscious decision to give the reader a sustained impression of the process of in-game creation, which was often drawn out and repetitive.

The final two episodes relate to in-game interactions including non-playable characters (NPCs), also conceptualised here as non-human participants. The inclusion of NPCs, also known as 'virtual interactive characters' or 'digital actors' (Carlisle, 2014, p.521) makes *Minecraft* play distinct from off-screen construction play. In *Minecraft* these are known as mobiles (or mobs) and fall into two categories: 'hostile' and 'friendly' (Redmond, 2014, p. 207). Hostile mobs include zombies, skeletons, creepers and Endermen; friendly mobs include villagers, horses, sheep, chickens, ghasts [sic] and pigs. These mobs co-habited Banterbury alongside the children's own avatars, often generated by the game at unexpected moments or 'spawned' by the players, programmed to follow a trajectory independent of the players' avatars. Carlisle (2014) suggests that 'one of the most exciting aspects of videogame characters is their ability to elicit emotional responses from the player. Yet this area of videogames is both under researched and underdeveloped' (p.520) Certainly, literature around children and virtual worlds tends to focus on the players' own avatars and the meaning they make around these, rather than the meanings made around NPCs.

The first episode focusses on Ben's first moments in the game; we join him at the point where he enters the game.

5.3 'Boom, I'm on...' (Episode 1)

Figure 24: 'Boom, I'm on...' Comic Strip
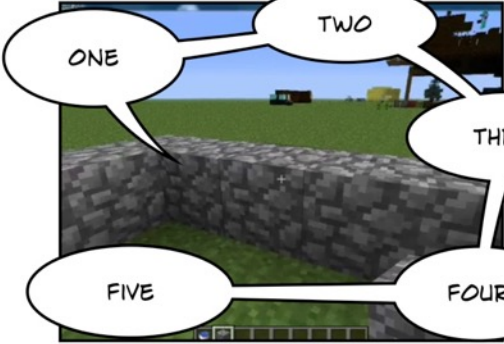
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ANOTHER PLAYER'S AVATAR APPROACHES...

OH IT'S LOIS, I KNEW THAT! YO... LO.... IS....

YOUR NAME SHOULD BE YOLO!

WAIT... WHO IS [READS] SKY... LA... THE... CHICK?

YOLO IS A FAVOURITE PHRASE OF SOME OF THE GROUP: YOU ONLY LIVE ONCE.

HE COUNTS THE BRICKS IN THE WALLS, ONE BY ONE. HE ACTUALLY HAS PLACED SIX BUT DOESN'T SEEM TO NOTICE!

ONE
TWO
THREE
FOUR
FIVE

A QUESTION IS SHOUTED...

IS EVERYBODY READY FOR A GIANT?!

NO! CALLUM DON'T...

WAIT, WHERE'S THE GIANT? I WANT TO SEE THIS GIANT! YO! CALLUM! SPAWN IT!

GO, CALLUM. I WANT TO SEE THIS.

CALLUM, WHO ARE YOU?

I'VE ONLY SEEN ONE ON A VIDEO. I WANT TO SEE THIS GIANT, CALLUM!

I'M [YOLOFACE234]

[FAMALAMLAD] COMES OVER TO WATCH THE BUILDING.

(MORE YOLO)

THE GIANT FAILS TO APPEAR. ANOTHER RESTRICTION OF THIS VERSION OF THE GAME?

OH BEN BEN, WAIT! CANCEL OUT THESE BLOCKS ON THIS SIDE....

... BECAUSE WE NEED TO MAKE IT ONE LARGER, TO HAVE A CENTRE...

HE STARTS TO DESTROY BLOCKS

WHY?

OH, RIGHT.

BEN SEES ANOTHER AVATARS NAME ON THE SCREEN. IT REFERS TO THE BAND 'ONE DIRECTION'.

[FAMALAMLAD] (TOM) IS CONTINUING TO REMOVE BLOCKS FROM THE FOUNTAIN.

OH, ONE D... THAT'S FREYA!

YEP, YOU KNOW ME!

WHAT ARE YOU DOING? YOU'VE DESTROYED THE WHOLE THING!

YEAH, COS IT'S... YEAH..

OH, WHY? WOULD YOU BUILD A BURGER KING?

BECAUSE I FEEL LIKE IT! I'M DITCHING YOUR FOUNTAIN!

COME ON BURGER KING! HERE WE GO! ARE YOU READY?

YOU KNOW WHAT!? I'M GOING TO BUILD A BURGER KING!

HE FLIES TO A NEW LOCATION NEARBY...

BEN! NO.. MAKE IT A MACCY D'S!

ARE YOU HELPING ME WITH THIS, TOM, OR ARE YOU DOING A FOUNTAIN?

I'M DOING THE FOUNTAIN!

FINE! MACCY D'S! WEEEEEEEEE!

WAIT, IF WE ARE DOING A VILLAGE THEN WE NEED A MACCY D'S IN THERE...

LET'S GO TO MCDONALD'S... WE NEED TO START SLIMMING DOWN, LETS GO TO MACCY D'S...

DURING WEEK 5 THE MCDONALD'S IS DEMOLISHED, ALONG WITH PART OF THE SHEEP HOTEL, TO MAKE WAY FOR HOUSING!

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Ben announces his entry with a celebratory call of 'Boom! I'm on!' Already there are signs of destruction in the game's landscape (Tom suggest as a result of 'griefing') and a notion of space belonging to people (Tom: 'that's Mia's bit... that's everyone's bit'). It is only week two and already this 'community space' is subject to private land ownership and antisocial behaviour!

Ben begins by seeking instruction: 'Where do I go? What do you want me to do?' For Ben, at this early stage, building in the game is about complying with instructions, deferring to Tom, perhaps a sign of being new to the club. (In later weeks, Ben establishes himself and often acts as the driving force behind a number of building projects.) The words '*Minecraft* Edu Launcher' appear on-screen, prompting a player to sing, which is then repeated by another player at a higher pitch. Ben and Tom seem to have already discussed that Ben should create a fountain. Nevertheless, he still checks this with Tom, repeating 'What type of fountain do you want' four times, the final time adopting a silly voice. Getting no response, he repeatedly calls Tom's name, eventually turning this into a tune. Ben's suggests using 'cobble stone' instead of 'normal bland stone', as he negotiates his choices from the inventory; this is clearly his preferred choice as he qualifies it with a persuasive statement that 'that'll look real nice!' The use of 'real' as opposed to 'really' sounds like a purposeful choice, as if using someone else's voice to enforce his point. Tom replies with a spontaneous rap, repeating the words 'cobble', rhymed with 'hobble'.

Rob's attempt to impress with his avatar's invisibility is quickly dismissed as Ben returns to his task, again asking Tom 'How big do you want it to be?', repeated three times. In the absence of a response he states his intention to 'do it five by five' and begins to place blocks. When he sees Lisa's avatar he suggests that her name should be 'YOLISA' (a reference to the acronym 'YOLO' meaning 'You Only Live Once' which appears multiple times during the club, spoken and in writing). Callum declares his intention to spawn a giant, although this fails to arrive, presumably as giants are disabled in this version. I have not consciously 'disabled

giants' (I was not aware of such an option!) so can only assume they don't work. Callum's giant and Rob's invisibility both demonstrate prior knowledge of the game, their discussion perhaps being a means of communicating proficiency to the rest of the group. The word YOLO makes a re-appearance as Callum announces his username as 'YOLOFACE234'.

So far, Tom has almost completed a square layer of cobblestone on the ground. He has not noticed, in spite of counting, that this measures six by six and not the specified 'five by five'. Tom's avatar, <Famalamlad>, can soon be seen on-screen destroying some of Ben's blocks. The accidental creation of a square with even sides means that there is 'no centre', which does not fit the requirements for this fountain. Ben notices Freya's username and indicates that he knows it is her before he even reads her name, due to the reference to the band 'One Direction'. Now annoyed at Tom for removing all of his building work ('You've destroyed the whole thing!') Ben decides to leave this project, stating 'I'm ditching your fountain... I'm going to build a Burger King!'. Having relocated in the game and seemingly reasserted himself, Ben once again defers to Tom's suggestion that 'we need a McDonald's', agreeing to this proposal of an alternative fast food outlet by conceding, 'Fine! Maccy D's!' (The reference to 'slimming down' suggests an unusual perception that McDonald's is somehow healthier). And so a symbol of multinational consumerism also, temporarily, establishes a presence in this 'community space', through the presence of a large gold 'M'. This McDonalds however stands unfinished for the next three weeks, a façade with no roof, until it is demolished in week five to make way for housing.

During this episode we see that the on-screen construction is in itself fairly mundane, if viewed simply in terms of placing blocks in a virtual space. The presence of counting suggests that this procedure is methodical, although not necessarily accurate. There are suggestions of some perfunctory planning in terms of the fountain's size and location, certain blocks are selected for their visual appearance but projects are quickly abandoned in favour of others. If,

however, we extend our gaze to look at the wider meanings made around this placing of blocks there is evidence of a number of different creative practices. Ideas spread and are adapted, replicating and changing following negotiation between the players. These repeated ideas sometimes stem from the game itself (references to giants, invisibility, spawning and the singing of '*Minecraft* Edu launcher', where a fragment of text becomes a song) or from their wider experience (fountains, McDonalds, Burger King, One Direction, 'YOLO'). Many of the motifs seen at this early stage are recurrent throughout the life of the club; the repetition and rhyme; the playful use of language; the use of alternative voices and the singing and the mobilising of cultural reference points. This implies that these methods of making meaning around *Minecraft* are not distinct to Minecraft Club, suggesting that the type of play seen in Minecraft Club is in many ways a continuation of the children's complex and established ways of being together.

This next episode from much later in the life of the club features Lisa and Molly seated next to each other. Here we join the two players, as Lisa logs in.

5.4 'The Sheep Shear' (Episode 2)

Figure 25: The Sheep Shear' Comic Strip

SHE OPENS HER INVENTORY AND LOOKS AROUND. HER ARROW HOVERS OVER 'REDSTONE LAMP' WHILE SHE THINKS...

I'LL GET SOME GLOWSTONE

TYPES 'GLOW'. SPELLS OUT THE WORD (WRONGLY) AS SHE TYPES...

G.L.W.

HAVING SELECTED THE GLOWSTONE SHE EXITS THE INVENTORY AND PLACES A BLOCK IN THE CENTRE OF THE CEILING...

HMM, IT'S STILL A BIT DARK... I'LL HAVE TO PUT GLOWSTONE IN THE CORNERS.

MOLLY MAKES A SUGGESTION.

DUDE! PUT LIGHTS RIGHT IN THE CENTRE. LIKE RIGHT IN THE CENTRE OF THE...

SHE PLACES A BLOCK ONE PLACE TOO LOW. SHE DELETES THIS AND PLACES IT IN THE CENTRE...

OOH, WRONG ONE.

WOOH!

YOU HAVE TO HAVE IT SYMMETRICAL! SYMMETRICAL MAKES IT!

SHE PLACES THE GLOWSTONE IN THE CENTRE OF EACH WALL, TURNING CLOCKWISE TO PLACE EACH.

YAY!

YEAH THAT LOOKS SYMMETRICAL!

COS THEY LIGHT UP THE CORNERS.

YEAH, DOES IT LOOK LIGHTER?

YEAH, IT LOOKS LIGHTER!

STILL A BIT DARK IN THE OTHER CORNERS THOUGH.

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PLACES FOUR MORE PIECES OF GLOWSTONE, ONE IN EACH CORNER.

YOU COULD PUT ONE... PUT TWO.. YEAH IN THE CORNER...

I'LL PUT IT IN THE CORNER HERE...

THERE'S SOME CHAT ABOUT 'MULTIPLE BENS' IN THE BACKGROUND AND SOME TEXT ON THE SCREEN APPEARS IN RELATION TO BEN, BUT MOLLY AND LISA SEEM TO IGNORE THIS.

I MIGHT BUILD ANOTHER LEVEL. WITH GLOWSTONE! THEN IT WILL BE A LOT LIGHTER! I WOULDN'T PUT ANYTHING ON IT. IT WOULD BE PARKOUR!

PARK OUR MOLLY! THEN I CAN PUT MORE ABOVE!

OH MY!

SHE PLACES BLOCKS SYSTEMATICALLY IN LINES.

IT'S BECAUSE I'VE WATCHED SO MANY MINECRAFT VIDEOS!

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I WAS MOVING AROUND THE ROOM TAKING PHOTOS AT THIS POINT. THE GIRLS COMMENT ON THIS.

MR BAILEY IS TAKING PICTURES! I WAS LIKE THAT...

(AMERICAN ACCENT) SMILE FOR THE CAMERA, MOLLY!

YOU SOUND LIKE A COWGIRL THEN!

BOTH GIRLS REPEAT LISA'S ORIGINAL PHRASE.

(AMERICAN ACCENT) SMILE FOR THE CAMERA!

(AMERICAN ACCENT) SMILE FOR THE CAMERA!

BUILDING CONTINUES IN ALMOST COMPLETE QUIET, WITH ONLY THE NOISE OF OTHERS AUDIBLE.

CONNECTION WITH THE SERVER IS LOST.

Connection Lost

Lost connection
Internal exception: java.net.SocketTimeoutException: Read timed out

Back to title screen

OH, GONE!

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LISA QUICKLY LOGS BACK IN, CHOOSING THE SAME AVATAR.

I am a Student   I am a Teacher

Choose appearance:

Connect

HAVING LOGGED BACK IN, MOLLY SEEMS TO BE REFERRING TO HER OWN CREATION.

OH YEAH, FORGOT ABOUT THAT, YOU CAN JOIN ON TO THIS. IT'S LIKE AN ENTRANCE WAY AS WELL.

COOL.

THE ACTION INVOLVING MULTIPLE BENS CAN STILL BE HEARD IN THE BACKGROUND.

WAIT, WHERE HAVE YOU..? YOUR ROOM IS THROUGH THERE... AND MY ENTRANCE WAY IS THERE...

MOVEMENT ON THE SCREEN PAUSES WHILST LISA TALKS, PERHAPS LOOKING AT MOLLY'S SCREEN INSTEAD OF HER OWN.

BUILD LIKE UM.....

YEAH THAT...

DOES IT GO DOWN HILL?... BUILD A WATER THING, NO DON'T ACTUALLY DON'T... MAKE A [INAUDIBLE] YEAH MAKE AN [INAUDIBLE] SLIDE!

Panel 1: MOLLY MAKES SOME NOISES...
MEMEME MEMEMEME! (LAUGHS)

Panel 2: LISA STARTS PLACING FENCES ON HER NEWLY BUILT FLOOR.
OK, NOT WEIRD AT ALL MOLLY!

Panel 3: AFTER YOU'VE DON'T THAT I COULD BUILD A MASSIVE... I DUNNO A MASSIVE SOMETHING, LIKE A MASSIVE TOWER, KINDA... MASSIVE TOWER HOTEL KINDA HOUSEY THING!
... SO WE COULD HAVE LOADS OF DIFFERENT THINGS IN IT.
COULD HAVE A LIBRARY, COULD HAVE...
YES YES, YES YES WE COULD...

Panel 4: BEN SHOUTS FROM ACROSS THE ROOM...
WHY ARE YOU ALL CALLED BEN?!
I'M NOT!
THE OTHER PLAYERS HAVE RENAMED THEIR AVATARS AS VARIATIONS ON HIS NAME...
I'M NOT, I'M IN THE RUBIK'S CUBE!

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As exemplified here, Lisa often worked methodically through creations; other children were intrigued to know how she managed to patiently dedicate her attention to one project, consistently, over a number of weeks. Here there are compliments for Lisa's construction, which she seems to deflect by mimicking for herself. Whilst searching for blocks, Lisa types 'EE' into the inventory. For Molly this is close enough to 'E.T.' (The Extra Terrestrial from the Steven Spielberg film) to spark a recollection and thereby prompt a discussion around the film and the famous quote 'E.T. phone home'. This is another example of a seemingly insignificant piece of text acting as a stimulus for on/off-screen improvisation, similar to the singing of '*Minecraft* Edu Launcher' in the previous example. Next comes another reference to another staple of 1980s popular culture, the Rubik's Cube, which Lisa's uses to describe the building she has created.

Lisa does a virtual wave to Ed, whose avatar appears on-screen, moving her mouse up and down and saying 'hello'; she is aware that her hand movement will translate to a movement of her avatar for Ed, even though playing in first person mode means she cannot see for herself. As Lisa walks her avatar into the house, Molly is watching Lisa's screen. The building is a large, multi-coloured hollow cube. Molly comments that 'symmetrical makes it', applying a kind of mathematical logic to the construction. Lisa methodically places blocks centrally, quietly narrating her progress to Molly. Elsewhere in the room there is talk about multiple Bens; these children are engaged in a different kind of play around *Minecraft*, having renamed their avatars to a variety of different versions of Ben's name. Lisa and Molly are not drawn in at this point, however.

Lisa mentions watching *Minecraft* videos online, referring to the practice of 'parkour', a synonym for 'free-running' and a term applied to a certain type of map in *Minecraft* in a number of YouTube videos. My presence nearby, snapping photos, is met by Lisa taking on an American 'cowgirl' accent, saying 'smile for the camera'. This is repeated by Molly, using the same accent, and again by Lisa. Lisa crashes out of the game but, barely missing a beat, logs back in and building

continues in the same methodical manner. They are briefly involved in the discussion about avatar names before returning to their quiet discussion. The girls make reference to the different approaches to gameplay; Molly suggests 'I don't think we even play *Minecraft* in Minecraft Club', Lisa replies 'They don't, we do!'. Here, Lisa highlights her commitment to building in the game and her time spent focussing on the screen in comparison to other players, who spend much of their time on smaller projects, or away from the screen entirely.

In contrast with the previous episode, this on-screen construction is more sustained, in spite of the events unfolding in the room. Whereas Ben was seen to move from one project to another, Mia's focus remains largely on this project which spans a number of weeks. In spite of this difference there are also many similarities. Building has similar methodical undertones; where Ben used counting, the mathematical reference point here is 'symmetry'. Again, children draw on wider cultural reference points (Rubiks Cube, the film E.T., Parkour, a library and YouTube). Again, there is the use of alternative voices (the 'cowgirl' accent). There is also more evidence of a strong relationship between the construction and the club members' social interactions. Although Lisa's on-screen creation was largely independent it was punctuated by regular discussion with Molly and less frequent participation in the club's wider events. Her creation also received complements from other members of the group.

In this example, however, the social aspect of creation was not fully evident until completion of the Sheep Shear. During the following week, Lisa revealed that it had been created as a gift for the rest of the group. She invited the other players to participate in a game that took place in the building, with rules for participation written on signs on the outside (Figure 26). The fact that Mia's long term intention was revealed to have a shared purpose exemplifies the role of on-screen creation in the club as an enabler for social participation.

Figure 26: Avatars anticipating the Sheep Shear Game.

Figure 27: Screenshots from 'The Maze of Doom'

This pattern of creation as an enabler for social participation was repeated during the following session by Freya and Sophie who created 'The Maze of Doom' in the game, based on a shared family visit to a real maze, as the location for another shared game designed for the whole group (Figure 27).

Having established that social participation and creative play could be seen as co-emergent features of the club, the next episode focusses on another example of social interaction in the game, this time around an act of on-screen destruction.

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5.5 'One or Several Wolves?' (Episode 3)

Figure 28: 'One or Several Wolves? ' Comic Strip

This example demonstrates how interactions with the game were not always motivated by a wish the please others. Here, the on-screen play is rooted in destruction, as a member of the group has damaged sections of the waterpark; the presence of 'zombie heads all over them', seems to indicate that the destruction was not accidental. The spawning of multiple wolves is similarly disruptive, filling up the screen and slowing down the game for all players. Here, the hand at work appears to be driven more by mischievousness than an 'intelligent' triad. Nevertheless, these acts of destruction and disruption could be framed as a type of creative play, as they do lead to changes in the on-screen landscape, as well as having wider consequences.

Some children disassociate themselves from the event, providing an alibi to account for their actions, as the act of virtual destruction is positioned as action against the group. Perhaps most significantly, the group's attempts to seek a solution that involves punishment and discipline tells us something about how they saw the imposition of rules and restrictions as a natural response to anti-social behaviour. This recalls the 'chaotic social systems' (Marsh, 2012, p. 85) seen to form around such contexts. This reaction to the mystery player's experimentation in on-screen vandalism set a potential precedent, communicating how future behaviour would not be tolerated in the club, acting as a kind of 'test-case' for virtual criminals. Ben calls for 'a rule that someone owns up' whilst Tom suggests a rather excessive 'ninety hours of community service'. There is also talk of banning the culprit from the club, and the need for the damage to be repaired.

The culprit was never definitively identified and punishment was never enacted. However, the emotional reaction to this incident was used by the children to fuel their negotiations around playing the game in survival mode. As a result, following a unanimous group vote, the next week's club involved this change, and therefore included more restrictions, both on the children's movements (they could no longer fly) and the materials available to them, partially in the

hope (by the children) that this would encourage people to value resources more and to stop incidents of griefing. Although there was little evidence of griefing after this event, I felt that this was more in relation to Ben's emotional reaction than it was the change of game mode. However, this episode did not mark the end of children's wish to impose their own kind of order on the club and the gameplay. In future weeks, work began on a prison in the game, reflecting the fact that crime and punishment was still on the children's minds. However, work on this building soon petered out, perhaps reflecting how the children found other non-punitive ways in which to impose order on the community.

In spite of its negative undertones this event can still be read as a social one, albeit designed to provoke a response from the group. Whilst it is only possible to speculate on the motivations of the culprit, it is clear that this act still has emerging social consequences, as events unfold in response, through the group's discussions. Ben's response is an emotional one, combining disbelief with a desire to punish. He appears personally aggrieved by the act, reflecting some players' often emotional investment in the game. The culprit is positioned as 'somebody who doesn't have a heart'. Meanwhile, Tom's response is to use humour, possibly as a means of diffusing the heightened emotions; prompted by the presence of several wolves in the game he channels the persona of 'Winston Wolf' from the Quentin Tarantino film 'Pulp Fiction' (presumably via the same character's more recent 'Direct Line' insurance TV advert), offering up his services to the group using the character's catchphrase 'I fix problems'. This intertextual reference demonstrates how the children's adoption of wider cultural reference points was, as in the previous examples, emergent but also, at times, astutely contextualised within the ongoing events. Spontaneously leveraging a reference to two concurrent in-game events (the presence of wolves, the problem of griefing) and then engaging with the ongoing conversation by adopting this character is quite an achievement. This, in itself, could be positioned as a kind of creative play, albeit one that does not involve the shaping of resources using the hand, drawing instead on the other two elements of Sennett's triad.

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The following comic strip also involves a verbal act of creativity, again linked to the on-screen action. The episode demonstrates how the creation of an on-screen structure, dubbed 'the Sheep Hotel', prompted unpredictable but associated action in the room. We see the events that unfold once the structure was complete. It also features a virtual sheep, providing an example of how the presence of non-playable characters influenced the club's events.

5.6 'Free the Sheep' (Episode 4)

Figure 29: 'Free the Sheep' Comic Strip

Here the perceived unfairness of 'trapping' the sheep leads to an instance of spontaneous performance, through the application of alternative words to the charity song 'Feed the World', another example of the children's appropriation of a (perhaps unlikely) cultural artefact as a resource for their creative play.

Originally performed by Band Aid in 1984, the song frames the on-screen action in a particular way. Singing begins with vocalising from Ben, but soon spreads around the room to be taken up by multiple human participants, eventually to be re-sung with a different tune and at a different pitch by Mia. The focus of the song is on 'freeing' the non-human participant, the sheep, from the strange podium that contains him. The pleasure derived from the performance can be seen through the active bodily gestures of the singers, as hands are waved in the air in a manner that recalls the original song's promotional video. Laughter is also heard, as children amuse themselves with their own reactions to the on-screen event. Eventually Callum, the creator of the Sheep Hotel, tires of the song and asks the performers to stop, albeit not before others have proceeded to dismantle the hotel.

Visually, the hotel appeared harmless enough, consisting of a simplistic arrangement of building blocks. However, just as Callum had assigned the name 'hotel' to this formation, Ben was also able to reframe the structure as a 'prison' (elsewhere referred to by Ben, dramatically, as an 'animal cruelty camp') and a reason for protest. At the end of the episode we see that Mia directly addresses the sheep, looking at the screen, saying 'Hello!' and suggesting 'Guys! He's looking at me!'. This attribution of agency to the sheep, assigning it the ability to see as well as be seen, suggests some kind of relatability, as well as implying the permeability of the on/off-screen divide as the human player and the virtual sheep peer across at each other, through the screen. The presence of the NPC in this episode seems to heighten the emotions of the players and leads to this pledge to 'Free the Sheep', whilst the simple on-screen structure is subject to different meanings assigned to it depending on the player's intentions. Dickey's

(2010) suggestion that 'virtual worlds are not value neutral and each has differing affordances and constraints' (p. 18) seems apt here, as the properties of the game promote a particular kind of response.

Elsewhere, this episode forms the basis of a more extended discussion (Bailey, 2016). However, this brief look at this extract demonstrates the kind of emergent, creative play that often extended from the game during the club; an in-game construction became a stimulus for a song which, in turn, led to responses of others in the room that had implications both on and off-screen. Again, a structure created in the game is appropriated for a social purpose which, manifesting in song, spread around the group; the exemplifies how emergent events fuelled different kinds of social creativity within the club.

This final episode also features a non-playable character, with a focus on one player's reaction to a mobile called an Enderman.

5.7 'A Crippling Fear of Endermen' (Episode 5)

Prior to this episode, Tom had spoken about his dislike of Endermen. These fieldnotes from the first week of the club reveal that Tom's fear pre-dated the club itself, stemming from his prior experience of the game from play at home (Figure 30).

> **Fieldnotes Extract Week 1:**
>
> Suddenly Tom jumps from his chair and puts his iPad down on the table in front of him.
> 'I do not like Endermen!' He shudders, 'It looked me right in the eye!'.
> He walks around the class stiffly, looking at other people's screens but keeping well away from his own small group.
> After a while, Rob calls him back. 'All of the Endermen have been destroyed' he says.
> 'Except for one!' mutters Ben.

> 'Let's not turn Minecraft Club into 'lets-scare-Tom' club" he replies.

Figure 30: Fieldnotes Extract Week 1

Tom's comment that 'it looked me right in the eye' recalls Mia's assertion that the sheep in the previous episode was also making eye contact with her, across the screen; both examples attribute agency to the respective NPCs, further emphasising their role as non-human participants in the club.

The following comic strip shows Tom's reaction to an on-screen encounter with an Enderman in the game. Although it is difficult to tell whether this episode shows genuine fear or a parody of this reaction, the speed of his response and facial expression suggests the former. The still shots that make up the first page of this transcription are crops from the periphery of the camera's frame. The camera was focussed elsewhere in the room and not directly on Tom, making it unlikely that his initial reaction was a performance for the benefit of the camera. The second page demonstrates children directly addressing the camera in response to Tom's reaction.

Figure 31: 'A Crippling Fear of Endermen' Comic Strip

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Rob is watching Tom's gameplay on-screen. Suddenly, Tom lets out a scream and turns in his seat, propelling himself from the chair, knocking it out of his way. Rob's face suggests that he is similarly taken aback, perhaps more surprised by Tom's reaction than the presence of Endermen. Tom shouts 'Oh my god, the monsters are on! Endermen are everywhere!' Very quickly, Rob's surprise turns to amusement. However, Tom's physical response continues as his forceful movements culminate in him curling into a ball in a defensive pose on the floor.

Other children are drawn in. Mia asks hopefully 'did the GoPro capture it?', excited by the prospect that Tom's reaction may have been recorded. To explain his actions, Tom grabs the camera and states 'I have a crippling fear of Endermen'! His fear is expressed, in physical terms, as being incapacitating. Mia takes the camera and responds 'He's a wimp... and a baby'. Turning the camera back to Tom he asserts 'One thing! One thing!', suggesting that this is the only thing that he is scared of, perhaps his Achilles heel. Again, Sophie asserts that Tom is a 'Wimp and baby' calling this 'a new nickname'. She returns to the computer, logs out and logs back in with the name '<TOMISANIDIOT>'. She types the message 'MEAN = TOM CUZ HE'S A NAME STEALER'. Finally, Tom returns to his computer, also typing a message 'PLZ TAKEAWAY THE ENDERMEN! plz takeaway the endermen'.
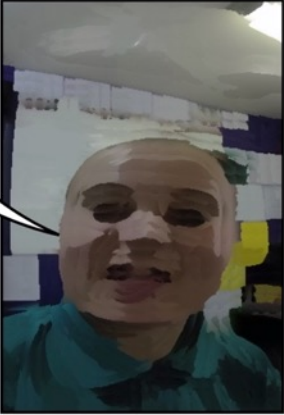
Tom's visceral reaction suggests an underlying, pre-existing association with Endermen, recalling his earlier comments (Figure 30). Here, the simplified appearance of this character allows Tom to project more on to the NPC than is visibly present on-screen. His reaction to meeting the character's gaze was so strong that he moved his own body away from the screen, rather than navigating his avatar away in the game. Abandoning his on-screen presence suggests that his fear was for himself in the room, rather than what the Enderman might inflict on him in the game. Whether this was due to a specific prior experience in the game or wider associations with the associated lore of Slenderman (3.6) is not clear. However, it was Tom's brother, who I taught two years previously, who had

first told *me* about Slenderman. Elsewhere, Tom talked about playing *Minecraft* with his brother, suggesting it is possible that his response is related to the Endermen's associated backstory, related via his own brother. Although it could be that Tom is playing up to a vulnerable role he has already established, his seemingly genuine response suggests otherwise.

A number of other children were drawn in to this episode. Firstly, Rob, whose shock quickly turned to amusement, clearly did not have similar issues with Endermen; indeed, he introduced a number of them to the game during discussion session 3. Secondly Mia, whose response suggested that she was positively revelling in Tom's show of vulnerability. Whilst Tom's response was dramatic enough to have been witnessed by the rest of the group there was a distinct lack of sympathy from anyone else in the room, including me! There was a genuine sense of amusement at such an extreme reaction, whilst Tom demonstrated very quickly that he was fine, and willing to discuss the episode. Soon, Mia and Tom were having conversation mediated by the camera, not communicating directly with each other but each adding a conflicting side to the record of this account, perhaps (in their imaginations) destined for wider public consumption via YouTube.

The ease with which Tom handed the camera over to Mia to give her response suggests his complicity in this, as does Mia's act of turning the camera back to Tom, giving him a right to reply. As such, this conversation could be seen as an enactment of the kind of playful 'banter' that the children often made reference to in the club. Mia's typed message on-screen suggests a motive for her involvement; Tom had stolen her name in the game and she was seeking revenge. Tom's response was to ignore Mia's on-screen assertion, although the fact that he also chose to type a message suggests that his message was some kind of retort to her; instead of being mediated by the camera their conversation was now mediated, and recorded, by the chat log in the game. Of course, Tom's message

was likely directed at me as he was aware of my ability to 'turn off' Endermen. The game's server log confirms that I did not respond to this indirect request!

Tom's reaction demonstrates how children made meaning in relation to the game. Meanwhile, the discussion that followed, using the camera as a confessional tool, shows the creative use of the research tool that was often a feature of the club (See also 'The GoPro Song' 3.14). As a result, when considered in relation to the previous examples, this episode illuminates how children's appropriation of resources in their creative play and meaning making practices was emergent, spontaneous and unpredictable.

5.8 Discussion

The episodes presented above help to assemble a picture of a kind of play in the club that was often spontaneous, creative, imaginative, and sometimes affectively charged. This play was largely social and took place across the club's on and off-screen space. The episodes presented here exemplify the role of the game, alongside other resources, as fuel for the children's creative play. Here I draw out some the strands that run through these commentaries, considering what reading the episodes together suggests about the children's lived experience of the club.

5.8.1 Creative play on and off-screen

These episodes exemplify how the club involved a type of creative and imaginative play that effortlessly crossed on and off-screen boundaries. This creative play emerged in a number of different guises. Children's readings of the game were entangled with their experience in multiple ways; just as they acted on (and in) the game, so too the game acted on them. All of these episodes exemplify an ongoing and reciprocal relationship between the on and off-screen action in the club. In '... Endermen' (5.7), this manifests in Tom's affective and embodied reaction to his encounter with an on-screen, non-human participant.

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In 'Boom, I'm on...' (5.3) we see construction as both a response to, and a creation of discussion. In 'The Sheep Shear' (5.4), the construction of the on-screen building prompts discussion between two players and also, later, forms the basis of an activity that draws in other children. In 'Free the Sheep' (5.6) an in-game event involving a non-human participant becomes a stimulus for a song, which in turn influences the gameplay on-screen and the action in the room. Sennett (2009) suggests that computer assisted design allows makers to 'make a mental journey, on-screen' (p.40). Whilst the mental journey referred to by Sennett relates to the potential for analytical or diagnostic use by an architect or product designer, the construction play element of *Minecraft* provided the group with an accessible variant of computer assisted design to use during their play, with the 'mental journey', in the club's space, involving a flow of imagination both on and off-screen. Sennett (2009) suggests that 'the necessity of imagination appears in the use of tools' (p.238). Here, imagination was necessary for the children's creative play, with the 'tool' (the technology) and the material (the game) being used in a number of creative ways.

Creative play in the club was fuelled by the children's emergent adoption of resources. In this way, the concept of 'design' as prolonged engagement was often side-lined in favour of spontaneity and originality; the children were certainly not creating prototype models to later be rendered in physical form. Nevertheless, the mental journey associated with the on-screen construction was persistent and ongoing, alongside the children's creation and exploration of the game, and the imaginative flow encompassed a range of sources drawn from a range of different spaces, contributing to the building of Banterbury itself and the lived experience of the club. The creation of Banterbury clearly was not just about the on-screen, visually represented space; it was more than the pixellated bricks representing the buildings, and the hands-on-keyboard process of creation that went into creating them.

Throughout the data, instances which could be dismissed as ephemeral or peripheral to the gameplay became an integral part of the children's lived experience during the club. This demonstrates the complexity of researching such environments, but also signals the importance of including such events in accounts of children's interactions around technology, if we hope to understand the potential of such environments. The on and off-screen need to be considered together to examine how the children's creative play shaped the club. The resources drawn upon by the children, their performances and the in-game creations did not exist in isolation from each other, rather they were connected and dependent on each other in a number of complex and unpredictable ways.

The children's multiple means of communication and modes of making meaning were mobilised in different ways at different times, sometimes acting as a stimulus, sometimes as a response or as a conduit for the next move in the creative flow. As I observed the group engaged in song or conversation, turned away from screens and keyboard, I sometimes felt that playing the game was not the purpose of the club; it may have provided the initial and ongoing draw, but the motivation for the club that underpinned the lived experience was a desire to do things together: to talk, to laugh, to sing, to play, to entertain and to create. Seen in this way, binary definitions of on and off-screen disintegrate as all play during the club took place using an ever-changing configuration of resources and players, travelling across the virtual and physical locations.

The construction play aspect of the game allowed for new communicative practices to emerge, as children observed, interacted with and responded to each other's on-screen constructions; this is not to say that children replaced their existing methods of communication with visual methods on-screen, rather that they supplemented them as a means of enhancing their play experience. For instance, whilst the on-screen gamespace was being constructed, text still made regular appearances in the game, children frequently talked directly to (and at) each other and bodies acted and performed, both to read and convey meaning

through gesture and movement. The game was connected as one of multiple sources that the children accessed during their creative play. *Minecraft* did provide a shared social space on-screen. However, this virtual space was not used as an alternative to the physical space, rather it was entangled with the classroom; this hybridity characterised the club, as the children interacted whilst seemingly effortlessly inhabiting the available spaces. This suggests that we should not necessarily see virtual worlds as providing opportunities that are alternative to physical spaces, as a site to replace or replicate a physical location, but as a means of enhancing existing places.

5.8.2 The Role of the Game

That is not to say that the game did not influence the lived experience, which was often shaped by the nature of the game. Just as a hammer, as a tool, enables certain types of practice, so too does the game, as a digital tool. Whilst the construction of the on-screen virtual place was not the whole purpose of the club, it did provide what Trigg (2012) refers to as 'the holding power of place' (p.76), acting as the virtual glue that held the club and the group together. The game enabled an imagined place to be represented on-screen, as the group used the game to construct structures and spaces. Furthermore, as the children invested more time in the construction of Banterbury, so it became increasingly personalised, populated with ongoing constructions but also linked to shared events, experiences and ideas, triggering memories and recollections of past times spent in the co-constructed space and the classroom itself.

Whilst the children's play was not always about *Minecraft*, *Minecraft* was often implicated in some way in the creative practice, event, episode or activity. Sometimes the game was the prompt, sometimes the site of performance, sometimes it provided a resource or resources. An action on-screen could prompt song elsewhere in the room; a memory of a previous event could provide the stimulus for an in-game text; a word read on-screen could prompt a memory which, in turn, manifested as an on-screen construction. It might be possible to

categorise the different ways in which these creative practices related to the game, but a description that acknowledges the rhizomic and therefore interconnected and emergent nature of these practices perhaps gives a more representative impression.

