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Communication in virtual world spaces; an
exploration of the layers and resources
employed in a multimodal, informal
language learning experience.

By

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Abstract

In my thesis I explore the interplay between the different layers employed in communication when a small number of people interact and exchange views in a virtual world, Second Life. I investigate how geographical, physical reality intrudes on virtual reality, and the effect this has on identity and communication. Furthermore, I trace how the interface between the different modes and spaces, such as 'in world' voice, the Internet and the 'real physical world', blend in communication.

The study involved video recordings of the meetings and interaction in Second Life between a small number of participants. The participants comprised international students, preparing to study at a UK university, home students in the same university and the researcher. This occurred in my plot of land on Edunation Island in Second Life. Ultimately, I, the researcher, explored how adopting an avatar in a virtual world affects communication. My approach to this research was a qualitative, in depth study of selected scenes and interactions.

I use a visual narrative approach to present an analysis of the interactions between participants, the environment and references to modes or spaces external to the virtual spaces. I theorise on the interactions from the view of language as a social practice with its principal purpose for communication. I evaluate the success of communication between the participants on the merit of their understanding of each other, and in so doing I reject the structuralist view of language where needing to be 'accurate' and where only the 'expert' speaker can be accepted as correct.

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Chapter 1: Introduction

Universities in the UK, historically institutions for the pursuit and exchange of knowledge for the elite, widened their nets at the end of the twentieth century to include provision of vocational and professional development (Altbach et al., 2009; Biggs, 2011; Dearlove, 2002). This was driven by government policy of widening access to higher education (HE), and resulted in a massive increase of home students¹ (Browne, 2010; British Government, 2013). However, at the beginning of the twenty-first century, under mounting pressure from successive governments to be more financially 'efficient', English universities started casting their nets further afield to the lucrative global market to entice international students². The fees paid by overseas international students are significantly higher than those paid by home/EU students. International students have to cope with the same study demands as all students, but may have the additional challenge of dealing with cultural adjustment, and of studying in a language which is not their first language (L1) (Peacock and Harrison, 2009; Zhou & Todman, 2009). Often universities try to prepare international students for entry onto study programmes by running short 'pre-sessional' courses.

I work in a university in the UK and am involved with the academic support of international students, part of which concerns international students on preparation courses to develop language and academic study skills. I am sympathetic to the use of technology in education, and I try to keep abreast of new developments with an eye to their adaptation and exploitation in my teaching repertoire. This stems from a positive experience of e-learning on postgraduate courses between 2001 and 2003, which culminated in me gaining a Master's degree - an MA in Online and Distance Education. My studies were concerned with the application of technology in developing online courses, and, at the time, the Internet was thought to have the potential to revolutionise the perception of distance learning; it seemed very new and exciting. Interactivity online was being enabled through computer-mediated communication (CMC) using technologies similar to online discussion boards. This recast distance learning from being principally print based correspondence courses to online modes of learning which were potentially social and dialogic; learning was being promoted as social encounter, and this continues to be a dominant paradigm (Atherton, 2013; Salmon, 2013). This, together with the view of learning as a social practice

¹ Home/EU students are students who pay fees from the mainland UK and the EU.

² International student is an umbrella term for students who are non-UK domiciled when applying to the University.

'Overseas' students, are those who pay international fees, including students from European countries not within the EU and the Channel Islands.

has been the driving force for the inclusion of interaction in HE course delivery both online, and face-to-face.

The view of learning as social is in harmony with the prevailing language learning theory, the Communicative Approach (CA), of the late 1980s when I started teaching English as a Foreign Language (EFL) in Greece. The CA led the EFL field when I trained to teach, and remains mainstream twenty-five years later. The approach places emphasis on meaningful interaction in contextualised situations to encourage language development and practice (Scrivener, 2011:31), which may account for my desire to incorporate interaction in teaching activities. I enlarge on language learning theory in Chapter 2, but mention it here because it is one of the historical threads, invisibly woven together with the use of technology in education, which has fashioned my approach to work and research.

The international students I work with, many of whom have recently arrived in the UK, focus on developing their proficiency in the English language as well as their understanding of the academic and social culture of university life in the UK. Learning a language within a classroom has limitations, and outside of class, the interaction in English they encounter on an everyday level is limited to basic survival situations, such as shopping. There are, for example, few opportunities to analyse, deliberate and speculate about issues as they might with competent speakers of their L1. Some, initially, may not have the level of language required to sustain conversation at any level above that of very basic communication. Arguably, language learners need opportunities to engage with expert users; either those whose first language (L1) is English or those who have achieved competency as a second (L2) or further language. An inhibiting factor for many international students is their lack of confidence to enter into more meaningful exchanges with L1 speakers.

Because of this situation I wanted to provide opportunities for international students to communicate with proficient speakers of English, if possible with those already studying on programmes in the University, either from the host culture or from cultures. I wanted this to happen in an environment where the international students would feel less inhibited about speaking than in a direct, face-to-face situation. The venue I had in mind was not a real, tangible place, but a virtual world called Second Life (SL). Virtual worlds (VWs), sometimes referred to as Multi-User Virtual Environments (MUVes), are synthetic online spaces where people interact through representations of themselves, called avatars. They have been used in education for various purposes, but mainly in order to provide a visual stimulus and to invoke a feeling of presence (Bente et al. 2008). In higher education they have been used to create situations and scenarios for problem based learning such as medical simulations (Savin-Baden et al, 2010:40), and also negotiation skills (Warburton 2009). In language learning they have been used as places for

language practice (Peterson 2012), and to increase motivation through opportunities to interact with L1 speakers (Wehner et al, 2011). The appeal of virtual worlds for me was their potential to accommodate spoken interaction between participants in real time through the intermediary of an avatar, a virtual representation of themselves. Although in some respects the virtual world environment is 'unreal', the interaction between those involved is real³, and the immersive experience is vivid and convincing. I elaborate on this paradoxical phenomenon later in Chapter 2 in the thesis.

I envisaged Second Life as a space which could be exploited for interaction between international students preparing to start academic study in the University and students already on courses, either home students, EU or international students from other cultures. I wanted to set in motion a process of socialisation between cultures before the international students began their formal academic study. I wanted them to gain confidence when interacting in English with other students and the wider student community, and to extend their ability to use the English language as a tool for communication. While I did not want to use SL as a place for formal language teaching-learning, I hoped the experience of being in SL would be socially and linguistically rewarding, and any unplanned, incidental language development would be positive. The Second Life space was to be a stress-free environment designed to encourage discussion and acculturation.

My research project in Second Life took place in the summer of 2014. It was a small-scale project, exploring the use of Second Life as a space for interaction between international students, myself as teacher-researcher, and a couple of home students to interact together. Participants interacted in SL using avatars as representations of themselves. For this project, I rented a piece of land on SL and organized twice-weekly meetings for participants in this space over a period of a month. I planned and developed activities to encourage interaction, and recorded the sessions as screencasts in video format as my data.

In this chapter, I introduce and expand on the rationale for my research project by looking at the situational and contextual influences at play. I describe my research journey and the roles I played, because they defined and restricted the choices I made concerning many aspects of my project in Second Life. I state my research questions and how I addressed them in the

³ Note that in this thesis by 'real spaces' I refer to material, geographical spaces, and by 'real life; what is happening outside of the virtual world where people do not interact through avatars.

study. In addition, I account for the different styles of discourse I use in this thesis and I provide a glossary of key terms and definitions employed throughout this thesis as a reference.

1.1 Why the research project is important

This section looks at the importance of the development of language and social interaction skills, and also an awareness of academic and local culture for international students. I start with a brief description of the background leading to the current influx of international students in many higher education (HE) institutions. I then explain the relevance of language by looking at the relationship between language and culture, and show how higher education demands not only academic literacy, but also the literacy practices of being able to interact and work together as members of a community.

1.1.1 Higher education and government policy

The implementation of policy changes by the coalition government set up in 2010, led to the gradual withdrawal of government funding for HE and a corresponding increase in tuition fees for home students in England and Wales (Browne, 2010). This resulted in a slump in the domestic market constituting a drop of -13% in applications for the academic year 2012-13 in England (UCAS, January 2013). One way UK universities found to offset this drop in the domestic market and gain profit was to attract fee-paying international students (Altbach & Knight, 2007:292). The numbers of international students increased, particularly on postgraduate courses (UCAS, January 2013), as universities tried to make up for the shortfall in government funding.

Apart from concerns about the commodification of education (Artiles, 2003:166), it has been argued that there was unease about the overall quality of the educational experience for international students who migrate to the northern hemisphere fuelled by the aspiration to a prestigious university degree. International students seeking admission to universities are expected to develop proficiency in the particular academic discourse required for their discipline, and to make the cultural adjustment required to study in western society (Andrade, 2006). Many have experienced study in higher education in their respective countries and will have already successfully completed undergraduate study, and some postgraduate. They are on the road to becoming specialists in their own fields and some will go on to become international researchers. Nevertheless, when faced with a participative pedagogical approach which makes demands on their competency at expressing themselves in a language which is not their L1, this can be daunting. In higher education systems in western society, the ability to express opinions and engage in discussion with academic peers is valued (Tabak & Baumgartner, 2004), and courses often include an element of

collaborative group work. Participative methods can be demanding for international students on two counts: firstly, their linguistic resources may be stretched (Ledwith and Seymour, 2001); secondly, some activities may be alien to their cultural expectations and previous experiences of education (Currie, 2007; Elliott and Reynolds, 2012). On whatever count, their contributions in any group activities may be minimal.

It has been found that host culture students may exhibit a reluctance to interact with students from other cultures, and display xenophobia or cultural preferences during group work situations (Ledwith and Seymour, 2001; Currie, 2007:). This increases the exclusion of international students from interaction with students from the host culture (Peacock and Harrison, 2009). The situation is more serious in an environment where education is viewed as social practice enabled by language (Vygotsky, 1975), because the ability to engage with other students is an important requirement for full membership of a learning community (Lave and Wenger, 1991). But the responsibility cannot rest solely with the international student, and Currie (2007) proposes ways in which a teacher, in the context of an MBA, might lessen the clash of values between cultures as far as pedagogical models are concerned; while supporting the western tradition of critical exchange as a teaching method, it is important to establish a respect for difference and show some reflexivity when voicing ethnocentric views. For my part, as an English for Academic Purposes (EAP) tutor and a language teacher, I wished to focus on helping international students to develop their skills and confidence in interaction and develop strategies for coping in group seminars and discussions with members of the academic community.

1.1.2 Language, culture and literacy

There is an indisputable relationship between language and culture. Sociolinguistics argues that language is not neutral because we use it to refer to common experience and this expresses cultural reality. Language is a vehicle for culture, and culture is an inherent part of language (Kramsch, 1998:3). We use language to exchange thoughts and ideas in interaction, and attach meaning to words. However, meaning is negotiated socially, "*Words mean what humans agree together to make them mean,*" (Mercer, 2000:4), and misunderstandings may occur on an everyday basis because interpretation of an intended message is subject to variation. Ultimately, it is the listener (or reader) who brings meaning to a text or utterance, which is based on a perspective shaped by their past experiences. Thus, when a group of language users develop and impose their own social conventions and appropriateness to become a 'community of language users', there is some common ground which has been agreed by the group; "*Common attitudes, beliefs, and values are reflected in the way the members of a group use language,*" (Kramsch, 1998:6). In this way particular discourses are

created, which have their own set of important or valued texts thus fashioning discourse communities from those who adhere to them and use their 'system of *intertextuality*' (Lemke, 1995:10). Consequently, a discourse community, besides sharing similarity of language, style and register, has common topics to which its members respond in specific ways.

Higher education requires familiarity with the conventions of academic literacy. This is a contested term, definitions of which encapsulate values and beliefs about our view of knowledge (epistemology). Viewed from a positivist stance it is seen as a single, autonomous entity; viewed from an interpretivist stance, literacy is seen as fluid and context dependent (Street, 1997; Hannon, 2000; Wearmouth et al, 2003). These views reflect a particular ontological stance and ideology; the first is derived from cognitive psychology, the second from sociology and anthropology (Rassool, 1999:15). From the first viewpoint operating from the epistemology of behavioural psychology, literacy is deemed to be autonomous and is concerned with the following: the technical skills to decode texts; the phonological relationships between words and sounds; writing skills, such as spelling (Rassool, 1999:8). The second viewpoint, originating from anthropology, sees literacy as socially situated practice embedded in cultural practices, and thus it allows for the existence of multiple literacies (Street, 1997:48). This situation allows the existence of literacy practices which would otherwise be labelled as incorrect or have been marginalised.