In many respects, it was the specific properties of the *Minecraft* itself that enabled flexible meanings to be made. This was recognised by the children; during discussion session 1, Callum talked about the simplicity of the graphics in terms of their universality, stating that 'I think everybody likes *Minecraft* because the graphics are so universal and everyone can play it'. He compared this to games with 'really, um, real looking graphics' which 'actually make [him] quite dizzy sometimes'; Tom agreed, volunteered *World of Warcraft* as an example. Callum later talked about *Minecraft* having 'old graphics'; certainly, the aesthetics of the game, through its pixelated appearance, hark back to computer games of the 1980s; games I grew up playing such as *PacMan*, *Space Invaders* and *Manic Miner*. However, here this blocky appearance belies a complexity far beyond the scope of the processing power of pre-21st century devices. As Wolf (2003) suggests, 'as graphics improved and became more representational, abstraction became more of an artistic choice instead of merely a technical default' (p.58). Unlike these older games, *Minecraft*'s appearance is intentional, with implications for the type of gameplay it enables. Visually, the game's deceptively simplistic graphics are employed as a conscious design choice that unlocks potential beyond a surface level nostalgic aesthetic appeal; rather than speaking simply of retro-aesthetics the game's abstract appearance allowed the players to assign their own meanings, both to their avatar and the game's landscape. They were able to approach the game in distinct and creative ways, as part of their wider play, driven by their own concerns, rather than the meanings always being fixed or necessarily defined by the game itself.

Callum also talked about the possibilities afforded by the game in terms of creation, suggesting that the appeal also stems from the fact that you can do

things that you can't do 'in real life'. This notion of 'possibility' is also underpinned by the games inherently 'universal' appearance, as a landscape of pixelated blocks. The game provided an abstract starting point for the club human participants to assign their own meaning. *Minecraft* has been likened to a kind of virtual Lego (Christiansen, 2014, p. 33); due to the relatively abstract nature of the blocks, the children in the club were able to assign their own meaning to these building blocks, just as (often younger) children may do when constructing with physical building blocks. The Sheep Hotel (5.6) did not literally approximate a conventional hotel. Nevertheless, this kind of abstraction allowed the players to assign meaning to the creations in *Minecraft*, beyond any literal meaning that the individual blocks were designed to represent. The children were not required to play out an inbuilt story or enact fixed roles dictated by the game.

The abstraction, coupled with the game's open purpose to create a 'virtual community', allowed for a range of creative meanings to be made around the game, in ways that a game with more photorealistic properties would not necessarily have encouraged. Whilst this openness led to certain types of meanings being made around the game's landscape, children also responded to the presence of the Non Playable Characters (NPCs) in a range of different ways. These non-human participants often infused the gameplay with an emotional dimension, triggering playful lines of flight in unpredictable directions. In 'Free the Sheep' (5.6) children empathised with a sheep and sought to liberate it, which in turn became an opportunity for a spontaneous and collaboratively composed song. Tom's encounter with the Enderman (5.7) elicited an emotional reaction, which was then used by other members of the club as a means of critiquing his response via confessional style video. The content of this play could not be predicted as its shape was one defined by emergence and spontaneity. Elsewhere, during the club NPCs were also likened to pets, suggesting some emotional connection between the players and the characters. Carlisle (2014) bemoans the 'poor behavioural fidelity of character behaviours' (p.522) present in

contemporary NPCs. However, here this low fidelity allows the children to assign their own meaning to the characters, thereby engaging them with the game. This challenges Carlisle's (2014) suggestion that 'the ability to spend time being entertained in a virtual world filled with interesting virtual characters has not yet been fully realised' (p.523) as *Minecraft*'s NPCs played an important and vibrant role in the children's creative, collaborative play.

This is not to say that collaborative play would not be possible around other videogames, that *Minecraft* is a perfect model of a virtual world for children, or that *Minecraft* could not be played in different way with different outcomes. It shows, however, that we cannot easily generalise about 'virtual worlds' any more than we can generalise about other media. To do so would be reverting to singular understandings of cultural items (or, more widely, types of media) that are inherently much more complex; assemblages rather than fixed or singular objects. *Minecraft* itself clearly was not singular; it had multiple meanings which were constantly being produced and negotiated by the children. However, whilst this may be true of any media artefact I suggest that this multiplicity was enhanced in *Minecraft*, precisely due to its open nature. The freedom to create and to move throughout the game's landscape made it more adaptable than, to use an examples cited by the children, other superficially similar games such as *World of Warcraft* or *The Sims* where characters, meanings and even objectives are often fixed by the game mechanics and design.

5.8.3 Social Construction

Whilst for some, as in 'The Sheep Shear' (5.4), the process of methodical construction had a distinct draw, many human participants indulged in less disciplined construction, often seeming more interested in the meanings they invested in their creations than how they appeared to others. For many players, there was little evident focussed concentration, as the players' gaze left the screen to focus on social interaction elsewhere in the room, or conversations were conducted on topics that had little to do with the blocks appearing on-

screen; some players spent significant amounts of time away from their keyboards between the placing of blocks, as face-to-face interaction was prioritised over on-screen creation. This suggests that the draw of the club was not so much the on-screen game itself but the processes around it. Rather than being contained on-screen, meanings made by the children manifested in their ideas, their actions and their communications, often as a response to their creations rather than being inherently part of them.

The creation of the on-screen space was socially driven in a number of respects, reflecting the idea that 'making is connecting' (Gauntlett, 2011, p.245). Play was often collaborative. Even when building individually, as in 'The Sheep Shear' (5.4) and 'Boom, I'm on...' (5.3), this act was regularly punctuated by discussion. Secondly, the creations were often used socially by the group, as an intended resource for social play, as with 'The Sheep Shear' (5.4) and 'The Maze of Doom' (Figure 27), or providing the abstract hook on which children could hang other creative ideas, as with 'Free the Sheep' (5.6) . Even the act of destruction, depicted in 'One or Several Wolves' (5.5), potentially had a social impetus, generating a social response, leading to creative group discussion. Finally, there was also external social recognition as a form of extrinsic reward for a 'doing a good job' seen, for example, as the players praised Lisa for building the Sheep Shear (5.4). These social acts of creation were all the product of what could be considered emergent thinking, as the group drew on a diverse range of resources to influence their play.

5.8.4 Emergent Thought

In this way, the lived experience was characterised by an emergent kind of thought. Across the on and off-screen spaces, ideas and actions were generated as part of a process that resembles Deleuze and Guattari's (1987) concept of 'nomad thought' (p.379). Holland (2013) describes this type of thinking whereby 'at each point in the proceeding, it must select a direction on the spot, depending on a punctual evaluation of the outside forces in play at a given juncture' (p. 46).

In the club, one thought sparked another somewhere else in the room, which led to another, and so on... Individuals reacted openly and spontaneously to the unfolding events and ideas presented by the game and their peers, with new ideas and thoughts emerging, drawing on a range of different sources as part of their play. The club itself could be considered a site of remix, where the on-screen creations became just one of many resources that were manipulated and combined to form 'new kinds of creative blends' (Knobel and Lankshear, 2008, p.22).

Rather than understanding these 'creative blends' as distinct, recognisable artefacts, however, they infused the children's play in a state of perpetual recreation. The children could be seen to be regularly drawing on songs (Free the Sheep / Feed the World), film (ET, Pulp Fiction) locations (McDonalds, Burger King, a fountain), objects (Rubiks cube), stories and characters (Slenderman, Winston Wolf) and their own experiences, all rolled together with rhyme, repetition and playful language, to fuel their collaborative play. Not all of these aspects always manifested in the game on-screen, but they were regularly linked in some way to the game and they all formed part of the children's lived experience of the club. Where the game was not directly implicated there were synergies between how the children used the wider resources at their disposal and how they used the game. Any object, item, word, memory, happening, resource, picture, song... seemed fair game for remixing into the children's play to generate another output. The way they drew upon *Minecraft* was the way that they drew upon the world: as a rich resource for creativity and making meaning.

5.9 Thinking with The Body without Organs
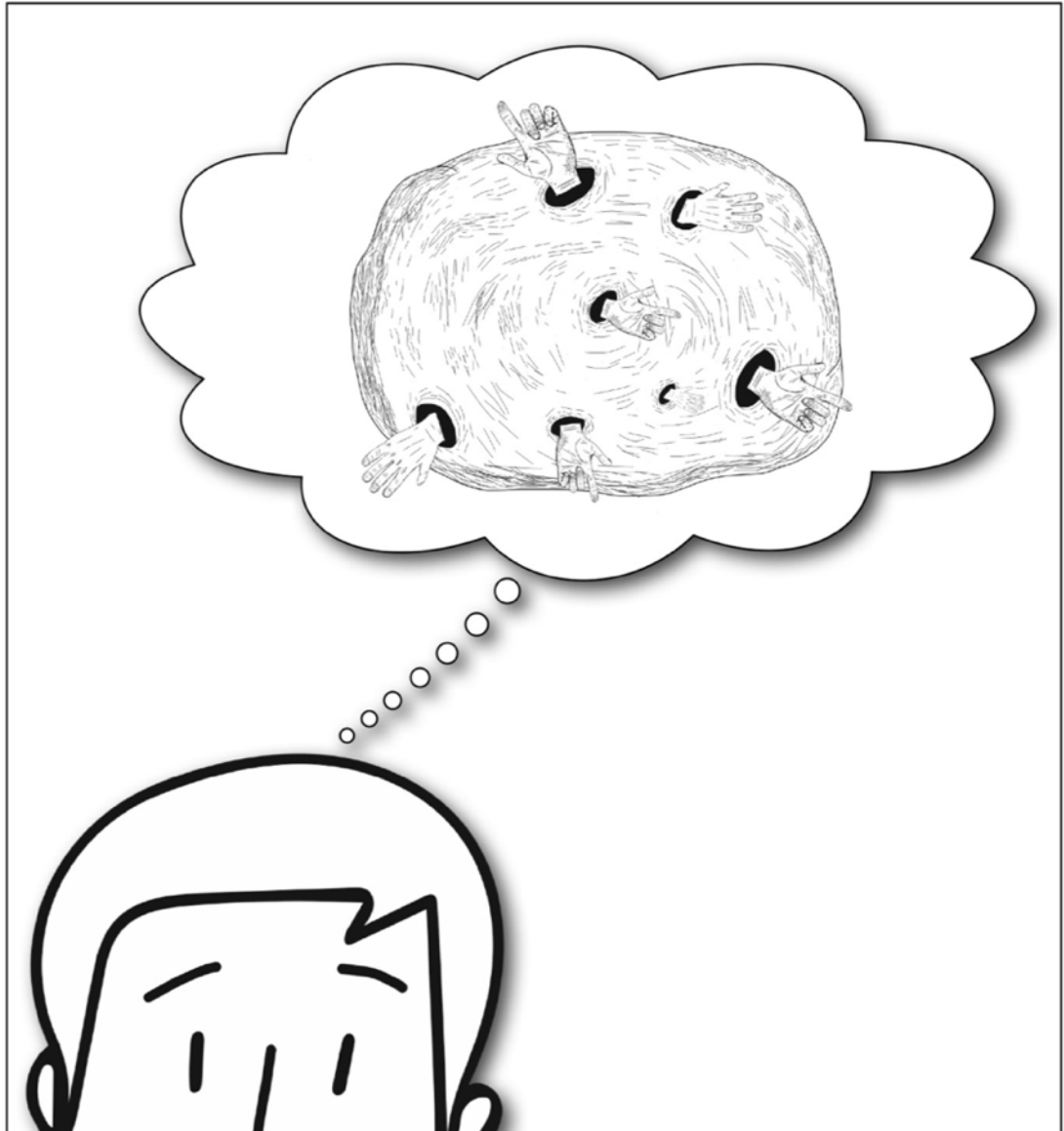
I began this plateau by implicating the hand, brain and eyes of individual human bodies as potentially vital components in the processes of creation and meaning making and, therefore, in the lived experience of the club. This enabled a consideration of the bodies depicted in the extracts and, therefore, the organs that were involved: particularly the triad of the hand, the eye and the brain. However, to focus on these organs has the inevitable effect of framing participation on individualised terms and, as we have seen, the motivations for much of the group's creative practices around the game were often social. In

addition, I am seeking to explore the lived experience of the group, rather than the lived experience of individuals.

In light of this, I suggest that a particular application of Deleuze and Guattari's (1987) term 'Body without Organs' (BwO) could provide a useful way of framing the group's experiences, in relation to the game, and more widely. The term 'BwO' itself is something of a 'misnomer' (Holland, 2013, p. 94) given that 'the BwO is opposed not to the organs but to the organisation of the organs called the organism' (Deleuze and Guattari, 1987, p.175). Thinking with this term, therefore, does not involve a wholesale rejection of the role of organs considered above, rather it allows us to consider them in a reconfigured form; in this case, in multiple. The BwO involves the dismantling of self (p.167) and therefore enables a focus on 'collectivity' (p.167). How is this useful for our understanding of the lived experience of the club? Well, given this focus on 'collectivity' the body without organs provides a useful conceptualisation of the group; here I elaborate on three main ways in which is can be usefully applied.

Firstly, using the term 'BwO' allows us to view and understand the group as a single body. This is not to reduce or simplify the group; conversely, it establishes the group as a connected, 'fluid and slippery' (Deleuze and Guattari, 1987, p.15) entity that is therefore complex, changeable and difficult to pin down. The BwO is not a denial or rejection of organs but an embrace of different orientations of organs; the group, as a BwO, therefore includes multiple organs and body parts (multiple hands, brains, eyes, arms, legs, feet…) operating without a central organisational point. Whilst it is tempting to position the game itself as a central organisational force, this would assign it too much significance in the overall operation of the group. In fact, the organisation of the group depended on different and multiple organs and objects, connected and reacting in response, or as a stimulus, to each other.

We have seen how the group's activities regularly and spontaneously changed direction, responding to different ideas and stimuli generated elsewhere in the group. These ideas were not usually as a result of design; like the BwO, they came as a result of 'experimentation' (p.166) and were therefore often afforded by the nature of the group itself. Thinking of the group as a BwO allows us to consider the group where multiple parts were working together, sometimes in unison but, more often, in response to each other. A hand moves in reaction to a thought, a thought comes as a response to an action, a movement comes in reaction to an object. In this way, the BwO results in a collective form where 'intensities pass and circulate' (p.169), and the intensities created by the group led to these connections and responses. Reimagined in this way we see connections as intensities between different part of the same body and, therefore, different parts of the group, rather than arising from different individuals.

For instance, intensities arose as ideas spread verbally, both spoken and in song, as in 'Free the Sheep' (5.6). Intensities were also generated through movement, by dramatic movement through space, as in '... Endermen' (5.7), generating verbal responses in reaction or, as elsewhere in 'The GoPro Song' (Figure 15) movement generated further movement and performance. The group also included me, and I have written elsewhere (see 3.5) about how I took on a similarly emergent role in the club, responding to ideas rather than enforcing my own, thus becoming part of the BwO. This conceptualisation helps us to move on from 'the triad of the intelligent hand' (Sennett, 2009, p.175), perhaps to consider 'a multiplicity of intelligent bodies' as the generative form behind the group's creativity, meaning making and, more widely, the lived experience.

Secondly, BwO are not necessarily entirely organic in form and we can therefore consider the collective group existing together in 'machinic assemblage' (p.41) with the club's tools; the technology (the laptops, the GoPro camera) could therefore be considered part of the group's form, thus generating a reorganisation of organs that are interconnected with screens and keyboards. In

this way, we can consider the intensities that passed and circulated within these different elements of the group, involving the biological and the mechanical. Sometimes intensities could be described as flashpoints, such as in '... Endermen' (5.7), where the interplay between the human and a non-human participant generated a physical reaction in the BwO, resulting in dramatic and spontaneous movement across the room; feet and legs were engaged in movement. Here, technology repelled one part of the BwO but produced reverberations of intensity elsewhere. Soon, other aspects of technology had the power to attract, as the group was almost intimately drawn to the GoPro camera, hands grabbing the technology as a means of expressing and recording ideas.

Here, the group's response was emotional, expressed physically and, often, dramatically. Some intensities were less dramatic but no less significant, as elements of the group focussed intently on construction activities, as in 'Sheep Shear' (5.4); here the game became a means of providing focussed, considered attention to a task. More generally, if we consider the game as part of the BwO, then then body was involved in shaping itself; as we have seen, the game itself did lead to action, for example as the creation of the Sheep Hotel spawned collective song, or the Sheep Shear and the maze used as the basis for gameplay. The implication here is that the technology, as part of the body, was regularly implicated in the generation of intensity. However, it did not result in a uniform shape or response. The way that the technology contributed to the shape of the group was highly dependent on the complex state of the rest of the body. As such, the technology present in the machinic assemblage of the BwO further contributed to the fluid and slippery nature of the group.

Thirdly, thinking with the BwO lets us think about how the game provides a way for the group to 'exceed the organism' (Cremin, 2015, p.19) by providing opportunities that escape the inefficiencies of the human body (Deleuze and Guattari, 1987, p.166). This allows us to consider what the technology afforded that a biological-only body would not have made possible. The game gave the

group the opportunity to express ideas visually, to engage their 'visual voice' (Gauntlett, 2007, p.107). Furthermore, the abstract nature of the game meant that this visual voice did not have to produce literal representations, for example the Sheep Hotel did not look like a hotel and the Sheep Shear resembled a Rubiks cube.

Nevertheless, these visual objects made an important contribution to the group. If we conceptualise the group as the BwO we can understand it as consisting as much of the avatars as it did the human bodies. This means that the abilities of the avatars was important in shaping the group in terms of what it would do. The presence of the technology as a 'machinic assemblage' also allowed the group to view the constructed world from multiple viewpoints, on multiple screens. It allowed the group to inhabit multiple spaces, via the biological element of the body in the room and the avatar in the virtual world. Through on-screen text (as a supplement to in-room talk), it also allowed the group to engage in multiple communications. Aside from the computers, the presence of the camera encouraged the group to record their ideas, and provided the focus for many discussions and conversations that would not otherwise have happened. The GoPro seems to have been framed as an additional organ for the group, a brain or an ear, a passive recipient of information or opinion that, ultimately, actively shaped the group by prompting action.

According to Deleuze and Guattari (1987), the BwO is 'where everything is played out' (p.167). This helps to remind us that the club itself, and the game, are only important in terms of the group; without the human participants, the game itself is nothing, intensities are not generated or felt without the human body. Thinking in this way helps us to remember that, while individuals are biologically separate, we are connected in many different ways. Actions by one has implications for another; we react to things we see, we think and feel because of our engagement with the bodies and the creations of others. Thinking of ourselves as part of a larger body, rather than separate, does not require us to

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standardise ourselves or to fall in with a default way of being by literally replicating others. Rather, it helps us to enhance our own way of creating and making meaning in a way that acknowledges and values the impact and contribution of others.

Rethinking the lived experience in terms of the BwO, then, generates another representation of how the group, as part of the club, worked to create and make meaning. Whilst I have explained why I have used the BwO as a means of thinking about the group, as an assemblage of human and non-human, a question perhaps remains around whether we would actually want the group to work towards becoming a BwO. Ultimately, the Body without Organs is not obtainable in itself; 'you never reach the body without organs… it is a limit' (Deleuze and Guattari, 1987, p.166). Neither is the BwO an unproblematic way of thinking about the group; inevitably thinking of the group in this way could leave other things obscured or unexplored. Nevertheless, Holland (2013) suggests that the body without organs helps to answer 'how can human individuals self-organise as to maximise their chances for productive and enjoyable destratification with others?' (Holland, p.93). If we wish to construct spaces for groups to self-assemble around technology, around virtual worlds, as a means of encouraging experimental, creative, imaginative play or freedom of expression, then it may be helpful to consider how they can be freed up to enable these conditions, this 'destratification'.

5.10 Summary

This plateau illuminated how the lived experience was characterised by a kind of creative and imaginative play that spanned the on and off-screen spaces. This was exemplified through a number of episodes and commentaries exploring this perspective. These showed that the children's creative play was enmeshed with their *Minecraft* play, implicating the game in shaping the lived experience. Using the term 'body without organs' (BwO) (Deleuze and Guattari, 1987, p.175), I

conceptualised the group as a connected entity, emphasising how the lived experience of the club was contingent on many factors, both human and non-human, material and immaterial. Building Banterbury was therefore not *only* an act of on-screen construction, produced by the 'triad of the intelligent hand' (Sennett, 2009, p. 175). Moreover, it was the result of multiple processes involving creative and collaboration acts of multiple kinds, across multiple spaces.

PLATEAU 2: PLAYING WITH THE WORLD

PLAYING WITH THE WORLD

6.1 Introduction

In this plateau I focus on how the children regularly drew upon their experiences of the world as a resource for their play. The notion of 'everyday experience' is used throughout this chapter as a means of describing instances where the children drew on common, shared or familiar experiences from outside the club. The porousness of the conceptual boundary between the club and the rest of the children's lives gave the children's play in Minecraft Club a distinctive quality. As such, this chapter illuminates how Minecraft Club was densely populated with everyday themes, ideas and experiences. I examine how children reframed these themes, ideas and experiences as opportunities for discussion, play and performance that contributed to their lived experience.

I begin by describing how the children's discussions were often rooted in relatively mundane, everyday concerns, outlining examples of conversations around food and technology. Next, I examine how everyday experiences manifested in the on-screen world; these examples have their origins in commonplace and routine experience. From this starting point I provide a commentary on four episodes, considering how the children drew more widely on their life experiences, resulting in different kinds of play and performance. Sometimes these experiences are referred to explicitly, at others the children draw more subtly on discourses with origins in their wider experiences of the world.

Minecraft Club itself could be framed as part of the children's everyday life; although the club ran just once per week it took part in the children's school, an 'everyday' location in their lives. Videogame play could also be considered an everyday leisure activity. De Certeau (1984) asserts that research around everyday activities, such as watching television, should also focus on 'what the cultural

consumer 'makes' or 'does' during this time and with these images' (p.xii). Indeed, this research examines what the children do whilst playing a videogame. The club also involved children 'indulging' in the kind of 'playful, non-serious behaviour' (Scott, 2011, p.166) that characterises the 'liminal time' (p.166) between formal schooling and home life. Whilst leisure time is often spent in 'leisure places' (p.166), here the club was held in the classroom space, which itself took on a liminal identity; not quite a classroom, but not quite a leisure site either. Nevertheless, whilst the club itself could be said to constitute part of the children's everyday life, this is not my primary reason for this plateau's focus on the everyday.

6.2 Everyday Discussion

The club's relaxed environment meant that the group often used it as chance to talk and socialise. The children's everyday lives regularly became the topic of conversation, providing a multitude of topics to draw on in their discussions and gameplay. This type of discussion could be referred to as a process of 'making do' (de Certeau, 1984, p.29) which involves 'using social spaces for purposes other than those for which they were intended' (Scott, 2009, p.157). At least in name, Minecraft Club had been conceived as a place to play *Minecraft*. Nevertheless, the children often employed the 'tactic' (de Certeau, 1984, p.29) of discussing everyday life, shaping the club into something that they wanted it to be. Such discussions covered a range of topics.

6.2.1 Food
Scott (2011) suggests that 'eating and drinking are integral to everyday life' (p.92); many of the children's relatively mundane conversations involved discussions about food and the rituals around it. Topics included alcohol, veganism and, as exemplified by the following extract (Figure 32), their favourite tomatoes:

Fieldnotes Extract Week 19

Seemingly out of nowhere, Tom asks Ed 'What's your favourite kind of tomato? Plum, Cherry...?'
Ed chooses cherry, as do most of class who join in, answering the question.
Tom nods approvingly: 'It's gotta be cherry every time!'

Figure 32: Fieldnotes Extract Week 19

This surveying of everyday life experience happened regularly, bringing the group together in shared conversation. The mundanity of the everyday, exemplified by a discussion about tomatoes, provided universal topics that enabled all participants to contribute. Tom's affirmation that the group had made the correct choice acted as a gesture to unite them in their shared love of a particular food.

6.2.2 Technology

Many discussions gave insight into the children's use of technology outside of the club, often for entertainment and communication, perhaps reflecting characteristics of the club itself. For example, during week 12 the children discussed challenges featured on the image orientated social network, Instagram: conversation turned to 'the chillie challenge' and 'the ice bucket challenge', where participants posted photos and videos of themselves eating whole chillies and covering themselves in freezing cold water, respectively demonstrating 'bravery' (or perhaps a lack of common sense) and raising funds for charity. Ben stated that he would participate in one of these challenges if he received 'enough likes'. This suggests that these children used social media in their everyday lives to connect with wider conversations, rather than limiting their communication to their peers.

The following episode begins with me addressing the group's experiences with videogames. As well as naming the videogames they play, the children quickly take the opportunity to discuss their use of technology more widely.

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Here, everyday experiences and technology are directly linked. Technology is both an everyday activity, and a means of expressing aspects of their everyday. YouTube is mentioned as a means of engaging with a wider audience, again to gain 'likes' for the content they post. Whilst this is positioned as being 'sad', this dismissal seems to be a way to tentatively introduce the idea into the conversation without it sounding like a boast. Mia refers to her Nan's misreading of an app's name, siting the technology in the context of family; this also aligns the use of the app as something for the younger generation, as does Mia's assertion that 'You've got to keep up with the technology, Mr Bailey!'. These examples suggest that technology is used for communicating interests: Ben uses YouTube to demonstrate his interest in Match Attacks cards, Mia creates and uploads slideshows of her pets.

Mia's brief discussion of Flipagram (Figure 33) exemplifies how technology was used outside the club as a means of communicating everyday experience. Mia recalls how she combined photographs (selfies and those of her pets) into a composite slideshow, soundtracked by songs and uploaded to YouTube. Just as de Certeau (1984) suggests that everyday life involves 'poaching' (p.xii) so too does Mia's *expression* of everyday life, through her video compilation. Mia's video could be considered to be a kind of 'digital remix' (Lankshear and Knobel, 2008, p.32). Williams (2012) suggests that when texts are poached, other texts are created 'that serve our interests' (p.24). For Mia, this interest seems to be in connecting with others. This particular remix does not narrate one particular everyday experience; rather it provides a generalised, non-linear account of one aspect of her everyday domestic life: her relationship with her pets. Here, Mia's recounted remix of the everyday results in a product: a video to be uploaded and shared.

Elsewhere, children gave insights into their use of technology to communicate with each other. The video conferencing application Skype often made its way into conversation; notably, during Week 13 the children discussed the apparently

common practice of leaving Skype on overnight, filming them as they slept, so they could continue conversations with their friends as soon as they woke up! During discussion session 2 (Figure 34), some children explained how Skype was important in their day-to-day lives at home as it allowed them to continue to connect with their school friends when they were away from school.

Extract from Discussion Session 2

Freya: We go on skype a lot.
Me: And is that everyone in the class?
Mia: A lot of people. Yeah a lot of people.
Freya: People who are allowed it.
Mia: Cos quite a few people have a computer like me, so I can let everyone see each other.
Freya: Cos then you can have a massive video chat.
Me: So you communicate using technology out of school as well.
All: yeah
Mia: Some of us also use Kik.
Freya: I used to have it but I got bored.
Molly: Noone texts on that any more.
Mia: Yeah the new thing's Skype!
Me: How do those things compare to playing *Minecraft* in Minecraft Club?
Molly: Friends! haha!
Freya: You've always got your friends with ya!

Figure 34: Extract from Discussion Session 2

Here, the children emphasise the affordances of technology for staying connected with friends. This seemed important to this group. The size of this rural school's catchment area meant that the children often lived long distances apart, making it difficult for them to meet up without the help of a parent willing to provide transport. Technology made distance less problematic, providing opportunities for connection out of school. Here, Skype is particularly popular as it enables live video group chat. This visual aspect is positioned as being more popular than the kind of word-based messaging afforded by mobile apps such as Kik.

The group's eagerness to connect out of school suggests that their friendships extended beyond school and into their lives at home. Friendships therefore needed to be maintained offline and, at least for those 'who are allowed it', online too. This suggests that some children were not able to engage in out of school discussions, due to parental concerns about technology use. The club provided a space for the children to continue to make connections with friends, outside of the typical school day. Furthermore, these connections were made around, rather than just through, technology. The group's teacher mentioned that Instagram had caused issues for some children out of school, relating to the access of 'inappropriate' content. Such issues were addressed through eSafety lessons, highlighting the potential dangers of social media for children. In spite of these problems, these discussions with the children demonstrate how integrated technology was in their everyday lives.

6.3 Everyday on-screen

The on-screen gamespace constructed by the children included a number of locations inspired by places from their lives outside of the club. This included domestic spaces such as houses, featuring bedrooms, living rooms and kitchens. These rooms were often dispersed across the virtual world, rather than arising from a literal re-presentation of their own domestic living spaces. There were a number of farms in the game, both arable and livestock; whilst these were perhaps inspired in part by the animals and plants in the game they were also a nod towards the school's location at the heart of a farming community. The practice of shopping was represented by the (mainly food related) shops that appeared in the game such as McDonalds, the ice cream shop, a restaurant and 'the chippy', which according to Tom was '...the most British thing you will find, apart from tea or coffee'. There was also a library, a treehouse, a zoo and a swimming pool, reflecting the leisure spaces where the group spent some of their free time.

In the game, the everyday sometimes manifested as action in these spaces. For example, during Week 13 Molly created a restaurant (Figure 35). She then proceeded to perform a role, using text chat in the game (Figure 36) and speech and in the room.
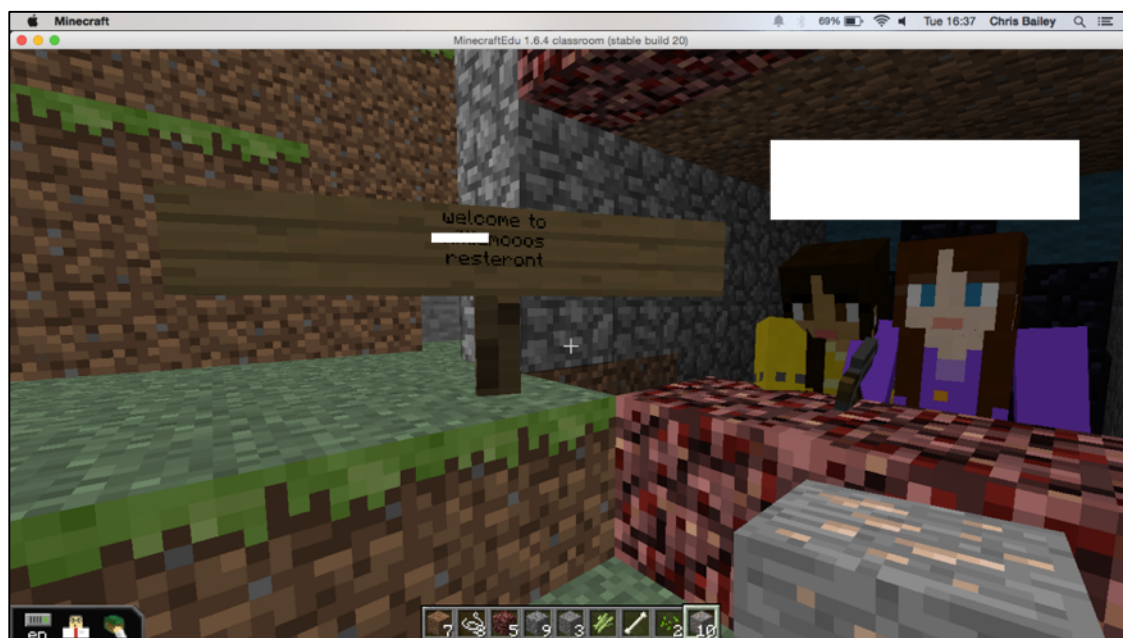
Figure 35: Mia and Molly behind the counter in the restaurant

Chatlog Extract Week 13

16:31:35 [INFO] <mollymoo> do you want icecream today
16:37:26 [INFO] <mollymoo> hello how can i help you today
16:37:51 [INFO] <CBtekkersOP> OBSIDIAAAAAAAAAAN
16:37:55 [INFO] <CBtekkersOP> plz
...
16:38:24 [INFO] <mollymoo> you have to bye icecream first
16:40:07 [INFO] <Mia> your order please

Figure 36: Chatlog Extract Week 13

Here we see Molly in role as a kind of hybrid waiter / shopkeeper, offering ice cream to other players. She is re-enacting an everyday exchange from the adult perspective, rather than her own, putting herself on the other side of a familiar exchange. The inclusion of ice cream was likely to have been inspired by the local

ice cream shop, located in a village close to the school, which was a regular destination for the children. <CBtekkersOP> can be seen requesting some 'obsidian'. Here the everyday becomes an opportunity for context specific play as Ben makes a request for a *Minecraft* related resource. Molly comically returns the transaction to one grounded in the everyday, insisting that 'you have to have ice cream first'. <Mia> joins <Mollymoo> behind the ice cream counter. However, there is an off-screen disagreement between the girls; Molly will not allow Mia to sell ice cream as it is her job. Mia laughs to Molly as she uses text chat to subvert her ban, offering ice cream to the players via their screens.

Whereas the earlier food related examples demonstrated how everyday events were a regular topic of conversation, this example reveals how experiences from the children's lives outside the club became interweaved with their play. Life experiences were being played with and, sometimes, actively performed. With this in mind, the following four comic strip episodes exemplify some of the ways that the children drew upon and responded to their wider life experiences during the club, often involving some kind of performance. Whilst the nature of each of these performances is varied, they are all enacted for the benefit of others whilst drawing on experiences and ideas from beyond the club.

The first episode shows the children using talk and gesture to discuss a specific observation, based on a shared experience; both Ben and Freya can be seen very physically doing impressions of their parents' dancing. I am located out of shot, to the right of the camera. Also out of frame is a student teacher, seated to the left of the camera, marking books.

6.4 'dad dancing' (Episode 1)

Figure 37: 'dad dancing' Comic Strip

BEN COPIES THE GENTLE 'MUM'S DANCING' MOVES...
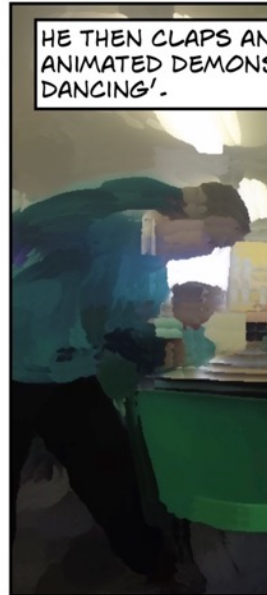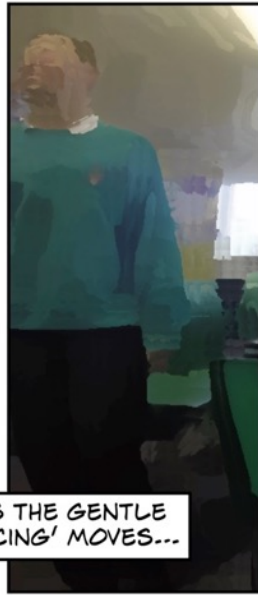
HE THEN CLAPS AND RESUMES A MORE ANIMATED DEMONSTRATION OF 'DAD'S DANCING'.
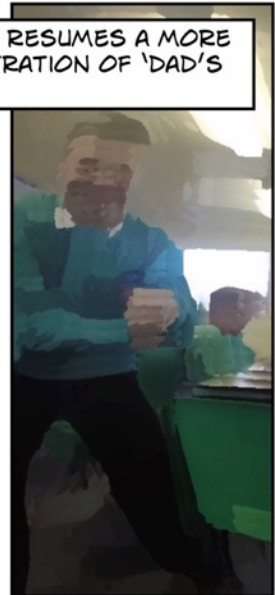
THEY NEVER DANCE LIKE THAT; LIKE 'WHY SHOULD WE GO EMBARRASSING OURSELVES' STANDING AT THE BACK.

AND THEN OUR DADS' ARE LIKE...
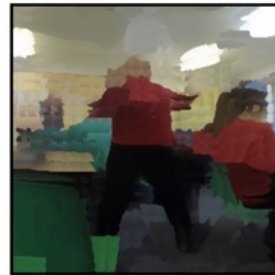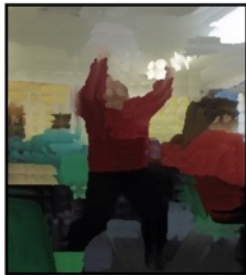
THEY BOTH DEMONSTRATE SLIGHTLY DIFFERENT VERSIONS OF 'DAD DANCING'...
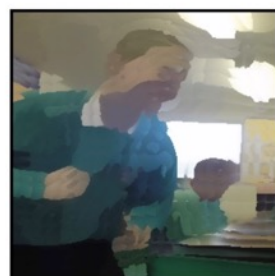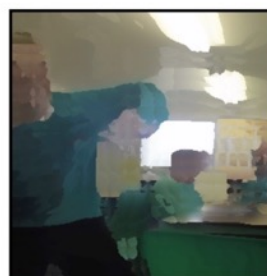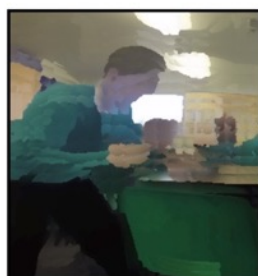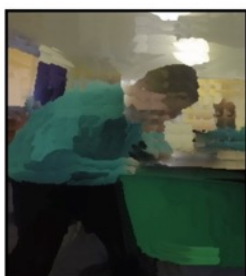
IN THE ABSENCE OF MUSIC, BEN CLAPS A BEAT.

AND THERE'S US LIKE 'OH GOD, GET ME OUT OF THIS PLACE! EMBARRASSING!

ME: SO, ARE YOU SAYING DAD'S AREN'T EMBARRASSED?

YEAH! MUMS GET REALLY EMBARRASSED!

BOTH BEN AND FREYA CONTINUE TO DANCE. I ASK 'IF THERE'S A BIG DIFFERENCE BETWEEN MUMS AND DADS, IS THERE A BIG DIFFERENCE BETWEEN BOYS AND GIRLS?'

YES! COS BOYS GO ALL LIKE GANGSTER SWAGGER...

YES!

HE DEMONSTRATES A SWAGGER...

HE BALLET DANCES AROUND THE ROOM!

AND GIRLS ARE ALL LIKE...

LA LA LA LA LA LA LA LA!

FREYA MENTIONS A MEMBER OF ONE DIRECTION.

YOU KNOW HARRY STYLES? HE WAS MEANT TO DO BALLET!

BOYS DON'T CARE IF YOU'RE EMBARRASSED, THEY DO!

IT'S TRUE!

NOT QUITE!
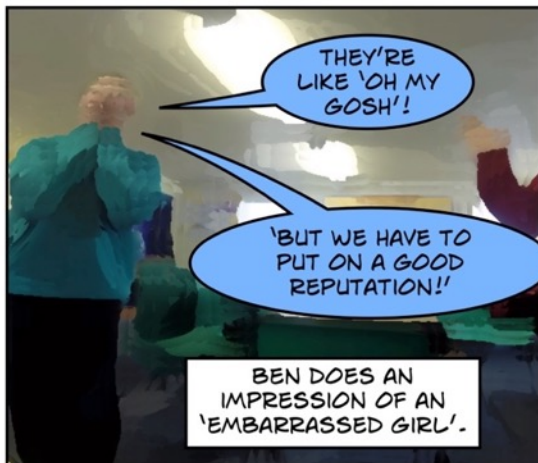
THEY'RE LIKE 'OH MY GOSH'!

'BUT WE HAVE TO PUT ON A GOOD REPUTATION!'

BEN DOES AN IMPRESSION OF AN 'EMBARRASSED GIRL'.
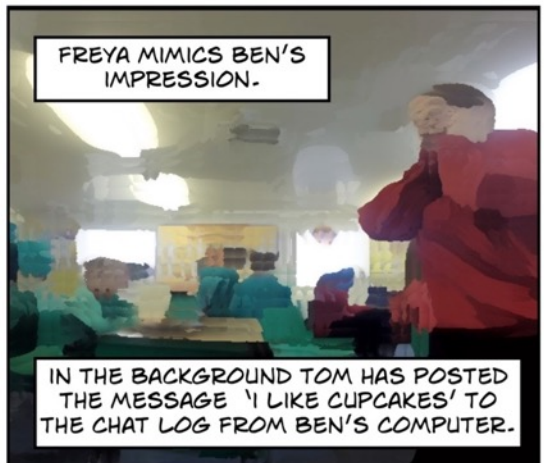
FREYA MIMICS BEN'S IMPRESSION.

IN THE BACKGROUND TOM HAS POSTED THE MESSAGE 'I LIKE CUPCAKES' TO THE CHAT LOG FROM BEN'S COMPUTER.

The children are clearly conscious of the video camera, which influences this performance and the discussion. In fact, it is via mention of the GoPro camera that this aspect of the children's lives finds its way into the club: Freya associates Ben's dancing with the GoPro song, in turn suggesting that he enacts his impression of 'dad dancing'. The fact that they both understand this reference indicates that it is already a familiar topic and not one generated solely by the presence of the camera. This suggests that this performative kind of conversation occurs outside the club, away from the presence of a camera. Here, however, the camera is clearly a draw, as both children take turns at performing to it. Ben regularly addresses his gaze at the camera, as if perfoming to an imagined audience. He could be aware that I will be watching this back later, or imagining this performance reaching a wider audience, beyond the confines of the club, via the connective power of technology.

This use of the camera could be framed as another example of the children 'making do' (de Certeau, 1984, p.29). Whilst the video camera was intended as a research tool for examining the life of the club the children reposition it as a means of recording a social performance of their everyday lives, which in turn becomes a feature of the lived experience of the club. As seen in numerous places, the children are conscious of the power of YouTube as a means of communicating with the wider world, with the potential for recognition as a 'YouTuber' (Figure 15). Goffman (1963) talks of performance as projecting an identity for the benefit of others, suggesting that 'when an individual appears before others he will have many motives for trying to control the impression they receive of the situation' (p.8). Ben's use of the camera could be seen as an example of him trying to manage and frame the impression he gives during this performance.

Social occasions such as birthday parties, wedding receptions and other community events held at the local cricket club and village hall were a regular occurrence in the children's lives, so a weekend day or evening spent there could

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be considered an everyday event. This particular exaggerated discussion of their parents' dancing styles sees them engaging in a performed narrative, a parody of an aspect of their everyday experiences. Mums are characterised as reserved and embarrassed, Dads as exhibitionist and embarrassing. The account is told verbally whilst being actively and theatrically performed by both children. It shows the children trying to make sense of how adults themselves perform social roles, using actions as well as words. Here, these are specific, relating to a particular context, but also generalised, as the account is of how dads (plural) dance. As with many of the discussions in the club, humour is employed and this performance is designed to entertain multiple parties: each other, me, the student teacher and any potential viewer of the video.

When talk turns more directly to issues of gender the children seem able to generalise and detach themselves sufficiently from their own gendered roles to present a commentary on alternative ways of being, as dictated by the expectations of wider society. Ben's performance of 'gangster swagger', as a particular male way of being, demonstrates an astute recognition of how certain types of masculinity are performed in social situations. Given the above, this episode can therefore be seen both as a comment on gendered performance, and a gendered performance in itself. Butler (1988) suggests that gender is 'an identity instituted through a stylized repetition of acts' (p.519); the children's commentary on and mimicry of the stylistic differences between their parents' physical performances provides a knowing critique of the way that gender is performed through this particular 'repetition of acts' (p.519). However, the children also end up aligning themselves with particular genders, succeeding in both sending up and perpetuating these roles.

Whilst Ben seems keen to distance himself from this 'swaggering' caricature, moving quickly to disassociate himself through his performance of an equally caricatured feminine version, he also seems happy with the binary suggestion that 'boys don't care if you're embarrassed, they [girls] do!'. Freya seems to

challenge and reinforce this assertion. Whilst in agreement with Ben about the difference between how mums and dads present themselves, she is less certain about his summation of girls having to 'put on a reputation'. Initially she suggests that Ben's account is not true, but quickly acts out the role of an embarrassed girl. Throughout this account, however, Freya's eagerness to perform each of the roles with as much vigour and enthusiasm as Ben suggest that neither of them conform to nor truly believe in the stereotypes that they are acting out.

The next episode involves children drawing on another aspect of their experience outside the club, prompted here by a shared experience from school.

6.5 'Cleopatra and the Sex Ed Lady' (Episode 2)

Figure 38: 'Cleopatra and the Sex Ed Lady' Comic Strip
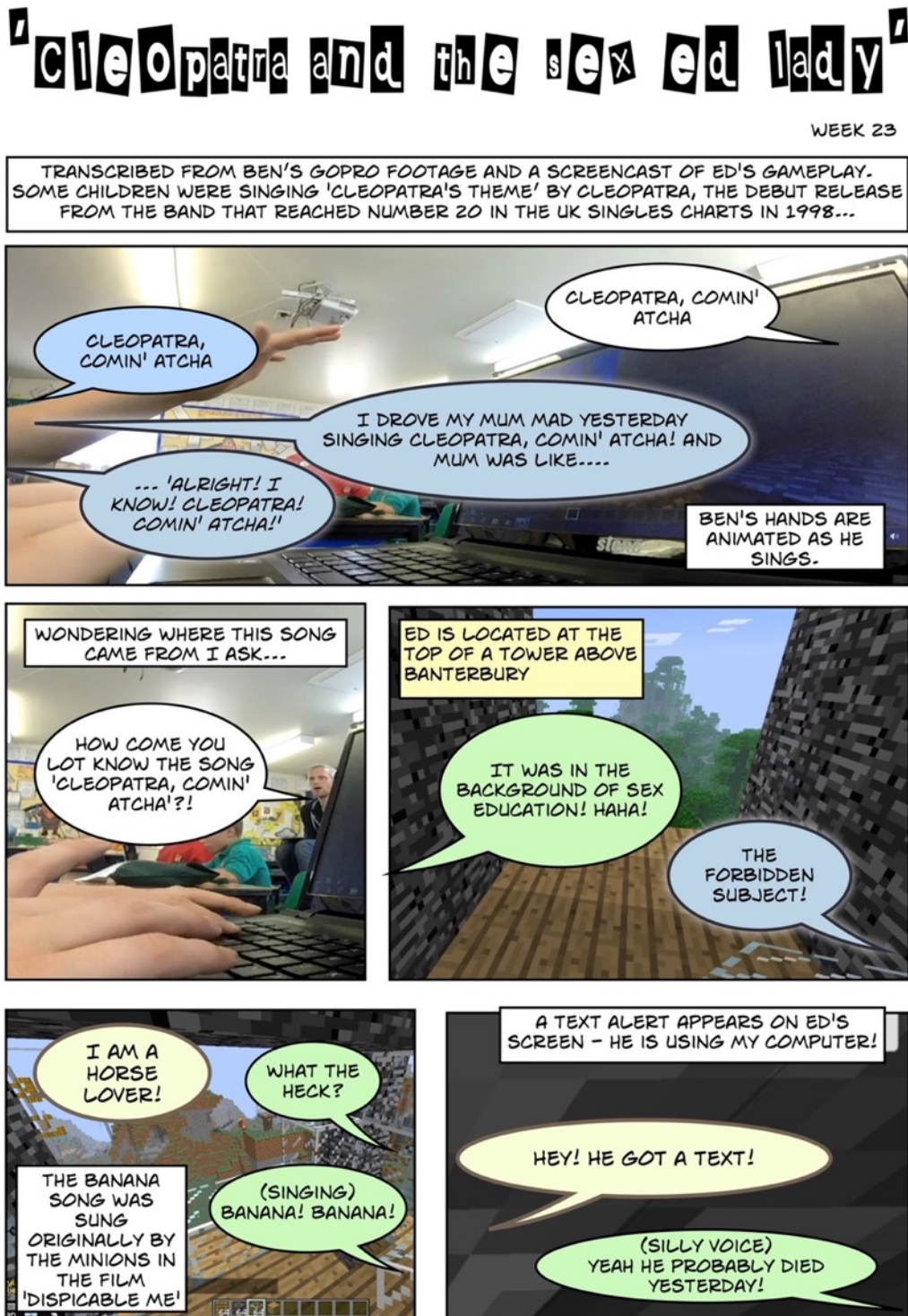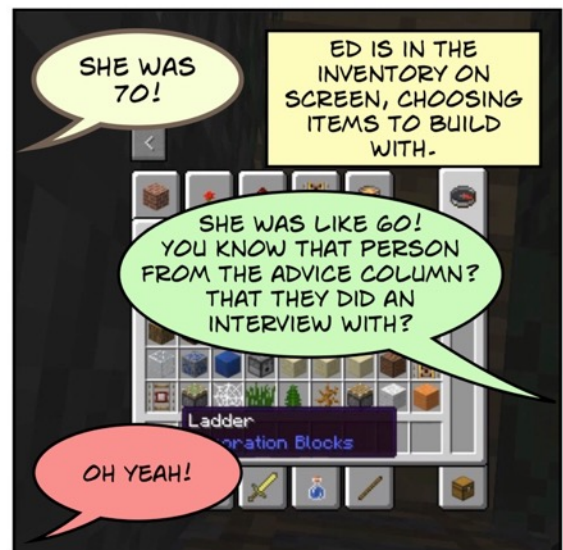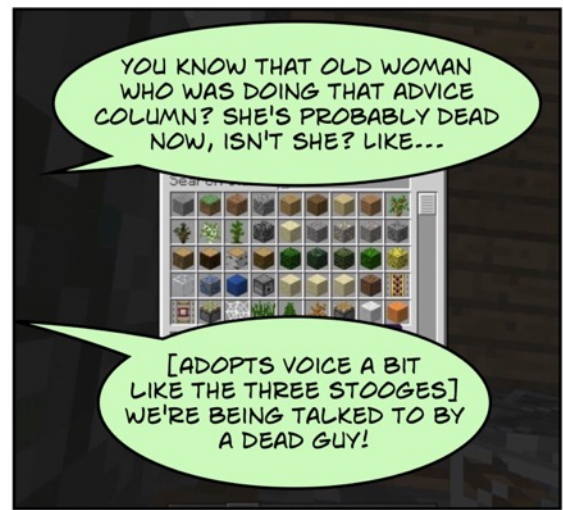
This episode opens with a snatch of song, a reference to Ben's home life and a brief performance in role, as Ben mimics his own mum losing patience with his singing. This use of song, presented alongside a brief window into Ben's family life, recalls de Certeau's (1984) assertion that 'everyday life invents itself by poaching in countless ways on the property of others' (p.xii). This poaching involves Ben retelling a brief episode of his everyday life by drawing on a song, which itself formed part of the incident being recounted, whilst also adopting the persona of his mum.

Intrigued, I asked the children how they knew this unlikely song. Callum replied that it featured in the sex education video they had watched earlier in the week. Prior to this episode, the children had referred to their sex education lessons in a manner suggesting they were not entirely comfortable with the topic. Both here and during week 12 it was named 'The Forbidden Subject' and in week 14 I overheard two children whispering conspiratorially about the lesson. The discussion in this episode relates to sex education, as well as drawing in issues relating to death, aging and puberty; as such the children negotiate some complex and often confusing issues, seeking to make sense of the world and their place in it. Whilst concerns of survival, including 'predation, food, sex and exclusion' (Sutton-Smith, 2001, p.227), are not everyday issues for humans in the same way as they are for other animals, humans do face a 'cultural counterpart' by way of an everyday 'constant struggle for safety, approval, achievement, love and even significance' (Sutton-Smith, 2001, p.68).

Death was mentioned elsewhere during the club, as part of a discussion about one of the children's grandparent's dying (not explored here out of respect for their privacy), the deaths of their own pets and also in relation to the death of Anne Kirkbride, an actress from television soap opera 'Coronation Street'. An extract from my fieldnotes (Figure 39) read:

Figure 39: Fieldnotes Extract Week 10

These instances suggest that death was a concern for the children, not primarily in respect of their own mortality but often in relation to the lives of those around them.

Whilst the above instances were discussed with a more sombre tone, here the issues are related with humour and a sense of performance, with Callum and Jake taking on multiple personas, likely aware that their voices are being captured by the screencast video on Ed's computer. Whilst Ed mainly focuses on his own gameplay, attempting to draw the other boys in, the others are seated either side of him, conducting their own conversation. The age of the song's original performers is significant to the boys, as they identify both the presenter of the video and the members of the band as being 'old old ladies', 'like 50', 'like 60' and, finally, '70'. This age is then associated with death, as the presenter is called 'a dead guy'. Callum adopts a 'scary' voice, presumably to reflect the near-death status of the band and the presenter, warning that their future involves growing up, a painful death and, worst of all, puberty. Here, Callum reverts to his own voice, pleading 'No! No! Please no! Anything but that!'. Whilst this whole episode is underpinned with humour, this focus on death and puberty is revealing as it sees the children addressing serious topics that are likely to be relatively unexplored and unknown in their lives.

Death, or at least a ritual around death, makes a more visible appearance in the next episode.

6.6 'The Horse Funeral' (Episode 3)

Figure 40: 'The Horse Funeral' Comic Strip
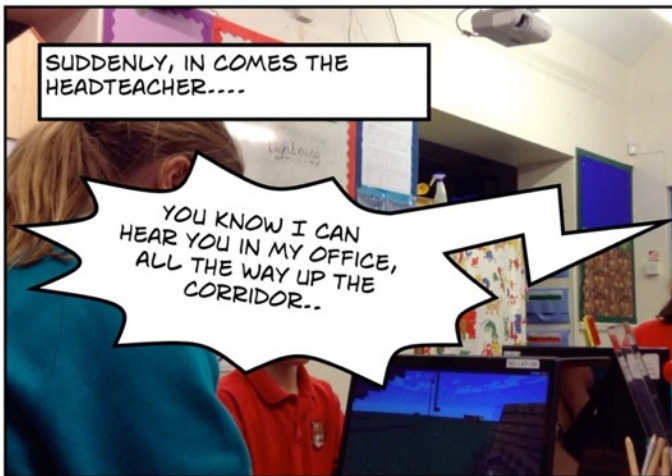
This episode returns us to in-game role-play, similar to that seen in Millymoo's restaurant. Here the event involves the majority of the club members. Malan (1996) suggests that we can consider funerals as literacy events. Whilst this event is not a real funeral ceremony, the children do draw on a number of real-life characteristics of social ritual to authenticate their play. Here they improvise with elements of their shared knowledge of funerals to create something which feels, and looks like, the performance of their own. The funeral opens with Ed's spoken invite, initially stating, 'If anyone wants to come and see my horse's grave you are more than welcome', later followed by a question, 'Yeah, can everyone come to my funeral outside my grave?' As with real-life funerals, the event was announced and perceived as being social in nature, where other members of the community ('anyone' and 'everyone') are invited to observe and participate.

Aspects of the children's performances reflect the formality of such events. Children adopt a different tone to their voices, a caricatured 'formal' manner, particularly evident in the exchanges between Ben and Ed. The language used is contextually authentic: words such as 'ceremony', 'loving memory', and 'remembrance' occurring in the classroom and game spaces. There are a number of features and actions, virtually and embodied, that reflect the nature of a funeral: the creation of a grave stone, the laying of flowers, the gathering of attendees around a headstone, facing the speaker, the giving of a speech, reminiscing about the deceased, bowing, the formal removal of a hat, crying, expressions of remorse ('I'm sorry Ed!'), the formal (albeit abrupt) dismissal at the end that brings proceedings to a halt and the negotiations about the permanence of the grave as a lasting reminder. In common with many events during the club, this episode became a collaboration between the children, working from Ed's initial idea, which itself stemmed from an unplanned element of gameplay. The typed dedication on the headstone, initially instigated by Ed, was amended by Thomas who, without prompting or permission, removed the

sign and added the word 'loving'. This again emphases the shared nature of the event, as an emergent collaboration not directed by any particular player.

In the final episode that follows, the focus on *Minecraft* play is maintained to examine another example of participants drawing on life experiences. Here their play appears to be influenced by wider cultural discourses.

6.7 'An Emerging Economy' (Episode 4)

Figure 41: 'An Emerging Economy' Comic Strip

BEN <CBTEKKERSOP> SPEAKS TO THE GIRLS.

IF YOU PAY US RENT BY DOING STUFF THEN YOU CAN STAY AT OUR PLACE, FOR THE WHOLE OF MINECRAFT.

YAAAY! WHAT DO YOU WANT US TO DO?

FREYA MINES STONE. FOR MINING WE HAVE TO GIVE YOU STUFF. WE WILL LET YOU STAY. IF YOU MINE STONE, AND EVERY TWO LESSONS YOU GET TWO PIECES OF COAL, BECAUSE WE ARE GENEROUS.

WHERE DO YOU FIND STONE?

THIS PLAN SOUNDS WELL REHEARSED!

AND AT THE END OF EVERY SESSION WE GIVE YOU COAL.

UNDERGROUND!

LISA LOSES CONNECTION TO THE SERVER BUT THIS PASSES WITHOUT COMMENT AND SHE LOGS BACK IN AS THE CONVERSATION CONTINUES...

OK! THANK YOU! WILL WE GET BED? WILL WE GET A BED?

OK! COOL!

WHAT AM I DOING?

NO! NO-ONE GETS A BED! WE ALL JUST HAVE HOUSE PARTIES!

LISA, YOUR JOB IS... WHAT ARE YOU GOOD AT?

I AM GOOD AT ANYTHING!

YOU CAN GET A TREE... YOU CAN GET MONEY... I MEAN, WOOD.

LISA GIVES TOM SOME EGGS FROM HER INVENTORY.

CAN THE WAGES BE COAL FOR EVERYONE?

SOON, THERE IS AN UPDATE FROM BEN ABOUT THE EXCHANGE RATE...

EVERYONE'S WAGES IS COAL BUT THIR JOBS ARE DIFFERENT. LISA'S IS WOOD, FREYA'S IS STONE...

FOR EVERY THIRTY TWO PIECES YOU COLLECT YOU GET A PIECE OF COAL.

WHERE DO YOU WANT ME TO EMPTY MY POCKETS... TOM, I'VE GIVEN YOU A PRESENT...

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The initial events in this comic strip demonstrate the importance assigned by the group to being together in the game. As Lisa finds the others there is celebration from her peers. Almost immediately, however, ownership of the space is asserted as Tom claims possession of the house, requesting that Lisa does not stay too long. He soon changes his mind and takes the opportunity, with Ben, to implement a primitive type of economic system within the game, dictating terms around what the other players should be doing, working towards a common goal. Ben assigns each of the other players a task to collect specific materials in the game, in exchange for 'wages'; wood for Lisa, stone for Freya. Here, concepts of ownership, work, leadership and economy influence the children's play. The players' permission to stay in this part of the gameworld seems to be conditional on their agreement to comply with this enforced employment, for which they are given coal as payment. Whilst some players assert themselves as leaders, others appear willing to allow this, complying with instructions, seeking out the materials assigned to them.

Although I was present in the room during these events it was not until I returned to the screencast data that I became fully aware of the potentially gendered, hierarchical roles being played out here. I became concerned about the direction that events seemed to be taking, as I witnessed a group of girls seemingly having their gameplay dictated by two boys asserting themselves as leaders. It seemed that children were drawing on wider discourses around gender as a direct influence for their play behaviours. However, whilst the discussion around gender in 'dad dancing' (6.4) demonstrated *some* element of critical reflection, here potentially gendered roles invested with power and control were being performed, seemingly without question or critique. With this in mind, during the next discussion session I asked some of the girls involved for their reactions to the events (Figure 42)

Extract from Discussion Session 2

Me: Can I ask you about something that happened this week where you were all trying to find each other and then you got together...
Mia: Yeah.
Me: ... and you met the boys? And the boys had a house?
Mia and Freya: Haha! And they let us in.
Me: And they let you in but they...
Freya: They gave... we have to find things to help with resources for the house, such as cobblestones and things like that and then they will... they'll... pay us every 32 pieces I find of stone I think it was, yeah, I get one piece of coal and keep on doing it and we get to live in the house... but it was really fun.
Me: So they... are they in charge?
Freya: Not really no. We'll end up taking over!
Me: So, are you... do they think they're in charge?
Freya: Haha! Yeah, but it's really funny you know.
Mia: But we get things, cos Thomas says he's going to make everyone a bed, and we're going to find resources so they can make, for like the table, the crafting table and stuff so they can make swords, so we give them resources and they make things for us.
Me: Do you think there's a difference between how boys and girls play in Minecraft Club?
Freya: Yeah
Mia: Yeah
Freya: Boys are boys, girls are girls, hahah!
Lisa: Boys like fighting. And then girls like building.
Me: Any other differences or similarities between... Do you think it matters in *Minecraft*?
Freya: No...
Sophie: No, not really.

Figure 42: Extract from Discussion Session 2

My questions clearly betrayed my own perspective on this event, framing this as a gendered issue during our discussion. Given that I opened with mention of 'the boys', it is perhaps not surprising that Lisa responded with a rather binary distinction that 'boys like fighting... girls like building', which had little resemblance to the complex set of behaviours seen during the club. Nevertheless, this episode and the children's comments following it do strongly suggest that gender was sometimes an organising concept during the club.

Butler (1988) suggests that 'gender reality is performative... it is only real to the extent that it is performed' (p.527). Whereas in 'dad dancing' (6.3) the theatrical nature of the children's gender performances emphasised the distance between the identity being portrayed and the allegiances of the performer, here this distinction is less easily made. Although mediated by the on-screen gameplay involving avatars, the seemingly gendered performances have genuine consequences for other participants, influencing their behaviour and how they are positioned. The observable difference in the gameplay between the boys and the girls here is not necessarily in the nature of how they construct the on-screen space, rather it relates to the extent to which they seek to control the play of others, with the boys taking on self-assigned leadership roles. Butler (1988) argues that, through such gendered performances, 'the mundane social audience, including the actors themselves, come to believe and to perform in the mode of relief' (p.520). Here, then, there is a danger that such gendered roles, invested with power and drawn from the children's wider experiences of the world, could become established in the lived experience of the club.

Wohlwend (2012) reminds us that play is 'never an innocent site' (p.19); this clearly also applies to virtual play. Nevertheless, there were some examples of children resisting or avoiding these stereotypes, and occasions where they were seemingly reluctance to uphold them. For instance, the boys' attempts to call the shots seen above soon disintegrated, as the girls decided to focus on other tasks and the boys made no obvious attempt to further enforce their rules. Later, during week 10, the girls retaliated against the boys, and possibly against their attempts to exert power, by establishing a space where the boys weren't allowed in the game; the 'House of Coolness' was accompanied by a sign that read 'GIRLS ONLY' (Figure 43), much to some of the boys' distaste.

Figure 43: 'House of Coolness' Screenshot

Here, the some of the boys sought to subvert this rule by adopting female 'skins' for their avatars, and 'feminine' voices. Whilst gender was sometimes invoked as a concept during the children's own conversations, it was more often an unspoken influence on events. This suggests that these behaviours were potentially embedded (although not unshakable) in the children's lives, manifesting in their play with little critical thought. Notably it was the same two boys who regularly attempted to assert their leadership over the group. This happened symbolically, for instance through their direct role in the naming of the town: both boys strongly advocated for the town being named 'Banterbury'. Sometimes their attempts were even more overt, such as their attempt to control the type of texts that were accepted into the library that formed part of Banterbury, this time in opposition to another group of boys.

This episode therefore highlights the potential for play in the club to sometimes take problematic turns, whereby issues relating to power and gender were enacted through the children's on and off-screen play. Freya's seeming lack of concern regarding this event, framing the episode as 'really fun' and making the casual assertion that 'we'll end up taking over' does offer some assurance that the girls' seeming conformity was not necessarily the result of enforced compliance

in the face of male dominance. Her suggestion seemed to be that the girls were playing along with the boys' wishes as long as it suited them. This episode also shows how wider cultural perspectives on gender could have an impact on how these children saw the world, playing a part in shaping the lived experience of the club. This reminds us that children's clubs are not in simply innovative third places (Schaffer, 2008), free from the influence of wider discourses. It also exemplifies, in the context of club's other events, some of the children's wish for order and, likewise, some participants' desire to lead. Whilst all children frequently played happily together during the club and shared genuine, close friendships, regardless of their gender, there was still the potential for power play to emerge, in unexpected places.

6.8 Discussion

Each of the episodes detailed in this plateau demonstrate how children used the club as a space to perform and reflect on aspects of their lives outside of the club, including examples that drew on what could be considered mundane (eg. food preferences, transactions in shops) as well as larger concepts of wider significance (death, aging, puberty, gender). Theoretical perspectives around everyday life and life experiences were introduced as a starting point for considering these episodes. Some of these examples demonstrate that, at times, the club was a place where potentially established behaviours, particularly relating to gender, were enacted and, occasionally, challenged. For this group, living their everyday lives also meant expressing, exploring and performing their lives; they used their time together in the club to do this in a number of different ways. Sometimes these performances were enacted as individuals or pairs and sometimes as a larger group. Life experiences were sometimes incorporated with the on-screen action, sometimes alongside the game, and sometimes they were explored separately from the game. In many cases, rather than discussing these ideas, the children's discourses took the form of collaborative social performance, both on-screen and off, thus emphasising the social nature of the club's lived experience.

6.8.1 Social Performance, Technology and Remix

During the club, the children engaged in practices around technology that shared characteristics with the digital practices that they talked about from outside the club (6.2.2). On numerous occasions children could be said to be engaging in a kind of live, performed process of remixing their everyday lives. Lankshear and Knobel (2008) suggest that we 'remix meanings whenever we take an idea, artefact of a particular stretch of language and integrate it into what we are saying and doing at the time' (p.23). The GoPro camera and the screencasts provided the means of recording these remixed performances. The children's performances in 'dad dancing' (6.4) and, earlier, in '... Endermen' (5.7) show that they were conscious of the camera's presence and they regularly took opportunities to position it to capture their actions. That is not to say that these performances were purely for the camera; similar performances did occur away from the camera lens and there was certainly a sense that the performances were meant for the other participants including, at times, me. Nevertheless, the camera, as a non-human club participant, played the role of a significant audience member in some of these performances. As seen in 'The GoPro song' (Figure 15), children associated the camera with YouTube. The way in which the children used the GoPro camera to perform their conversations gives an insight into how the group understood social media and, particularly, YouTube as an outlet for these performances.

The performances, as remixes, combined a number of diverse resources, again 'poaching' the property of others (de Certeau, 1984) in the retelling of the everyday. Here, the property was often intellectual rather than physical, with the elements that could be classed as the 'everyday experience' constituting the children's own virtual property. Sometimes these performances directly pulled *Minecraft* into the remix, such as in 'The Horse Funeral' (6.6) or the role-play in the restaurant (Figure 35). In these cases, as the recording was captured by screencast, these performances could be considered to be similar to 'Machinima

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Remixes' (Lankshear and Knobel, 2008, p.25). In the case of 'dad dancing' (6.4), the performance had very little to do with *Minecraft* and was enacted verbally and, predominantly physically. In 'Cleopatra...' (6.5), a song was drawn into the performance, alongside alternative voices and far-fetched ideas, producing a kind of generalised and hybrid reality, combining the real with the imagined. In each case, their performances were not literal retellings but collaboratively produced remixes of the everyday. Arguably, the flexible nature of remix, allowing a range of different resources to be drawn in to the mix, meant that these performances were open to contribution from a range of participants and were also therefore inclusive as much as they were reflective or creative.

6.8.2. Social humour

Many of these examples demonstrate that the lived experience was often a social experience, infused with humour, based around friendship. The club was host to a way of being together that drew on the children's own concept of 'banter' (the word which eventually formed part of their town name) and their existing relationships in ways that were informal and playful. The principle of banter, enacted through conversation and action, underpinned much of the children's communication. Whilst some private discussions involved more serious exchanges, the more open and public performances often employed humour. Just as Maclure, Holmes, Jones and MacRae (2010) suggest that humour has a 'productive role in maintaining solidarity and identity' (p.9), here the humour expressed in relation to these everyday quirks became a means of drawing the children together, of continuing to establish the group's collective identity through shared entertainment.

The instances of recognition and shared experience cemented the children as a community, through shared amusement based on common experience. Whilst there was admittedly little to laugh at in 'The Horse Funeral' (6.6), neither was it an entirely sombre affair, being based on the imagined death of a pixelated non-playable character. Even the events detailed in 'An Emerging Economy' (6.7) were

positioned later by Freya as being 'funny'. Moreover, the exaggerated humour, seen in the over enthusiastic physical performances by Ben and Freya during 'dad dancing' (6.4), and in Callum's use of dramatic voice in 'Cleopatra...' (6.5), show how the children would fuse an otherwise mundane element of their everyday lives with a more humorous performance, often via some kind of unlikely cultural reference point in the shape of a song or a quote from a film. Freya and Ben seemed energised by each other's performances, whilst Callum and Jake's shared amusement could also be said to have enhanced their relationship. This use of humour is reminiscent of how a stand-up comedian might use recognisable details of people's lives to draw in an audience, thus forming part of a group experience. In their exaggerated nature, these instances are also reminiscent of the kind of online meme that associates a similarly exaggerated picture with a mundane but familiar act (Figure 44).

Figure 44: 'Everyday' memes (origin unknown)

As Maclure et al. (2010) suggest, humour relies on 'the ability to see the absurdity, irony or double meanings in social situations' (p.9); in this way humour draws attention to the mundane and ensures it is noticed. This kind of meme is intended to be shared, to gather attention and potential 'likes'. Just as this kind of 'like' is indicative of online popularly (a kind that some of the children's comments suggest is of growing importance to them), so here we

potentially see a similar performed type of meme being used as a means of accruing social capital offline, within the group, cementing friendships and perhaps boosting the popularity of the performer.

6.8.3 Social Players

The social experience of the club was also intertwined with the virtual play, as the children drew on their experiences of the world in ways that crossed the on and off-screen spaces. Of course, as the children were present in the same room, much of the social experience was lived and played out through their bodies, rather than through the technology. These existing relationships were, however, augmented by the game, and the players' actions in and around it. In plateau 1 we saw how the nature of the game influenced the type of creative play seen in the club. In this plateau there are indications that the game also afforded a particular, playful kind of sociability, with the nature of the players' relationships with their avatars making this a distinct (and distinctly) social experience. This game-enhanced experience was afforded by the players' co-present use of the avatars.

Virtual play is often positioned as an opportunity for identity experimentation, largely afforded by the presence of an avatar to represent the player to others on-screen. Whilst this is certainly true of social, virtual world play that takes place across remote locations, there is less opportunity to hide behind an avatar when you are located in the same room as other players. Some of the group felt a connection with their avatar and the on-screen world, seeming to suggest that the avatar was, in this context, an extension of themselves. The avatar was used to help them to achieve things that they couldn't otherwise do – on-screen and off-screen. The group's avatar-mediated on-screen presence was one of multiple elements that contributed to the group's social interactions; in particular, the play with avatars enabled the children to try out their own narratives as part of the club. Whilst opportunities were not necessarily taken to directly explore alternative identities, relationship were nevertheless enacted by participants in

conjunction with the avatar. This is seen in 'The Horse Funeral' (6.6) and 'An Emerging Economy' (6.7) where the group enacted roles on and off-screen. Thinking of the avatar / player relationship as a kind of 'machinic assemblage' (Deleuze and Guattari, 1987, p.41) helps to shift the focus from the avatar as a reflection or expression of identity to an extension of it. In this way we can understand how an in-game action, an interaction with another avatar or an act of construction (or destruction, as in 'One or Several Wolves' (5.5)), was seen by other players as indicative of a player's own intentions.

Of course, what was most important in terms of their social experience was not that children formed, developed or strengthened relationships with avatars, but with the human participants who operated them. During his last discussion session Callum established the club as a significant factor in his integration in an otherwise established group; as the newest member of the class he stated:

> 'It's a really good way for me to join in. I've got to know people so well from Minecraft Club. I don't think I'd know anybody this well or be this best friends with people if it wasn't for Minecraft Club.... I think people talk more, there's a bit more chance to talk and they kind of demonstrate their feelings in what they build... So... I think I've got to know them quite well. And what they like and stuff.'

Such comments, seen alongside the social type of play explored during this plateau, suggest that there is potential for clubs that provide opportunities for children to play collaboratively around virtual worlds to afford a type of sociability that enables the development of positive social relationships. Naturally, there are a number of contributory factors which conspired to make this a positive experience for this particularly individual. Cohesion did not spring magically from the game, rather it was generated by Callum's existing enthusiasm, his desire to make friends, his willingness to participate, not to mention the accommodating nature of this specific group. Nevertheless, there is a wider point to be made about the benefit of creating enriching spaces where children can engage in shared play around videogames, rather than framing these

as solitary activities conducted at home, or shared with others via remote connection.

6.8.4 Social Challenges

Although often underpinned by humour, and on and off-screen collaboration, the lived experience, as a social experience, was occasionally problematic. Children explored and enacted occasionally troublesome roles, again drawing from their wider experiences of the world. For instance, in 'An Emerging Economy' (6.7) a group of girls seemed to have their play directed by two boys positioning themselves as leaders. This demonstrates how unchecked play in such circumstances could inadvertently lead to the performance of pre-existing stereotypes. Similarly, the events depicted in 'One or Several Wolves' (5.5) demonstrates how issues of power entered into the group's lived experience. Just as playgrounds can be sites of 'uneven power relations' (Willett, 2013, p.49) and inclusion and exclusion (Blatchford, 2012), so too can a club featuring virtual world play. Virtual play does provide a means of playing with power, as players are involved in establishing territory and exploring hierarchy.

Whilst such relationships illuminated here are problematic, play can have a place in challenging this kind of dominant role. Wohlwend (2012) talks of 'play as productive pedagogy that imagines sites of contestation for children to explore, test, and transform their relationships with powerful global discourses' (p.20). Whilst the club itself did not create these discourses, the challenge comes in ensuring that such sites are available as places where children are able to explore and challenge these ideas, rather than simply to reinforce or embed them. Such incidents are not fixed or compartmentalised from the rest of children's lives; they exist as part of ongoing discourses, developed through play and otherwise, relating to their roles in the world. In the short term, in the club, children were able to seek opportunities to remake the spaces to challenge the dominance of others (as seen, for example, in the girl's later creation of a space where only girls were allowed).