In my research, I take the view of literacy as social practice, and as something people do (Barton and Hamilton, 1998). I see academic literacy as a practice embedded in the context and culture of the different disciplines of a university (Lea and Street, 1998). These disciplines also reflect particular ontological stances and ideological viewpoints which can be loosely placed on a continuum from the social sciences at one end, and pure sciences at the other (Hyland, 2002). So academic ways of writing and communicating ideas are not homogenous across the different disciplines in the university. To survive, all students need generic and discipline embedded academic literacy skills, which I shall later enlarge upon, but they also need communication skills, often included in university statements of graduate capabilities (Malthus, 2008:144). Interactive speaking features heavily in higher education practice; it forms part of team work and group discussion, and is more difficult than oral presentations because of its unpredictability (Malthus, 2008:141). Academic literacy should not only be construed in terms of written language and research skills, but all the discourses used within the sociocultural setting. In HE this includes the ability to talk about subjects within a field using discipline specific discourse, but also includes interactive speech genres such as exploratory talk, negotiation and social talk, in addition to awareness of cultural features such as politeness.

People unfamiliar with a community's ways with words are likely to be excluded from its activities. Those familiar with its genres know how to use language to participate, how to work with others to get things done. Mercer, 2000:170

Discourse can be viewed in two ways and both need to be developed. Gee (2005:7) distinguishes between "Discourse" with a capital 'D' and "discourse" with a lower case "d"; "big D" Discourse is concerned with how ideology and political affiliations may be aligned with the choice of language, and "little d" discourse is concerned with micro-analytic text analysis (Luke, 1995:10). These viewpoints are not in opposition, simply different perspectives originating from different disciplines and with different concerns. The view of academic literacy as a social practice sits comfortably with big D Discourse and with the concept of a learning community of practice. In this case, language becomes a means to socialisation and entry into the academic community, "a language socialization perspective views L2 learning as inextricable from socialization and enculturation processes," (Reinhardt and Zanden, 2011). Within a sociocultural framework this can be achieved through participation and interaction with other members of the community which can be between expert-novice, peers and any member of the community (Lave, 1996).

From a sociolinguistic viewpoint, to operate effectively in the university community academic literacy and language expertise are not enough. Prospective members of the academic community need some acculturation and social experience of the new academic and cultural environment they wish to be a part of in order to become part of discourse community with a large 'D' (Gee, 2005). If international students are able to acquire the 'D' Discourse they need to become a part of the academic culture and environment, there is less chance of them being marginalised and excluded. Socialisation and interaction with those who are already part of the academic environment can help them acquire this including those from diverse cultural backgrounds. As student bodies of universities become more socially and culturally diverse and "learning depends on inter-subjective meaning making, such as group learning activities," (Kimmel & Volet 2010:462), intercultural experiences which encourage interaction provide valuable exposure and practice in understanding other cultures.

1.2 My research journey

Only through the act of writing up my research in this thesis did I become aware of the multiple roles that I had taken on over the research project. I was a language teacher who wanted to research aspects of interaction in a virtual world. In the virtual world I was a learner, yet, my participants regarded me as a guide, initially. I had been a learner on a machinima film-making

course. During my project, I was a researcher, recording data using screen casting, and a designer of the activities for sessions. I was a fellow participant at times, and facilitator trying to keep conversations going. Probably for the participants who knew me in real life, I was a teacher. I did all these things to be a researcher in Second Life.

But the problems of being a lone researcher weighed heavily. How wonderful to be part of a research project with software designers to deliver a custom built virtual environment, and to have a dedicated team of technical support; to have other researchers with whom to share the data collection and muse over its interpretation. This was how I imagined research was carried out. But this was not the case; I struggled alone to gain skills in Second Life; I read accounts of other projects and researched how best to devise activities to exploit its affordances; I found ways to record the sessions in SL as my data. But my research journey was not totally solitary because it was fashioned by a series of chance meetings and events that occurred. The machinima course took place in Second Life, and led to me becoming a member of a community of educators interested in SL. It serves as an exemplification of learning as a sociocultural experience, which is in keeping with the aims of my project.

Decisions I made along the research path were influenced by practical and everyday considerations more than aspirations to research glory and fame. Here, I explain some of those decisions I took regarding my project.

Technology and location

Participants used their own laptops or devices to engage in SL from any location with an Internet connection. This was because of technological constraints imposed by the University's central computing services which meant I could not obtain permission to download the software (client) to run Second Life on computers that were centrally managed on campus. The SL sessions took place outside of normal class time as an extra-curricular, voluntary activity, and research participants needed to have their own computing equipment with the capacity to access Second Life. Because participants were accessing from geographically distant locations, it made the use of technology to mediate the interaction more meaningful. I felt it would have been a little unnatural to require participants to log into a virtual world to communicate with others via computing equipment whilst in the same room.

Purpose of sessions

I wished to provide a place for international students to engage in spoken English communication, and to engage with other cultures. I did not wish Second Life to be used for formal language teaching, but I hoped for some instances of incidental learning through social interaction. This was mainly due to my inherent aversion to trying to collect and justify data pertaining to measuring improvement in language. Frankly, I do not believe it is possible to

measure language improvement in quantitative terms; it is against my epistemological beliefs. For me, if language is regarded as a sociocultural vehicle, the use of quantitative instruments to calculate progress cannot give a reliable account (Lafford, 2007). I add here that my views are in conflict with my professional teaching and assessment role, but I wanted my research to be liberated from these constraints. I feel that research into use of language needs to take a more meaningful, interpretative approach.

Data collection

A primary concern was how to record the data from the sessions in Second Life. I did not have technical support, and initially, I had no idea how I would record the sessions. I was lucky to chance upon a free course about filmmaking in virtual worlds run by a group of Second Life enthusiasts which was to provide me with the skills I needed to record my data. Films shot in VWs are called 'machinima', machine – cinema, and use screen-casting technology, which simply captures what is happening on a computer screen. I attended a fairly intensive six-week course starting in January 2014 which took place in Second Life and I not only learnt how to film in SL, but also how to edit and distribute the footage. There were other benefits; an initial basic induction into SL skills, which I needed; access to and gradual membership of a community of enthusiasts in SL leading to me renting a virtual house on 'Edunation Island'. But it was several months later that I realised that screen casting could provide a means of recording my sessions in Second Life, and thus be used for collecting data.

Timing and participation

The timing of my research project in SL meant it was difficult to recruit any undergraduate (UG) students I hoped would volunteer. Ethics approval came through at the end of May 2014 and the academic year for most UG students was coming to an end, and the summer break on most UG courses was about to begin. I received two responses from the whole student body to my request for participants. In contrast, pre-sessional international students were a-plenty, as pre-sessional courses on the International Summer School run from June to September. However, I decided to place a cap on the number of international students involved so as to keep the project manageable and within the bounds of my experience.

So, with limited resources and skills with SL, I began the small-scale project. On the positive side, I had a location in SL, a plot of land on Edunation Island, which had resources for educators (I describe these later). In addition, I had a support community of like-minded enthusiasts as neighbours on the island.

Technology and skills

Problems in the form of technology impacted on the project. These were mainly related to recording my data, and my lack of skill in Second Life.

My brand new 11-inch screen MacBook was adequate for accessing SL, but it did not have the storage capacity to handle filming long sessions, which I quickly became aware of after the first couple of sessions. I could film for around 35 minutes before I had to stop and save the footage. Another problem was my skills level in SL; to film and capture what was happening in SL required good skills in manipulating the camera controls. My dexterity as an avatar was not perfect; I was a little slow, and I struggled with more complex skills needed for manipulating the environment while at the same time juggling tasks to set up activities.

I just had too much going on in SL sessions: as a researcher, I was trying to record data; as a teacher-researcher, I was setting up activities in SL and trying to ensure they ran smoothly. For the participants, I was the guide, particularly in the first few sessions, helping them with Second Life skills, and, if no home student turned up, a fellow interactant. Consequently, I felt stress and exhaustion after each session.

Yet I learnt a lot on this researcher journey. Much of this was through chance encounters, and through socialising and becoming a member of a small community of international enthusiasts of Second Life in Second Life. Firstly, as a participant on the machinima making course, MachinEvo2014, then as a resident of Edunation Island in Second Life, for a time I became part of the community of practice, a concept I discuss later, whose books and articles I read as sources for parts of my thesis pertaining to virtual worlds.

Learning spaces

Traditionally, learning tends to be associated with certain physical spaces (Brown and Pallitt, 2014), such as, schools and lecture theatres, and with the increasing applications of technology, this can be extended to include immaterial spaces such as online and virtual. It is interesting to see the relationship between the material and immaterial spaces, particularly in social situations such as the one I set up in SL. During the sessions in SL I realised that my participants often seemed to be participating in the interaction in SL, while simultaneously participating in events in their 'real life' spaces. When I began the research the use of spaces was something I had not considered, but the way in which different spaces were used surfaced during my data analysis and became of increasing importance. It influenced the way I presented my data in graphic format and developed into a unique rendition of what I perceived to be happening across several layers of material and immaterial spaces which were intersecting and overlapping. This graphic visualisation helped to unpack the layers of interaction and show what was happening, which I discuss in depth in Chapter 4 Data Analysis.

1.3 Research aims

My aim changed and evolved over the course of the project, viewing and analysing the data, and in writing up this thesis, and finally developed into:

The aim is to understand how communication practices are affected and how interaction is shaped by spaces when international and home students and a researcher interact with each other using avatars in a social virtual world.

1.4 Research questions

Considering 6 HE students and 1 researcher from different cultural backgrounds in the context of a Second Life space:

RQ1. How do the participants manage communication and exchange information?

RQ2. How is social interaction shaped by spaces both in and outside the virtual world?

RQ3. To what extent do activities the participants are requested to do contribute to interaction and learning?

In the writing of this thesis, I call on several styles and registers of written language which I justify here. Academic work usually demands a particular way of writing, which, although fairly formal in style, may also adhere to the ways of a specific discipline (Lea, & Street, 1998). Education falls within the broad discipline of Arts and Humanities and often draws on the ways of Sociology and Anthropology. This means that it reveres reflexivity, particularly in qualitative research. In sections where my writing is reflexive the language used is more agentic and so may seem more personal. Throughout the thesis I include a series of vignettes in which my intention is to be more reflective. These sections are signalled with headings, use italics, and employ a more personal style of language. I use another register in Chapter 4, Data Analysis, that of the comic strip. I adopted this distinctive visual method to present my data in a series of comic strip stories. These are constructed as visual narratives and use still shots from my data recordings in Second Life; dialogue from the videos is incorporated as speech bubbles emerging from the figures in the comic strips. I use this to make vivid messages of the items surfacing from my scrutiny of the data. Besides presenting selections of data as stories in comic strips, I complement this with further, formal interpretation and comment. This creates juxtaposition between the ludic of Second Life, and the academic voice of the researcher writing within a discipline.

1.5 Definitions: a key to the acronyms or terms used in the thesis.

Language learning		
Item	Acronym	Explanation / definition
English for Academic Purposes	EAP	A term to describe learning the English skills required for academic study
English as a Foreign Language	EFL	Generic term to describe the learning of English for general purposes
Second Language Acquisition	SLA	How people acquire a language other than their first language (sometime referred to as mother tongue)
First language	L1	A language a person learned/acquired as a child
Second language	L2	A second (or 3 rd , 4 th etc.) language which a person learned or acquired
Home students		<i>students studying in their country of residence, for example, home, host, domestic or local</i> (Volet & Jones 2012:250)
International students		In the UK, students who are 'non-nationals' from outside Europe (Volet & Jones 2012:250)
Virtual Worlds and Second Life		
Item	Acronym	Explanation / definition
Avatar	Avi	Representations of people which can interact with others.” (Marsh, 2010, p24)
Chat	-	An open text discussion visible to all those nearby; anyone can type in text to communicate
Voice chat	-	Using the voice to speak directly through an avatar to people nearby
Instant message	IM	A one-to-one person (or more) private communication message using text
Machinima	-	Making a film of what is on your screen, screen casting, to show what is happening in virtual worlds
rez	rez	To bring a virtual object something into being in SL
Second Life	SL	Second Life, commonly known as a virtual world, is technically defined as a “multi-user virtual environment (MUVE) developed by Linden Labs” (Deutschmann and Panichi, 2009, p311)
Teleport	-	A means of moving from one location to another in world
Virtual world	VW	a place that “provides an experience set within a technological environment that gives the user a strong sense of being there” (Warburton, 2009:411). ‘immersive 2D or 3D simulations of persistent space’ (Marsh, 20CC)

The pseudonym Virfield is used to refer to the university and the city in which the research took place (University of Virfield and Virfield).