We also saw how, in 'One or Several Wolves' (5.5), the group engaged in a kind of collective negotiation in response to the events. As well as affording opportunities for individuals to collaborate on the creation of individual virtual structures, the collective world-building necessitated communication between participants in response to the choices they made; this included decisions about what to include and how to conduct themselves in and around this co-produced world. The nature of the shared virtual world play encouraged social interaction and required social negotiation. These opportunities, however, may not be sufficient in themselves. Play does have the potential to be empowering. This may not necessarily be as a dramatic, transformative or revelatory single experience but as an ongoing and sustained ingredient in a meaningful life, where individuals are enabled to imagine other ways of being in, or responding to, the world.

As we have seen, virtual play also has this potential to empower, through the novel directions in which the available resources can lead the associated discourses. From the outset club I was eager to leave the children free from adult intervention in their play. However, playing with the children (whilst closely researching their practice) enabled me to see the complex ways in which discourses of power found their way in to their play, both on-screen and off. If I had not been participating it would have been easy for many of these circumstances to evade my supervisory gaze (Carrington, 2005) and go unnoticed. And at times, in spite of my 'hands off' approach, I felt that I had an ethical responsibility to intervene to challenge some of these play discourses. This revealed an interesting tension between my intended role and the one which emerged as a response to the specific nature of some of children's play. I felt that there was a fine line between directing the children's play and leaving power imbalances unchecked. I addressed these issues largely through discussion with the participants, rather than banning or directly redirecting any kind of role-play, hoping that questioning what I perceived to be injustice or dominating

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practices would serve to disrupt them and prevent them from becoming embedded or going unchallenged.

6.9 Virtual Becomings

In a number of ways, the lived experience of the group involved the exploration of wider issues and ideas. The children's discussions, performances and play with their life experiences gave them an opportunity to collectively explore some of the more complex issues encountered in their wider experiences of the world. In acting and performing, the children were not simply using 'dry speech' but meeting issues of their everyday with 'exuberance or amusement' (Deleuze and Guattari, 1987, p.110). Sutton-Smith (2001) suggests that 'the transformation of everyday emotion into virtual reality is often an elevating event' (p.164). Here, then, the everyday was often 'elevated' into the club by the means of exuberant performance.

In the club, this concept of the 'virtual' can potentially be understood in three ways, each of which helps us to examine how the everyday manifested in the club. Firstly, as in Sutton-Smith's (2001) account, the virtual can be thought of as the realm of the imaginary, made visible through story, performance or play. Therefore, the events explored through discussions about parents' dancing or a sex education video serve to elevate them into the group's collective consciousness, making them present beyond the virtual realm of memory. Secondly, at least in some of these events, the virtual could be positioned in terms of the 'virtual world' and the on-screen manifestation of the events that played out via *Minecraft*, such as the horse funeral or the restaurant role-play. Either way, the performance of these episodes, whether on-screen, off-screen or across the two, allowed the performances to be manifested and present as part of the club.

Thirdly, Deleuze and Guattari's (1987) conceptualisation of the 'virtual' (p.110) relates to 'the condition for actual events to take place in the present' (Holland, 2013, p.18). The 'virtual line' or 'virtual continuum of life' (Deleuze and Guattari, 1980, p.110) encompasses all past events, co-existing together as 'the essential element of the real beneath the everyday' (p.110). This virtual past is, therefore, 'a condition for the actualisation of the present' (Holland, 2013, p.18). In other words, the present is dependent on, and produced by, the past. This conceptualisation of 'the virtual' is closely linked to their concept of the 'plane of consistency; (p.506); this consists of 'unformed elements' (p.507) and provides the conditional elements on which the BwO composes its reality. In other words, the plane of consistency could be seen as the building blocks for the ongoing present and, therefore, the source of the group's lived experience.
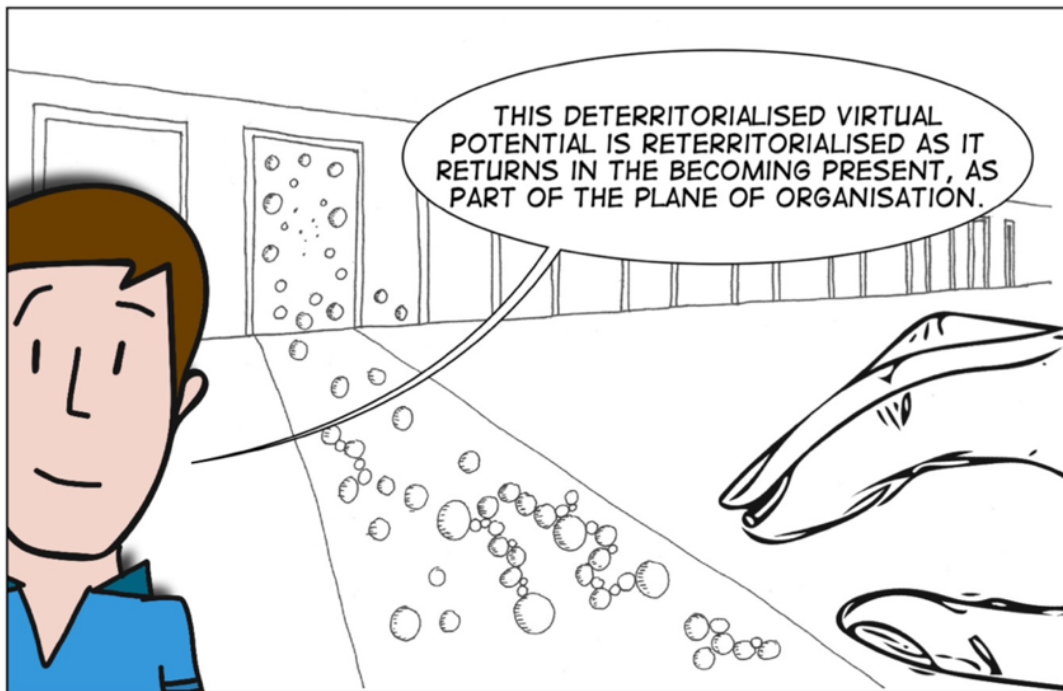
For Deleuze and Guattari (1987), 'deterritorialisation' (p. 3) describes a conceptual 'freeing up' of space and, therefore, possibility. 'Reterritorialisation' (p. 53), meanwhile, relates to the process whereby an idea manifests and takes shape.

How might the concept of the place of consistency, and this related terminology, be useful here? Well, in the case of the club, this concept helps to describe the origin of ideas; this helps to visualise how the human participants, as part of the BwO, drew on a range of different resources and ideas as sources from their own 'virtual' pasts to create what could be called the 'lived experience' of the club. The human participants often enlisted their own life experiences and their experiences of wider culture. As the group metaphorically opened different 'doors' at different times, gaining access to the plane of consistency, these previously formless ideas re-manifested in the context of the club where they were reterritorialised in new ways, providing the basis for much of the club's creative practices. As the club consisted of multiple things and the human participants, as part of the BwO, consisted of multiple brains, and therefore multiple sources of memory, the access to the pool of resources was many times larger than it would have been for a single player.

For instance, we saw how a range of life experiences provided the basis for the closely related practices of discussion, play and performance. This included everyday experiences of food and technology; their observation of their parent's performances of identity roles in social situations; a song from a sex education video and notions of puberty, aging, death and gender. As well as being a source of entertainment, via performance, the opportunity to bring these examples into the club, to metaphorically draw them into the light and to reterritorialise them in the context of the club, helped the children to work through some of the issues involved.

For instance, in 'The Horse Funeral' (6.6) the children can be seen drawing on a cultural tradition to enrich their play and to, potentially, explore its meaning as part of their everyday lives. DeZutter (2007) talks of children's 'pretend play' as a 'form of group improvisation' (p.234). In this way, the horse funeral is a collaboratively emergent play narrative that is not the creation of any one child (DeZutter, 2007). This event, therefore, could be seen as an example of shared meaning-making around everyday life, with the children exploring ideas of, if not death itself, then our rituals around them. Lofdahl (2005) observed two younger children engaged in a self-directed role-play, also about a funeral. Quoting Moscovici (2000) she talks of the children 'objectifying through performance and thereby testing different meanings' (p.14). They are said to be 'anchoring their knowledge' (p.14) through the performance. If such play can be understood as social representation then this event could be read as the children's attempt to 'make something unfamiliar, or familiarity itself, familiar' (Moscovici, 2000, p.37). Therefore, the children can be seen to be reflecting on an element of the social world that is on the periphery of their understanding as a means of making sense of such events. Given both the gravity of issues such as death, and the relatively trivial reflections on how parents dance at social functions, these reflection or explorations are not likely to lead any fixed or final resolutions, rather they involve the children in an ongoing, life-long exploration of the world around them.

The resources that children drew on were not always life experiences, but examples of popular culture from the children's lives. In this plateau, we saw the children invoke Deirdre Barlow from Coronation Street, 'The Banana Song' from the film 'Despicable Me', ballet dancing, a hit from 1998 by the band Cleopatra and Harry Stiles from One Direction. In Plateau 1 we saw how a Rubiks Cube became a stimulus for an in-game structure that acted as the basis for a social game. The song 'Feed the World' became a template for a new song that combined with an in-game event to generate further action in the game and in the room. Collective memories of a family visit to a maze became the prompt for

an in-game maze. The character of Winston Wolf was adopted as a way into a conversation about on-screen vandalism, whilst the contemporary legend of Slenderman became reattached to an in-game character, prompting the resurgence of pre-existing fears.

Although a number of these particular examples demonstrate children drawing on aspects of popular culture, if viewed alongside the other examples we can see that the children are actually again drawing more widely upon life experiences, with the prevalence of popular culture artefacts amongst these demonstrating the important role that these experiences play in their lives alongside other experiences. The existence of so many reference points from the 1980s (eg. E.T., Rubiks Cube, 'Feed the World') could perhaps also be best explained in the context of family experience; whilst these artefacts are certainly not contemporary for the children they are perhaps more timely for their parents and therefore they have potentially made their way into family life through parental reminiscence, as the family draw on their own experiences from the plane of consistency. In effect, any aspect of the past becomes fair game as a resource for the children's play, where it is reterritorialised and reformed in unpredictable ways, having been deterritorialised from its original context. Furthermore, as these events were actualised, or 'stratified' (Deleuze and Guattari, 1987, p.110), the fleeting, momentary nature of their presence suggest that the presence it is actually a part of an ongoing process of 'becoming' (p.21) rather than a stable state of being.

This helps to position the children's explorations of the everyday as part of a process of becoming, in which their past experiences play a significant part. Describing this process as 'becoming' emphasises its ongoing, fluid, changeable and emergent nature, rather than suggesting a process that fixed, certain or bounded as part of an identifiable developmental phase. In this way, the episodes that demonstrate children drawing on aspects of their wider experiences show us how the children's lives - their actions, interactions, identities - are ongoing and

also contingent on past events and experiences. This helps to remind us that we are made, at least in part, by our experiences in our everyday lives, and our actions are shaped by these, however mundane or insignificant they may seem. These events that could easily be dismissed as transitory, ephemeral or unimportant, take on added significance if understood as elements in a process of becoming. Deleuze and Guattari (1987) suggest that 'there is no question, answers are all one ever answers... life must answer the answer of death, not by fleeing, but by making flight act and create' (p.110). With this in mind, the children's exploration of, for instance, a ritual around death, through the performance of a funeral, is not an event that will provide them with an answer to a question about death. However, it is a means of creating a response to death. Likewise, the children's wider explorations of their experiences of the world constitute not only responses to life but also form further contributions to their virtual pasts, as part of the collective and individual ongoing process of becoming.

6.10 Summary

This plateau demonstrated the lived experience to be a social experience that involved participants drawing on shared understandings of multiple cultural and personal reference points and experiences. I demonstrated how the children's social experience, and their social performances, contributed to their ability to make meaning from the world around them. The lived experience of Minecraft Club therefore involved a process of playing *with* the world. These ideas were explored through a number of episodes and commentaries that investigated the lived experience from this perspective. Deleuze and Guattari's (1987) concept of the 'plane of consistency' (p.269) and the idea of 'becoming' (p.21) also helped to account for the social dimension of their play and the origins of their ideas that they incorporated into their play.

PLATEAU 3: VISUALISING SOUNDSCAPES

visualising soundscapes
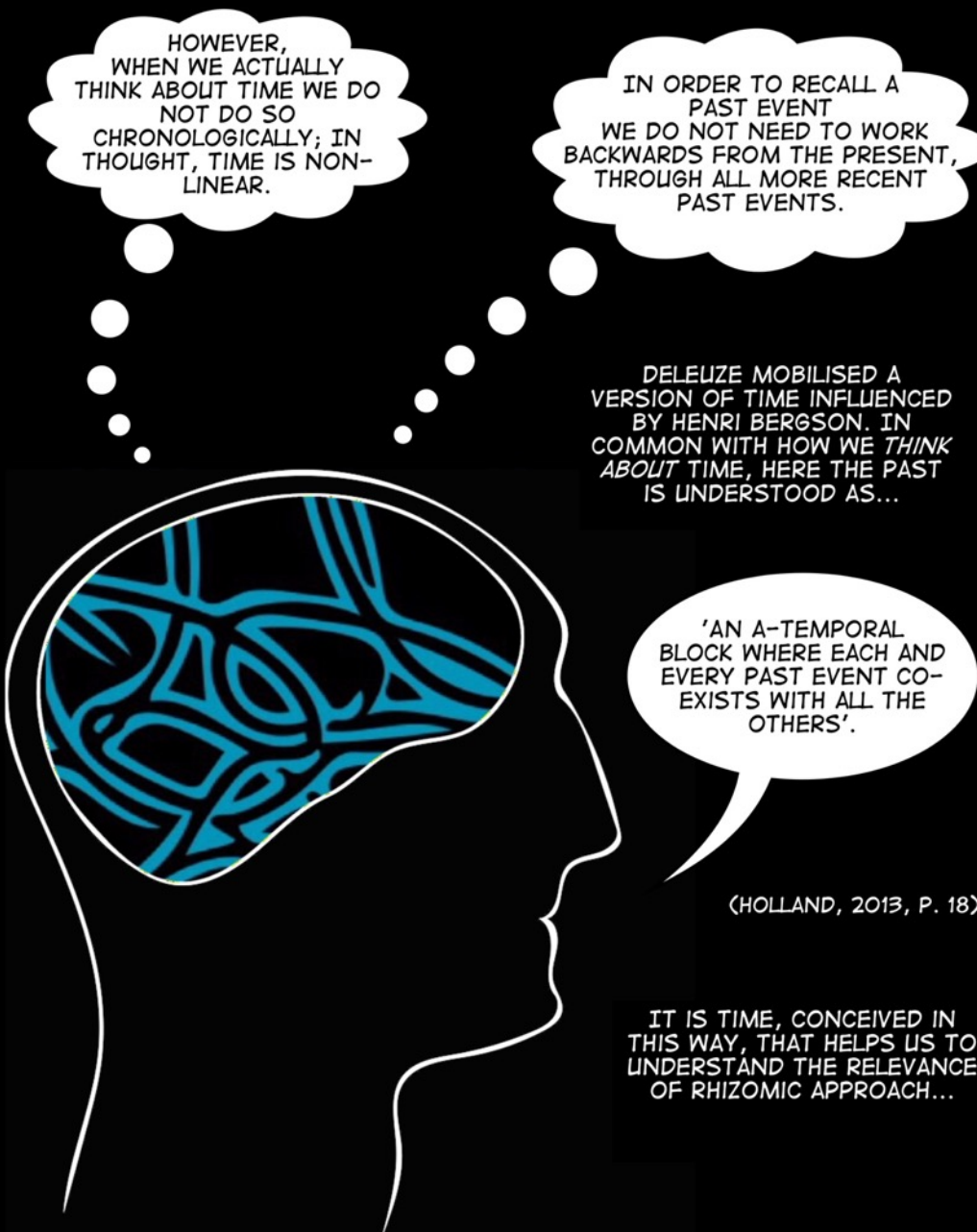
'NO LANGUAGE, JUST SOUND, IS ALL WE NEED KNOW.' (JOY DIVISION, 'TRANSMISSION', 1979)

THE SPLASH OF A PEBBLE DROPPED INTO CALM WATER DISRUPTS THE SURFACE WITH A SERIES OF CONCENTRIC, CIRCULAR RIPPLES.

SIMILARLY THE CREATION OF SOUND GENERATES ITS OWN INVISIBLE RIPPLES IN THE FORM OF CIRCULAR WAVES, AS SOUND TRAVELS FROM ITS SOURCE, THROUGH A SPACE.

IN THIS WAY, THROUGHOUT OUR DAILY LIVES...

sound surrounds us...

ALTHOUGH ITS PRESENCE OFTEN GOES UNNOTICED AS WE ACCEPT NOISE AS AN INEVITABLE FEATURE OF THE WORLD.

OF COURSE, SOUND WAVES ARE NOT ACTUALLY 'LINES'.

THE LINE, IN ITS DIFFERENT ORIENTATIONS, IS JUST A USEFUL TOOL USED TO DESCRIBE SOUND, AS A WAY OF VISUALISING WHAT WE DON'T ACTUALLY SEE.

LIKE SOUND, TIME IS ALSO OFTEN VISUALISED USING A LINE...

... WITH THE PAST AND THE FUTURE AT EITHER END...

PAST

FUTURE

... AND THE PRESENT AT A POINT IN BETWEEN.

VISUALISING THE CLUB'S SOUNDSCAPE
AS A RHIZOME, POTENTIALLY
INCLUDING *ALL* PAST SOUNDS,
ALLOWS FOR A FOCUS ON THE
COMPLEXITY OF THE SOUNDSCAPE AS
A WHOLE. THIS HELPS US TO CONSIDER
ALL SOUNDS AS CONNECTED AND
PRESENT, RATHER THAN ENCOURAGING
A FOCUS ON ONE TEMPORAL MOMENT
OR EXTRACT IN PARTICULAR.

7.1 Why focus on soundscapes?

An examination of the sounds of the club offers another perspective on the group's lived experience. In this plateau I address the 'soundscape' or 'acoustic environment' (Schafer, 1993, p.4) of the club, considering the affordances of such an approach, whilst also exploring its challenges and limitations. Whilst the visual aspects of the club are represented throughout this thesis, in the photographs and screenshots of the on and off-screen action, the aural is elsewhere less readily portrayed. Whilst speech, as a manifestation of the aural, is revealed through text and textual description, this has two unintended adverse effects. Firstly, it individualises the verbal and therefore does not consider speech in terms of the collective noise made by multiple members of the group (or BwO, as explored earlier). Secondly, a written representation of speech also encourages us to focus on *what* is said, rather than *how* it is spoken; as Barthes (1975) points out 'the voice is heard'; the quality of the voice itself has significance. That is not to say that an examination of sound necessarily precludes a consideration of the meaning of the words being spoken. Lyon and Back's (2012) study of fishmongers on a London market, for instance, considers both 'the background sounds' and 'the aural dimensions of the interactions and banter' (p.2). However, my focus here, in terms of the voice, is on the collective 'vocality' as 'a way to talk about a voice beyond simply the words it imparts' (Meizel, 2011, p.267), rather than the meaning of the language spoken.

As well as the sounds of human voices, a focus on the soundscape enables consideration of other sounds that manifested during the club, such as those produced by non-human participants - objects, machines / devices, NPCs - and human interactions with them, therefore recognising their significance as part of the human participants' lived experience. Back (2009) suggests that 'social research needs to... embrace the opportunities to rethink its modes of

observation and analysis' (p.213) thus exploring the 'sensuous and multimodal' (p.213) experiences of communities. As study of the everyday is associated with the 'mundane' or 'unnoticed' (Pink, 2012, p.4), this also suggests a need to focus on noises as 'the sounds we have learnt to ignore' (Schafer, 1994, p.4).

 Just as the study of sound is sometimes positioned as challenging the 'hegemony of the visual' (Sterne, 2012, p.7), a focus on sound itself privileges this sense over others. However, whilst there is no plateau exploring the club's smell, for instance, that is not to say that there could not plausibly be one. This said, due to the difficulties inherent in recording such things, the data from the project would not provide a particularly rich resource to retrospectively consider the club's smell, beyond a passing mention of the pervading odour of sweaty bodies that occasional adult visitors to the club would remark upon, reminding me to open the windows of a stuffy classroom. Whilst smell only felt (smelt?) like a minor aspect of the club's lived experience, sound somehow felt more tangible and significant. I was regularly aware of sound in the club, often most conscious of the volume of sound produced by human participants, rather than the quality of the sound, or of sounds from other sources. The multitude of audio data collected, as a component of the video data, allowed a re-interrogation of the data with sound in mind.

7.2 Recording sound

Schafer (1993) suggests that 'machines listen differently than men do' (p.125), highlighting the limitations of using recorded audio to examine sound. Just as the visual aspects of a scene are framed in a particular way by a video device, this is also true for the sonic elements of a recording. Firstly, sounds recorded by the recording equipment were highly dependent on where and how the camera was being used. When worn on a participant's head, for example, the sound of the player's voice was foregrounded by the microphone over the more general noise in the room. When placed in a central location, the microphone tended to pick

up the louder sounds in the room, obscuring quieter sounds such as those emanating from the laptops' smaller speakers. Secondly, the fact a sound was recorded does not guarantee that this was how a sound had been heard by the human ear (as if a generic human ear even exists). Mindful of these limitations, I sought to explore the sounds of the club using a number of video files. Screencasts also provided a valuable record of the sounds generated by the game, which were rarely picked up by the GoPro camera speaker, due to their relatively low volume in contrast to the (largely vocal) sounds elsewhere in the room. Laptop speakers were often turned down low and sounds could only be heard in close proximity to the individual machines. I also draw on my memories of the club and my (admittedly brief) fieldnotes that related to the sound of the club.

None of the individual videos provide a 'true' record of the club's soundscape. Video provides a framed visual representation of movement, in two dimensions, from a certain focal point; sound recording has similar constraints as a resource to draw upon. However, as the best and *only* record of the sound, it is what I will reflect upon here.

7.3 Representing Soundscapes

I have written elsewhere (4.4.3 b.) about the challenges of representing the events in the club as text alone. Similar challenges arise when representing the aural aspects of the club. Just as I developed a method of transcription to represent the club's events in a form that could be displayed on paper, during this plateau I explore the possibilities for (and limitations of) employing paper based representations of sound. When representing soundscapes, Schafer (1993) suggests that 'we have two descriptive techniques at our disposal already: we can talk about sounds or we can draw them' (p.123); here I use both textual and visual methods to help represent and explore the club's sonic landscape. Smith, Hall and Sousanis (2015) discuss the potential for using processes of 'visualising as analysis' (p.2), and therefore the following visualisations should be

considered an integral element of the analysis process, providing a means by
which to reflect on and respond to the data.

7.3.1 Tracings of a soundscape

Just as devices hear differently to humans (Schafer, 1993, p.125), they also
represent sound in a particular way. Drawing on Deleuze and Guattari's (1987)
terminology, the following visual representation could perhaps best be
considered a linear 'tracing' rather than a 'map' of the club's soundscape; as such
it is of specific, but fairly limited, use. Schafer (1993) suggests that diagrams
provide 'hints only... which the ear can then follow up in its own way' (p.132).
With this in mind, this computer generated diagram (Figure 45) is presented here
as one example of a visual representation of sound that can provide some insight
into the nature of the club's soundscape.
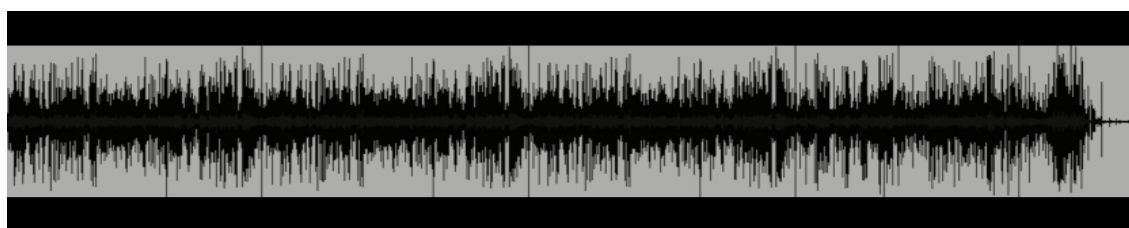
Figure 45: Computer Generated Visualisation of audio

This is a visual, linear representation of the audio track from the GoPro video
from week 17, generated using an audio editing application called Audacity. It
represents the volume of the sound recorded over time from a point just after the
start of the club to the end. (The imagined 'x' axis would read 'time' whilst 'y'
would read 'volume'). I chose this particular week as it was the only week that the
camera remained static, in a single location for the full session. The camera was
placed high at the front of the class, balanced on top of the interactive
whiteboard (Figure 46).

Figure 46: Screenshot from video of Week 17

The camera's location here meant that the sound was not subject to individual children addressing their speech directly to it. As such, the audio recorded could be considered a 'general' recording of the soundscape in the room. Of course, the recording itself does not accurately replicate the auditory experience of any one individual; regardless of the mechanical interpretation of the recording, no participant was in the habit of levitating in a static location at the front of the class. Nevertheless, it does provide one available perspective on the club's soundscape.

This particular representation of the recording demonstrates that, throughout this club session, there was a high volume of noise. Whilst there were regular dips and spikes in the volume, the only point at which there was almost no sound came at the end of the recording where the children packed up and left the room. Similar representations of each week of the club would likely show a very similar pattern. As such, the volume of sound could be said to have a recognisably weekly, cyclical rhythm (as represented visually in Figure 47), although not strictly a 'cyclical' rhythm (Lefebvre, 2004, p.9) as this term is used to describe rhythms that arise from nature.
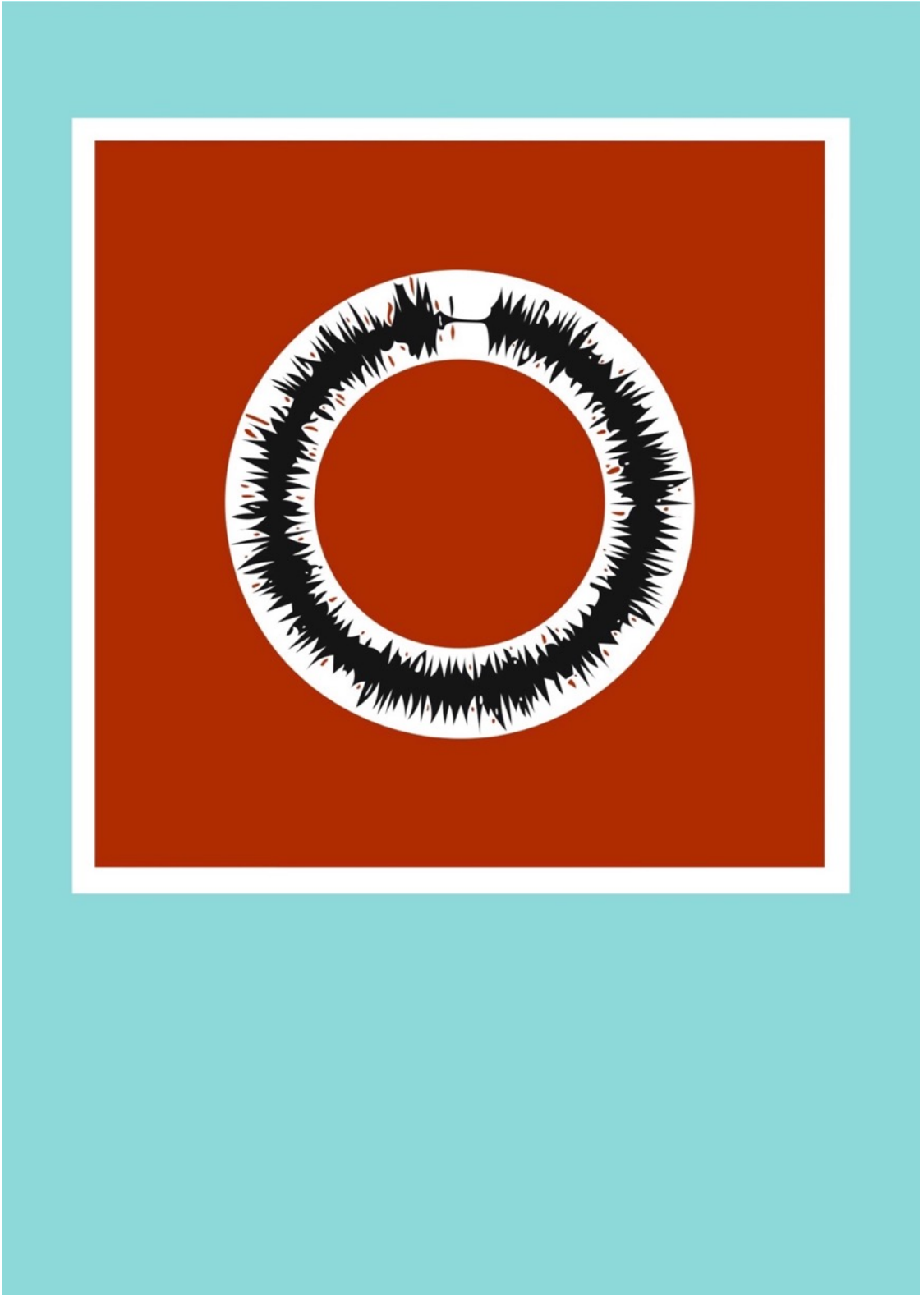
Figure 47: representation of cyclical rhythm

The silence has little significance in itself as it reflects the absence of the children; it is not part of their lived experience as it reflects that they have left the room. Nevertheless, it does highlight how, when emptied of computers and children, the room itself was a quiet environment. The classroom was not, for instance, subject to noise from the road outside and, as the club was held after school, there was little noise from elsewhere inside either. This emphasises the fact that most of the soundscape of Minecraft Club was generated by the club itself; it made its own noise. The longest 'spikes' in the visualisation also represent a particular type of sound, generally indicating a more abrupt noise: a door banging or a chair knocking against a table. What this particular visualisation also does successfully is represent the soundscape both as continuous and as an assemblage of noise, with individual elements making themselves heard above the often indistinguishable cacophony.

7.3.2 Mapping a soundscape

Having exemplified what a tracing of the soundscape could look like (and thereby acknowledging the limitations of such an approach), I now provide an alternative in the form of a 'map' of the club's soundscape (Figure 48). In mapping sound, the intention is not to cartographically record where the sounds were located in the room, but to provide a visual map as a representation of the character or dynamics of the soundscape. In his ethnographic account of a 'dying' university building, Dean (2015) uses words to create a textual 'composite narrative' (p.3) as a 'representational and subjective form of reporting' (p.3) on the soundscape of a communal space. Taking this lead, I have also drawn inspiration from two volumes of unconventional musical manuscripts (Cage, 1969 and Sauer,2009) that compile a number of musicians' attempts to reflect the dynamics of sound through the annotation of musical notation.

The following visual representation of the club's soundscape was originally drawn on a blank musical score, as an experiment in developing a 'new form of discovery' (Dean, 2015, p.2). This visual 'map' is the result of my repeated

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listening to a number of different audio tracks that recorded the club's audio from a number of different perspectives. As a result, the image is also a composite account of a particular soundscape, in contrast the previous tracing of a single week's sound. Korzybski (1933) asserts that 'a map is not the territory it represents, but, if correct, it has a similar structure to the territory, which accounts for its usefulness. ' (p.58) This assertion is similarly explored through Borges (1998) short story 'On Exactitude in Science' where he describes 'a map of the Empire whose size was that of the Empire' and was therefore 'useless'. This map's usefulness should be judged on its effectiveness in conveying the sonic territory of the club's soundscape.
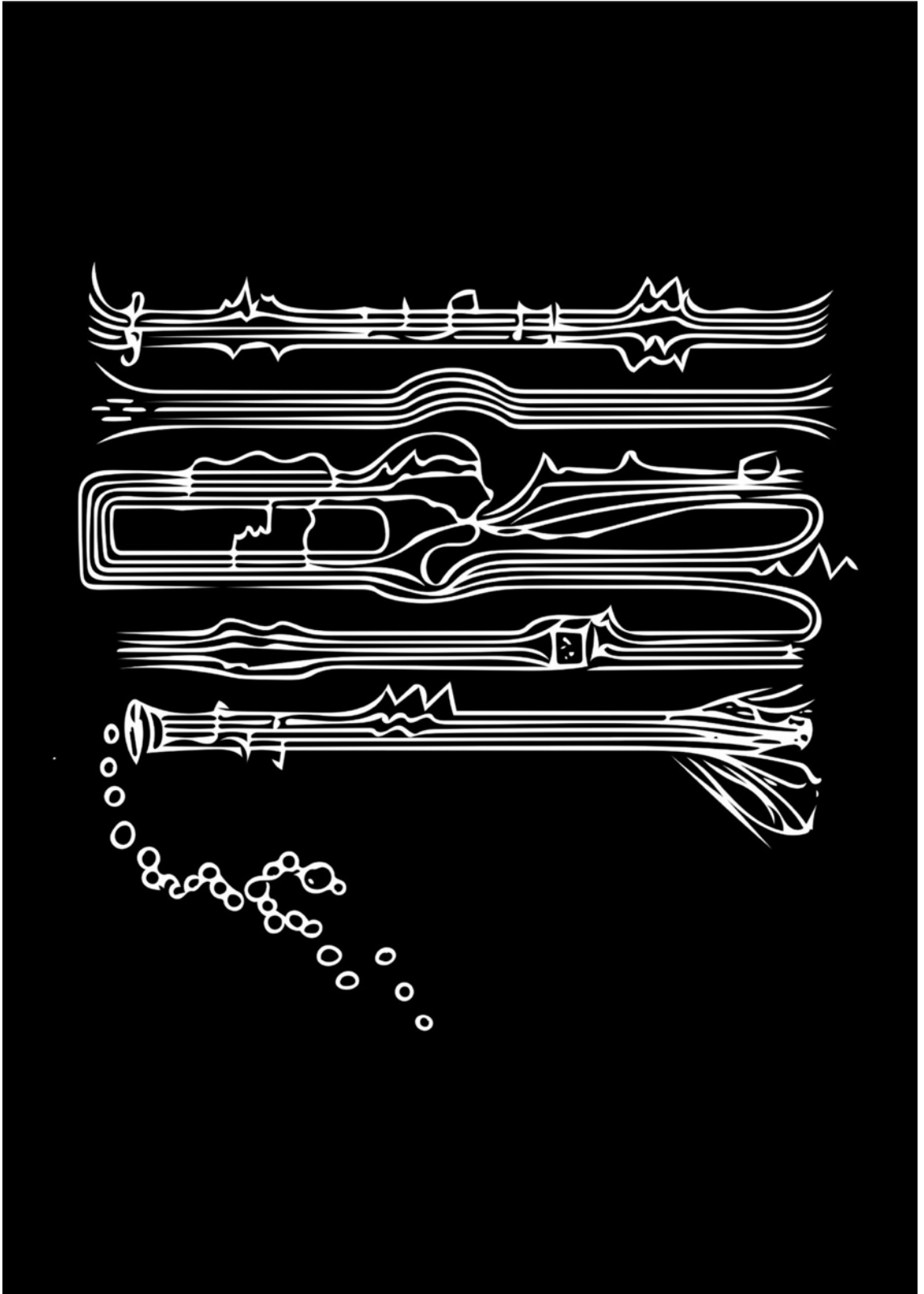
Figure 48: Soundscape 'map'

Schafer (1993) suggests that drawn notation is 'an attempt to render aural facts by visual signs' (p.123). This image, as a flow of such 'visual signs', is not to be read as a literal transcript of any one moment; neither is it intended to be seen in the same way as traditional musical notation, as 'prescriptive... a recipe of sounds to be made' (Schafer, 1993, p.123). Rather, it is used to give a general impression of the club's soundscape, as a result of my time spent in the club and my re-experiencing of the audio data. It is not intended to be read from beginning to end but to give an overall impression of the club's soundscape. Using this method allowed me to employ my own 'visual voice' (Gauntlett, 2007, p.107), circumventing the 'inherent linear mode of speech' by presenting 'a set of ideas all in one go' (Gauntlett, 2007, p.126). Like the club's soundscape, conceptualised as a rhizome, this representation consists of multiple elements existing (and experienced) all at the same time. Mindful of Schafer's (1993) assertion that...
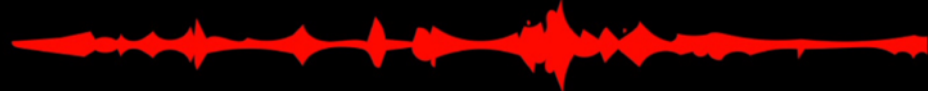
'No silent projection

of a soundscape
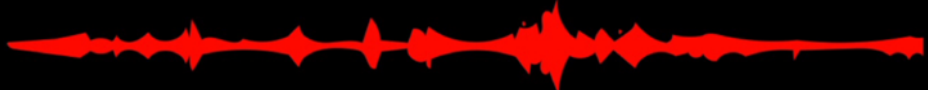
can ever be

adequate...'

(Schafer, 1993, p. 132)

... I have also provided a short composite audio soundscape, using short clips from multiple weeks, as a means of providing the listener with 'an overall auditory picture' (Dean, 2015, p.3) of the club. The visual representation and audio soundtrack are not necessarily conceived as representing the same series of moments, rather they together are intended to provide accounts of the club's rhizomic soundscape using alternative modes of representation. In particular, the audio version should enable the listener to position themselves within the sonic representation of the soundscape, rather than consciously examining it on paper.

<p align="center">http://bit.ly/SoundscapeClub</p>
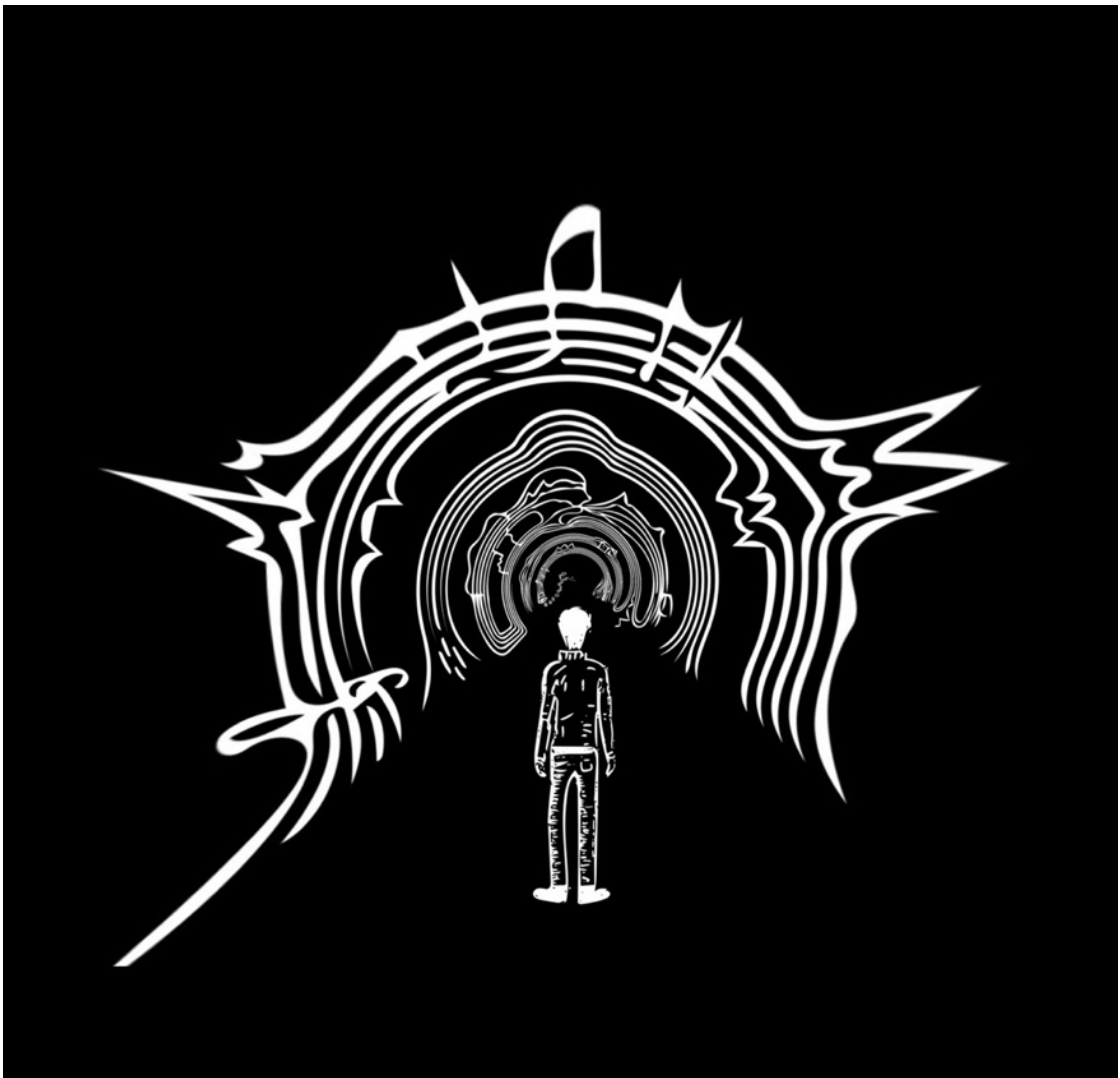
To assist the reader in their own interpretation, and to begin to draw attention to my particular interpretation of the club's soundscape, one possible (non-linear) summary reading is provided (Figure 49) in the form of a comic strip. This highlights possible interpretations of different aspects of the soundscape map (Figure 48) but should not be considered the only or, indeed, the *definitive* reading.
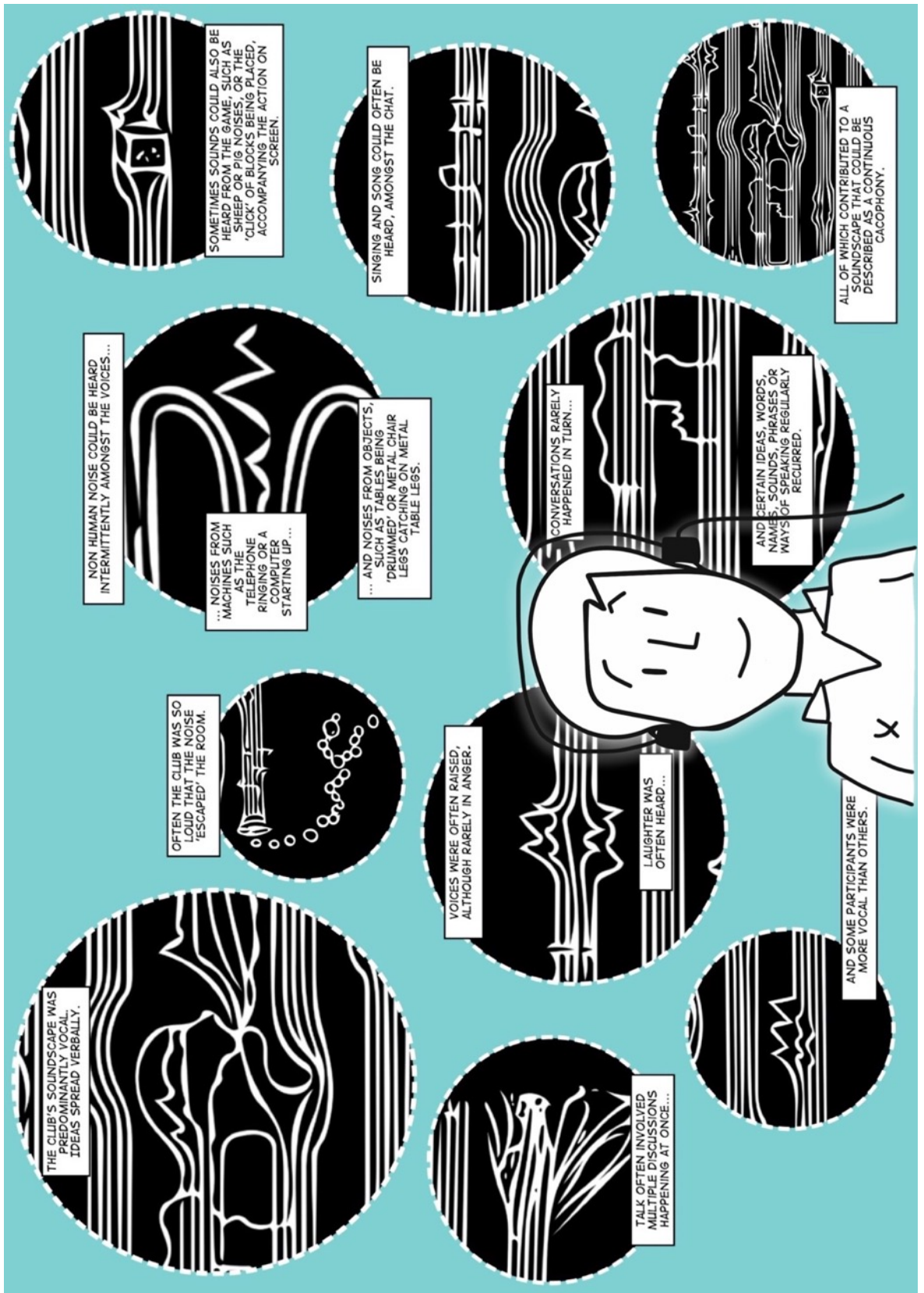
Figure 49: Non-linear soundscape comic

7.4 The Significance of Sound

I will now expand upon these representations, to consider the significance of the different types of sounds that contributed to this cacophony, addressing them via two broad categories: non-vocal and vocal.

7.4.1 Non-vocal

Whilst the club's soundscape was dominated by the sound of voices, there were a number of discernible non-vocal sounds. The irregular but frequent staccato-clatter of noise relating to furniture cut through the other more persistent or continuous sounds in the club. These sounds, often ignored at the time, act as a reminder that furniture was present in the room and acted, to some extent, to dictate where the children position themselves in the room. The sound of furniture, often a clash of a chair banging against a table, indicates that an individual was getting up to move around the room. Louder clashes indicated more dramatic movement, sometimes as a reaction to an in-game event or a comment by another person elsewhere in the room. Sometimes a clatter indicated the relocation of a laptop to another desk as the computer was manhandled less delicately than it should perhaps have be, or that a whole set of desks were being moved from the formation of the lesson before. In the club during SATs testing week I noted how the children had re-gathered around the tables that had been organised to reflect the independent and silent expectations of 'exam conditions', watching as they drew on a range of influences, playing with language and communicating in multiple modes. In effect, they had transformed the classroom space from the restrictive or 'striated space' (Deleuze and Guattari, 1987, p.364) of SATS to an (arguably) less controlled or 'smooth'(er) (Deleuze and Guattari, 1987. p, 363) space that allowed for the collective use of imagination and communication.

Sometimes the noise of the computers keys could be heard, usually as an individual responded to the game's lagging by increasing the velocity of their key

presses. This inevitably did not lead to the game running faster, suggesting that such behaviour was more about demonstrating frustration that it was about fixing a problem. The classroom door could also be heard opening and closing, indicating that someone had either left or entered the room. This was sometimes a child leaving to go to the toilet or, more frequently given the short battery life of the aged technology, to collect a charger from the laptop cabinet. Sometimes the noise of the door indicated the arrival of an adult, usually a member of staff or, occasionally, a parent who had arrived to collect their child early for another appointment. The noise of the door usually attracted the attention of the club participants and the children frequently tried to draw visitors in the room into their discussions, calling out to their class teacher to tell them what they were doing in the game, or occasionally pleading with the parent of another child not to take their friend away early!

Noises relating to the computer mainly included the sounds produced by the game itself. The most notable of these were the animal noises from the NPCs, which could sometimes be heard emanating from individual laptop speakers across the room. If loud enough to be heard this would sometimes result in a verbal, repeated noise from a player or multiple players; a 'baa' from a *Minecraft* sheep would result in multiple 'baas' from multiple players. Other noises in the game included the clicking sound of blocks being placed on-screen, acting as an additional sensory confirmation from the game that a command had been executed. Sometimes rhythms built as children placed blocks sequentially, although these were usually only loud enough to be heard by the individual. Often children's laptop speaker volumes were turned down entirely, indicating that the sonic experience of the game was not necessarily vital to their enjoyment.

Occasionally the phone would ring, usually indicating a member of staff's attempt to locate the children's teacher. Children often responded to this noise by asking me if they could answer the phone themselves. My answer varied,

depending on how high the noise level was in the class at that moment. If I deemed the noise too loud to be acceptable to the potential caller I asked the class to quieten down, before getting the phone myself. If the noise level was lower I would allow a child to answer, without fear of the caller judging the noise level that I was permitting to exist in the classroom.

7.4.2 Vocal

a. Noise Levels

I have already established that the club was loud, and as a result I frequently worried about what other adults in school thought about these high volumes. Although I relaxed a little about noise levels as the weeks progressed I was still never entirely comfortable when the volume reached a certain level. As seen in 'The Horse Funeral' (6.6), on one occasion the headteacher entered the class to tell the children that she could hear them down the corridor in her office; this incident occurred because parents evening meetings were being held elsewhere in the school at the time. On a number of other occasions, the headteacher also congratulated the children if they were working relatively quietly. Noise levels therefore related to issues of control: my perception, likely stemming from my time as a teacher, was that quiet children indicated to others that the class was under my control. Noise potentially indicated a *lack* of control!

Many children shouted out in the club. This was sometime a declarative technique, to make an announcement about their status in the game, often to be heard above the other loud voices in the club. Children frequently called out to each other by name, often to get each other's attention. On some recordings my voice could be heard booming, due to the difference in tone between my adult voice and the children's voices. At other times this booming was intentional, to be heard above the general noise of the club. Sometimes I would 'shhhh' ineffectually; at others I would ask for 'quiet' in a more forceful way (again reflecting my previous role as teacher). In both cases it was not long before the volume peaked again. My interactions with children often began with them

calling my name to report something going wrong in the game or to show me something they had made and my voice was always used at the end of the club to signal that it was time to pack away. This was usually met with a groan by the children who would probably have stayed all evening if they had been allowed.

b. Song

Some of the children's speech had a rhythmic, song-like quality. There was frequent repetition of words or phrases, rhyming and playing with language. There are examples throughout the comic strip, particularly in 'Boom, I'm on…' (5.3) where Ben employs a number of different vocal techniques (eg. cobble obble obble, bl-and). At other times, the children's speech became song. There are many examples of the club participants singing, humming and otherwise vocally performing during the club: 'Free the Sheep' (5.6), 'Cleopatra…' (6.5), Ben's singing of Tom's name (in 'Boom, I'm on…' (5.3)). Young's (2004) term 'spontaneous vocalising' (p.67) is useful as a means of describing the nature of these vocal activities that were more than simply speaking. Sometimes these acts of spontaneous vocalising were heard from an individual, sometimes a pair of children and sometimes a group. Parts of songs were performed, short phrases, verses or choruses, rather than the whole song. Singing often started in one part of the room to be taken up by a child elsewhere and, as such, the songs spread from one context to another, just as they had been snatched from a different context in the first place. Elsewhere I have written about the children's use of song in Minecraft Club (Bailey, 2016), focussing specifically on the meanings of the children's spontaneous composition of the song 'Free the Sheep' (5.6). Here, I would like to re-examine the presence of song in the club, but to focus more generally on the children's use of song as part of the club's soundscape, rather than the meaning of one particular performance.

i. Order and Territory

Just as 'the bird sings to mark its territory' (Deleuze and Guattari, 1987, p.312), I suggest that children used song to establish a kind of territory within the club.

Unlike the ripples in the water, the sound of singing in the club was not, in itself, a disruptive force. Unlike the otherwise undisturbed surface of the still water, the club's soundscape was more chaotic than calm, a complex and simultaneous mix of voices and other sounds. In the midst of this wider (noisy) soundscape, the sound of singing seemed to establish order rather than promoting disorder. For Deleuze and Guattari (1987), 'rhythm is the milieu's answer to chaos' (p.313); for the individual the social environment is made more stable, ordered, predictable and therefore more negotiable though the presence of rhythm, through music. In the club, song is used territorially as a 'tactic' (de Certeau, 1984) by the children. Here...
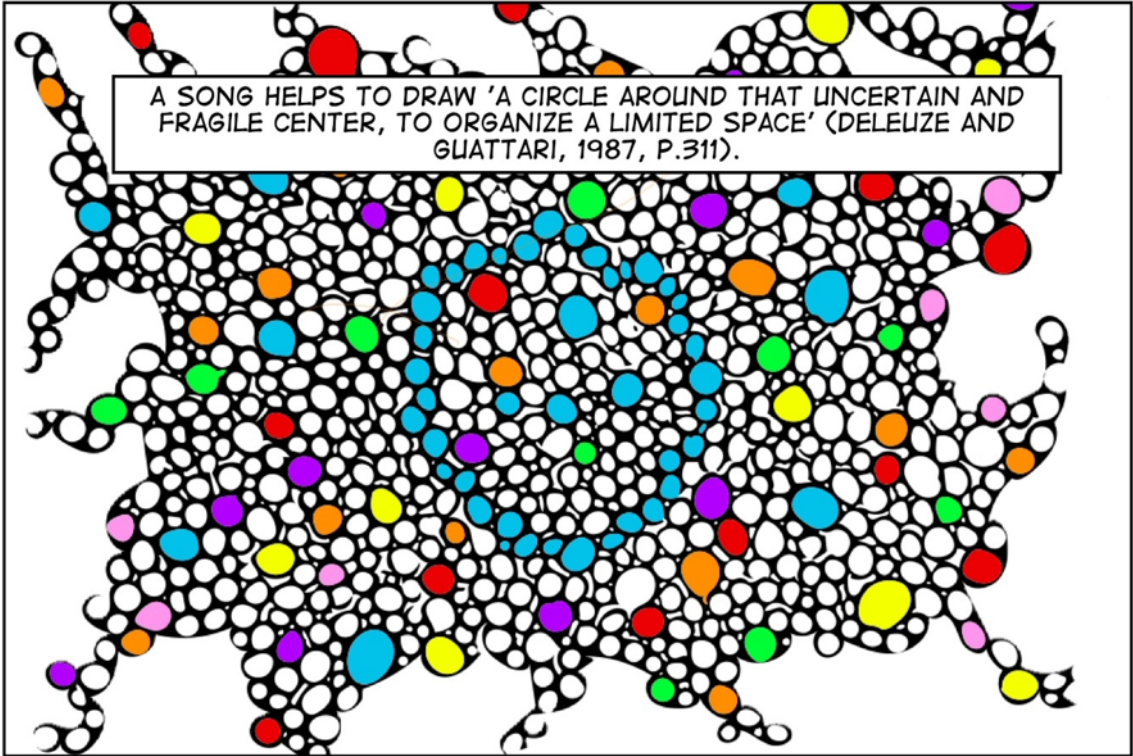
The club was held in the communal space of the children's classroom, a place where they spent a lot of time but often had little control over. By way of an example, during the same week that saw the club's nineteenth session, the children completed their SATs tests; these statutory examinations hold schools accountable for children's progress in Literacy and Maths. On the day of the club, the children had completed their Spelling, Punctuation and Grammar (SPaG) paper, conducted in silence, featuring questions about specific aspects of the English Language. The question shown in Figure 50, for example, requires children to classify three similar words from three different sentences, based on four choices of 'word class'. Such questions can be considered a direct product of binary logic, in that they reduce complex ideas about language to measurable facts. The question in itself draws on a particular type of literacy that is at odds with this study's conception of literacy and the way in which literacies were enacted during the club.

48 Tick one box in each row to show the **word class** of the underlined word.

Sentence	Verb	Noun	Adverb	Adjective
They measured the length of the room.				
There was a measurable increase in the temperature.				
They took measurements of their heights.				

1 mark

Figure 50: SATS test question example

Of most interest here, however, is how such tests shape the class' space. The high-stakes nature of these tests means that they are not simply used as a diagnostic tool for teachers to aid learning; their binary nature begins to shape what happens in classrooms and creates a reality around them. A school's success

at the hands of 'the state mechanism' (Deleuze and Guattari, 1987, p.359) depends on the children's success in these tests. They therefore focus the school's teaching, narrowing the scope of what classrooms and schools are used for.

Such tests arguably territorialise physical space, with classrooms structured for independent practice rather than collaboration or conversation; the individual is framed as the maker of everything and the final outcome is key, resulting in a context where schooling is complicit in the production of 'docile bodies' (Dixon, 2011, p.5), rather than active or *exuberant* ones. If this vision of literacy is the one that schools focus on, and the one that is assigned value in the eyes of children, we will continue to show children a narrow and restrictive version of the world. This is not to argue against the teaching of grammar, equipping children with skills to use language in a range of contexts, or high expectations. Neither is it a criticism of teachers who seek to ensure that children succeed in these prescriptive tests. It is, however, an argument against restricting possibilities for being together in favour of a questionable system of accountability.

Of course, it would also be following the logic of binary thought to suggest that every school, class or child follows the same pathway in response to such tests; every individual and institution enacts a different rhizomic relationship with these materials and to suggest that their power is total and uniform would clearly be a simplification in itself. It would also be the product of narrow, binary thinking to entirely pit the club directly against the nature of these tests and the associated school day. Moments of collective creativity and meaning making will clearly remain present, as creative teachers and children find ways to make learning with the curriculum relevant and exciting. Nevertheless, given this potential narrowing of possibilities during the timetabled school day, and the potential territorialisation of space, the role of the after school club that enables different discourses to circulate becomes increasingly significant.

Whilst the children could, at least in the club, move their bodies and relocate the furniture in space, their power to otherwise change the space physically was limited. Just as the participants sometimes sought to personalise the space by bringing in personal objects I suggest that singing provided a temporary means of verbally marking their territory in the club's physical space, suggesting almost an impermanent form of ownership of the club. Through singing they were able to make the club their own, distinct from their non-club experiences in the classroom.

ii. Stability, Comfort and Continuity

Deleuze and Guattari (1987) provide multiple examples of how song can provide comfort; one child 'gripped with fear, comforts himself by singing under his breath', another hums 'for strength for the schoolwork she has to hand in' (p.311) whilst 'a housewife sings to herself, or listens to the radio, as she marshals the antichaos forces of her work (p.311). As the song imposed order amidst the soundscape, this provided a kind of comfort for the individuals. Young's (2004) term 'movement vocalising' (p.67) describes children's use of vocal sounds to accompany their movement of objects and bodies around in space, as a means of focussing on a task. In the club, the sound of individual children humming the melody of Rossini's (1829) 'William Tell Overture' could often be heard as children moved their avatars around the screen from one virtual location to another. Similarly, the term 'free-flow vocalising' (Young, 2004, p.66) also relates to the use of vocalising to help individuals to muster the physical and mental energy required by a task (p.66), and children were often heard vocalising their status in the game. On a small scale, these examples involve individuals mobilising song, with the rhythm of music positioned as a mechanism for 'holding things together', for coping. On a larger scale, the more communal use of song (eg. 'Free the Sheep' (5.6)) demonstrates a more collective attempt to focus attention.

Deleuze and Guattari (1987) suggest that...
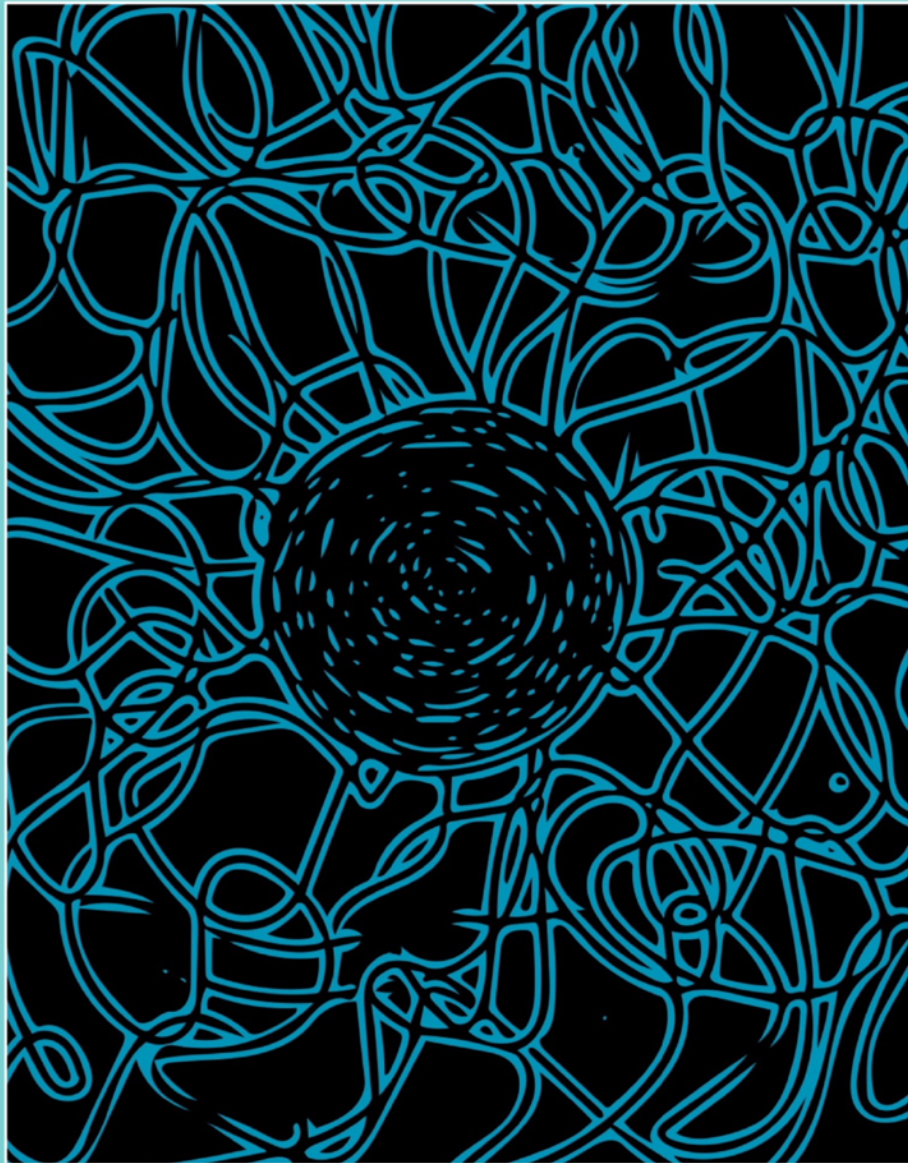
'The song is like a rough sketch of a calming and stabilising, calm and stable, centre in the heart of chaos...'
(Deleuze and Guattari, 1987, p. 311)

In the club, song provided a kind of recognisable order amid the 'loops, knots, speeds, movements, gestures, and sonorities' of the club's wider soundscape (p.312). Whilst in Minecraft Club I am not suggesting that children directly felt either in fear or under pressure, the simple act of being in the moment, as a part of everyday life, can require focus and reassurance; this is perhaps particularly true given the complexity of the on and off-screen action that the children were taking part in and the multitude of conversations going on around them. Here, then, I suggest that the children's creation of sound, through singing and other types of vocalising, provided them with this 'calm and stable centre' (Deleuze and Guattari, 1987, p.311), whilst also creating a sense of togetherness as they negotiated the complex experience of Minecraft Club.

iii. Response to Change

The generally chaotic, disordered nature of the soundscape could reflect that the club was characterised by frequent changes, often arising as a result of the emergent ideas and behaviours encouraged by the club's child-led approach. In many cases change in the club was curated, initiated or created by the children in the game. Throughout the club, change happened regularly and at different scales, particularly in terms of the landscape of the *Minecraft* world. The creation of the *Minecraft* map was a cumulative, collaborative process over time and therefore there were regular on-screen changes occurring at different scales , from the placing of single blocks to the creation of larger structures, by individuals working alone and, more regularly, by multiple players working together (see Plateau 1). The map never stayed the same and was always a 'work in progress', in a constant state of becoming. Whilst the children (as a group) had control it did mean that the children (as individuals) could never be sure of what would happen next. Some changes also arose due to factors that were out of the children's control. As well as the occasionally imposed room changes, throughout the club the children's on-screen *Minecraft* play was regularly and abruptly interrupted by a series of technical issues (Appendix 7). In the face of these

regular disruptions, children potentially used song to establish continuity in their experience.

iv. Being Together

As well as being a means of achieving focus, singing provided a means of bringing people together, through shared enjoyment. In many cases, when a song began, other children joined it. Just as Maybin (2006) observed an 'emotional sociability' (p.155) between two children sharing a song during classroom activity, many of the performances of song during Minecraft Club were also shared in nature, with children either performing together or in response to each other, repeating or mirroring certain words or phrases either drawn from speech or from existing song. Small (1999) suggests that 'the essence of music lies... in taking part in performance' (p.9) and much of the children's vocalising was performed as if the rest of the class were both the audience and their fellow performers. The events detailed in 'Free the Sheep' (5.6) demonstrate how multiple children were drawn in to a performance. In this way, Frith (1996) suggests that performance draws others into 'social allegiances' (p.121) with the performers. In Minecraft Club, therefore, song was used as a way of sharing the enjoyment of performance with others.

I suspect that the children's use of song was not confined to their participation in Minecraft Club but that it also manifested elsewhere in their lives, albeit maybe not through such outward and loud performances, during more formal lessons as part of the school day. As I have mentioned, for much of the time covered by the club, these children were leading up to their SATS tests and therefore had to contend with the pressures associated with these; some children stated that they were anxious, whilst others were less concerned. In addition, the children were also being faced with a significant change as they were all nearing the end of their time at primary school. Whilst these factors clearly do not themselves explain the children's use of song in Minecraft Club they do suggest that a consideration of

song as a means of comfort has relevance that extends beyond a study of Minecraft Club.

'Sonorous or vocal components are very important: a wall of sound or at least a wall... with some sonic bricks in it.'

(Deleuze and Guattari, 1987, p. 311)
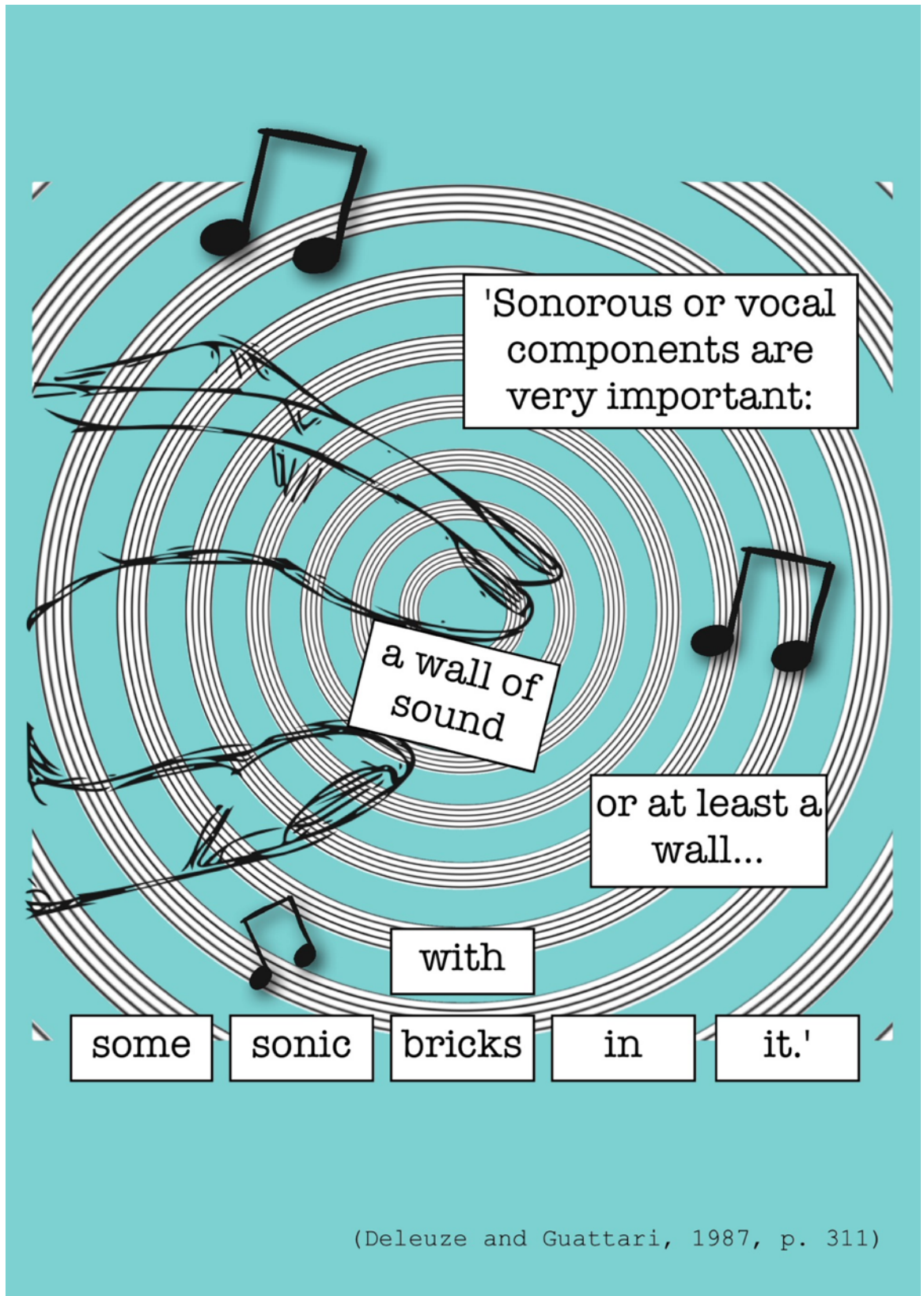
Finally, as well as marking individual territory, collectively, the children used sound and noise to set (and sometimes to push) boundaries during the club. Deleuze and Guattari (1987) discuss sound's involvement in 'organising a space' (p.311). For example, 'radios and television sets are like sound walls around every household and mark territories (the neighbour complains when it gets too loud)' (p.311). Noise can, therefore, construct 'walls of sound' (p.311). Just as home does not 'preexist', neither do the boundaries of Minecraft Club and the noise of the club often escaped the boundaries set by the walls of the classroom.

Sound, however, does not provide physical barriers: it is mobile. As a tool to create a barrier it is therefore easier to mobilise than physical boundaries, which are usually fixed. Just as I have argued that the children used song to mark territory, so too they could control the volume of noise. Here, sound worked as a collective force - with a group capable of creating more vocal noise that an individual. As the volume in the club increased there was a sense that the children taking control of the room, of owning the space. I felt this and, as shown by the head's interruption in Free the Sheep (5.6), so did the headteacher. In this instance we see that sound as a territorial move is not opposed by other sound, rather it is combatted with a call for quiet. In response to the headteacher's intervention, the sound temporarily recedes as the children are reminded of what is considered an acceptable level of noise for an after school club involving the use of computers. Of course, just as I had concerns about what the children's volume of noise said about me, so too the headteacher may have had similar concerns about how she was being perceived in light of the noise, given that the school was also host to parents at parents evening. Whatever the motivation, this incident does highlight how noise in the club was not unproblematic and was subject to issues of power and control.

7.5 Discussion

So, what does an examination of the soundscape reveal about the lived experience? Primarily, it demonstrates how sound itself (often at elevated volumes) was an important component of the often exuberant nature of the lived experience. Focussing on the character of the soundscape provides insights into the group's lived experience, particularly in terms of how sound was used to create this particular space. A focus on sound makes certain things apparent that could otherwise have gone unnoticed; it reveals a lively, sometimes chaotic, soundscape that reflects the complex nature of the lived experience of the club. Sound was a constant presence and a feature that made this particular (lived) experience distinct for all of the (human) participants. The soundscape of the club was the noise generated by a particular way of being together, playing together and sharing a particular experience. Noise in the club was not inevitable; although I have admitted that I was often uncomfortable with the level of noise in the club, noise (be it conversation, singing or the tapping of a table) was permitted and ever present, in a way that it might not have been during a more formal lesson in school.