1.6 Structure of Thesis

This thesis has been structured into five chapters starting with an introduction, followed by a literature review, the methodology and then data analysis of my research project; ending in Chapter 5 with a reflection and evaluation.

Chapter 1 introduces the contextual influences regarding international students in UK HE, and my involvement as an English language teacher. It looks at the relationship between language, culture and literacy in terms of their relevance in academic study. I present a rationale for the development of social interaction skills and explain why I think a virtual world could be one space in which to do this, I state my research aim and questions. I provide a list of definitions of items used throughout the thesis for the reader.

Chapter 2 looks at the literature pertaining to the research to provide background reading to support the various themes tackled in a theoretical grounding for the research. I draw on diverse areas to show how these all combine to feed into this piece of research. I explore the following areas in relation to my research: globalisation and its effect on HE in the UK; approaches to language learning; the effect of identity on language learning; virtual worlds and learning.

Chapter 3 explains my methodological approach to the research and the theoretical framework behind it. I give details about the research project and the ethical considerations involved. I explain and justify my choice of a visual method as appropriate for analysis of my data and provide a rationale as to why stories are a useful way to highlight the themes emerging from my data.

Chapter 4 presents a selection of data using narrative in the form of comic strips, and parts of transcripts. It provides an analysis of the items highlighted.

Chapter 5 reflects on the research study, highlighting the findings. It includes summaries of the responses to the research questions and gives an account of what the research contributes to the field. There is a reflection and evaluation of the research, and recommendations as to how it could have been handled differently. I look at the implications for practice and suggest further possibilities for projects which could enhance the themes my research touched upon.

Chapter 2: Literature Review

My study was prompted by my involvement with international students and the desire to increase their confidence to participate in social dialogic learning in higher education. I provided opportunities for them to interact in a virtual world setting and I explored how this space could be used for social interaction, and as a platform for cultural exchange.

The purpose of this literature review is to connect the focus of the research, an exploration of communication practice and what contributes to meaning making in a virtual world between participants from different cultural backgrounds, to theories concerning language learning and learning in virtual worlds. The literature I draw on is situated in three main areas; (1) the field of Education, and more specifically, language and literacy education; (2) Applied Linguistics and language learning; (3) learning spaces. The review is divided into five main sections;

- Globalisation and higher education
- Learning and language learning
- Language learning and identity
- Learning in virtual worlds
- Learning spaces

I start with a brief look at the background to the context of international students in higher education. In the second section I look at how language is theorised and how this results in different approaches to language learning. This is followed by an exploration of identity and language learning. I move on to explore learning in virtual worlds (VWs) and how VWs have been used in higher education, and in language learning. The final section briefly looks at learning as being conceived as happening in spaces.

2.1 Globalisation and higher education

Globalisation is changing the face of higher education and has been instrumental in the massive increase in the number of international students in British universities. I look at the effect of globalisation on higher education in Britain and how the shift in the values attached to education has led to an increasingly diverse student body in universities.

2.1.1 Globalisation and the value of education

Globalisation can be interpreted from perspectives other than the economic one; in higher education, where value is placed on knowledge, the focus is on the exchange of knowledge and research. In knowledge-based economies, this has been extended to include the “continuous flows of people, information, knowledge, technologies, products and financial capital.” (Marginson and van der Wende, 2007:3). Within such contexts policy-makers look to universities to nurture the scientific and technical innovation to propel the high-tech nature of global industries (Torres and Schugurensky, 2002:432). However, globalisation with its focus on market values and increasing profit margins, has led to cut-backs in social spending in Britain, which the education sector has not escaped.

Over time, the values placed on education changes according to shifts in ideology and policy, and in response to the needs of those who wield power. The move towards globalisation was one such shift. Viewing it against the backdrop of earlier perspectives “situating the debate in an historical framework,” (Burbules and Torres, 2000:3), shows how globalisation has affected the value accorded to education in the early 21st century. State provision of universal education responded to the needs of the industrial society (Carr, 2003), but also had lofty aspirations related to society. The processes of public education were personalised and concerned with individuals relating to the local context in terms of identity and citizenship (Burbules and Torres, 2000:3). The socialisation of members of each generation in order “to create a loyal and competent citizen,” (Burbules and Torres, 2000:4) was seen as a worthy investment and a means of achieving social transformation (Carr, 2003). In contrast, as global markets gained importance, monetarist values took precedence and governments shied away from the Keynesian values of the labour force, resulting in a corresponding decrease in state spending on social welfare (Burbules, and Torres, 2000:5; Torres and Schugurensky, 2002:431).

With Neo-liberalist policies to the fore, the principles of the marketplace were reflected in the education policy of the Thatcher years, the 1980s, in higher education, and continue to this day. The state has gradually withdrawn funding for higher education and imposed a loan system whereby students

pay their own tuition fees. The decline in state funding has led to a bazaar-like situation with universities competing for their share of the student intake; “the highest quality goods at the lowest price and competing for students and research projects” (Torres and Schugurensky, 2002:441). Higher education has become a global marketable commodity (Findlay et al, 2012:120), and many UK universities see their numbers of international students on the increase.

2.1.2 Globalisation and International Students

Universities have become so reliant on income from international students that they have “developed complex marketing strategies to bring international students to the UK, Australia, The United States or other countries,” (Montgomery, 2010: 5). However, globalisation is affected by national government policy regarding laws and procedures stipulating ease of student visa applications. Globalisation might seem universal, but it is interpreted at a local level and is affected by several factors: the profile of the institution the importance it attaches to research; its geographical location (Marginson and van der Wende, 2007: 5). Money is only one of the reasons universities opt to become internationalised, others are: a political commitment to globalisation of the government; for economic purposes including being a local provider of jobs; for the academic interchange of ideas and to avoid parochialism; for cultural and social diversity (Blight et al, 2000:101). Vying on an international stage for takers has brought out market influences resulting in global league tables of universities which incorporate criteria such as staff research records (Findlay et al, 2011:120).

Exposure to different cultures is pertinent to both home and international students. Involvement in a culturally diverse environment is an effective preparation for working and living in a globally interactive world (Blight et al, 2000:112). So, a university with a student body from a diverse range of cultures provides both opportunities for interaction at social and academic levels. Therefore globalization, which is usually equated with economy and trade in terms of exchanges of goods, becomes a vehicle for cultural exchange (Rizvi, 2000:207).

To sum up, globalisation has had an irrevocable influence on higher education and resulted in greater movement of students, mainly increased numbers of international students in UK universities. One positive effect is the greater cultural diversity within higher education institutions, although not all students may experience this if they remain insulated socially and culturally throughout their university experience. Therefore, it may be helpful to them to encourage more integration and cultural exchange.

2.2 Learning and Language Learning

Vignette

I 'speak' five languages, but to differing degrees of competency. I speak Greek, quite fluently; I had no formal lessons, but I lived in Greece for many years. I can hardly produce a sentence in French, although I hear some phrases rattling around in my head. And yet I did five years of compulsory French lessons at secondary school, and I scraped through state exams at 16. After three years of studying German, I failed state exams in it, but I now speak German quite well, because I spent a couple of years living in German speaking countries. I have a smattering of Italian, acquired while I lived there for just four months. All this makes me wonder how people learn languages.

My own experiences have shown me that learning a language can be challenging and should be accorded respect. It is apparent that learners do not always thrive in formal situations, and success in learning is not a guaranteed outcome of formal instruction, evident from my school results in French and German. There appears to be a disparity between learning and teaching a language (Scrivener, 2011:21). Teaching is goal-oriented, has a specific aim and, it seems that, whichever methods and approach it employs, it cannot guarantee that learning takes place (Long: 2009: 381). On the other hand, learning can occur intentionally or unintentionally. For example, a tourist in a foreign resort may pick up a few phrases of the local language, or migrants may learn to speak the local language of their adopted country without formal instruction. I learnt to speak Greek quite fluently, albeit with inaccuracies, by interacting with L1 speakers while in Greece. This natural, or informal, way of learning a language sits in stark contrast to formal learning situations in controlled, simplified environments, where the teacher is the only 'fluent' speaker of the target language (Spolsky, 1989:171). Personally, I learn better in social situations and I prefer learning languages while interacting with other people. This predilection is reflected in my positive regard for virtual worlds (VWs) as social spaces for informal learning instead of places to replicate more formal teaching methods.

'Success' in any situation can only be determined when there is agreement as to what it constitutes. In language learning success could be seen as 'knowing a language', but how is this interpreted? - Does it mean being able to identify its constituent parts, systems and lexis? - Or does it mean being able to use it to communicate with others? The answers could determine how learning is to be measured and deemed successful. Furthermore, how success is conceptualised affects approaches to formal language teaching and decisions regarding what aspects and skills are prioritised. Such

fundamental beliefs about teaching and learning are often accumulated through experience and observation, but also informed by theoretical underpinning. My beliefs have undoubtedly impacted on my research project. As they probably influenced the design and purpose of the sessions in Second Life, so it is useful to trace my development in language teaching to shed light on their origins.

I stumbled into teaching EFL, completed a short, basic methodology course to learn the tricks of the trade, became hooked and went on to undertake the meatier 'Diploma' course (Diploma in Teaching English as a Foreign Language to Adults, DTEFLA). On the 'Dip', we glossed over the historical turns and trends in approaches and methods in foreign language teaching, and were encouraged to adopt aspects of the prevailing approach at the time, the Communicative Approach (CA), which emphasises mastery of the processes of communication as opposed to mastery of form (Richards and Rogers, 1986:76). Since that time, like many language teachers, I draw on a range of methods in what could be described as 'principled eclecticism' (Scrivener, 2011:33), but some practices from the CA continue to influence my teaching. These influences reflect my positionality and surface in my research project when I draw on techniques from the CA to devise activities to stimulate interaction between participants, and my 'researcher avatar' tries to facilitate interaction as a 'guide on the side'.

In this section of the literature review I look at how language and language learning have been variously conceptualised, and the impact these conceptualisations have had on teaching and learning. This section illustrates the concepts which influenced my decision to use a virtual world space for learning through socialising as opposed to more formal learning. An exploration of the ways of theorising language and language learning also serves as a reference point onto which I can map data from the research project in **Chapter 4 Data Analysis**. More specifically, in this section I look at:

- How language is conceptualised; 'knowing' a language
- Theories of how languages are learnt
- Structural approaches to language learning: Interlanguage, Input and Output
- Social approaches to learning: Sociocultural Theory and Activity Theory
- Researching language learning

2.2.1 How language is conceptualised; 'knowing' a language

Linguistics, in the second half of the 20th century, was traditionally regarded as the field of the scientific study of language. It was preoccupied with a search for universals and generalisations to explain language systems, and on the principles and processes by which sentences are constructed (Firth and Wagner, 1997; Gillen, 2014). It relied on concepts of how we learn or acquire our first language (L1), which were based on behaviorist psychology and habit formation until 1957 when challenged by Chomsky. He famously renounced the prevalent behaviorist viewpoint of language in a scathing review of Skinner's book, *Verbal Behavior* (1957), and proposed instead that everyone had an innate capacity for language. Thus, each person has the ability to produce or generate an infinite number of sentences or utterances, without having previously heard them; Chomsky (1965) sought to explain how and why children acquire their first language.