Although noise was a significant characteristic of the lived experience of this particular club, an alternative, muted Minecraft Club is not unthinkable. The silence heard each week after the children left the classroom could have been enforced by insisting that each child remained in their seat at their designated desk, that they did not speak to each other, instead focussing on their computer. Headphones could have been worn to encourage the children to focus on the soundscape generated by the game.
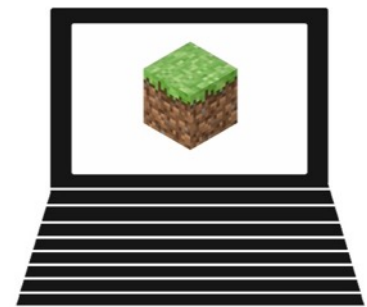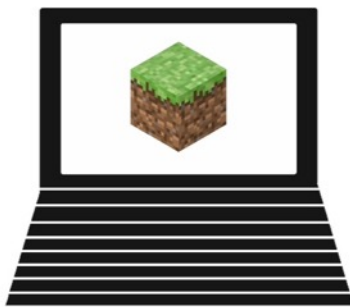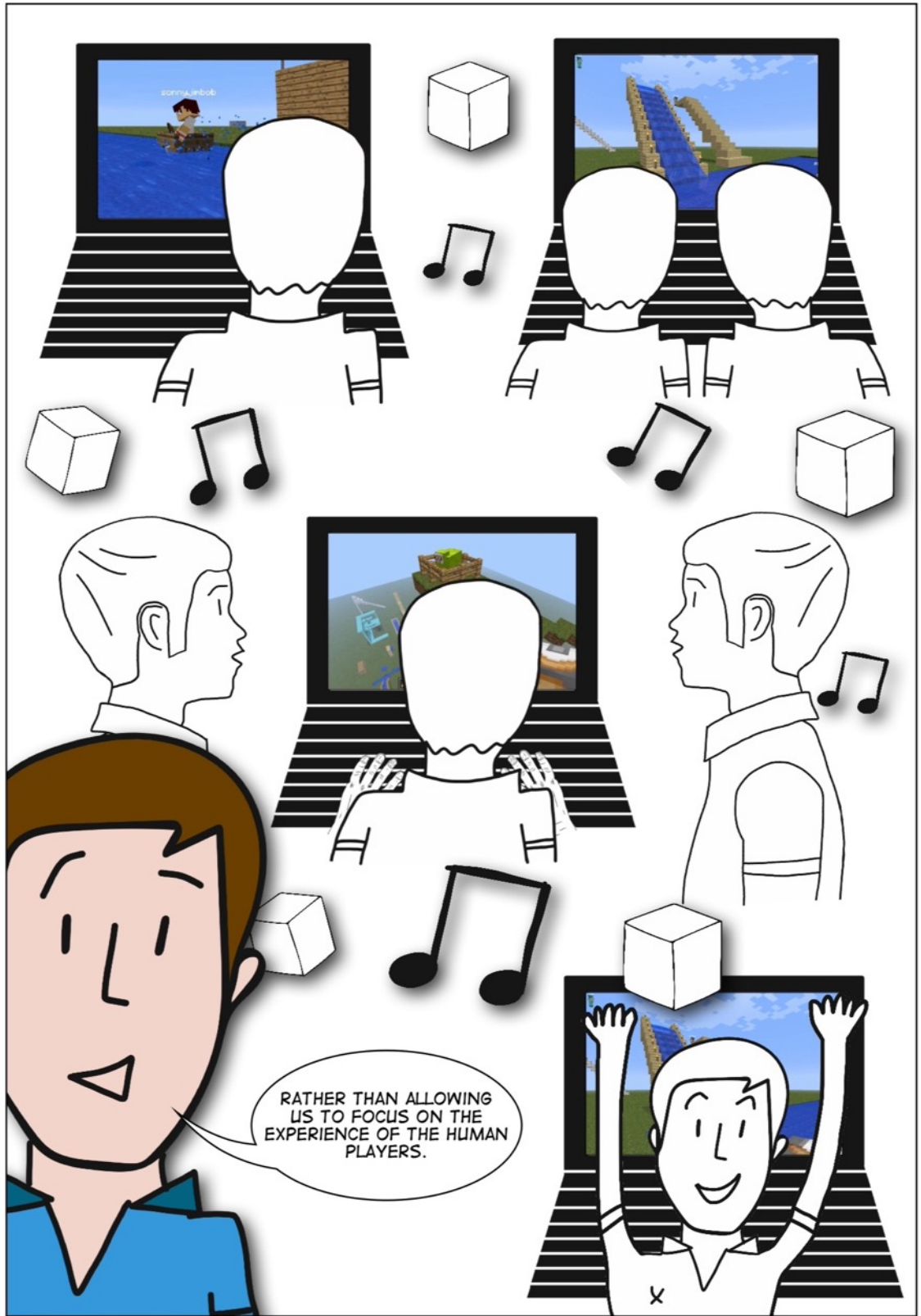
Such a scenario would have been a Minecraft Club, but it would not have been this Minecraft Club. Eradicating noise, the sounds of chairs clashing, voices singing, laughing, shouting, calling out, commenting, would have fundamentally changed the character of the club. Yet the 1:1 relationship between user and screen is often how we frame technology use, particularly in schools where accountability relies on individual progress. This raises questions about how we should try to import practices, such as videogame play, in to schooled contexts. In Minecraft Club, relationships were conducted around the screen as well as *through* the screen. Turkle (2011) cautions that 'out networked life allows us to hide from each other, even as we are tethered to each other... we'd rather text than talk' (p.1). For these children this was clearly not the case; given the choice between screens and face-to-face sociability they choose a combination of the two. In fact, it was the verbal mode that provided the predominant means of communication. Yet the use of screen based technology is often envisaged as anti-social; the screen is perceived as a distraction from the lived moment. Of course, technology is accepted as opening up new possibilities for remote connection, but this is sometimes framed as being to the detriment of our face-to-face experiences.

As Minecraft Club shows, the presence of technology does not have to negate sociability. In Minecraft Club, noise underpinned this sociability and a particular creative way of being together that was partially driven by the game. In certain spaces noise is expected; in schools this is usually in the playground. Technology is rarely associated the collective sound of human interaction, be it in institutions, in public places or in private contexts. However, by providing opportunities for people to work together, on collaborative tasks using technology, it is possible for new creative communicative opportunities to emerge. The presence of screens does not necessarily negate talk; perhaps it is just that we do not readily seek opportunities to use technology together because of the possibilities it provides for being apart.

7.6 Summary

This plateau helped to revealed the noisy, lively and animated nature of the lived experience of the club, using sound as a lens to explore the lived experience. I presented both aural and visual responses to the club's soundscape which were, in turn, remixed in the form of a comic strip. I then provided a commentary to accompany these non-linear accounts. This commentary explored how sound was involved in bringing participants together. I considered how they used sounds as a means of marking territory and shaping the club's space by imposing order, stability and using it as a means of exercising power through their exuberant play.
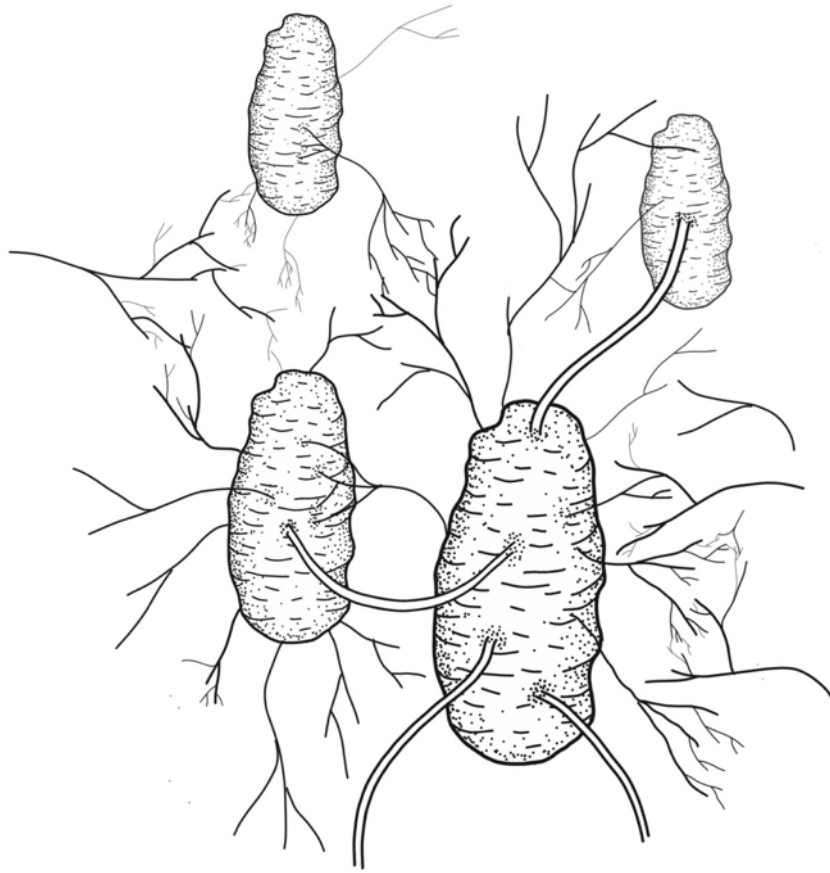
DISCUSSIONS, IMPLICATIONS AND POSSIBILITIES

DISCUSSIONS, IMPLICATIONS AND POSSIBILITIES

WHILST THE IDEAS OF OTHERS PLAY A FUNDAMENTAL ROLE IN SHAPING ANY STUDY – WHETHER THROUGH CONVERSATION, COLLABORATIVE THOUGHT OR READING...

... IT IS AN INDIVIDUAL WHO ASSEMBLES THESE THOUGHTS, IDEAS, THEORIES, CONCEPTS AND OBSERVATIONS INTO A 'FINAL' VERSION OF EVENTS.

THIS PROCESS RESULTS IN AN ACCOUNT THAT IS AS INDIVIDUAL, AND AS *DISTINCT*, AS A FINGERPRINT.

RATHER THAN UNDERMINING THE QUALITY OF THE ACCOUNT, HOWEVER, IT IS THE INHERENTLY COMPLEX AND CONSIDERED NATURE OF THIS SUBJECTIVITY THAT GIVES IT ITS VALUE.

BEHIND EVERY WORD CHOSEN, EVERY LINE WRITTEN, LIES A DETAILED PROCESS OF THOUGHT AND REFLECTION....

AS A WAY OF 'THINKING WITH THE WORLD'

(HOLLAND, 2013, P. 38)

... AND AN EXPRESSION OF AN INDIVIDUAL'S WAYS OF LOOKING AND SEEING.

IN THIS WAY, WORDS ARE USED TO NAVIGATE AND NARRATE A ROUTE...

... THROUGH A COMPLEX MAP OF POSSIBILITIES.

OF COURSE, WE CANNOT REMOVE OURSELVES FROM THE WORLD IN ORDER TO EXAMINE IT....

WE ARE ALWAYS REQUIRED TO ADOPT A PARTICULAR, PARTIAL VIEWPOINT, THINKING *WITH* THE WORLD AS WELL AS *ABOUT* IT; EXPLORING WHILST OBSERVING.

WITH THIS IN MIND, THE ACCOUNT ASSEMBLED HERE DOES NOT CLAIM TO REPRESENT A COMPLETE PICTURE OF THINGS EXACTLY *AS THEY ARE*...
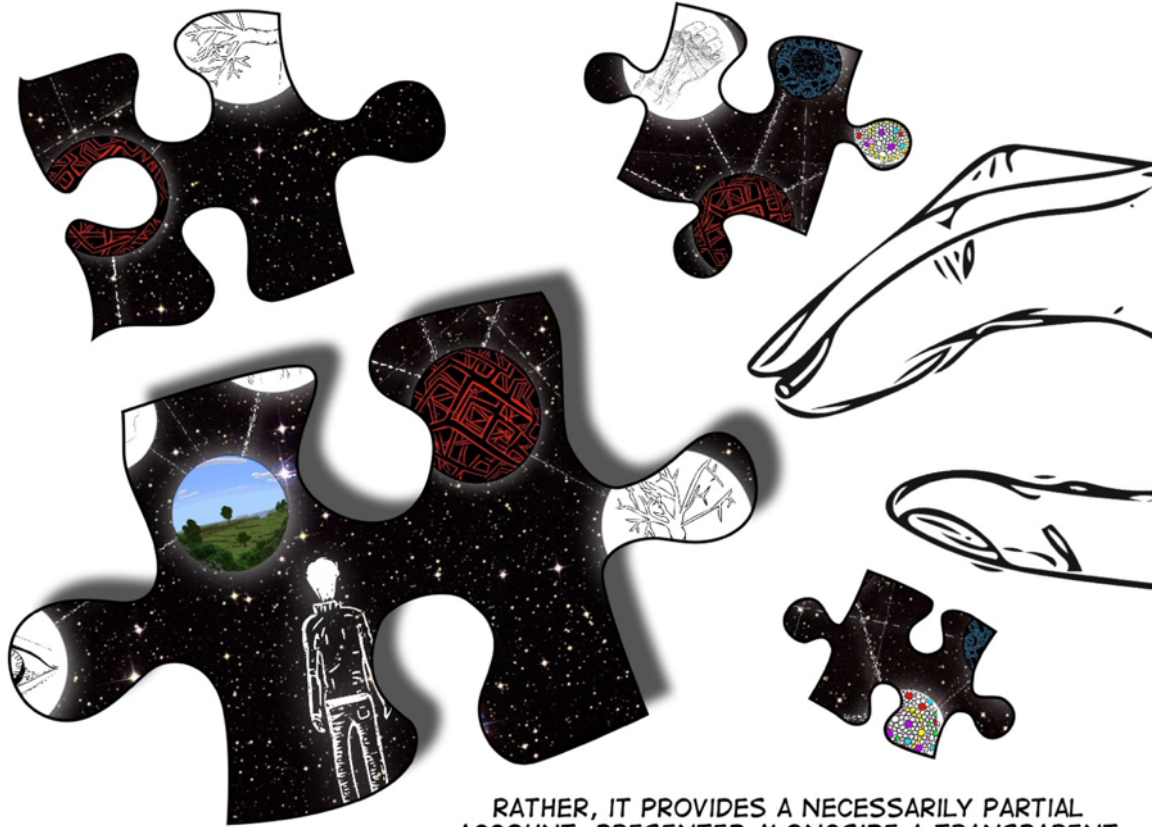
RATHER, IT PROVIDES A NECESSARILY PARTIAL ACCOUNT, PRESENTED ALONGSIDE A TRANSPARENT ASSERTION THAT...
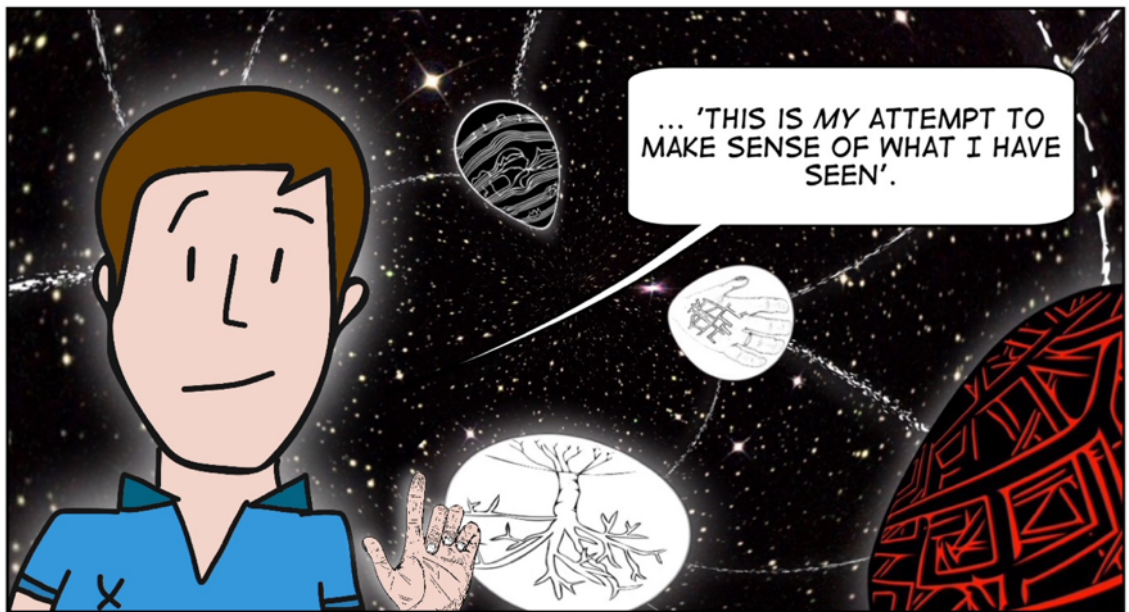
... 'THIS IS *MY* ATTEMPT TO MAKE SENSE OF WHAT I HAVE SEEN'.

OFF
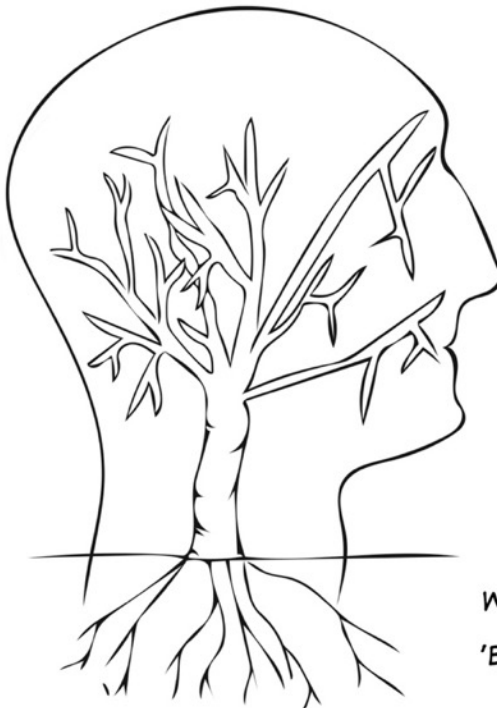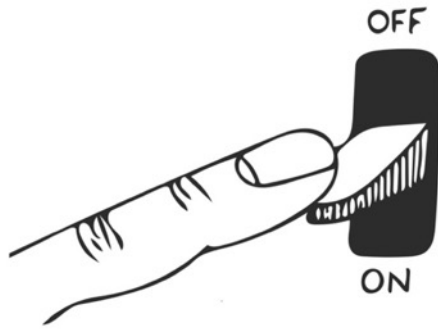
ELABORATING ON THIS IDEA, DELEUZE AND
GUATTARI (1987) INTRODUCE...

THE 'BINARY MACHINE'

(P. 276).

ON

HERE, THE IMPOSITION AND
EXPRESSION OF 'BINARY
LOGIC' LEADS TO A
SORTING, CLASSIFICATION
AND AN OVER-CODING
OF THE WORLD. THIS
RESULTS IN A
REDUCTION OF
POSSIBILITIES AND
A

NARROWING OF IDEAS

AS EVERY THING IS... FILTERED TO BECOME...

ONE THING...

OR ANOTHER.

SINGULAR UNITS...

BUT NEVER A COMBINATION OF THE TWO, OR
SOMETHING INBETWEEN.
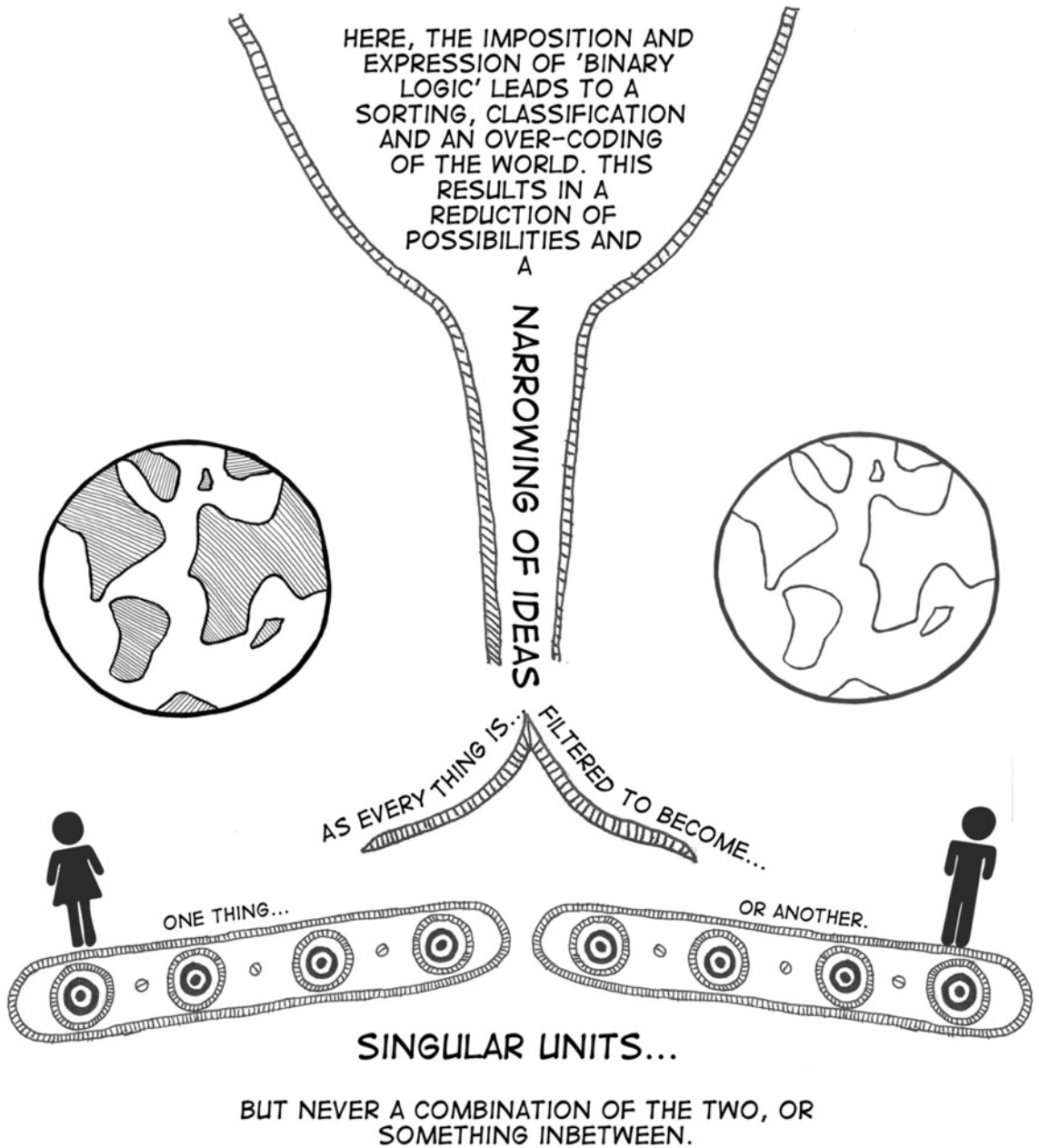
WHEN SEEKING CONCLUSIONS IT IS TEMPING TO DEFAULT TO THESE
SINGULAR WAYS OF SEEING, THINKING AND CLASSIFYING AS THEY CAN HELP
TO MAKE THE WORLD FEEL MORE STABLE, CERTAIN AND TANGIBLE.

HOWEVER, BY BRINGING
SIMPLIFIED TERMS TO
THE FOREGROUND OF
OUR THINKING, IT IS EASY
TO IGNORE...

...THE MORE NUANCED
HUMAN EXPERIENCES
THAT LIE IN-BETWEEN,
AND BEHIND, THESE
LABELS.

IN THIS WAY,
BINARIES
SERVE TO
OBSCURE
RATHER THAN
CLARIFY.

RIGHT

LEFT

NOT ONLY DOES BINARY LOGIC HAVE THE POWER TO
MISREPRESENT, BUT IT CAN ALSO, THEREFORE, MISDIRECT.
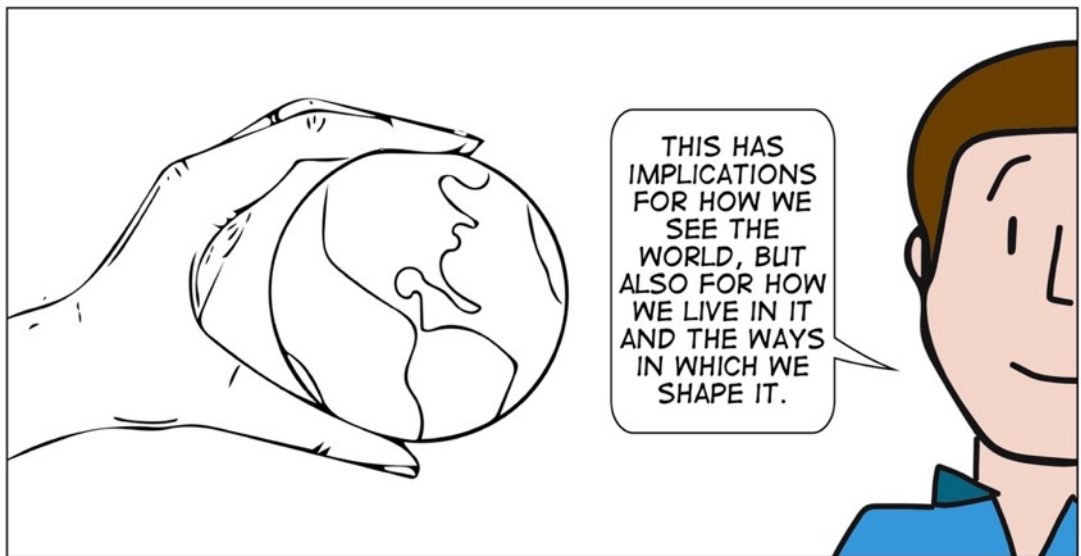
THIS HAS
IMPLICATIONS
FOR HOW WE
SEE THE
WORLD, BUT
ALSO FOR HOW
WE LIVE IN IT
AND THE WAYS
IN WHICH WE
SHAPE IT.
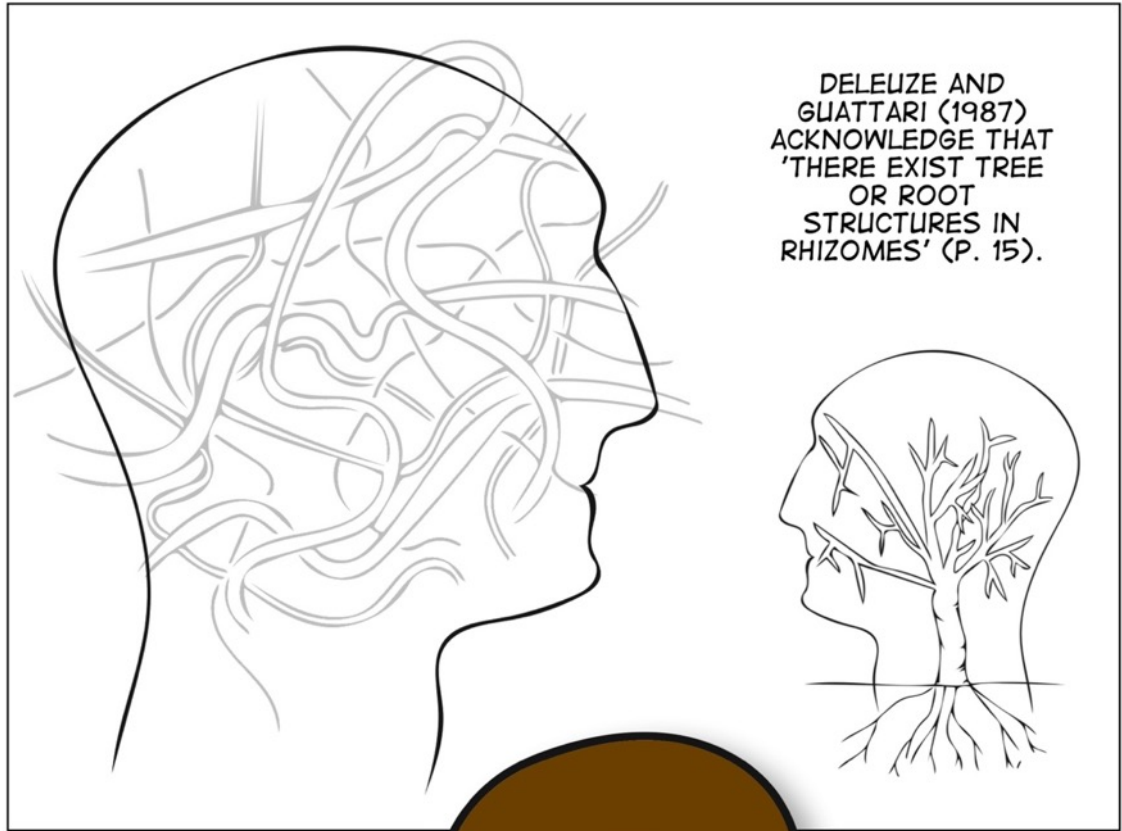
CHAPTER EIGHT: Discussions, Implications and Possibilities

8.1 Introduction

In this final chapter I consider what can be learnt about the lived experience of Minecraft Club from the previous three chapters. I begin by returning to each plateau, summarising what could be considered their dominant ideas. Next I explore what is illuminated by reading across these three plateaus, resulting in an exemplification of what I refer to as the emergent dimension of play. I outline this concept's implications, before explaining how my methodological approach made this aspect of the lived experience visible. I then return to the issue of representation that has run throughout this thesis. Finally, I reiterate this project's contributions to knowledge.

8.2 Revisiting the Plateaus

Whilst the complex scope of the lived experience exceeds each of the individual accounts provided in the plateaus, there are some salient points and characteristics that I hope the reader can draw out of each of them. I begin by summarising these points here.

In Plateau 1 (Chapter Five) I demonstrated that the lived experience was characterised by a kind of creative and imaginative play. This play was entangled across multiple spaces, moving effortlessly between the on and off-screen dimensions. This was exemplified using a number of episodes assembled from the data, alongside commentaries exploring this perspective. I demonstrated how the children's creative play was often connected to their *Minecraft* play, showing how the game itself played a role in shaping the group's lived experience. I also conceptualized the group as a connected entity, a multiplicity, through the use of the term 'body without organs' (BwO) (Deleuze and Guattari, 1987, p.175), to

emphasise how the lived experience of the club was contingent on multiple factors, both human and non-human, material and immaterial.

Plateau 2 (Chapter Six) revealed the lived experience to have a strong social aspect that drew on the wider experiences of those involved. This often involved participants drawing on shared understandings of multiple cultural and personal reference points. Again I presented a number of episodes alongside commentaries that investigated the lived experience from this perspective. Deleuze and Guattari's (1987) concept of the 'plane of consistency' (p.269) and the idea of 'becoming' (p.21) helped to account for the social dimension of their play. I demonstrated how the children's social experience, and their social performances, contributed to the group's ongoing process of responding to and making meaning from the world around them.

Plateau 3 (Chapter Seven) afforded an insight into the often noisy, lively and animated nature of the lived experience of the club. This plateau used sound as a lens to explore the lived experience, revealing its often exuberant aspect. I argued that sound is often present in social situations, but not frequently scrutinised. With this in mind I worked towards the presentation of a visual response to the club's soundscape which was, in turn, remixed in the form of a comic strip. I then provided a commentary to accompany this non-linear account. This commentary explored how sound was involved in bringing participants together; I considered how they used sounds as a means of marking territory and shaping the club's space by imposing order, stability and using it as a means of exercising power through their exuberant play. Plateau 3 also touched on issues of representation, reprising this thesis' preoccupation with how best to represent the lived experience. I will take up this issue for one final time later in this chapter (8.4). However, first I consider what we can ascertain about the group's lived experience if we take the issues from the three plateaus together.

8.3 The Emergent Dimension of Play

Across the plateaus it is possible to identify examples of most, if not all, of the play types described in Hughes' (2002) taxonomy, exemplifying instances of role-play, creative play, social play etc. However, it is not these types of play that constitute my main focus here. Moreover, I suggest that this focus on the lived experience reveals a particularly dominant strand or dimension to the play, running through all of the episodes presented. With this in mind, I suggest that reading the plateaus together evokes a lived experience that is predominantly characterised by emergence, underpinned by what I am calling the 'emergent dimension' of this play. This detailed focus on an aspect, strand or dimension of play rather than a type of play means that this account offers a distinct perspective on play that potentially runs across / though many of the categories presented by established play taxonomies.

As outlined in Chapter Four, ideas around emergence can be used to describe both processes and systems. Given this, I suggest that the emergent dimension of play can also be seen as an emergent process, generated as part of an emergent system. Whilst it is not possible to entirely disentangle these two elements, I intend to focus firstly on the conditions under which the emergent dimension becomes prevalent, through emergent processes. With this in mind, I am seeking to depict a dimension of play observed in the club where events unfolded moment by moment; where the activity and its outcomes were unpredictable; where events were constantly shifting, reshaping and reconfiguring; where the play consisted of multiple connections made across multiple spaces; where activity extended in multiple directions and where sensations were often valued over sense making.

I will begin by presenting a visual, comic strip account of the emergent dimension, rather than using a linear account using words alone; this allows me to give an impression of the non-chronological, non-hierarchical connections
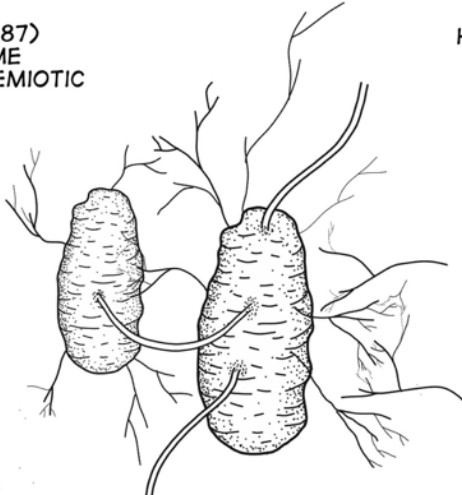
between its multidirectional semiotic chains, before I revert to the necessarily sequential nature of the written word to provide supplementary detail and explanation.

The Emergent Dimension

IN ORDER TO VISUALISE THE ORGANISATION OF THE EMERGENT DIMENSION IT MAY BE HELPFUL TO RETURN TO A METAPHOR THAT DRAWS ON AN ORGANIC, RHIZOMIC STRUCTURE...

DELEUZE AND GUATTARI (1987) SUGGEST THAT THE RHIZOME CONSISTS, IN PART, OF 'SEMIOTIC CHAINS' (P. 7).
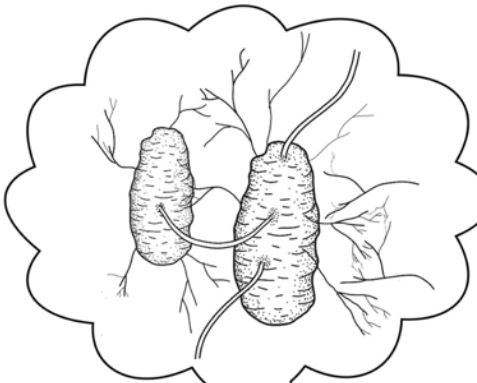
HERE, A SEMIOTIC CHAIN IS LIKENED TO 'A TUBER AGGLOMERATING VERY DIVERSE ACTS...' (P. 7)

EACH 'DIVERSE ACT' INCLUDES MULTIPLE POTENTIAL RHIZOMIC CONNECTIONS, EXTENDING IN MULTIPLE DIRECTIONS.
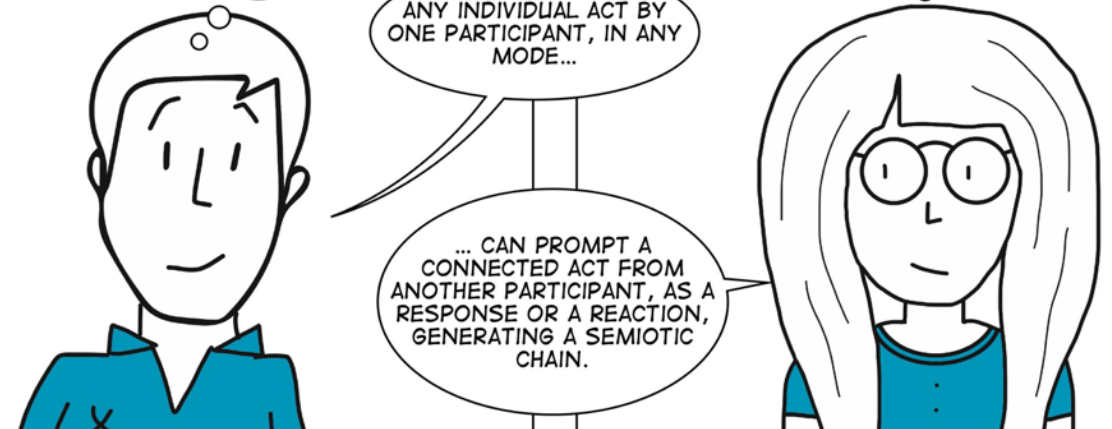
THESE CONNECTED ACTS ARE 'LINGUISTIC... PERCEPTIVE, MIMETIC, GESTURAL AND COGNITIVE' (P. 7) IN NATURE.

AS 'DIVERSE ACTS', THESE TUBERS REPRESENT SPEECH, THOUGHTS, FEELINGS AND ACTIONS GENERATED BY PARTICIPANTS (HUMAN OR OTHERWISE) IN THE EMERGENT SYSTEM.

ANY INDIVIDUAL ACT BY ONE PARTICIPANT, IN ANY MODE...

... CAN PROMPT A CONNECTED ACT FROM ANOTHER PARTICIPANT, AS A RESPONSE OR A REACTION, GENERATING A SEMIOTIC CHAIN.

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ALTHOUGH SOME ACTS ARE NOT TAKEN UP BY OTHERS...
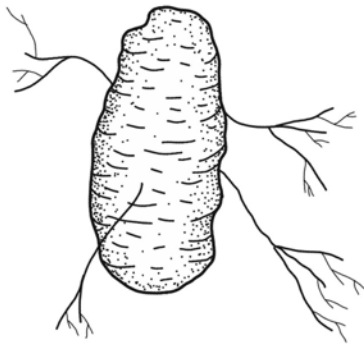
(WHILST STILL SENDING OUT ROOTS TO BE TAKEN UP AT ANOTHER TIME)

OTHERS ARE DRAWN UPON TO MAKE NEW CONNECTIONS...
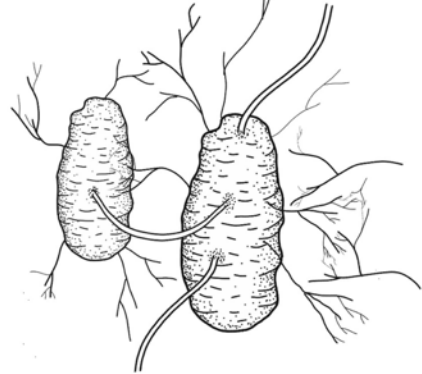
LEADING TO THE GENERATION OF NEW AGGLOMERATED ACTIONS OR IDEAS.

REPEATING THESE INTERRELATED PROCESSES...

OF ACTION, REACTION AND INTERACTION...

INDIVIDUALLY OR COLLECTIVELY...

song

text

FORGING UNFORSEEABLE CONNECTIONS...

GENERATING UNPREDICTABLE IDEAS AND ACTIONS...

word

dance

ON MULTIPLE OCCASIONS...

WITH LIMITED INTERFERENCE OR INTERVENTION FROM 'ORGANISATIONS OF POWER' (P. 7)...

RESULTS IN MULTIPLE COMPLEX CHAINS OF MEANING THAT CONSTITUTE AN EMERGENT SYSTEM.