This and Chomsky's ideas of generative theory had an enormous influence on the ensuing development of generative linguistics (Gillen, 2014:15), which was built on the hypothesis that all human languages are based on innate universal principles (Lightbown and Spada, 2013:20). The concept of the Universal Grammar (UG) emerged, suggesting that how we learn or acquire our first language is biological in nature (Spolsky, 1991:89). It meant a focus on a model of language based on language as a system in which every speaker or writer adheres to an ideal model (Chomsky, 1965).

However, there are several problems with the concept of an all-encompassing theory of language. Firstly, while the notion of the innate ability for language accounts for an aptitude to master grammatical structures apparent in adult speakers, it does not encompass "levels of vocabulary, creativity and social grace, and so on" (Lightbown and Spada, 2013:22). Further, it conceptualises language learning as being mainly concerned with knowing about the features of language in general, in other words, linguistic knowledge (Ellis, 2005:142). Also, by focusing on the aspect of acquisition, it omits the social aspect of language as it is used, "the child's existing capacity for language knowledge rather than the effectiveness of engaging with others and the environment." (Gillen, 2014:16,).

The most notable challenges to the status quo of generative linguistics of the 1960s-70s came from more socially aligned approaches. Theorists developing concepts in sociolinguistics and in systemic functional linguistics seemed to rebuke Chomsky's innatist viewpoint in favour of a more social bent. Significantly, Hymes' (1962) 'Ethnography of Speaking' challenged the preoccupation with grammatical competence on the grounds that it was sterile and omitted aspects of the socialisation of speech, and then Halliday (1978), riposted Chomsky's claims, and put forward the view of language a social

semiotic, shaped by and inseparable from its functional use. This view of language as a resource for meaning making complements Hymes's (1972) theory of 'communicative competence', a major influence on the Communicative Approach to language teaching in Britain. It comprehensively defined knowing a language as not only lexis and structure, but also required an understanding of appropriacy and the ability to use it in specific and varied situations (Richards and Rogers, 1986:70). The two challenges heralded a move towards a focus on the ability to use language as a means to communicate socially, opening up SLA theory to a more contextualised way of learning (Firth and Wagner, 1997:287).

Distanced from the debate being played out in the linguistics 'community' of the western world, but later acknowledged as eminently relevant to the emphasis on language in use, are Bakhtin's theories and the socially grounded Soviet psychology, which only became available in English translation in the 1980s (Kramsch, 2013:193). Bakhtin takes the position that all language must be viewed in its social context in order to decipher its meaning, and that it is impossible to derive meaning from a sentence disassociated from a context (Bakhtin, 1986). In conversation this means that:

Any understanding of live speech, a live utterance, is inherently responsive ... Any understanding is imbued with response and necessarily elicits it in one form or another: the listener becomes the speaker...
(Bakhtin, 1986a: 68)

This highlights the viewpoint that language cannot exist in a vacuum because it is always part of a dialogue in some way, either in conversation, or in cultural expression in other media, with someone, and as such it either responds, or anticipates future responses. Drawing on social theory, language can be viewed as a historical representation of life and provide clues, as Bakhtin states:

Thus at any given moment of its historical existence, language is heteroglot from top to bottom: it represents the co-existence of socio-ideological contradictions between the present and the past
Bakhtin, 1981: 291

Thus two, almost opposing, concepts of language evolved: one views language as an innate, linguistic device where knowledge is conceived as abstract; the other focuses on language as communication in social interaction where knowledge is conceived as a social semiotic. These led to diverse theories regarding the epistemology of language and the ensuing approaches to language teaching. In the next section I look at approaches to language learning and the theoretical concepts linked to them so as to situate my approach to learning in my research project in virtual worlds and language learning.

2.2.2 Theories of how languages are learnt

Conceptualising language and language learning traditionally falls under the auspices of Applied Linguistics and draws on First Language (FL) development theories to emphasise skills development over social uses of language (Lightbown and Spada, 2006). However, contention amongst researchers and theorists has resulted in language learning increasingly taking elements from other disciplines of a more interpretivist nature, such as education, and thus drawing on sociology and anthropology. Lightbown and Spada (2006:31) categorise these theories into three broad areas:

- those derived from a focus on the learners' innate capacity for language acquisition;
- those which focus more on the environment, interpreting this as opportunities to interact in specific ways with 'an expert';
- those that look at learner engagement in a broader social context.

Various movements in language learning and their ontological origins can be placed along a spectrum between those allied to cognitive psychology, and those that draw on sociological theory. The traditional viewpoint emanating from Applied Linguistics, drawing on psychology can be contested by sociocultural theory and the notion of language emerging in social settings. Theories based on a structuralist approach hold that "Language, and the psychological process of language acquisition, are thought to reside in the head; communication, and the social processes of language use, are thought to reside in the social context," (Kramsch, 2000:133). Theories that look to the social, see language as a semiotic used to mediate the social, thus rendering it inseparable from psycholinguistic processes (Kramsch, 2000:133). Some theories specify an explicit model of nature of language, but not all; some have explicit views on learning, but no prescribed methodology. I look at some of the more prevalent theories, i.e. those which have generated attention within the field.

My aim is to contextualise the approach to language learning I follow in my research so as to show how it is positioned within the general framework and historical movements in language learning. I explore the psychological-social dichotomy of learning theory and show that my research into language learning in a virtual world relates to a social approach to language learning.

2.2.3 Structural approaches to language learning

The tension between theories that favour nature or nurture, or innatist versus behaviorist theories of language learning (Musumeci, 2011:47) was resolved when Chomsky put forward his theories of language and the 'innate language acquisition device' in the 1960s. Despite Hymes' critique, these theories

proved irresistible within linguistics, and led to an arguably disproportionate focus on research into the cognitive aspects of language learning (Firth and Wagner, 1997). Those who adhered to the innatist nature of language learning looked for justification to the Universal Grammar theory and researched the possibility of reactivating an innate capacity for language. In contrast, those who believed language learning to be learned behavior looked to behavioural psychology, and the usefulness of repetition, and gaining automaticity (Musumeci, 2011:47).

Second Language Acquisition, SLA, theory positions language learning as something acquired by the individual. Importance is placed on the cognitive development and the mental processes involved therein such as “the construction of interlanguage representations, encodings, decodings between individuals, input processing ...” (Donato, 2000:45). Emphasis is also placed on the value of negotiation of meaning and the modification of interaction (Long and Porter, 1985; Pica, 1994; Ellis et al, 1994; Swain and Lapkin 1995), and researchers became embroiled in investigating the discourse processes that occur in interaction to understand the impact of these phenomena on communication.

While there is no universal learning theory regarding SLA, research suggests that learning is a developmental process in which learners formulate their own language system of the second language they are learning, called interlanguage, which is not an erroneous version of the target language but a language in its own right and part of language development, “the language system that each learner constructs at any given time in development” (Ortega, 2007:81). From a psycholinguistic perspective, it means that classroom interaction is a necessary part of learning, and learners should be provided with opportunities to engage in ‘negotiating meaning’ in order to acquire language (Donato, 1994:34). While the concept of interlanguage was generally accepted, there was much discussion and disagreement over the importance of the following: ‘input’, new language a learner comes into contact with; and ‘output’, language produced by the learner; and what should be negotiated, which I subsequently outline next.

Interlanguage, Input and Output

Much classroom research from an SLA perspective can be broadly classed as interactionist and has revolved around three hypotheses concerning the language environment; language input; interaction; and language output (Mitchell, 2009:678). The “input hypothesis” (Krashen, 1985) places importance on the learner receiving language input at a level slightly higher than his/her developmental stage in order to progress. While from an innatist viewpoint, originating from Krashen’s input hypothesis (Krashen, 1985), the main role of interaction is to provide comprehensible input, as it is

instrumental in promoting second language acquisition. The “interaction hypothesis” proposes that learners engage in a process of negotiation of meaning to fully understand the usage of new language, and that this can be assisted by negative/corrective feedback and the proposal of alternatives in the case of incorrect usage (Long, 1996). Put simply, when learners produce new language, they need confirmation of correct use and further examples of use to enable the formulation of rules for usage.

Krashen, drawing on innatist theories of language, claims there is a natural order in which grammatical structures can be acquired by learners (Richards and Rogers, 1986:132). Based on this and other hypotheses loosely referred to as Krashen’s acquisition theory, Krashen and Terrill devised a method of learning called The Natural Approach, which focuses on language as communication (Krashen and Terrill, 1983, cited in Richards and Rogers, 1986:131-2). The Natural Approach, which evolved from empirical observations, focuses on the conditions under which learning occurs, and places importance on affective variables and meaningful communication as opposed to learning structures.

The third hypothesis also concerns interaction, but focuses on “output”. It argues that provision of comprehensible input alone is insufficient to increase learner proficiency in speaking and writing (Swain, 2000:98-99), and that learners also need to engage in use of the language in communicative situations to be able to test the rules of syntax in interaction (Swain and Lapkin, 1995). Input alone cannot be effective without some accompanying ‘collaborative dialogue’, so the learner should have opportunities to produce language, through speaking or writing, and that by engaging in this action learners receive feedback on their language development from the teacher (Swain, 1995). The reaction of expert speakers or teachers to erroneous output assists the development of knowledge of the target language for the learner (Swain, 2009, 682-3). This could focus on “negotiation of form”, which occurs when the teacher brings overt attention to learner errors either through “clarification requests, repetition of ill-formed utterances and metalinguistic comment”, thus guiding the learner to self-correct or produce “pushed” output, as categorized as by Swain (1995). It also could focus on ‘negotiation of meaning’, which happens when “learners and their interlocutors anticipate, perceive, or experience difficulties in message comprehensibility” (Pica, 1994:494) and leads to learners revising what they have said by using any of a range of strategies to communicate their message better. Lyster (2002:251) feels that negotiation of meaning alone can promote general comprehension but not develop accuracy and that teachers should try to flexibly employ techniques of form-focused and meaning-focused negotiation.

Problems with structural approaches to language learning

Research has shown that language instruction programmes cannot guarantee learning and that any development in learning a language is totally in the hands of the learner (Long, 2009:374). It seems that although language learners are constantly building up and adding to their knowledge of the target language, there is no guarantee that a learner can put this knowledge into use in interaction with others.

There is vagueness regarding affective variables, such as motivation to learn, self-confidence and anxiety (Norton, 2013:43-44). There is ambiguity as to why learners at times appear to be motivated and on other occasions unmotivated; why learners are able to speak in some situations but not in others. Krashen (1981) sees motivation as independent of social context and makes a claim for input to be slightly above the level of the learner in order to lower the 'affective barrier' (Krashen, 1981; 1982).

The term 'SLA' or 'Second Language Acquisition', used as a general term to refer to a particular approach to language learning, is itself contentious and the label 'second language' has been widely discussed (Rampton, 1990; Thesen, 1997; Dewaele, 2017). SLA theories which lean towards a structuralist viewpoint view success in language learning as attaining competence in a set of idealised forms that are made up of the rules, structures and lexis of a standard language (Norton and Toohey, 2011:416). These standard forms are less useful when confronted by the reality of living and coping in a community, which is part of the problem when international students encounter when they arrive in the UK to study. L1 speakers do not tend to consciously communicate according to any particular rules, they simply interact in order to achieve their specific goals which are characterized by the purpose and need of the moment, and in a specific context. This can be the bewildering context when international students come to study in the UK. They have usually learned a standard, idealised form of the language, they may have practiced listening to the standard 'Received Pronunciation' (RP), and if they were lucky, may have practiced speaking a little in the classroom with their L1 peers. Faced with a student or a L1 speaker from a northern British city, where the local accent differs in many ways to the 'standard' usually taught, the international student struggles to understand their utterances delivered at fast pace, and struggles even more to contribute in a conversation. It is in this context that I work and in which the study took place.

Generally, SLA theories neglect to focus on conditions in the larger social sphere where the target language is spoken (Norton, 1997; 2013:43). Any SLA theorising concerned with the social is only to compare the differences between learners as a whole with speakers of the target language and the

social distance between them, thus drawing “artificial distinctions” between the individual and the social (Norton, 2013:44). The inability of the language learner to communicate in the TL is ascribed to attitude, motivation and anxiety. These ideas originate from theories about the ‘good language learner’ (Rubin, 1975) and behaviours that are presumed to result in successful language learning. However, the tacit assumption inherent in this viewpoint is that the ‘good language learner’ can choose the conditions of their participation in interaction, and this is not normally the case beyond the classroom. In the typical language classroom only the teacher is fluent; language is controlled and simplified; and communication activities are structured into the lesson. In contrast, for the immigrant or international student, there are many fluent speakers, and language is not controlled. While it is important for English language learners to practice speaking the target language, opportunities to enter into communication are structured by unequal relations of power, and although learners wish to enter into spoken exchanges with fluent, L1 speakers, they are often denied access, “‘we’ do not let them” (Norton, 2013:41).