8.3.1 Generating Emergence

There are a number of conditions under which the processes of the emergent dimension were generated; by describing these I aim to explain what made emergent processes so prevalent in the club. In addition to simply setting aside time for the children to come together, I suggest that the emergent dimension of play (the process), as observed in the club, is contingent on the interplay between (at least) three describable elements or conditions that constitute the club's interconnected emergent system. These include:

- The organisation of the club's space. The space was produced by the group, recalling Lefebvre's (1991) understanding of space as socially produced. Aspects of the club's space were considered in Plateau 3, through the focus on the soundscape.
- The composition of the group. This was explored, towards the end of Plateau 1, as a connected entity that includes the human and non-human participants, described using the concept of the 'Body without Organs'.
- The resources drawn upon by the group. This was explored in Plateau 2 using the concept of the 'plane of consistency'.

These three elements combined to facilitate the emergent dimension of play in the club. I will deal with each of these aspects in turn. Following this I will move to describe and exemplify the particular characteristics of the emergent play seen in the club.

a. The Organisation of Space

The nature of the space generated in the club was a major factor in enabling emergence. Deleuze and Guattari (1987) suggest that that, as well as semiotic chains, rhizomes make connections with 'organisations of power' (p.7). This suggests that these organisations of power inevitably influence the nature of the rhizome. Given that we are working here with a definition of space that is socially

produced, the generation of this space in the club can largely be attributed to the expectations of myself and the children.

So, what was particular about the space in Minecraft Club that enabled this emergent behaviour? Firstly, I suggest that it was the child-led nature of the club. Although restrictions were clearly put in place by me as club leader, and traces of pre-existing school rules also made their way into the club, the sessions were significantly more relaxed in the club than they might have been, for instance, in a formal lesson. The ability for children to talk when they wanted and to move relatively freely around the classroom space was also mirrored by their avatar's movement in the game and the similar lack of imposed rules in the virtual space. Secondly, the overarching task that the children were given to pursue, the creation of a 'community space', was open enough to allow for interpretation by the children. This is not to suggest that the space in the club was necessarily 'smooth space' (Deleuze and Guattari, 1987, p.363) or entirely 'deterritorialised' (p.381); children's movements were still restricted within the classroom and the presence of an adult did not leave them entirely free of constraint. However, neither was it an entirely 'territorialised' (p.9) type of 'striated space' (p.364). Moreover, the space in the club could be described as 'holey space' (p.415); a space which included resonances from both extremes but which allowed enough freedom for emergence to thrive.

b. The Composition of the Group (BwO)

In addition to the organisation of space in the club, the composition of the group was also implicated in the manifestation of the emergent dimension of play. These aspects were intrinsically linked, as the organisation of space was afforded by the particular orientation of the group, and vice versa. Given this, however, it is still possible to consider some aspects of these two conditional elements separately. Goldstein (1999) suggests that emergence involves 'a process of self-organisation' (p.49). In this emergent system, the group in the club could be seen as a self-organising entity. Whilst the space had to enable the group to be self-

organising, by providing conditions under which this was possible, it was also necessary for the group to be motivated to organise itself. The club included a group of human participants who regularly interacted to play together and they therefore built on existing relationships to organize themselves, through connected collaboration. Of course, we have seen that this self-organisation was a complex process. Reading across the plateaus there is commonality in how the children organised themselves, but also contradiction between accounts: sometimes the group cohabited the club's spaces in a co-operative manner, at other times power, and occasional conflict, came into play.

As I suggested earlier, it is useful to think of the group as a single entity that also draws in aspects beyond the human. In Plateau 1 I proposed conceptualising the group as a 'Body without Organs'. I suggest that this has particular affordances as it helps to explain how this self-organisation manifested as an aspect of the emergent dimension. Just as Goldstein (1999) suggests that an emergent system is 'neither predictable from, deducible from, not reducible to the parts alone' (p.57), it also makes sense to consider the group as a whole, rather than as atomised parts. This particular conceptualisation of the organisation of the group helps to describe the connectivity between its elements. It is, in part, through this collaborative connectedness, between human participants, and between the human and non-human, that the emergent dimension is generated; as one aspect responds to another, connections are made and new ideas generated. Furthermore, considered as a BwO, the group also includes the non-human participants. Considering these as part of the group, rather than as resources to be drawn upon, helps to implicate their connectedness as part of the group and therefore their agentic role in the group's self-organisation as 'non-linear interactivity' (Goldstein, 1999, p.53).

c. The Resources (The Plane of Consistency)

The third connected condition that enabled the emergent dimension of play in the club was the pool of resources that the children drew upon. This was likened

in Plateau 2 to the 'plane of consistency' or the 'virtual' (Deleuze and Guattari, 1987, p.269) which described the conceptual location of the ideas, memories, experiences, songs, jokes, stories, roles etc that provided the conditional elements on which the BwO composed its reality. In other words, the prompts for the ideas on which the children based their play, drawing on their everyday experiences and experiences of wider culture, emerged from the plane of consistency.

These resources were varied in nature and, as with the BwO itself, they crossed spaces, coming from on and off-screen, school and home, experience and imagination. These resources provided the conceptual building blocks for the children's emergent play, inspiring the 'diverse acts' (p.7) that played out in the club, in turn causing other aspects of the BwO to also turn to the plane of consistency to make their own connections that constructed the 'semiotic chains' (p.7) of which the emergent system consisted.

8.3.2 The Emergent Process

Having described the conditions that afforded emergence in the club I will now conclude this section by summarising and exemplifying the characteristics of play that made up the emergent dimension. In this club these observable, emergent features include spontaneity; exuberance / affect / enjoyment; imagination; performance and mischievousness. I elaborate on these here in no particular order, with an acknowledgement of the fluidity between the features that these terms signify.

a. Spontaneity

A significant characteristic of emergence is spontaneity, positioned as a 'moment by moment unfolding' (Leander and Boldt, 2013, p.34) of events, therefore highlighting the unpredictability of emergence (Corning, 2002; Goldstein 1999). The spontaneous aspect of the children's play is visible throughout the episodes presented in the data, at different scales and across different modes. For instance,

on a small scale, children could be seen moving from one task to another on-screen, with very little evident planning ('Boom, I'm on...' (5.3)). Elsewhere, small, seemingly unrelated ideas were taken up in unexpected ways; the typed text 'EE' prompted talk about 'E.T' ('The Sheep Shear' (5.4)) the singing of a song led to a conversation around sex education and growing up ('Cleopatra...' (6.5)). In 'dad dancing' (6.4) we saw how a seemingly absentminded movement by one participant led to conversation and dancing by another. On a larger scale, in 'The Horse Funeral' (6.6) and 'Free the Sheep' (5.6), we see multiple participants seemingly spontaneously getting drawn into events in ways that could not have been planned or predicted, driven by events initiated by other players. Play often changed direction seemingly on a whim, in response to an unpredictable prompt: a spoken or typed word or sentence, action on or off-screen, a song, a joke... Of course, not all play was necessarily spontaneous; Mia's conscientious building ('The Sheep Shear' (5.4)) exemplifies that scheduled, pre-planned or designed events did take place. Nevertheless, spontaneity did seem to dominate as a feature that contributed to this emergent dimension.

b. Exuberance / affect / enjoyment

Much of the play in the club could be described as having an exuberant character, as illuminated by the focus on sound in Plateau 3. This exuberance can be aligned with the emergent dimension due to its close (but not exclusive) relation to a kind of felt, physical sensation. This can be described as affect, understood as a 'prepersonal intensity' (Massumi in Deleuze and Guattari, 1987, xvi) that represents an experiential bodily state. For Deleuze and Guattari (1987) it is not merely the *presence* of affect that is distinct in emergent processes, as affect is arguably always present. Moreover, it is the fact that these affective intensities do not necessarily flow down the same 'pre-established paths' (p.16) as they would in the hierarchical, arborescent systems present in more striated spaces. In other words, the emergent system generates more *opportunity* for affective intensity.

With this in mind, Leander and Boldt (2013) talk about play as 'the production of sensation' (p.42), whilst Sutton Smith (2001) notes that the 'affective quality' of play is seen by some as a particularly positive attribute (p.32). Whilst affect was not always aligned with enjoyment, as exemplified by Tom's reaction to the Enderman ('... Endermen' (5.7)), much of the play, and the aspects that could be identified as affective, did relate to the thrill of enjoyment and fun. Sensation was sometimes valued over sense making, as the children's interaction often seemed to be infused with the kind of 'intensity and joy' described by Leander and Boldt (2012, p.43).

There are affective and exuberant aspects to the children's physical performances seen in 'dad dancing' (6.4) and, elsewhere, in the 'Go Pro Song' (Figure 15) and 'Free the Sheep' (5.6). Whilst these examples are not just about affect, in so much as there are additional meanings being made around the physical action, there is an affective element to all of these physical acts that seem to reflect 'the excitement of emergence' (Leander and Boldt, 2012, p.26). Of course, not all moments in the club were so affectively charged. However, the fact that the club was punctuated by play of this kind, amidst other less exuberant moments, serves to highlight its presence as emergent.

c. Imagination

As exemplified in Plateau 1, the conditions that enabled emergence in the club led to a type of creative play that encouraged the group's use of imagination. As they collectively drew on a range of resources, unexpected outcomes were generated that they engaged with and responded to in unpredictable ways. Again, this is seen throughout the episodes from across the plateaus, as parts of the group or, sometimes, the whole group reacted to a particular 'diverse act' in ways that were impossible to anticipate. So, a drowned horse led to a collective funeral ('The Horse Funeral' (6.6)), a hotel for a sheep was met with a spontaneously composed song ('Free the Sheep' (5.6)), and a Rubiks Cube provided a model for a collaborative game about shearing sheep ('The Sheep Shear' (5.4)). The diversity

of the children's responses to the club's initial 'virtual community' brief also demonstrates that their play was highly inventive, with its on-screen fusion of known domestic locations, references to popular culture and their own invented mythological spaces (5.2).

d. Performance

As explored in Pleateau 2, the emergent dimension of play also featured the group's performances. These were variously physical, verbal and enacted on-screen. Whilst I have suggested that sensation was often valued over sense making, physical performance offered an opportunity to fuse these two aspects ('dad dancing' (6.4), 'The GoPro Song' (Figure 15)). Some performances, however, played out on-screen, or at least had an on-screen aspect. This includes the performances of certain roles, and power, seen in 'An Emerging Economy' (6.7). Performance provided a way of responding to a stimulus where the individual could explore ideas about the world at a slight distance, often by playing a role.

e. Mischievousness

The emergent dimension of play was open to what could be termed mischievousness. This was bought in to focus by the children's use of the word 'banter', its significance as a concept emphasised by the fact that it partially formed the name of their virtual town Banterbury. Banter was evident in many of the children's interactions, notably here in the exchange that followed Tom's affective reaction to the Enderman ('... Endermen' (5.7)) and, in 'dad dancing' (6.4), in the exchanges between Ben and Freya.

Mischievousness was not only present as verbal bantering, however. The children's appropriation of the GoPro Camera and the destruction of virtual property ('One or Several Wolves' (5.5)) could also be seen as mischievous. In whatever form, the presence of mischievousness highlights how the emergent dimension involved play that was not necessarily akin to the worthy, constructive type of play that is often promoted as valuable for children to partake in. Whilst

this mischievousness was largely good-natured and infused with humour, it was often counter to the kind of playful behaviour that has led to what Sutton-Smith (2001) calls 'rhetoric of progress' (p.51) where play for children is framed as a 'worthy experience' (p.177).

Nevertheless, I suggest that this aspect of the emergent dimension, along with the others detailed above, has a valuable place in the lives of children. I will pursue this idea in the next section where I consider the implications of enabling, and even taking steps to promote, the emergent dimension of play in the lives of children.

8.3.3 Implications and Possibilities
a. Emergent Dimension Potential

Having identified what constituted the emergent dimension of play in the club it would be reasonable to question what place this might have in children's lives. On the one hand, the emergent dimension can be framed in positive terms: as an aspect of play which involves imagination, collaboration, performance, sociability, meaning making and enjoyment. Positioned in another way, however the emergent dimension could sound less worthy, perhaps even undesirable: as an aspect of play where nobody can predict the outcome, where adult control is surrendered, where mischievousness is rife, where difficult issues are brought to the fore, where sensation is valued over sense making, where noise is constantly present and boundaries are often being pushed. Rather than considering implications of the emergent dimension in isolation, however, I suggest that it is best considered in relation to discourses about childhood that currently dominate schooled contexts; namely those relating to an increasingly prescriptive and assessment driven curriculum, where literacy is predominantly understood in terms of the autonomous model (2.2.2).

It is worth remembering that the children in the club were eleven years old, in their final year of primary school; by age eleven, provision for play is not

necessarily considered a high priority. However, observation of the participants, and their own testimonies, suggest that the varied, messy, spontaneous and emergent kind of creative play that characterised the lived experience of this club was important to them. Whilst it was not always unproblematic, the emergent dimension appeared to be inherently valuable in a number of ways: helping them to understand aspects of their lives; to develop their social interactions and friendships; to indulge their imaginations and, not least, to enhance their enjoyment of the world. The emergent dimension of play in this context opened up possibilities for interactions that arguably went beyond traditional schooled provision in terms of play and literacy. I suggest, however, that current discourses do not account for emergence or the characteristics that I have associated with it.

Given the dominance of the assessment driven curriculum in school, there is clearly little time to dedicate discretely to the type of emergent type of play seen during the club. This helps to highlight the value of clubs as spaces of experimentation; valuable in themselves, not just as a way of thinking about how we might improve or change other sites but how we might utilize them as opportunities for children to spend time together that, as yet, are not dictated and controlled by policy, standards and assessment. This particular account, therefore, offers a rich case study that exemplified the opportunities of such types of play environment. I suggest that the focus on the emergent dimension of play here is significant in helping to ensure that we do not lose sight of the importance of making space for such play in children's day-to-day lives.

b. Social / Virtual Potential

The overwhelmingly social and predominantly child-led experience of this group challenges the adult-led template of many after-school clubs, where the adult controls the space or leads an activity rather than the children. The group's continued enthusiastic attendance over the course of the year suggests that they valued the club, supported by testaments such as that given by Callum (6.8.3). This sociable aspect of the club generated the kind of emergence that allowed

children to explore and experiment with different ways of being together, imagining and testing out different possibilities for organising their social spaces. The children constructed the club's space in collaboration with each other, reflecting Lefebvre's (1991) assertion that '(social) space is a (social) product' (p.26). Arguably it was the distinct properties of *Minecraft* itself, coupled with how the task was framed as the construction of a community, that enhanced this social play; providing a social space for collaboration that included a co-constructed virtual world enabled collective meanings to be made around complex ideas and concepts.

Children took the opportunity to share their everyday life experiences with other participants, via the game and through their regular conversation, whilst drawing on cultural resources which were often embedded in family life. This opportunity to bring these life experiences into the shared space of the club suggests that such environments could play a role in breaking down artificially imposed barriers between home and school. Minecraft Club was not just an opportunity to engage with a videogame, with *Minecraft* as a token concession to the children's own interests; the lived experience of the club, as emergent and socially practiced, was saturated with wider experiences. This opportunity to share experiences, spontaneously, as part of their play, in a range of different modes, allowed children to make present their lived experience of the world, providing them with an outlet for their concerns and potentially enabling mutual support and understanding for each other's analogous situations and experiences. The club provided a space for the children to play with challenging emotional and social issues, on their own terms. Children's lives were therefore enriched by hearing about the experiences of others, performed and explored through their joint play.

In these ways, this club presented the opportunity to participate in a distinct type of community creation that is difficult to envisage in any other circumstance, largely due to the presence of a fully malleable virtual world environment. Players

engaged in a particular type of sociability in the club which was made possible by the presence of the game. The ability to inhabit and explore the collaboratively created landscape, viewing it (and their peers' avatars) from a first-person perspective made this distinct from non-digital play; children were concurrently negotiating relationships involving themselves and their in-game identities. Narratives played out both on-screen and in the room; as the children constructed a world on-screen they were also engaging in the construction of a shared community, as part of the club. The social experiences on and off-screen were interdependent, entwined and embedded within each other. In this way, the club provided space for experimentation that was of social value in itself, not necessarily as a rehearsal or model for life outside of the club, but as a creative imagining of social experience. This suggests that the strength of virtual worlds used in such a way may actually lie in their ability to enable collaboration, interaction and imagination.

Of course, children already spend significant time together as part of a community in class, during the school day. However, much of the day-to-day action and activity in the classroom is necessarily dictated by the requirements of the curriculum, directed by a teacher working within constrained timeframes. The school day is purposefully timetabled to ensure delivery of curriculum content and therefore, whilst opportunities for creativity are clearly present, self-directed time is limited. Breaks from work tend to be taken outside, where the opportunities are distinct from those available to the children in this club; whilst the playground provides a wealth of opportunities for play, particularly physical or socio-dramatic play, it should not be thought of as the only model for spatial social play. Co-constructed virtual worlds, as we have seen here, have the potential to provide a wealth of resources that have possibilities for enhancing the social play experience.

This study, therefore, highlights the social potential for using virtual worlds in collaborative contexts. At the outset of this club most of these children were

already familiar with each other; indeed, their shared experience was often an important factor that they drew upon in their gameplay. However, the potential for developing social ties identified here suggest that there could also be benefits to be gained from similar clubs organised in locations where children are not already known to each other. This could, for example, involve a club held in a community space such as a library, drawing in participants who would not necessarily have the pre-existing shared history. Callum's experience, as someone initially from outside of the group, suggests that the use of a club of this type could provide opportunities for new friendships to be formed, enabling children to socialise and play with others, thereby extending their friendship groups and making links with others from elsewhere in the community. Such a club could, for instance, be used to support and ease transition for children soon to move into secondary school, organised to bring together children from multiple primary schools in to provide opportunities for them to build relationships with each other on their own terms.

The tendency is to think of how virtual worlds and such technologies can be incorporated in schools, often to enhance the curriculum; however, perhaps thinking about how these technologies can provide benefits away from a school context would also be a way of providing valuable opportunities to children that may or may not have implications for their lives at school. Bringing children together out of school is often the domain of sport or physical activity, through clubs organised for football, dance or running, for example. Whilst these clearly provide valuable health and social opportunities, they do not appeal to all children, who may therefore also miss out on some of the wider social benefits of extra-curricular activity. I am not suggesting that clubs revolving around virtual world play should replace any existing opportunities, or that children should be encouraged away from the valuable benefits provided by other models of extra-curricular activity; where talk of children and technology comes into play it is easy to fall into binary arguments around the digital / physical when, as we have seen throughout this work, these aspects are not mutually exclusive. However,

given that friendships and cultivating positive relationships with others are vital, enriching aspects of children's lives, I suggest that clubs like this one could have a valuable social or educational role to play outside of curriculum time and, perhaps, outside of school itself.

There is also a possible role for such clubs as sites where critical literacy is not only a necessary skill for participants, but also a site where such skills can be developed. We need to consider carefully whether unsupervised play in such environments would indeed allow children to challenge established roles, or whether they would simply be free to reproduce existing ones in a different context. We need to ensure that virtual world clubs such as this one do not only become a means of doing the latter; the club supervisor role could be pivotal in ensuring this balance does not tip the wrong way. With the potential for virtual environments to obscure or conceal interaction from those who are not familiar with the technology there is, of course, potential for those without the technical knowledge to miss these issues. Given the possible benefits, this is clearly not an argument against using virtual worlds in such contents. It is, however, a reminder of the need to be informed about the presence of both positive and negative discourses in play scenarios.

Of course, issues around potentially problematic play are not restricted to virtual play. For instance, Willett (2013) observed gendered games such as 'boys catch girls' (p.35) occurring in the playground. Such issues raise questions not just for researchers but for adults tasked with supervising children's play. In the case of a Minecraft Club, this raises issues relating to the purpose of the supervisory adult in such contexts, highlighting the role of the adult as integral to the lived experience of the club but also as playing a potentially important part in helping children to negotiate challenging play scenarios. If we require the supervisor of a virtual world club to be involved in the in-game world then they need some technical knowhow to participate, not as a controlling body indulged in surveillance but as a knowledgeable participant who is able to facilitate

discussion. During this club, issues of gender, power and behaviour were bought to the fore, through gameplay, in a way that they may otherwise not have been. This provided an opportunity to discuss these issue with participants. Whether this opportunity is taken in similar clubs would need to be a decision for the supervisor, albeit in the knowledge that not doing so may be a missed opportunity to address issues around critical literacy.

8.4 Emergent Methodology and Representation

One of my initial research questions (1.3.1) was concerned with how to best take account of and represent what I called the 'lived experience' of Minecraft Club. I suggest that this process of exploration and communication is complicated by two main issues. These relate to the complex nature of the social world and the modes we use to represent this complexity. In this section I consider these two issues, in relation to the concept of 'the lived experience', using some data from the club in the form of a single screenshot (Figure 51) from Discussion Session 6. This provides a means of expanding upon this project's methodological contributions; the approach that I call rhizomic ethnography and the presentation of the hybrid thesis.

Figure 51: Screenshot from Discussion Session 6

The sign on-screen reads 'this is not a door'. Seeing these confusingly placed words I asked <Castaway112> why he had placed it here. In response he simply insisted, 'because it's not a door'. Another player, <yoloface23jr>, repeated this assertion.

'So, everything is not always as it seems in *Minecraft*...', I replied and we moved on elsewhere in the game, and in our discussion. I wish I had pursued the issue further by asking further questions but I did not. The moment had passed. I had, with little thought, assigned my own meaning in the moment, and the sign and the door were never mentioned again.

8.4.1 Complexity of the social world

a. Describing Complexity

This 'not-a-door' door screenshot helps to remind us of the challenge posed by the complexity of the social world. It is likely that I will never fully know what the sign meant for this player. Perhaps it had very little significance at all. This illuminates the difficulty of representing such moments (in fact, *any* moments) from the club. The potential meaning of a single action by a single participant, during a discussion session, was not pursued by me, based on a single in-the-moment decision taken during the fieldwork. What is more, this is one of an almost infinite number of moments that I could have chosen to focus on, analyse, dissect, reflect upon, unpack, deconstruct or put back together, connecting it with other moments whilst drawing upon ideas from wider reading. The complexity of the social world means that we have to make subjective decisions about what we are going to write about. Why did I deem the sign relevant but did not even begin to address the fact that the player had chosen an avatar that represented a castaway? Or even consider the potential meaning of his choice of wallpaper? Are the significant things those which we notice, or those which we do not? How could 'significant' even be defined? I have sought to overcome these issues in a number of ways; asking children to nominate significant moments, handing over control of the camera, representing the 'quieter' moments of the club, focussing on different modes. But the issue of complexity remains.

In addition, reflecting on this example, drawn from a particular point in the past, reminds us that any definition of the lived experience itself is located in the past: the club has concluded and therefore the lived experience is no longer living! In fact, as soon as any event is enacted it has passed; the assemblage is in a constant process of losing its form as it passes from the 'plane of organisation' (Deleuze and Guattari, 1987, p.269) (the momentary present) into the realm of the 'virtual' and the 'plane of consistency' (p.269). The assemblage that could be considered to be the 'lived experience' of the club was therefore undergoing a constant process of deterritorialisation; it was never a fixed entity that could be captured

and defined, because life itself is ongoing, in a constant state of 'becoming' (p.10). Any attempt to freeze and write about the present moment is therefore an impossible task, as we too would be frozen, whilst an attempt to write accurately about the past relies on recalled fragments of memory and data that can never be complete.

This also reminds us how talking of the 'lived experience' as a singular concept could imply that there is some essential reality to 'get at' and to represent, if only we could identify the right elements or aspects of the data, if we could see beyond the actions of the participants and into their thoughts and somehow process the complexity precisely enough to draw out the 'correct' strands from the rhizome. However, challenges exist not just in the overwhelming complexity of events but also in the complex construction of the organising concepts themselves. Through the three plateaus I exemplified how the lived experience is not a definitive 'out there' (Law, 2004, p.131) concept, just as there is no definitive exemplification of it. What, for example, does 'the lived experience' include or exclude? Where does it begin and end? Drawing upon a number of Deleuze and Guattari's (1987) ideas has helped to articulated the specific nature of some of these challenges, whilst also providing ways of representing the lived experience of the club. The 'lived experience' has been conceptualised an 'assemblage' (p.4) of actions, ideas, people and things; complex and impossible to pin down definitively. Using the plateaus as an organisational framework has provided different ways to approach, consider and describe this assemblage. Each plateau in itself is, of course, an assemblage, constructed using a collection of data, theory, thoughts, words, ideas, sound and pictures.

Whilst the episodes in the plateaus make certain practices visible, many of the motivations and ideas that lay behind them still remain concealed. It is therefore difficult to reach definitive conclusions about the lived experience without reverting to convenient binary classification or making assumptions about intentions. Nevertheless, it is clear that the lived experience was complex,

sometimes inconsistent and under constant negotiation. The life of the club was not fixed, just as 'reality is not a state but a process' (Flichy, 2014, p.690). Like the club's soundscape or, indeed, the co-constructed gameworld, the lived experience was constantly being generated and never complete. Furthermore, it was a mixture of smooth and striated space, a results of a continuous processes of deterritorialisation and reterritorialisation.

When representing the complexity of the social world we are required to make organisational or thematic decisions about what we choose to focus on, how we make sense of our data and, finally, how we present our findings. Decisions need to be made about which data to use; about whether to use, for instance, a screenshot of a sign to talk about text, or meaning making, or representation or... something else.... Why, for instance, is there a plateau here on soundscapes and not touchscapes, or smellscapes, or gender, or clothing, or... the position of participant's feet? Ultimately, the decision regarding what write about is down to the individual researcher, based on their experience of the field site. I have elected to write about things that most effectively represent the club from my subjective, informed experience, using the data generated. In this way, this whole thesis is just one of an endless array of possible tellings...

b. Rhizomic Ethnography

Given the complex nature of the social world, therefore, investigating the lived experience of social situations is a challenging task. I have conceptualised the club as an assemblage of people, material and virtual objects, ideas, actions and interactions, played out across multiple spaces. As a direct response to these challenges I developed a series of innovative approaches, as a kind of toolkit to address this complexity. I refer to this as rhizomic ethnography, using the image of thought developed by Deleuze and Guattari (1987). This consisted of three identifiable elements, involving a number of methods used at different stages of the research process, including data generation and representation in different modes.

Firstly, this approach to ethnography involved an epistemological approach underpinned by a rhizomic image of thought, as a means of highlighting the multiple conceptual connections and pathways linking the multiple elements of the assemblage. This allowed me to describe the nature of this complexity by acknowledging that the site under examination was not bounded by time, space or mode, recognising that it was therefore necessary to pursue an approach that attempted to capture some of this complexity. I conceptualised this assemblage as fluid, ever changing, difficult to represent and dependent on perspective, rather than fixed, singular and easy to pin down. Of course, simply expressing that the world is complex is not sufficient, and this does not mean that we cannot make moves towards understanding or at least shedding some light on aspects of this complexity. With this in mind, the subsequent two elements of rhizomic ethnography sought to find ways of exploring and representing this complexity.

Secondly, a rhizomic approach to fieldwork was pursued. Underpinned by principles of flexibility and emergence, this approach enabled new possibilities to develop in the field whilst also taking account of the complexity through the methods employed. The rhizome is understood as being 'susceptible to constant modification' (Deleuze and Guattari, 1987, p.12), thus characterised by emergence and what Deleuze and Guattari (1987) call 'lines of flight' (p.3), where new, often unexpected possibilities emerge. I responded to requests from the children, enabling them to participate in the club in ways that I had not initially envisaged. This responsive approach also embraced participatory research as a means of gaining different perspectives; the children took control of the research tools, creating their own screencasts, using the GoPro camera and exploring ideas around the club during the multimodal discussion sessions. This in particular saw a convergence between methodology and research site, where the children's interactions with the camera became a regular feature of the club and, through the model making, the discussion sessions employed the game as a research tool. This approach, promoting emergence, was compatible with the underpinning

rhizomic epistemological approach, as the children were seen to be creating the club using the research tools as new resources for their play; the rhizomic conceptualisation of knowledge meant that any aspect of the assemblage was able to contribute to the club's lived experience and, therefore, had potential to reveal something about the club itself. This enabled multiple perspectives on the club and on the nature of the children's play.

As part of this rhizomic approach to fieldwork, methods were designed to generate data to help to get at the complex nature of the club. Whilst any data collection methods have limitations, given that it is impossible to capture every action and interaction that constituted the club's assemblage (as conceptualised in the epistemological approach), these methods generated data that was rich enough to provide insight into aspects of the lived experience of the club. The video camera, for instance, was controlled by multiple participants and used in multiple ways, allowing the children's voices to be heard and the on an off-screen action to be captured. The screencasts captured the on-screen action, allowing this to form part of the corpus of data. In response to the group, the original interviews were cancelled, in favour of retaining the less formal discussion sessions. These utilised the game and, in particular, the visual, creative properties of the software to encourage the children to make meaning in ways that reflected their gameplay in the club; this created another instance of convergence between methodology and field site.

Thirdly, rhizomic ethnography was characterised by a rhizomic approach to analysis. Rather than taking an approach where themes were identified and ranked in order of prevalence, the ultimately subjective nature of the research was positively embraced, acknowledged and made transparent; from these starting points, I examined the lived experience of the club from three different perspectives, each of which sought to evoke an aspect of the lived experience, emerging from my close relationship with, and multiple and detailed reading of, the data. This allowed for examination of the complexity of the world by

exploring ways of seeing in multiple modes, using different approaches. This analysis drew on a range of theories from different disciplines, as a means of thinking with theory (Jackson and Mazzei, 2011) or thinking with the world (Holland, 2013). Often, this involved mobilising concepts from Deleuze and Guattari (1987), partly as these worked in synergy with the underlying concept of the rhizome, but also because many of these concepts were open and malleable enough to promote emergent thinking, rather than simply classifying or reterritorialising along familiar lines. Therefore, concepts such as machinic assemblage, the plane of consistency, the binary machine, re/de territorialisation and the body without organs joined the rhizome in this project's meaning making process. Theory from other sources was also employed, again to aid the meaning making process around the data.

8.4.2 Representation
a. Modal complexity

As well as providing a means to consider how to take account of the complexity of the club, returning to this screenshot of door (the 'not-a-door' door) also provides me a way (back) into thinking about representation of the lived experience. Recalling this sign, months after its creation, I was reminded of an image by Rene Magritte (1929) called 'The Treachery of Images' (re-appropriated by me in Figure 52). Magritte's paining depicts a smokers' pipe, with the words 'Ceci n'est pas une pipe' written underneath in joined handwritten script.

Figure 52: My own re-appropriation of Magritte's Pipe[1].

As the text suggests, the pipe is not a pipe. Rather, it is a picture of a pipe; a signifier; a representation. Similarly, <Castaway112>'s door 'n'est pas une porte'; a number of other possible (imagined) responses could be:

"It's not a door, it's a picture of a door."
"It's not a door, it's a Minecraft door."
"It's not a door, it's pixels on a screen."
"It's not a door, it's a sign."
"It's not a door, it's some writing about a 'not-a-door."
etc etc etc

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[1] McCloud (1993) also provides a comic-book reflection of 'The Treachery of Images' (Magritte, 1929) in his book 'Understanding Comics: The Invisible Art'.

Each of these possible answers return to the idea of modal representation considered throughout this thesis; how I am representing the lived experience of others, how different ways of collecting and representing data have implications and, specifically, how comic strip transcription can represent a scene differently to a textual transcript. Deleuze and Guattari's (1987) rhizome as an 'image of thought' has underpinned my thinking, itself a representation of a way of thinking about (and with) the world. This has led me to, increasingly, exploring and representing my own thinking visually; using my own 'visual voice' (Gauntlett, 2007, p.107) in the same way that I hoped the children would do during the club and the discussion sessions.

Challenges are posed by any mode in which we choose to represent and communicate our research. In his reflections on Magritte's pipe, Foucault (1983) suggests that even Magritte's words 'remain always only a drawing of a representation' (p.24), reminding us that words (not only Magritte's words) are themselves also representations. Traditionally, the written word is accepted as the primary (paper-based) mode used for communicating research. But when we write about something we are really writing about *thinking* about it. Just as the picture is not the pipe, neither are the words: they are words about thinking about the pipe. In this way, writing represents thoughts, and words themselves are entwined with the process of thinking. We often do not know what we are writing before the words appear on paper (or the screen); writing also helps to generate ideas. In Chapter Four (4.5), however, I explained how written words alone felt insufficient and I have therefore chosen to use different ways of representing, using comic strips and illustration as a means of transcribing and visualising metaphors of thought. The written word provides one way of making thoughts visible, and one particular way of thinking, but this is not the only way. Words, and pictures, appearing on paper are tied up with the thinking process; they become a means of communicating with ourselves, and with others.

The initial focus of Plateau 3 (Chapter Seven), the issue of representing sound on a page, exemplifies one particularly manifestation of this representational challenge. Writing aside, whilst the visual can be represented, pictorially, on paper (albeit not in its original form), the aural simply cannot be conveyed aurally for the reader on a page. Pictures of sound are not sound, but neither are words about sound. They are all representations. The process of introducing visual representations disrupts conventions and means that such challenges have to be dealt with head on, albeit without definitive resolution. I am not suggesting that any of the methods used here are in themselves new or a solution to the constraints of textual representation; the use of other methods and modes simply bring with them their own affordances and constraints and highlights the modal challenge of representation.

Given the challenge of representing a lived experience that is multiple, past, complex and open to interpretation, I suggest that it is necessary to pursue the representation of such complexity as a horizon (Deleuze and Guattari, 1987, p.222), rather than an obtainable end. Like the 'body without organs' (p.150), true representation is characterised by the fact that 'you can't reach it... it is a limit' (p.150); we can only work towards that limit, utilising different methods of exploration and interpretation, as a valid alternative to representation that draws on the convenient, neat simplicity of the binary machine. By definition, the 'lived' experience cannot be detached from bodies; it is only 'lived' through the participants.

Writing itself involves reforming or reterritorialising. This is unavoidable: to take anything from the virtual (past) and to write it into a shape, from a chosen perspective, involves a reshaping of its form. This is not to suggest that writing events from the plane of consistency involves an accurate reconstitution, bringing them back to life in their original form; the past cannot be resurrected, or even retold (as this implies that there was an original 'telling' to be replicated). However, as Scott (1996) suggest, narrative versions of past events are reworked

in the present and therefore 'the account of the past is always a lived account' (p.156). In these accounts, it is possible to elaborate on threads of observed events, with the data generated being understood itself as a representation to be drawn upon, rather than the component parts of the reconstitutable past. In this way, writing results in depictions, rather than reproductions; maps, rather than tracings (Deleuze and Guattari, 1987).

b. The hybrid thesis

Law (2004) asks how we might imagine academic writing 'that concerns itself with the quality of its own writing?' (p.12) Aspects of this thesis could be viewed as a response to this question; this hybrid text incorporates written (or typed) words but also features different orientations of image as an integral aspect of its form. There are likenesses, therefore, between this work's use of visuals and Sousanis' (2015) thesis, presented entirely as a comic book, specifically addressing the use of the visual mode as a means of thinking with theory. However, whilst Sousanis' (2015) work is largely theoretical, in this thesis images are used to explore theory and to present an account of lived experience, drawing together theory and data generated during fieldwork. Elsewhere, whilst Smith, Hall and Sousanis (2015) jointly call for multimodality in the sense making processes around research, they also suggest that we should draw on our *existing* skills base. As I have explained, my use of images was not as the result of a pre-existing skill; they emerged as a response to the data, and what felt like the needs of the project itself.

There is also a growing body of research in the social sciences that seeks to represent findings using comics. However, this is primarily as a means of engaging the reader with understandings that have largely been generated prior to this final illustrative process, often involving the interpretative work of another artist or artists (Morris, Dahl, Brown, Scullion and Somerville, 2010; Jones and Woglom, 2013; Jones and Woglom, 2014; Vigurs, Jones and Harris, 2016). Here, the comics were produced by me and also integral to the research process as well

as the final output. The comics presented in this thesis are multiple; there is not one singular style or a simple explanation of their presence. Rather, there are multiple styles present in multiple places for multiple reasons: to help illuminate ideas, to develop thought, to explore theory, to represent action, to engage the reader, to evoke the club, to trouble the dominance of text, to draw attention to the text. Other interpretations could also be made (someone recently suggested that my use of comics demonstrated 'a resistance of the digital').

Given the growing acceptance of alternative modes of representation, communicating research requires choices to be made by the researcher. Making these choices explicit throughout this thesis enables the reader to understand how and why these modal choices were made, as attempts to find appropriate ways of exploring and communicating ideas. The challenges of modal representation are endemic within any accounts dealing with the social experiences of others. However, when we, by default, employ the use of words alone it is perhaps easier to ignore the validity of this established mode, or conversely assume that alternatives offer solutions. Usher (1996) suggests that academic writing often operates on 'at a different or meta level from that which is about (p.44); writing, therefore, often seeks to 'conceal its own being' (p.44). By employing different modes, including visual methods, I have aimed to create a text that does not seek to disappear but 'to draw attention to itself' (p.44) as a vital component implicated the construction of the account.