There are some useful points within SLA theories but they are entrenched in cognitive and mentalist orientations which rely on research from quantitative, positivist leanings (Firth and Wagner, 1997). The main criticism is that language is theorised as a universal instead of being viewed in contexts as it is actually used (Gillen, 2014). This indicates that an SLA approach is narrow and omits the influence of the social. I am more predisposed towards theories which ‘look at learner engagement in a broader social context’, akin to Lightbown and Spada’s (2006) third category of theories. While I prefer the social approach to learning, I am aware that elements of innatist and behaviorist viewpoints may surface in my practice around language learning, particularly regarding error correction. In the next section I look at the other end of the continuum and at theories which see learning as a social process.

2.2.4 Social approaches to learning

There is a stark contrast between the idea of participation in socialization of learning to learn language, and language as something which is acquired in the structural approach (Donato, 2000). Sociocultural learning theory stems from the relationship between cognitive functioning, and cultural, historical and institutional settings. Initially conceived by Russian psychologist, Vygotsky, it views language as an artifact that is socially and culturally shaped (Wood and Wood, 1996; Mitchell, 2009: 685). Language is developed to “meet the needs of its communities and individuals” (Lantolf, 2000:2) and promotes the idea of unique relationship between thinking and speaking where they are not the same thing, but neither are they completely independent: “... while separate, thinking and speaking are tightly interrelated in dialectic unity in which publicly derived speech completes privately initiated

thought,” (Lantolf, 2000:7). Language is presumed to be the vehicle for thought and it mediates knowledge and skills and thus a tension exists between thought and how it is manifested linguistically.

Sociocultural theory sees all learning as mediated by the expert who is instrumental, through interaction, in guiding the learner to bridge the gap of ‘the zone of proximal development’, ZPD, which is:

... the gap between what a given child can achieve alone, their potential development as determined by independent problem solving, and what they can achieve through problem solving under adult guidance or in collaboration with more capable peers.

Vygotsky, 1978:86

Vygotsky’s theories were developed to explain child development from which he concluded from observation that language develops naturally as a result of interaction with an expert (e.g. parent/guardian) who guides the interaction, by keeping it at a slightly more complex level than the child’s level of competency. Learning is viewed as a developmental process mediated by the materials used which include: printed materials, the environment and the classroom discourse (Donato, 2000:45). The learner is at the epicentre of a learning process, which is social and participatory, thus making the learner an agent in bringing about a transformation in learning. It would also seem to indicate we have an innate desire to pass on language skills.

Sociocultural Theory

Vygotsky’s ideas around social learning have been found applicable in other contexts. His theories invoke the idea of learning as primarily a social activity and language as the tool which mediates the cognitive process. Translated into second language learning, this viewpoint places importance on classroom interaction as learning as a social activity. Donato (1994) shows that peer scaffolding occurs between second language learners in interaction during work on language tasks, and that this probably results in individual linguistic development. This illustrates the place of the learner as “a source of linguistic knowledge in a social context.” (1994:52). Donato uses microgenetic analysis of learners’ interaction to illustrate instances of peer scaffolding. Learning, from a sociocultural perspective is always situated within a context and is influenced by the context.

2.2.5 Researching language learning

Theoretical stances about language and language learning have, in the main, evolved from research and through observational study and or testing of hypotheses. How research is conceptualised and approached impacts on the conclusions reached and much research in SLA was undertaken from a

positivist, structuralist approach. It was situated in linguistics and Applied Linguistics, and followed the traditions of psychology. Much research focused on ascertaining the cognitive processes in individual learners and how they “internalised language forms in interaction with available L2 input.” (Norton and Toohey, 2001:310). Language was perceived as a mental process and the experience of the learners was not part of the equation.

In 1997 Firth and Wagner called for a widening of the traditional boundaries of SLA to include the social dimension along with the existing cognitive model in order to redress the balance. Firth and Wagner advocated three changes:

- (a) a significantly enhanced awareness of the contextual and interactional dimensions of language use, (b) an increased emic (i.e., participant-relevant) sensitivity towards fundamental concepts, and (c) the broadening of the traditional SLA data base.

Firth and Wagner, 1997:286

This would reconceptualise SLA and make it more methodologically robust, and also result in a departure from the view of the learner as “non-native/learner” as opposed to a participant-as-language-“user”. This sparked interest in social and anthropological aspects of L2 learning and ultimately on identity, which I look at next.

2.2.6 Learning and language learning: summary and conclusions

In this section I surveyed ways of conceptualising language from structural approaches and how theories developed which focused on psycholinguistic elements and concerns with L2 input and output. I looked at some affective factors and referred to their influence on motivation. I contrasted the structuralist theories with the more recent influences from social approaches to learning.

What evolves from this brief overview of second language learning is that despite the plethora of research and SLA theories, there is no definitive conclusion on the best way to learn a language. There has been a shift from a narrowly defined structuralist view of research into SLA to a more inclusive view which has broadened to incorporate the social approaches called for in 1997 by Firth and Wagner (Lafford, 2007). Regarding the different theoretical perspectives, the common ground seems to be that in practice: any interaction is desirable, but preferably with experts; input is important, and also output, but there is debate as to how the teacher should handle feedback on output; motivation is also seen as important. In some language learning situations, notably those where the learner is resident in the target language community, researchers such as Norton and Toohey criticise cognitive

approaches and propose using a more contextualised approach to the identity of the learner (Norton, 2013; Norton and Toohey, 2001).

However, despite the ongoing research, it is left to the teacher to interpret this on a practical level as the relationship between practice and theory remains tenuous (Kramsch, 2015). I, along with many other language teachers, take recourse in some version of the Communicative Approach, “This is perhaps the method that most contemporary teachers would subscribe to, despite the fact that it is widely misunderstood and misapplied,” (Scrivener, 2011:31). Another factor is that, despite the research into SLA which can be called on to inform teaching practice, teachers may have little influence over the progress of their learners’ language development, “Students do not – in fact, cannot, - learn (as opposed to learn about) target forms and structures on demand ... only when they are developmentally ready to do so.” (Long, 2011:378). Up until the end of the twentieth century, there was a preoccupation with a search for universal features of language processes and attempts to explain phenomena as cognitive process by using methods of coding and quantifying data with scant endeavor to explain what happens in socialisation situations in context (Firth and Wagner, 1997). Norton and Toohey (2001:310) suggest we look at why some language learners are successful in interaction, and not in terms of observations as to whether learners internalise rules, but instead at “how learners are seen to appropriate the utterances of others in particular historical and cultural practices, situated in communities.” (Norton and Toohey, 2001:312).

I employ an eclectic approach to teaching that has evolved over time, and draw on some aspects of the theories I have mentioned here. This review of the literature concerning language learning enabled me to identify the theoretical underpinnings of some of my practices, but also how my research reflected my position as a teacher and language learner.

In this project, I wished to encourage a social approach to learning, and set up the virtual world space and activities with this end in mind. I drew on Vygotsky’s (1978) socio-cultural approach to learning as taking place in social interaction and I tried to encourage social interaction through discussions between pairs and small groups in a small community in virtual world setting. I called on some techniques of the Communicative Approach to language learning as I tried to devise meaningful activities in SL using notecards (see examples in Appendix I) with speaking prompts to encourage exchange of information about topics. Overall, my research stance was that language concerns meaning making (Halliday, 1978) which requires a degree of communicative competence (Hymes, 1972) and its development takes place through socialisation (Donato, 2000). I sought to promote this stance by encouraging conversation and cultural exchange between students (and

teacher) of different nationalities and ethnic groups in a virtual world setting through avatars.

When I map my own experiences of language learning onto theoretical approaches, an interesting picture emerges. Regarding French lessons at school: our teacher was 'progressive' and probably adhered to behavioural psychology – pre-Chomsky because I remember lots of repetition; we had the latest technology of the era, a language lab, and spent some lessons sitting in booths like battery hens repeating words. It was to no avail because in my French oral exam I trembled and stuttered. As for German, our teacher was obviously 'old school' of the day (I was unaware of this at the time) and looked to Grammar-translation method, which was pre-Skinner, pre-Chomsky. I remember having to translate endless texts, and do dictations in which we “scored -1 for every error” - my marks were always well into the minus scale – a negative result and experience! And I was unable to speak at all when I later went to Germany.

In contrast, I am comfortable in speaking Greek which I learnt by engaging socially with L1 speakers. Although I speak with fluency and use a sophisticated range of language, grammatical accuracy is shaky. Does this indicate that I need some kind of negotiation of form as Lyster (2002) suggests? Or according to Vygotsky's theory, more 'problem solving under adult guidance or in collaboration with more capable peers,' (1978:86)? Perhaps this success is related to motivation or identity, which I look at next.

2.3 Literature review: Language Learning and Identity

Identity can be conceptualised from different perspectives and one broad viewpoint is of “*who people are to each other*” (Benwell and Stokoe, 2006:6). In this section I look at the following aspects which are relevant to my study:

- Identity, language and language learning
- Identity and identity management in virtual worlds
- Communities of practice

I begin with an exploration of the relevance of identity and how it has been conceptualised in language learning. I go on to look at the concepts of performativity (Goffman, 1959) and communities of practice (Lave and Wenger, 1991) and explain how they can be used to frame and situate the data from my observations of online social interaction.

2.3.1. Identity, language and language learning

Language does not exist in isolation; it is used in social practices to define and negotiate relationships, and speakers construct utterances together with other speakers (Bakhtin, 1977). Bakhtin cared little for language as a universal concept, and focussed exclusively on how it was actually used to create meaning. He perceived language learning as learning to use language to engage with specific speech communities (Norton and Toohey, 2011). Factors such as context, the speakers, their relationship and historical factors may be called on to construct meaning, but at the same time, as in any social practice, there are often power struggles taking place (McKinney and Norton, 2008:193). When language is conceptualised as more than a linguistic system, and seen as a complex social practice, it means that language learning engages the identity of the students (Norton and Toohey, 2002) and social identity is regarded as important. Norton Pierce (1995) brought attention to the importance of being able to develop a link between the language learner and the social world of target language speakers, and proposed the use of theories based on social identity to do so.

Not everyone agrees with a focus which is exclusively social. Merchant (2005:304) talks about individual identities as being on a continuum distinguishing between “anchored” identities, those which are socioculturally created marked identities, for example, race and gender, and those which are not so easily constructed or abandoned such as fandom, or “transient” identities. This avoids the binary opposites view, and thus enables him to show how identity is played out by children to establish their social relationships (Merchant, 2005). Block argues that some consideration be accorded to a more psychologically based focus, because this would entail the notion of an unchanging core inner self (Block, 2007a, 2013). This is

supported by Merchant's concept of marked identities as being "anchored" (2005:304). Different disciplines have different priorities regarding identity due to their basic epistemological stances. In literacy studies, where literacy is seen as a context dependent social practice (Street, 1997; Hannon, 2000), Moje and Luke (2009) use five metaphors derived from the literature on identity to review how identity is conceptualised: difference, senses of self/subjectivity, mind or consciousness, narrative, and position. From a cultural studies perspective, often concerned with deconstructing agency in everyday practices and also rejecting universal accounts of cultural meanings (Giddens, 1984), identity is about looking for similarities which define a historically written shared culture, but also about the differences which set one culture apart from another and define it (Hall, 1990). Weedon feels we only derive a sense of who we are as individuals by searching for differences between ourselves and others in the practices that we have in common and views identity as "best understood as a limited and temporary fixing for the individual of a particular mode of subjectivity..." (2004:19).

Identity plays a part in successful language learning. As I stated previously, language is used socially to fulfil purposes, and engaging with a foreign language involves more than learning how to put words together to construct meaning; it includes interacting with its culture. "Language is a set of social conventions about how to combine words, phrases, clauses, and sentences to communicate meaning," (Gee and Hayes, 2011:15), and fundamental to the lexicon of language is the sociocultural development of the people who speak it. Learning is a social practice through which people are involved in some kind of interaction or participation in contexts. Thus, as in any interaction people need to realise their position in relation to others and to negotiate this with them.

The place of motivation in language learning is often disputed; for Dornyei it is of utmost importance:

If the person we would like to become speaks an L2, the 'ideal L2 self' is a powerful motivator to learn the L2 because of the desire to reduce the discrepancy between our actual and ideal selves.

(Dornyei, 2009, p29)

Identity is linked to motivation, frequently deemed as instrumental to success in language learning. But motivation alone, although a powerful psychological factor, is not enough and the language learner also needs to be able to create enough interactivity in situations to gain access to the desired community (Norton, 2013).

When language learners are engaged in interaction, not only are they attempting to articulate a message or information they wish to communicate, they are also engaged in assembling and negotiating their identity and how they relate to the world (Norton, 1997; 2013:4). Consideration of the conditions in the larger social sphere where the target language is used is neglected in SLA theories which focus instead on the individual and assume that any inability of the language learner to communicate in the target language is related to attitude, motivation and anxiety. This stems from the concept of the good language learner, and learner 'identities' in the 1970s and 1980s as "their fixed personalities, learning styles, and motivations." (Norton and Toohey, 2011:419). However, underlying this is the tacit assumption that the good language learner can choose the conditions of their participation in interaction, and outside of the classroom this is not the case. If the learner is unable to create opportunities to engage in interaction, this can stifle progress in the language, and thus in motivation.

The most successful learners are those who are able to create opportunities to engage in communication with those speakers of the target language with whom they wish to become peers (Norton, 1997). Norton (1997; 2001) found that amongst immigrants in Canada, the ability to employ strategies of human agency is what distinguished the most successful learners from others, who, whilst employing all the strategies of the theoretical 'good language learner' (Rubin, 1975), were unable to access social networks. To do this requires clever manipulation of situations and use of human agency to gain a position in which they have the social capital to give them a voice and bargaining power (Bourdieu, 1977). According to Norton (2000; 2010) this can be seen as an 'investment', a sociological construct which "seeks to make meaningful connections between a learner's desire and commitment to learn a language and their changing identities." (Norton and Toohey, 2011:420). The concept of investment, with the aim of gaining access to different social interactions complements, but also contrasts with, the concept of motivation with roots in psychology (Dornyei, 2009), and its fixed, unitary perceptions of personality. From the interpretivist viewpoint of reality as a social construct view, it is difficult to generalise and conceive of learners as being labelled in such binary terms as motivated or unmotivated (Norton, 2013). Consequently, Norton and Toohey (2011) believe both investment and motivation to be essential to success in language learning.

To sum up, language is used to create meanings in social interaction. However, skill in a language alone is not enough to gain entry to a social group; the learner needs to be able to create enough interactivity to make opportunities to participate socially. On EAP courses, such as pre-sessional courses, international students are viewed principally as prospective entrants on university undergraduate and postgraduate courses and so are presented

with a narrow set of identity options. The scope for language and identity development is limited to their potential value as students in academic situations because what counts as knowledge becomes restricted to that which is needed to progress into the University's full-time courses. Therefore, their language development is very much focused on academic language and skills. If international students can be offered a broader range of practices, then based on these identity theories, this could potentially extend their identity options.

My aim was to find expert users of the language of the dominant group in the university (English) and to arrange opportunities for international students to interact socially online with them. The purpose was to give learners of English opportunities to develop strategies to create interactivity (Norton, 2000), and to extend their language skills. My hope was that the students would be able to make an 'investment' in that socio-cultural context and identify with it as active participants. I chose the online social setting of a virtual world, where interaction would be mediated through an avatar, and in the next section I look at identity in virtual settings.

2.3.2. Identity and identity management in virtual worlds

The term 'virtual' is contentious; semantically it is the opposite of 'real', implying a lack of authenticity or a simulation (Benwell and Stokoe, 2006). The notion of identity is also contentious and can be theorised in different ways. In this study, I take the viewpoint of identity as being socially constructed and "whatever people agree it to be in any given historical and cultural context," as opposed to an absolute essentialist approach which locates identity inside persons (Benwell and Stokoe, 2006:9).

Virtual worlds have been hailed as the ultimate identity playground, and for some their attraction lies in their capacity to provide a means for individuals to redefine themselves and to explore other perceptions of identity (Childs, 2011:29). They provide opportunities to become immersed in situations both mundane and exotic which can stimulate social interaction by means of written text chat or voice chat through the embodiment of their identity in their avatar (Gee and Hayes, 2011:12). However, the idea that peoples' online identities are different to their 'real' life identities is disputable, especially when identity is seen as discursive. Although, due to the indeterminate nature of online spaces, identity might seem "*more unstable, more performed, more fluid*" (Benwell and Stokoe, 2006:245), in constructionist terms all identities could be considered as virtual due to their consistent state of flux. Benwell and Stokoe (2006) dispute the idea of a virtual identity that is separate and distinct from a real-life or off-line identity and conclude that "virtual worlds strive to *recreate* conditions of RL rather than to forge radically new ways of conceiving relations, communities and identity," (p278). My aim was to create

a space for students in a virtual world, similar to a rehearsal space; I wanted them to view interacting in that online space as connected to possibilities for 'offline' interactivity.

One way to explore the interaction occurring in VWs is to use theories of impression management and Goffman's (1959) theory of performativity.

Performativity

Goffman's (1959) dramaturgical model provides a useful way to view identity and analyse social interaction which is equally applicable today, and can be used to observe different modes and means of interaction. Goffman's (1959) assertion is that performativity is an integral part of social interaction, and, using the metaphorical language of the stage, he likens it to a theatrical performance in which the participants perform to maintain "a single definition of the situation" (p10). During '*front stage*' interaction participants perform to maintain socially acceptable behavior for the behalf of all present, but in the privacy of '*backstage*', the mask falls and the individual's behavior may differ (Davies, 2012:21). This dramaturgical perspective provides a lens through which to view social interaction which can be applied to online spaces in order to make sense of what occurs (Bullingham and Vasconcelos, 2013; Davies, 2012; Marsh, 2011:103). In virtual spaces, the online space is the '*front stage*' for the performance, while the physically or geographically positioned real world is the '*back stage*'. In this thesis, I used Goffman's dramaturgical model to frame and make sense of the interactions which occurred in online and offline spaces in my research study.

The principle areas involved in the act have specific purposes. The '*front*' is for the benefit of the observer or audience in a performance and includes setting, appearance and manner; contextual items could be personal items relating to the performer or include "insignia of office or rank; clothing; sex, age and racial characteristics; bodily gestures..." (p21). The social front leads the actors in a situation to play out their parts in the scenario as in, for example, a doctor and patient performance. The back region supports the front, and is the area where illusions and the devices used to create them are kept. As in any theatrical performance, the backstage area is closed to the audience so that the mysteries which contribute to the performance remain secret, and the actors can discard their masks. Backstage regions tend to have fewer restrictions, and Goffman suggests that in western society, they are associated with more intimacy, informal language and behaviour (p111).

Individuals invest much skill and consideration into performances, and audience segregation is an important part of managing the performance. Specific roles are enacted for particular audiences and should be kept separate from other roles; it would be inappropriate to play multiple roles to

the same audience (Goffman, 1959:43). For example, a doctor should maintain a particular role with a patient and not enact the role reserved for other audiences in other performances, such as that of his/her spouse.

The regions involved in the performance may be separated by physical or virtual barriers to perception, but to maintain the illusion of front stage, they should remain separated (p97). As well as front and back regions, a third region exists, which Goffman calls 'the outside'. This encompasses anything beyond the boundaries of these two areas, and any individuals found in this area are referred to as 'outsiders' (p117). If for some reason segregation fails, and an 'outsider' chances on the scene of a performance intended for another audience, the performer may be "temporarily torn between two realities" (p121), face the dilemma of which audience to perform for. The performer must decide whether to accept the intruder into front stage with his audience, or make the performance with the outsider the main act, front stage, and temporarily shift the audience to back stage, thus making them backstage conspirators. I observed instances of this occurring and showed how the 'performers', my participants, reacted.

When social interaction is viewed as a performance, we might be tempted to question what is sincere and what is contrived, and whether a true reality exists. Performances in the theatre are contrived and are the result of much hard work behind the scenes in an effort to present a flawless act. Likewise, social performances, are the polished creation of an individual who has worked to produce a contrived enactment for a particular audience. In this model, the real performance, "something which is not put together but is unselfconscious response to the facts in the situation of an individual" (p61) occurs off stage, and what passes for reality front stage, is contrived in terms of sincerity. However, to seek an absolute reality would not be in keeping with an ontological stance which adopts a view of identity as being socially constructed. Seen in this light, identity becomes a discursive construct emerging from the context of social interaction which can operate on multiple levels simultaneously (Bucholtz and Hall, 2005). Therefore, questioning of sincerity, contrivance, and reality also become discursively aligned to the region we focus on in relation to a particular performance, and from the perspective of the players involved. In using an analogy to 'performance' Goffman suggests that in the frontstage space individuals conform to some established rules of behavior. Thus, implying that backstage, the individual is true to their 'real self', which cannot be the case because a backstage space is only relative to one performance. I later show how spaces might be perceived simultaneously as frontstage or backstage for my participants depending on the perspective from which they are viewed.

Goffman (1959:9) suggests that individuals manipulate their identity in social situations to convey the impression of the self they wish to project in collusion with others who are present. We can only obtain a snapshot view of the individual at any given time, which has been manipulated in a cooperative performance in conjunction with those present to project whatever aspects of identity the individual wishes, “Positioning is dialogic: one positions oneself and is positioned by others.” (Simpson and Gresswell, 2012: 2). So besides having multiple identities, which can be projected according to the situation, the individual can knowingly choose to reveal or conceal information in social interaction, thus making them an agent in the process of identity construction.

Goffman (1959) emphasises the significance of contextual items front stage and their influence on how identities are performed. He suggests that we conform to norms and the performance tends to incorporate and “exemplify the officially accredited values of society” (p45), which may account for the fact that in virtual worlds avatar choice reflects the gender of real-life (Mitra and Golz, 2016). Online, the environment is also important with props and staging contributing to the performance (Dyer, 2015:219). In a virtual world, these would be the rendition of a particular context, the avatar representing the individual, and the modes and means of communication available. For example, if the virtual world scene comprised rows of desks in front of a whiteboard, it would be indicative of a particular type of classroom structure and suggest the ensuing interaction patterns and levels of formality – teacher up front, leading and in control. As an offline social construction, the classroom setting, when reproduced in a virtual world, would invite identity performances grounded in offline social norms and expectations. This is somewhat dependent on the individual being able to recognise the particular situation, or Goffman’s ‘definition of a situation’ (Van den Berg, 2008:65), but also having some experience in the expected behaviour required for the part in the performance, which this might not be universal. Nevertheless, Van den Berg (2008) believes that contextual cues or scripts, based on “*shared cultural meanings*” (p220), to some extent assist us in the choices of how to act.

Goffman developed his ideas for face-to-face situations and defines performances as:

“all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers.”

Goffman, 1959:19

When applied to online situations, particularly in the case of the virtual world, Second Life, ‘*all the activity*’ would potentially involve a range of modes

available to the avatar 'in-world', and include the individual speaking into the microphone of a digital device as the voice of the avatar or tapping out text chat on a keyboard. As the regions that Goffman defines become blurred, I introduce the concept of a region, neither exclusively online, offline or in-world, but at the interface between the real and the virtual, the interstices, as referred to Savin-Baden and Falconer (2016).

There are seemingly boundless opportunities to engage in impression management in Second Life, when individuals engage in interaction through their online persona, i.e. avatar. It would seem to be the perfect opportunity to engage in identity play, or persona adoption. Despite the potential for the presentation of self as another, researchers of online performativity, find that this rarely happens (Bullingham and Vasconcelos, 2013; Uski and Lampinen, 2016), and instead individuals choose to project certain elements of their identity front stage and hold others back, in other words 'embellishment of self'. This work reinforces Goffman's theory that the individual develops a 'front' presentation of for the purpose of interaction with others. In this study I noted what elements from their outside lives my participants brought into front stage, but also found that unexpected elements broke through the barriers between regions as I show in Chapter 4 Data Analysis.