The emergent, adaptive approach to research, afforded by what I called rhizomic ethnography, enabled me to explore and experiment with different methods of representing the lived experience of participants. Whilst I am not implying that that these methods of representation should be adopted wholesale for other projects, they do have a number of affordances that could offer potential for their use in other settings. Integral to this project's approach to analysis was the use of the multimedia comic strip transcriptions. These helped to shape and combine different aspects of the data sources, providing a way in to the expansive corpus

of data, also acting as starting point to a number of ways of looking at the club. The focus for these comic strip accounts took in a range of perspectives, including those of the participants, to ensure that they reflected multiple viewpoints, modes and moments from the club. Rather than reducing accounts to writing, using words alone to describe a very visual experience, the inclusion of photographs and video stills retained a flavour of the lived experience of the club, both on- and off- screen. Comic strip transcripts arose from a need to represent the data in a way that retained some of the multimodal content of the data in the final account of the club and helped to illustrate the inherent complexity of the data. Whilst approaches to transcription using storyboarding have been used before (Plowman and Stephen, 2008) this more wholesale adoption of the comic form proved to be effective in providing the reader with some additional insight into the colourful nature of the club. This approach to transcription, therefore, could certainly be adopted elsewhere, particularly where researchers are drawing on visual data drawn from multiple sources, involving multiple participants and voices.

The use of illustrated comic strips elsewhere in this work again emerged from my response to the data, as an adaptation of the approach to transcription. Illustrated note making, using sketches and drawings, initially proved to be an effective method of working with, and building upon, visual metaphors. As such, they were integral in the meaning making process as I constructed ideas in response to the data. Where I could have written these visual notes out of my final written account, I decided to reflect my concern with representation by neatening up and therefore drawing these pictures into the final account. A number of different comics, of different types and styles, are included in this final thesis as I adapted my approach to respond to the ideas generated in each section.

In some instances, I wanted the reader to focus directly on the images as metaphors that interplayed with the text, therefore choosing to leave a visually

represented narrator out of the account. Later, however, when I came to write about the children's everyday lives I took a more colourful approach, also included human faces and forms, both to acknowledge the presence of the participants in the data I was responding to and also to reflect the emotional aspect of some of the issues being addressed. The presence of the narrator here also reflects my presence, even if the character is not an entirely accurate visual representation of me! Using this approach, I was also able to draw upon influences from wider culture, just as the children did, by including visual references to ideas from the data and from my own wider experience. This helped me to explore how wider culture plays a fundamental part in meaning making and the thinking process.

And just as comic strips and visual representation provided alternative ways of viewing the data, so did the idea of the soundscape of the club, which again addressed another mode from the club to provide insights which may or may not have been evident from taking a different perspective. Although they clearly have a number of affordances that could be drawn upon in other contexts, the use of comics and soundscapes are not, in themselves, necessarily positioned as a suggested template for future research. What they do represent, however, is an approach that involves responsiveness to the data and a desire to use multiple modes in the process of conducting and representing that reflect the multiple modes present in the data.

8.4.3 Methodological Synergy

This emergent approach to research often led to a blurring of boundaries between method and focus, resulting in a reflexive relationship as the research methods mirrored the research focus. Sometimes this blurring of boundaries is visible and even fore-fronted; for example, when the children adopted the GoPro camera as a resource for play, or when discussion sessions took a similar form to the club's weekly sessions. However, much of this methodological convergence was subtler in nature, yet had significant affordances in terms of my own

knowledge building in relation to the club and the associated process of representation. Again, the use of comics, for instance, reflected some of the types of media being accessed by the children in and around the club. On an aesthetic level, the comic strip transcripts that drew on the club's video data resembled the paper based paratexts (the annuals and guides) being used by the children during the club. These transcriptions could also be considered a remix of the data and it is therefore possible to draw parallels between the kinds of YouTube videos watched by the children, where gameplay was remixed combined with a narrative. My comic strips that used the game to explore the theory and the club itself could perhaps be considered as a kind of paper based academic machinima. The use of comics also enabled me to take on different voices, which had parallels with the player / avatar relationships present in the game. Just as the avatar represents the player in a certain context, so too my voice is represented in the thesis with an avatar-like image.

The fact that these methods mirror aspects of the club's practices was not just a device for appropriate representation; using these methods also gave insights into the children's experiences involving similar practices. This suggests that pursuing research with a view to developing synergic methodology can have valuable affordances for our own sense making.

Moreover, I am suggesting that the rhizomic, emergent approach enables the development of bespoke methods that work in a synergistic relationship with the focus of research itself, arising from the fact that they reflect elements of the site under examination. This has similarities with Bryant's (1996) suggestion to consider 'practice as play' as a means of 'changing the rules' and 'opening up new action spaces' (p.118) in research. I suggest that taking a similarly emergent and response approach in other research projects could garner similar opportunities for thinking and representation. Research, and in particular the printed output of research such as this thesis, is necessarily an act of reterritorialisation. Every time we assemble letters to make a word we are committing to one meaning over

another. This is a necessary process if we are to make meaning that is communicable to others. Smith et al. (2015) call for multimodality to be used in the sense making processes around doing research. They identify that, in their own cases, it was calling on their existing skills that made this process possible and compelling. However, I suggest that we do not necessarily have to rely on existing skills to access multiple modes but can potentially develop new ones, if we are open to new ideas, driven by the principle of emergence.

8.4.4 Methodological Implications

During this project I have demonstrated how, following the principles of rhizomic ethnography, it is possible to develop an evolving research methodology that works in synergy with the focus of the research, allowing us to think with the world as well as about it, helping to shed light on complexity and the multiple realities present in the field. I have shown that there are benefits to being responsive to the nature of data we are working with, considering how we can use and represent this in ways that are also congruent with the focus of the research. I have suggested using emergence as a principle that is valuable in guiding particular types of research, particularly where, as here, children are exploring, creating and playing together around (although not always with) technology. I have also recommended that it is useful to develop new tools or ways of working that push us beyond what we already know and also what we, collectively and as individuals, already do.

Ultimately, I suggest that relating and responding to data in different ways, taking different perspectives and employing different modes, helps us to view things differently and identify alternative possibilities, resisting the simple logic of binary machine and allowing us to see and explore the world in more colourful and, potentially, more meaningful ways.

Furthermore, if we wish to advocate for account to be taken of, and validity assigned to, the multimodal meaning making practices of children, it seems

necessary that we also attempt to establish a more generous acceptance of methods for representing those experiences that themselves do not privilege the written word. If multimodal representation is ever to be allowed to cohabit with equal gravity alongside purely print-based modes of representation, then it is important that we also work to incorporate multimodal sense making practices in our own academic outputs, even when this takes us beyond the long established territories of our own personal or collective practices...

8.5 Contributions

Given the discussions above, this thesis offers the following four contributions to knowledge.

Firstly, a contribution is made through this thesis' exemplification of the emergent dimension of play. In the case of Minecraft Club, this emergent dimension was largely characterised by collaboration, spontaneity, exuberance, imagination, performance and mischievousness. Furthermore, it involved collaboration that spanned difference spaces, drawing upon a diverse range of resources from aspects of the children's lives and their experiences of wider culture.

Secondly, this thesis makes a contribution to the literature on virtual world play. It provides distinct and rich accounts of the club as a longitudinal case study of co-located play, in and around a virtual world environment. These accounts help us to consider the potential for the use of similar technologies with groups of players in similar contexts, with a particular focus on the possibilities for creative play and social interaction.

Thirdly, a contribution is made through my methodological approach, which I refer to as rhizomic ethnography. This constitutes a flexible array of methods, underpinned by an epistemological perspective that draws on Deleuze and Guattari's (1987) rhizomic 'image of thought' (p.16). This emergent approach could have affordances in other contexts as a means of tackling complexity; I demonstrate, for instance, how it enabled me to approach the project's data from multiple directions, thereby exploring the multiple and complementary ways of understanding the fluid and complex concept of 'lived experience'. This approach allowed for new understandings of the fieldsite, as exemplified in the first two contributions, that could potentially have been missed or written out of accounts using other methodological approaches.

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Finally, a contribution is made through the presentation of this thesis as a hybrid form. This results in a text that employs multiple modes: words, images (in multiple forms, including comic strip) and audio are used at different points, for multiple purposes. This experimentation with different ways of conveying research also serves to challenge the dominance of the written word in the thesis format.

8.6 Limitations and Future Directions

Throughout this thesis I have attempted to make transparent the limitations of this research. Whilst I hope it provides a vivid and honest representation of the lived experience, there are inevitably some things that it cannot do. The accounts provided here are acknowledged as being necessarily partial, inevitably presented from my perspective, albeit with significant input from participants. Whilst I began this thesis resisting particular discourses, related to socio-economic class, gender or particular ways of framing life in and around school, it should nevertheless be acknowledged that this account is a distinct representation of this group of children. Another group of children, drawn from a different demographic, at a different time, in a different place, would generate a different lived experience. As I have demonstrated, the children here drew on influences that were particularly pertinent to them and, as such, a group of children with different cultural experiences would likely draw on their own distinct experiences.

There is clearly potential, therefore, for performing similar research with groups of children in different circumstances as a means of reflecting on the kinds of meanings they bring to this type of play environment. There are also opportunities to ask different questions and to focus on different things. In this thesis, my interest was the lived experience and the children's play. However, there are potentially infinite ways of looking at the world, and a club such as this.

Whilst Deleuze and Guattari (1987) refer to a *thousand* plateaus, there is actually potential for an infinite number other plateaus, spinning out into infinity....

I have not sought to produce a study that is generalisable. I have instead used this small scale project to provide insights into the dynamic and distinct nature of a particular kind of on and off-screen play, in a particular context. That is not to suggest that a larger scale study would be any more able to provide a more generalisable account of something like the lived experience. However, a larger study, perhaps involving multiple, interconnected groups playing *Minecraft* could allow for an examination of different questions. A possible avenue of enquiry in this case would be to investigate what happens to the emergent dimension when the play of co-located participants is dispersed, through online connectivity with other groups.

This club opened with an instruction to create a virtual community. However, there were moments during this study where children sought structure, or more rule-bound play. A similar club organised around *Minecraft* where the on-screen play is framed in a different way would afford an investigation into how children interacted with different tasks, or even no guidance at all. Alternatively, a club with older participants could provide a means of exploring how the emergent dimension plays out with children at a different age.

Other possibilities for future research could involve a similar club organised around a different virtual world or videogame environment, or even multiple games. This could help us to understand the ways in which different virtual environments can act as non-human participants. It is likely that there would be some similarities between human participants' interactions in and around *Minecraft* and other screen based games. However, there may also be aspects specific to the characteristics of particular games. This could help further extend our understanding of children's play in and around virtual worlds.

Another potential study could involve the use of more cutting-edge technology, such as wearable virtual reality devices. *Minecraft* itself is available in virtual reality for 'Oculus Rift' and 'Gear VR'. A club that involved play using this kind of device could generate a very different relationship between the players, the game and the physical location. An ethnographic study involving children's use of such technologies would provide innovative insights into the educational and social potential in this emergent field.

Finally, it would also be entirely possible to envisage a similar club that moved entirely away from the digital aspect, perhaps built around construction play or imaginative play, involving physical resources or construction tools. This would enable a focus on the emergent dimension, as a way of investigating how the absence of the digital changed the nature of the co-located play.

And, of course, recalling the fact that *this* Minecraft Club arose as the result of a suggestion by a child, there would certainly be scope, in any of the possible future directions outlined above, for consultation with children about what sort of club *they* would like to participate in to form the basis of a future study.

8.7 Final Reflections

If the circulation of particular discourses influence how the world is shaped, it is also true that our research methodologies shape the way we see and represent it. Just as current discourses in schools, and other aspects of childhood, arguably do not account for emergence, some methodologies also potentially do not allow us to capture such things. The discussion of the emergent dimension of play in Minecraft Club, provided throughout this thesis, arose as a result of a methodological approach that itself drew on the concept of emergence. By viewing the children's play in this site in a particular way, certain things became evident that may not have been visible using a different methodology. Likewise, it

is inevitable that this approach will not have generated findings that, for instance, a thematic approach would have produced.

Throughout this work I have explored the difficulties of researching and representing something as complex, slippery and intangible as the 'lived experience' of a group. This involved taking an innovative methodological approach that drew on the work of Deleuze and Guattari (1987) as well as poststructuralist perspectives on representation. I suggest that these approaches could have affordances in other social contexts where researchers are also hoping to take account of complexity. I also suggest that considering the emergent dimension of play, in relation to the use of technology or otherwise, may prove helpful in providing an insight into children's lives, helping to shed light on what is important to them as they seek to find their ways in a challenging and complex world.

WORDCOUNT: 87483

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Barnsborough: Active Worlds, Sheffield

Club Penguin: Disney, Canada

LambdaMOO: Pavel Curtis / Moo, Washington

Super Mario Bros. (franchise): Nintendo, Kyoto

Manic Miner: Bug-Byte, Liverpool

Minecraft: Mojang / Microsoft, Stockholm

Minecraft Edu: Teacher Gaming, Finland

PacMan: Namco, Tokyo

Quest Atlantis: CRLT, Indiana

Schome Park: Teen Second Life / Linden Labs, California

Second Life: Linden Labs, California

The Sims: Electronic Arts, California

Space Invaders: Taito, Tokyo

Webkinz: Ganz, Ontario

WolfMOO: Moo, California

World of Warcraft: Blizzard Entertainment, California

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APPENDICES

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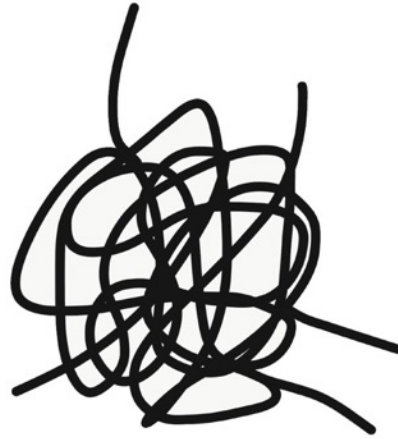
Appendix 1: Project Overview Table

Weekly Club Sessions Information

The club was held weekly on Tuesdays from 3.30 - 4.45. Sessions took place in the children's classroom, unless otherwise indicated:
* Session held in the school's group room
** Session held in the school hall

Club Sessions (75 mins)	Blog Post (Access via 'search' at www.mrchrisjbailey.co.uk)	Comic Strip
Trial Week 1 16.09.14		
Trial Week 2 23.09.14	The Endermen and the Best Hotel Ever	
Week 1 07.10.14	The Treehouse and Invisibility Spells	The Treehouse
Week 2 14.10.14	'There's a horse in McDonalds'	'Boom, I'm on!' / Survival Negotiation
Week 3 21.10.14	The Waterpark Safari and the Sheep Song	'Free the Sheep'
Week 4 * 11.11.14	Transcribing a Horse Funeral	A Horse Funeral / 'Your Nan's... Your Nan'
Week 5 18.11.14	Avatars, Griefing and Screencasting	One or Several Wolves (Griefing at the Waterslides) / 'Dodgy Stuff' (short)
Week 6 25.11.14	Survival	Survival
Week 7 09.12.14	Finding Friends and Influencing People	An Emerging Economy
Week 8 06.01.15	Exploring Virtual Feelings	Feelings
Week 9 13.01.15	GoPro Perspectives and AFK Performances	'I Feel like a Youtuber' (The GoPro Song) / 'House of Coolness'
Week 10 20.01.15	Establishing Territory and Embodying Play	Territory Signs
Week 11 27.01.15	Perspectives	Trade
Week 12 03.02.15	Context / Server logs as data	A Secret / Tom's Magic Hat

Discussion Sessions Information

Discussion sessions involved a different grouping of 2, 3 or 4 of the club's participants. These sessions were held at lunch time.

Discussion Sessions (30 mins)	Blog Post	Comic Strip
Discussion 1 24.10.14	Notes on using a 'Virtual Models' method	Graphics / Songs Discussion (short)
Discussion 2 16.12.14	Using Virtual Models #2	An Emerging Economy (ctd)
Discussion 3 06.02.15	Using Virtual Models #3	'Yeah, I hate interviews' (short)

Club Participant Information

All children were drawn from the same Y6 class and were aged 10 or 11 years during the study.

Participant (Pseudonym)	Avatar Name (most frequently used)
Mia	Mia
Freya	luv1dFreya
Molly	mollymoo
Lisa	Skylathechick
Joe	BBQBoy
Ben	CBTekkersOP
Thomas	Famalamlad
Callum	YOLOFace234
Rob	Sourlemon
Ed	Grizzlybear100
Jake	Jake

One additional participant was present for the first five weeks of the club. Although they completed the participant consent form I never received the parental consent form and they therefore do not feature in this research. They left the club to attend a different after school activity.

Weekly Club Sessions Information

The club was held weekly on Tuesdays from 3.30 - 4.45. Sessions took place in the children's classroom, unless otherwise indicated:
* Session held in the school's group room
** Session held in the school hall

Club Sessions (75 mins)	Blog Post (Access via 'search' at www.mrchrisjbailey.co.uk)	Comic Strip
Week 13 24.02.15	Annotating a chat log	Tom to Camera Dad Dancing
Week 14 * 03.03.15	Screenshot Tour	Tour
Week 15 10.03.15	Throwing Meat from the Mountain	Throwing Meat from a Hill
Week 16 ** 20.03.15	The Banterbury Tales	The Meaning of Banterbury
Week 17 21.04.15	Rebel Pig, Liam Neeson and a tour of Banterbury Baths	Space
Week 18 28.04.15	Error, and examining data which does not 'glow'	"They must constantly fear another 10.96.72.87"
Week 19 12.05.15	Cycling, the jeb door, tomatoes, nostalgia, rapping, the 'flipping sofa' and Jeffery, my pet block	"I've got a pet skellington"
Week 20 19.05.15		'Banterbury Library' 'Banterbury'
Week 21 02.06.15	Banterbury Town Sign	'The Amazin Buk' 'A Crippling Fear of Endermen'
Week 22 09.06.15	Banterbury Library, amongst other things	'Happy Lives' - A Book 'Villager News' Library Rules
Week 23 23.06.15		Cleopatra and the Sex Ed Lady
Week 24 30.06.15		'Everyone is Ben' Creating the Sheep Shear
Week 25 07.07.15		'The Mocking Building'
Week 26 14.07.05	Banterbury is Over	'The Mocking Building' (ctd)

Discussion Sessions Information

Discussion sessions involved a different grouping of 2, 3 or 4 of the club's participants. These sessions were held at lunch time.

Discussion Sessions (30 mins)	Blog Post	Comic Strip
Discussion 4 * 06.03.15	Virtual Models #4	
Discussion 5 07.07.15	Using Virtual Models #5	Social Models
Discussion 6 07.07.15		
Discussion 7 14.07.15		

Creating a transcript

A BRIEF EXAMPLE OF HOW THE COMIC STRIP TRANSCRIPTS WERE ASSEMBLED USING *COMIC LIFE*.
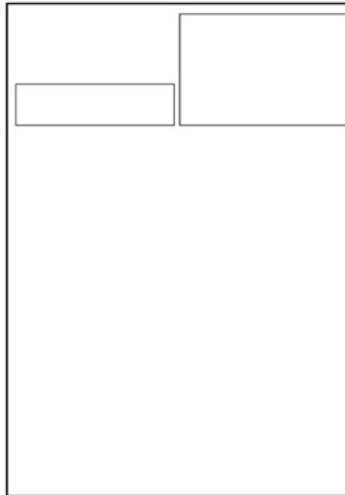
HAVING CHOSEN A VIDEO TO FOCUS ON I START BY PLACING FRAMES, ON A BLANK PAGE, TO BEGIN POPULATING WITH CONTENT FROM THE DATA.
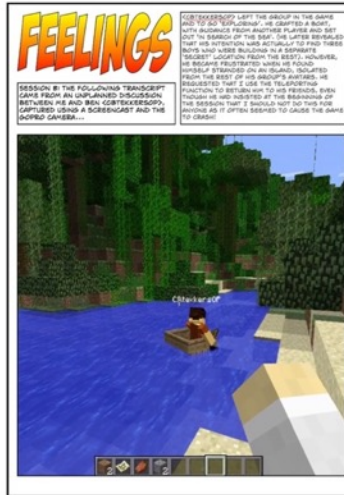
I THEN FILL FRAMES WITH TEXT (CONTEXT AND COMMENTARY) AND A SCREENSHOT TO REPRESENT THE ACTION FROM THE FIRST PART OF THE EPISODE.

SPEECH IS THEN ADDED TO THE FRAME, AS I REPEATEDLY LISTEN BACK TO THE ORIGINAL SCREENCAST.

ANOTHER SCREENSHOT IS CHOSEN AS THE ACTION MOVES IN AND THE NEXT SPEECH IS AGAIN ADDED ON TOP, CONTINUING FROM THE PREVIOUS FRAME.

ANOTHER SHOT, THIS TIME FROM THE VIDEO IN THE ROOM, RATHER THAN THE SCREENCAST, TO SHOW THE CONTEXT OF THE ONSCREEN PLAY...

BUT ENSURING CONTINUITY OF SPEECH FROM THE PREVIOUS FRAME SO THAT ALL WORDS SPOKEN ARE TRANSCRIBED.

THE CONSTRUCTION OF THE TRANSCRIPT WOULD CONTINUE IN THIS WAY...

WITH NEW FRAMES ADDED TO THE PAGE, FILLED WITH SCREENSHOT FROM THE VIDEO...

WITH SPEECH ADDED TO SCREENSHOTS, COLOURED TO INDICATE DIFFERENT SPEAKERS.

SOMETIMES SMALLER, MORE FREQUENT FRAMES, ZOOMING IN ON PARTS OF SCREENSHOTS, WERE USED TO CONVEY THE DIFFERENT STAGES OF MOVEMENT.

LARGER, WIDER SHOTS WERE ALSO USED TO GIVE AN 'OVERVIEW' OF THE CLUB AND THE MULTIPLE VOICES PRESENT AT ANY ONE TIME.

Appendix 3: Ethics Approval Letter

Sheffield Hallam University

Our Ref   AM/37-2014
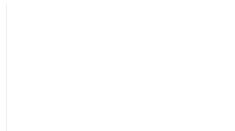
10th July 2014

Dear Chris

Request for Ethical Approval of Research Project

Your research project entitled **"Investigating the lived experience of a virtual world after-school club"** has been submitted for ethical review to the Faculty's rapporteurs and I am pleased to confirm that they have approved your project.

I wish you every success with your research project.

Yours sincerely

Professor A Macaskill
Chair
Faculty Research Ethics Committee

Appendix 4: Headteacher Permission Letter and Consent

'Investigating the lived experience of a virtual world after-school club'

The Wider Context

As you will know, I previously worked for eight years as a teacher in school, having left in August 2013 to pursue a PhD at Sheffield Hallam University. My research work focuses on Education, Literacy and Technology - more specifically, my thesis will be based on children's use of a 'virtual world' computer game called Minecraft. I ran a Minecraft Club for Y6 children at lunchtimes when I had my own class during 2012 / 2013 and have continued to return to school to run an after-school version of the club, again for Y6s, during the academic year 2013 / 2014.

What is Minecraft?

Minecraft is a 'virtual world' video game where children interact, as avatars, in a shared world using computers and iPads. It could be thought of as 'virtual lego' in that the children build and create using a range of coloured blocks. They can also communicate with each other using in-game text - as well as talking to each other in the 'real' world! Minecraft is popular with the children - in fact, the only reason I originally heard about the game and started a club was at the request of a child in my class at the time.

What is the focus of the club?

During the club, Minecraft is used in a specific way. We mainly play in 'creative' mode, where the children have access to unlimited resources. The game itself does not assign them a purpose in this role, but I ask them to create 'a community space'. They interpret this instruction in a number of ways and spend the club involved in collaborative, creative play.

What am I asking?

If you give permission, I would like to continue to offer to run Minecraft Club at school for the Y6 children during the 2014 / 2015 academic year. For this I will need access to the class' laptops running 'Minecraft Edu' (a modified version of the game) and iPads running Minecraft Pocket (these are already installed). I will continue to run this club for 1hr 15 mins per week, from 3.30 - 4.45 on a night that suits the school (currently Tuesdays). I will seek permission from the children's parents for them to attend. Attendance will be voluntary and free of charge.

I would then like to use the club to collect research data. My proposed methods are outlined below, but I will make it clear to children and parents that pupils can attend the club but do not have to be involved in the research - although I hope that as many children as possible do agree!

During this study I hope to:

- Illuminate the experience and motivations of individuals who are compelled, motivated and engaged by participation in virtual world play.
- Articulate how identities are formed and meanings are made by participants interacting in and around social, virtual environments.
- Explore how children negotiate the complex relationships between material and virtual place and space.

Research Methods

This research will take the form of an Ethnography, which will enable me to participate alongside the children, allowing me to see events from the players' perspectives. In order to ensure that this ethnography captures the lived experiences of the group involved I hope to use a range of data collection methods in order to take account of different perspectives.

1. **Weekly participant observation during the club itself** (Approximately 45 hours in total, over the full duration of the club). I will take written and typed notes on what I observe in and out of the game. Photographs, video, and screenshots / screencasts of the game itself will also be used to capture the events that unfold.

2. **Small group Interviews (4-6 children)** (approx 8 hours in total) These will need to take place at a time which minimises disruption to the school and to the children themselves - most likely during lunchtimes. Fieldnotes and audio recordings will be used.

3. **Discussion Activities (4-6 children)** (approx 5 hours hours in total) Similar to the interviews, but the children will complete an activity on Minecraft on the iPads to stimulate discussion. Fieldnotes, audio recordings and screenshots will be used.

4. **Collection of Materials (ongoing during the club) -** Samples / copies of material and virtual artefacts spontaneously produced and consumed by children will be collected, with the children's permission, in order to build towards an understanding of the group. These may include written notes made by the children, texts produced at home relating to the game or club, multimodal texts produced during the club and pre-produced texts relating to the game.

What will happen to the information I collect?

All of the data collected will be used for my research, ultimately to form the basis of my thesis for my PhD. Data will be kept securely, password protected for the duration of my research and stored securely on the university's server. The findings will also potentially be reported in a series of conference presentations, journal papers, blog posts and book chapters. No reference will be made to the names of any children or the name of the school.

What do I do if I agree to participate?

If you agree to participate, please complete the form overleaf. Permission may be given for all or part of the work to take place.

Permission will be sought from parents and children themselves before any activity takes place - I will provide draft permission letters for your approval. I will also offer opportunities for parents and carers to meet to discuss the project.

What do I do if I want to know more?

Please feel free to ask any questions either before or during the study. Please contact Chris Bailey on 0⬜⬜⬜⬜⬜⬜⬜⬜1 (mobile) or ⬜⬜⬜⬜⬜⬜⬜⬜⬜

Thank you!

Chris Bailey

PhD Student, Sheffield Hallam University

CONSENT FORM FOR HEADTEACHER

'Investigating the lived experience of a virtual world after-school club'

	Yes	No
1. Have you read and understood the information about the research?		
2. Have you been given an opportunity to ask questions about this work?		
3. Have you received enough information about this work?		
4. Do you understand that you are free to withdraw your school from this work….		
… at any time?		
… without giving a reason for withdrawal?		
5. Are you willing for observations to be made in your school, and notes taken of these?		
6. Are you willing for audio recordings to be made in your school?		
7. Are you willing for video recordings to be made in your school?		
8. Are you willing for photographs to be taken in your school?		
9. Are you willing for interviews to be conducted with children in your school?		
10. Are you willing for artefacts produced by the children to be retained by the researcher for research purposes?		
11. Are you willing for data from the following sources to be quoted / used in published articles, blog posts or in conference presentations?		
- from interviews?		
- from observations?		
- from photographs?		
- from audio recordings?		
- from video footage?		

Signature ……………………….. Role …………………….. Date ……………………

Many thanks for completing this form

Appendix 5: Parental Permission Letter and Consent

'Investigating the lived experience of a virtual world after-school club'

The Wider Context

As you may know, I previously worked for eight years as a teacher in school, having left in August 2013 to pursue a PhD at Sheffield Hallam University. My research work focuses on Education, Literacy and Technology - more specifically, my thesis will be based on children's use of a 'virtual world' computer game called Minecraft. I ran a Minecraft Club for Y6 children at lunchtimes when I had my own class during 2012 / 2013 and have continued to return to school to run an after-school version of the club, again for Y6s, during the academic year 2013 / 2014.

What is Minecraft?

Minecraft is a 'virtual world' video game where children interact, as avatars, in a shared world using computers and iPads. It could be thought of as 'virtual lego' in that the children build and create using a range of coloured blocks. They can also communicate with each other using in-game text - as well as talking to each other in the 'real' world. Minecraft is popular with the children - in fact, the only reason I originally heard about the game and started a club was at the request of a child in my class at the time.

What is the focus of the club?

During the club, Minecraft is used in a specific way. We mainly play in 'creative' mode, where the children have access to unlimited resources. The game itself does not assign them a purpose in this role, but I ask them to create 'a community space'. They interpret this instruction in a number of ways and spend the club involved in collaborative, creative play.

What am I asking?

I will be continuing to run Minecraft Club at school for the Y6 children during the 2014 / 2015 academic year on Tuesdays after school. If you give permission for your child to attend then please complete question one on the attached consent form. Attendance is entirely voluntary and free of charge. Please collect your child at 4.45 after the club.

I would also like to use the club to collect research data. My proposed methods are outlined below, but I must stress that pupils can attend the club but do not have to be involved in the research. Children can be involved in all, part of or none of the research activities - I will also seek permission from the children themselves, although they cannot override any questions that you answer 'no' to.

During this study I hope to:

- Illuminate the experience and motivations of individuals who are compelled, motivated and engaged by participation in virtual world play.

- Articulate how identities are formed and meanings are made by participants interacting in and around social, virtual environments.
- Explore how children negotiate the complex relationships between material and virtual place and space.

Research Methods

This research will take the form of an ethnography, which will enable me to participate alongside the children, allowing me to see events from the players' perspectives. In order to ensure that this ethnography captures the lived experiences of the group involved I hope to use a range of data collection methods in order to take account of different perspectives.

1. **Weekly participant observation during the club itself -** I will take written and typed notes on what I observe in and out of the game. Photographs, video, and screenshots / screencasts of the game itself will also be used to capture the events that unfold.

2. **Small group Interviews -** These will take place at a time which minimises disruption to the children - most likely during lunchtimes. Fieldnotes and audio recordings will be used.

3. **Discussion Activities -** Similar to the interviews, but the children will complete an activity on Minecraft on the iPads to stimulate discussion. Fieldnotes, audio recordings and screenshots will be used.

4. **Collection of Materials -** Samples / copies of material and virtual artefacts spontaneously produced and consumed by children will be collected, with the children's permission, in order to build towards an understanding of the group. These may include written notes made by the children, texts produced at home relating to the game or club, multimodal texts produced during the club and pre-produced texts relating to the game.

What will happen to the information I collect?

All of the data collected will be used for my research, ultimately to form the basis of my thesis for my PhD. Data will be kept securely, password protected for the duration of my research and stored securely on the university's server. The findings will also potentially be reported in a series of conference presentations, blog posts, journal papers and book chapters. No reference will be made to the names of any children or the name of the school.

What do I do if I agree for my child to participate in the research?

If you agree for your child to participate, please complete the form overleaf. Permission may be given for all or part of the work to take place.

What do I do if I want to know more?

You are welcome to discuss this project further at school - I will be available at the end of the club and would welcome any questions you may have. Please also feel free to ask any questions either before or during the study. You can contact me at: c.b_____@___._____

Thank you!

Chris Bailey

PhD Student, Sheffield Hallam University

CONSENT FORM FOR PARENTS

'Investigating the lived experience of a virtual world after-school club'

	Yes	No
1. I give permission for my child to attend Minecraft Club. I will collect them at 4.45 pm from school.		
2. Have you read and understood the information about the research?		
3. Have you been given an opportunity to ask questions about this work?		
4. Have you received enough information about this work?		
5. Do you understand that you are free to withdraw your child from this work….		
… at any time?		
… without giving a reason for withdrawal?		
5. Are you willing for observations to be made of your child, and notes taken of these?		
6. Are you willing for audio recordings to be made of your child?		
7. Are you willing for video recordings to be made of your child?		
8. Are you willing for photographs to be taken of your child?		
9. Are you willing for interviews to be conducted with your child?		
10. Are you willing for artefacts produced by your child to be retained by the researcher for research purposes?		
11. Are you willing for data from the following sources - involving your child - to be quoted / used in published articles, blog posts or in conference presentations?		
- from interviews?		
- from observations?		
- from photographs?		
- from audio recordings?		
- from video footage?		

Signature ……………………….. **Parent of** ……………………..

Date ………………………

Many thanks for completing this form

Appendix 6: Child Permission Letter and Consent

INFORMATION FOR CHILDREN

Hello,

As you know, I am planning to run a Minecraft Club with your class this year. You are very welcome to attend! I will be asking your parents for permission to check that this is ok with them, but I hope to see you there.

I will also be using this club to find out more about how you use Minecraft. You'll probably remember that I left school about a year ago to go back to university. I am very lucky as this club is now the focus of my work!

I would like to investigate in detail what happens when a group of children play the game together in certain ways. To do this I need to collect information, and I would like you to help me with this. I would like to observe what you do when you are playing Minecraft and make notes. I would like to talk to you about Minecraft and record our conversations. I would also, sometimes, like to take photographs and video recordings of the club - in the classroom and in the game. I will use these sources of data to help me with my work. I will write about the things that I have seen, although I won't use your real names, and I may also want to tell other people about what you have done, using blog posts or talking at conferences.

If you would rather that I didn't include you in any of these then that is perfectly fine. You can give permission using the attached form, but it's also fine to say 'no' to any of these things if you change your mind. I won't mind and you can still take part in the club for as long as you like!

I hope that makes sense, but I will give you chance to ask any questions in person.

Thank you for reading,

Mr Bailey

CONSENT FORM FOR CHILDREN

'Investigating the lived experience of a virtual world after-school club'

	Yes	No
1. Do you want to attend Minecraft Club this year?		
2. Do you want to be involved in the research too?		
3. Have you been given an opportunity to ask questions about this work?		
4. Have you received enough information about this work?		
5. Do you understand that you are free to withdraw your child from this work….		
… at any time?		
… without giving a reason for withdrawal?		
6. Are you willing for me to make observations of you during the club and to make notes about these?		
7. Are you willing for audio recordings to be made of you talking?		
8. Are you willing for video recordings to be made of you playing the game?		
9. Are you willing for me to take photographs with you in them?		
10. Are you willing to take part in interviews with me?		
11. Are you willing for me to take copies of work you produce?		
12. Are you willing for the information I take from the following data to be used at conferences and in my writing?		
- from interviews?		
- from observations?		
- from photographs?		
- from audio recordings?		
- from video footage?		

Signature ………………………..   **Date** ………………………

Many thanks for completing this form

Appendix 7: Technical Issues

Technical issues	Brief summary	When seen
Lagging	the game running slowly or being slow to respond	Every week, every player, multiple times
Unable to place blocks	Pressing the right keys but no objects placed	Not every week, not every player
Laptops not running the game	some computers would not run the game at all, for unknown reasons.	A problem at the outset of the club, less so as time went on expect for the cases where children would accidentally pick up a laptop where the game wouldn't work.
Batteries running out	therefore charged needed to plug them in	Most weeks, every player
Keys unresponsive	players pressing keys but nothing happened	Not every week, not every player
Broken laptop	usually wouldn't turn on, in spite of new battery	Not every week, not every player
Being denied access	unable to access the game at all	Some weeks, most players
Crashing Out	being forced out of the game and having to log back in	Every week, every player, multiple times
Invisible Avatar	A child's avatar cannot be seen by other players, even though they are all present in the same game space.	Occasional, individual players
Game not rendered	Exposing underlying architecture of the game rather than the intended appearance of the game world.	Occasional, individual players

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Appendix 8: Data Details

A table to show the amount of data generated per session.

Club Week	Photos	Screenshots	Video	Screencast
1	9	20	0:20:29	1:14:13
2	15	15	0:10:10	1:44:28
3	7	19	0:23:06	0:17:28
4	0	23	0:23:50	0:48:57
5	2	13	0:12:07	0:45:03
6	4	11	0:42:08	0:53:55
7	7	0	0:21:22	1:05:21
8	14	16	1:02:26	0:35:55
9	0	37	1:17:20	0:00:00
10	9	17	1:12:11	0:00:00
11	2	8	1:08:22	0:00:00
12	2	25	1:08:36	0:00:00
13	6	27	1:21:19	0:00:00
14	0	28	1:14:00	2:22:18
15	3	9	1:16:35	0:15:24
16	3	28	1:06:37	0:00:00
17	8	8	1:15:47	0:00:00
18	7	5	0:50:54	0:00:00
19	22	5	1:02:19	0:09:59
20	13	0	1:09:45	0:00:00
21	9	31	1:14:08	0:00:00
22	3	2	1:08:42	0:58:02
23	63	0	1:05:23	1:04:04
24	19	0	1:05:59	0:23:40
25	9	2	1:12:06	0:32:53
26	39	0	1:11:55	0:00:00
Discussions	**Photos**	**Screenshots**	**Video**	**Screencast**
1	3	19	0:32:14	0:00:00
2	0	14	0:17:01	0:33:39
3	0	11	0:00:00	0:25:33
4	0	6	0:16:57	0:20:56
5	2	18	0:37:26	0:34:51
6	0	10	0:26:36	0:19:31
7	4	8	0:27:37	0:29:21
Totals	284	435	3:15:27	15:55:3

Appendix 9: Sketches, visual notes and outtakes