2.3.3. Communities of practice

An individual has many identities, or many ways of being, which are socially constructed and context dependent and so identity can be examined in the light of the social groups in which a person takes part (Gee, 2000:990; Norton, 2015:4). Identity is affected by context and can fluctuate depending on how we relate to others in a particular social context, and also how we view ourselves in relation to them (Gee 2001; Moje and Luke, 2009:418). This social view of identity allows me to draw on Lave and Wenger's (1991) communities of practice concept as a model of learning and a way to situate an account of learning as occurring in groups.

Wenger (1998) defines a community of practice as a joint enterprise which functions by connecting its members in order to work together to achieve communal resources. The person is a valued social participant in learning which is shaped through the experience of negotiating meaning-making in a community (Wenger, 2010). Learning is not viewed as an independent activity, but as a feature which occurs through being a participant in community practice in which members gravitate from being on the periphery towards full membership as they negotiate their way in the community (Lave and Wenger, 1991). In this model, identity is situated within social practice and talk (Benwell and Stokoe, 2006), and individuals are viewed as actors in their communities, thus rejecting essentialist concepts of identity.

Communities of practice are defined by social engagement and emphasise “the shared experiences of social beings” (Benwell and Stokoe, 2006:27). The online world of Second Life can provide opportunities for people to come together and interact to form communities of practice. Such communities incorporate a dimension of shared activity and communication and are compatible with a social and dialogic view of learning, (McLoughlin and Lee, 2007:671). Drawing on this view of learning, I explored instances of learning concerned with language development and meaning making occurring through social interaction in Second Life.

The communities of practice model offers a way to view learning. Oliver and Carr (2009) used it to look at the process occurring in online role-playing games. The process focuses on how participants move from the periphery to full membership in the community. Wenger (1998) sees success as being able to negotiate participation from a position of exclusion to one of identification with the community. In my analysis, I drew on the concept of a learning trajectory and extent of identification with the community to explain the interactions of participants in my study.

2.4. Literature Review: Learning in virtual worlds

Vignette

I stumbled across the concept of virtual worlds (VWs) in a session at a language learning conference in Spring 2010. At the time, the mobile-enabled Internet explosion was yet to come with its Smartphones and digital peripherals. VWs, including Second Life, had a high profile in the conference, and they were buzzwords amongst the tech crowd in language learning. Initially, I struggled to grasp what the presenters were referring to. Then I could hardly believe it. I was fascinated, and hungered for more. I decided to research this area, and started my doctorate studies in Autumn 2010. I next attended the same conference in Spring 2015; there was no mention of Second Life, or VWs on the programme. I felt a fleeting sadness and wondered why the hype about VWs had dissolved so quickly. I continued to write up my research account of Second Life into this thesis,*

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A virtual world, is a persistent virtual environment which people can enter by adopting the form of an avatar to interact with other avatars (Schroeder, 2002:1; Marsh, 2010:24). Virtual worlds support synchronous interaction through the use of computer-mediated communication (CMC) in online spaces, which means that communication is not direct, but mediated by and through the virtual environment (Childs, 2010:198). Sometimes referred to as “multi-user virtual environments (MUVE)” (Deutschmann and Panichi, 2009:311) due to their capacity to provide an environment for large numbers of people to interact simultaneously through the embodiment of an identity other than their own, an avatar, the vivid experience they offer “gives the user a strong sense of being there” (Warburton, 2009:411). This sensory constituent of VWs, the feeling of being present is an essential component of any description of a virtual world (Schroeder, 2008). It is this capacity to provide an immersive experience combined with a high level of interactivity that distinguishes them from other online social spaces. In this thesis by ‘virtual world’, I refer to a computer-based, multi-user virtual environment that simulates life in a physical or fictional world (Loke, 2015) and where users interact with the environment and each other by manipulating a digital character or avatar using keyboard and mouse (Loke and Golding, 2016).

The unique characteristics of VWs made them attractive for educators as potential learning environments; often as a component of courses in distance or blended learning mode, but also for on campus delivery. My interest in this project was in the use of VWs as social spaces, where international students would have chances to participate in interaction with other users of English,

L1 or L2 users, and in how spaces both in and outside the virtual world contributed to managing communication.

In this review, I start by looking at what attracted educators to VWs and how they have been used in higher education and in language learning. I go on to explore how their use could be conceptualised in relation to learning theories and critically review research concerned with learning and communication in VWs. To conclude I look at the possible reasons for the decline in interest in VWs. The section looks at:

- Affordances and uses of VWs in higher education and language learning
- Learning theory and VWs
- Issues with the use of virtual worlds in education
- Researching language learning in virtual worlds

2.4.1 Affordances and uses of virtual worlds

Of the many virtual worlds in existence, my research concerns one called Second Life (SL), created by Linden Lab in 2003. It is free to join, open to the public, and contains a myriad of user-generated 3D virtual scenes, many of which are replicas of real life contexts, past or present, such as ancient Rome or modern-day Paris, built or created by SL users, otherwise known as residents (Peachey et al, 2009:xx). Thus, SL self-consciously recreates the 'real world' in a parallel context that is similar, but different. SL is not goal oriented, does not have a narrative thread, and so is not a game in the way that online virtual games such as 'World of Warcraft' are (Warburton, 2009). Although its users can create their own storylines through role-play or other means, Second Life is a social space where web technology enables a kind of interaction between avatars which represent their human owners (or creators).

VWs have been used in higher education since interest in them as learning environments exploded at the beginning of the 21st century. In the case of Second Life, this popularity seems to have reached its peak around 2008-9 (Kim and Lee, 2012; Wang and Burton, 2013). Educators were attracted to them due to a combination of several features. Firstly, VWs could provide authentic learning experiences at lower cost than physical campus based facilities (Herold, 2012); initially SL offered 50% discount set up incentives for education (Wecker, 2014). Besides, when compared to a simulation based on 2D media, such as film or animation, the affordances that support interactivity in a VW are richer and increase the possibility of spatial learning (Dalgarno and Lee, 2010). In addition, they offer relatively risk-free environments for experimentation (Dalgarno and Lee, 2010; Gregory et al, 2015) which means learners can take part in scenarios and make mistakes without real world

repercussions (Savin-Baden, 2008; Savin-Baden et al, 2010; Loke and Golding, 2016). The experience of using a virtual world is defined by two distinguishing features which do not occur in other forms of online learning; the “sense of *space* they convey, and the digital *self-presence* of the user within that space.” (Childs and Peachey, 2013: v). Their potential in education seems to centre broadly around three areas: their capacity to support scenarios, situations and role plays; their capacity to foster presence, the feeling of being there; their application in computing related courses concerned with exploring the affordances of the medium (Savin-Baden et al, 2010:131). The first two rely on problem-based learning and involve decision making and teamwork, and VWs have been used to provide immersive environments for simulations and role play, like accident investigation and risk assessment (Falconer, 2013) and home visits in health care (Wilson et al, 2013).

For language learning, 3D virtual worlds such as Second Life offer a rich environment; the main attractions being the affordance of interactivity and the capability to foster presence, the relevance of which I explain in more detail in the next section, *2.4.2 Learning theory and virtual worlds*. VWs can support various modes of computer-mediated interaction (CMC) in synchronous situations either through text or voice chat. They offer a sense of movement via the means of an avatar, in spaces and constructed scenarios, and even in the different countries, within the virtual world of Second Life (Canto et al, 2013:116). Learners can meet and engage in social interaction with L1 speakers (Thorne, 2008; Kern, 2014) either as part of a language development programme in structured lessons (Peterson, 2010, 2011, 2012), or during individual exploration in SL. Although communication is mediated by a software created environment, a strong sense of ‘being there’ is created through the highly developed visuals (Cooke and Plagwitz, 2008). This is not limited to the individual ‘being there’ in a virtual space, but extends to include ‘being there with others’, in other words, ‘co-presence’ (Dalgarno and Lee, 2010). Cyberspace can provide communication opportunities in creative ways on virtual world platforms to use “L2 in ways that are creative, individual and exploratory, yet without posing a threat to students’ real-world identities and private selves.” (Ushioda, 2011:207). At the height of their popularity, for some language educators, the attraction of SL was its rich variety of virtual locations and large international membership of residents (Cooke-Plagwitz, 2008:547). Learners could make virtual excursions to replicas of real world locations, such as Notre Dame, or cities such as Moscow, London or Tokyo, and as a social environment it meant encounters and interaction with residents were possible either by prior arrangement or by chance.

Besides the novelty of feeling present in visually motivating landscapes, SL can provide stimulating scenarios for role-play and scope for avatar identity

manipulation (Godwin-Jones, 2005). Previously in this chapter, 2.3 *Language learning and identity*, I indicated the significance of identity in language learning, and proposed that Goffman's theories of impression management might provide a suitable lens for exploring the interaction occurring in SL interaction. The avatar is an important feature and defining characteristic of the experience of using social virtual worlds like Second Life. Avatars become "projections of fictional selves" in virtual worlds (Gillen, 2014:2-3) and the environment can provide opportunities to experiment with identity (Turkle, 2008:125). While often this entails customising the virtual bodies to look appealing, skill in identity manipulation is accorded with respect amongst long term residents of SL, and those new to SL, 'newbies', are easily identifiable by their choice of standard avatars, with standard attire. As skills and know-how of how to manipulate the environment develop, residents adapt and change their avatar. I recall my avatar choice and development in SL.

Vignette



Figure (i)
Aneloz 1st

On registering for Second Life the first task is to choose a name. I wanted to be "Anneliz", a derivative of my real name, but it had been taken. Instead, by changing 'i' to 'o', I became Aneloz, – a practical solution, but many assume I am of Latin origin! The next task is to choose an avatar as your virtual representative and I chose one of the standard models available at the time, a female with long, spikey, black hair, which reminded me of a younger self. Later, when I acquired more skills, I tried to make it look older, by giving it grey hair, and to make it stouter - to reflect the 'real me'.

I learnt to manipulate my avatar's appearance whilst on a machinima making course in SL, (machine + cinema) in order to be a virtual actor (my avatar) and play different characters in the short film we made. I also learned to film shots around the other 'actor' avatars as a camera person and how to become invisible to do so.

I adopted my final form of avatar to attend the 'Machinima Oscar' award ceremony on completion of the course, Figure (ii); this might be likened to my core avatar identity.



Figure (ii) Aneloz
the researcher

And, there is vanity: building a new body in a game like Second Life allows you to put aside an imperfect physical self and reinvent yourself as a wonder of virtual fitness. Everyone on Second Life can have their own "look"; the game enables a high level of customization, but everyone looks good, wearing designer clothes that appear most elegant on sleek virtual bodies.

Turkle, 2008:125

The anonymity of communicating through an avatar can have a positive psychological effect. It provides a sense of detachment which lowers inhibitions and promotes social interaction (Bell et al, 2010:189). Lowering of the affective barrier can help create the conditions under which learning occurs (Krashen, 1985), and this, combined with the novelty value of virtual worlds, may be attractive to young people, and counter anxiety, thus leading to increased levels of participation (Reinders and Wattana, 2011). Empirical studies indicate that compared with performance anxiety in the classroom, students found using language in a virtual environment less stressful (Grant et al, 2013); students speaking Spanish with a L1 speaker during activities reported an increase in self-confidence and a decrease in nervousness (Melchor-Couto, 2016). However, the effect on anxiety may only be for a limited time. Melchor-Couto (2016) found that although initially, the level of anxiety of students in VW environment was lower than that of other students completing the same activities in a classroom, after several sessions it seemed to decrease as students became more familiar. This seems to indicate that familiarity with interactants is a stronger factor than the anonymity of the avatar mask. This indicates that while the anonymity of the avatar may initially be an anxiety reducing factor, it is less important than building relationships in the community.

2.4.2 Learning theory and virtual worlds

From literature reviewed, it would seem that between 2003 and 2011, the main usage of VWs in education was to simulate spaces, i.e. reproduction of reality using avatars, objects, tasks, and to a lesser extent as spaces for communication (Kim et al, 2012). Most empirical research was published in the subject areas of teacher education, language education, business, hospitality and tourism, computer disciplines, and as regards pedagogy, “researchers explored SL mainly for its potential to foster constructivist and experiential learning.” (Wang and Burton, 2013:365). The focus of studies varied according to discipline; in the fields of language education, science education and computer studies, emphasis was given to learners’ achievement, whereas in general education it was on affective domains and interaction among learners (Kim et al., 2012).

Course design and pedagogy should aim to reflect the ontological and epistemological stance of educators; criticism of early use of VWs in HE was that all too often it relied on transmission methods and adopted a cognitive approach where knowledge acquisition was seen as linear (Savin-Baden, 2008). Using transmission methods and trying to replicate the typical classroom situation in SL seems to contradict the relaxed, stress-free experience the environment promotes (Bell et al, 2010). In a review of VWs in management Klein et al, (2017:281) found that between 2003 – 2016, instead of bringing in more innovative ways of using VWs, educators often mirrored

traditional classroom practices such as presentations. A general criticism was that much research into VWs tended to be descriptive, and there was a lack of evidence which focused on learning outcomes, or compared virtual world learning situations with control groups in traditional learning situations (Gregory et al, 2015:4). Such comments suggest that the unique affordances of the environment to support social interaction were not always being exploited, which meant they were ignoring the trend towards a social approach to learning in education. This was something I wished to avoid in my research. I set up situations that allowed a more social approach to language learning and where the participants could get to know each other (whoever they were in the VW), and benefit from being 'outside' the classroom'. Another criticism was that research into their use was not rigorous, and so in this study, while interpretivist in nature, I tried to be as thorough as possible.

Some educators clearly advocate more innovative practice. Savin-Baden (2008) believes universities should exploit the opportunity to create uncertainty and social reform in "immersive learning spaces where learning is liquid and knowledge is on the move" (p158). Minocha and Reeves (2010:112) focus on design of the virtual learning space stating that it "should be a representation of an educator's or institution's vision for learning". From empirical enquiry into the design and use of learning spaces in VWs, Minocha and Reeves (2010) conclude that in SL it reflected a trend towards more social learning, and was "being utilised to foster creativity among students, aid socialisation, facilitate informal learning and enable exploratory and experiential learning rather than traditional instructional ones." (p133). Virtual worlds are a relatively recent phenomenon, but there is evidence of underpinning pedagogy and a growing body of research into their use. Next, I look at learning theories and the pedagogical perspectives educators call on, and explore how they relate to learning in virtual worlds.

I have previously mentioned Vygotsky in the context of language learning, section 2.2.4, and the concept of communities of practice, 2.3.3, but here I mention them again in the context of learning theories and virtual worlds. The learning theories drawn on tend to fall into three approaches: social constructivist, situated learning and experiential learning (Savin-Baden et al, 2012) and, as pedagogical approaches to learning, they look to collaborative, experiential, action and problem-based learning (Dass et al, 2011). One way to view the theories called on to underpin empirical work in virtual worlds is in terms of the learning mechanisms they draw on: reflection, verbal interactions, mental operations, and vicarious experiences (Loke, 2015). These can be perceived as relating to the following five learning theories (Loke, 2015): experiential learning calling on the mechanism of reflection to make meaning of concrete experience (Kolb, 1984); situated learning which

views how human beings think and act as being linked to the social cultural context as opposed to residing in the individual (Lave, 1988) and learning occurs through increased participation in communities of practice (Lave and Wenger, 1991); social constructivism following Vygotsky's theories (1978) that learning is not only related to the external environment of an individual, but occurs during the transformation of knowledge during internalisation resulting from social practices; constructivism whereby learners construct their own knowledge based on their interpretation of the environment; self-efficacy, the personal belief of an individual as to their capability in performing a task (Bandura, 1997). Whilst aspects of these theories can be applied to virtual world learning using the previously mentioned mechanisms, it is debatable whether learning which is based on actions, or physical sensorimotor experiences in the virtual world can be applied to real-world situations. Loke (2015) firmly rejects this idea. So, while students may observe, discuss, verbalise and reflect on virtual world experiences, it is not possible for them to have any physical sensorimotor experience (e.g. being able to touch, smell or taste) in a VW and then apply this to real world phenomena. Also important is to consider what occurs in the interface between the virtual and the physical and how transitions and transactions, in other words "learning permeability", transpire (Savin-Baden and Falconer, 2016:992). When learning involves simulation in the virtual world we need to consider how what is learnt transfers or not to the physical world. Savin-Baden and Falconer, (2016) suggest the concept of metaxis, the state of being able to simultaneously inhabit a dual set of spaces, can account for students' ability to transfer learning. In a risk assessment exercise in a virtual world environment, students retained their own identities and also "demonstrated a strong sense of being present in the physical world and the virtual world at the same time" (Savin-Baden and Falconer, 2016:996).

There are no specific theories which account for language learning in virtual worlds, but theories which emphasise the value of interaction and collaboration as integral to learning are of relevance (Sadler, 2012:56). Tang et al (2015), drew on Lave and Wenger's (1991) situated learning theory, to establish that language acquisition and competence in communication can occur "without explicit teaching of grammar or vocabulary" (p20) in a virtual environment. Vygotsky's concept of learning being a social process occurring in the zone of proximal development (ZPD) during interaction with others can be applied to virtual environments (Sadler, 2012). Sadler (2012) adds the need for two other concepts related to SLA: Long's (1981) Interaction Hypothesis that language input should be comprehensible; Ellis' (1991) belief that interactants should be of a similar social status, and tasks they engage in should be designed to promote the exchange of information. VWs offer an immersive experience and can support communication using voice or text. However, it should not be forgotten that

communication in the virtual world is mediated, and the effect of this is of interest to me as a researcher, “What is thus significant about various tools—such as computers, writing, or language itself—is not their abstract properties, but rather, how they fundamentally transform human action.” (Warschauer, 2005:1). Levy (2009) rightly points out that the advantage for students of engaging in a virtual world lies “in being able to transfer the linguistic skills acquired in the virtual world to the real one.” (p777). If learning is viewed as occurring socially and draws on the learning mechanisation of verbal interaction, then what is learnt can later be applied in the real world, as Loke (2015) claims.

In HE there are sound pedagogical reasons for using the immersive affordances of VWs to provide convincing scenarios for problem-based learning (Good et al, 2008; Moschini, 2010), especially in tasks such as medical simulations (Savin-Baden, 2006). VWs have often been used in disciplines where students benefit from experiential learning, such as in health care (Toro-Troconis et al, 2010; Loke et al, 2012); criminal law advocacy (Barnett & McKeown, 2012); climate change education for tourism students (Schott, 2017). Active exchange of ideas through exposure to others’ perspectives and discussion is an important part of a social approach to learning (Minocha and Roberts, 2008:184), and, in some cases, the use of VWs offers an invaluable interactive way in which to make activities available for students not studying on campus as, for example, in the virtual courtroom exercise which offered “a setting in which advocacy came to life for external students, giving greater scope for motivation, engagement and a more meaningful learning experience” (Barnett & McKeown, 2012:58). Scullion et al (2015) confirmed that use of a 3D virtual world for project work empowered and motivated computing students, and contributed to an improvement in their levels of self-efficacy. These examples show that VWs can enhance learning, particularly for those studying at a distance. However, consideration needs to be given to how and why they are used, which I look at in the next sub-section.

Immersive technologies like VWs can support the sense of presence, particularly social presence (Minocha and Roberts, 2008; Dalgarno and Lee, 2010; Bronack, 2011; Wimpenny, 2013), important in promoting a pedagogy based on social-constructivist learning approach. The feeling of immersion, the degree to which a person feels a part of the environment, or “situatedness” (Dede, 2009), adds to the learning as it promotes a strong sense of community between those present and the avatar is an important element, because it enhances the sensory feeling of presence arising from participating in the virtual environment. The concept of social presence evolved due to the development of mediated interaction, and is a salient factor of any kind interaction in distance education (Satar, 2015:29). In this

study, I took the relational view of social presence as Satar (2015:481) defines it as “a quality of participants to establish and maintain social and affective connections with others in interaction and their ability to project their self into the community.” While VWs are graphically stimulating environments, the conduit through which users express themselves, the avatar, has a limited repertoire of visual indications of presence, as I enlarge on in the next paragraph. But social presence is not only endorsed by the virtual world environment, it is also determined by the communication skills of the individual. Some of the features that contribute to creating and projecting social presence include: “questions, backchannels, reciprocation, listening and paying attention, collaboration, chronemics, turns and silences” (Satar, 2015:497). Satar (2015:498) found that social presence is specific to the individual, and is “dynamic and co-constructed during interaction”. A further component of immersion is suitable provision for social interaction, “a persistent social space to facilitate and to encourage serendipitous interactions between and among students, faculty, and others” (Bronack et al, 2008:61). In this way, a broader social view of learning as occurring in communities of practice could be encouraged. Bronack et al (2008) develop Presence Pedagogy (PP), for learning in virtual communities in which everyone is a “potential instructor, peer, expert, and novice” (p59), and which draws on social constructivist theory and employs collaboration and reflection. In a community of practice, CoP, the concept may hinge on an increase in competency through the association of a learner with an expert (Moschini, 2010:35), but both the learner and the teacher or instructor gain from social interaction (Wenger, 1998; Bronack et al, 2008). This model gives prominence to participation and interaction as opposed to delivery and transmission of content and knowledge, and exploits the virtual world as a social environment. Devlin et al (2015:417), drawing on CoP model, observed how young people managed to bond as the group matured, and were able to self-regulate and attend to their own problem solving.

Much rests on the avatar, visible to others within virtual proximity as the mediator and virtual representative of participants, to instill the sensation of presence and co-presence. Avatars have the ability to move in virtual space and communicate with “in real time through chat and gestures”, (Peterson, 2011), but their bodily repertoire is limited and stylised when compared to human face-to-face interaction (Minocha and Roberts, 2008; Deutschmann and Panichi, 2009:312). In communicative situations in SL features of interaction used in f2f situations are lacking. Avatars are hopelessly inadequate at using gesture and body language resulting in a low repertoire of expression; Barbosa, the avatar of Sobkowiak comments that “a motionless avi with a frozen face and unsynched lips is obviously a worse conversation partner than a RL person,” (Sobkowiak, 2012). And yet this feature is also one of the reasons why SL provides an alternative to

classroom or real-life teaching situations; the affordance of having the mask of an avatar to hide behind is difficult to replicate in RL. Some believe that avatars need to be more responsive and better able to display feeling (Petraou, 2010; Panichi, 2015; Tan et al, 2016). The avatar as the virtual embodiment of the user needs to be a convincing part of the immersive experience so the user can project an online identity (Dalgarno and Lee, 2010), and Panichi (2015) suggests language learner activity would be improved if avatars were more credible. Tan et al (2016) found that language students had communication problems in SL activities due to the inadequacy of avatars to use gestures, facial expression and employ gaze purposefully in interaction. They believe the technical affordances need to evolve further so as to enable richer meaning making and thus contribute to learning (p270). The problem seems to hinge on knowing when to respond in social interaction, which in VWs is dependent on audio clues, which would tend to be language based, as Satar contends (2015). On comparison of interaction using audio-conferencing and video-conferencing, Guichon and Cohen (2014) concluded that the visible indicators available during video interaction assisted flow of conversation, indicated by fewer pauses. However, the whole experience is not exclusively dependent on the avatar relationship. Falconer (2013) found that while some students did not feel a strong affinity with their avatars, they did feel a strong sense of the situation of the virtual VW. This is significant, because if students do feel a strong sense of the situation, it is a positive indication of situated learning (Wimpenny, 2013).

Related to the immersive experience, Dalgarno and Lee (2010) maintain that the quality of the graphical interface plays a significant role. It accords its users with a sense of presence and co-presence, which not only results in richer online identity construction and thus more effective collaborative learning, but also can result in more effective transfer of knowledge from the virtual environment to the real world. They show how “representational fidelity” and “learner interaction” are salient factors contributing to learning benefits in a proposed model of learning for instructional design (Dalgarno and Lee, 2010). But design for learning needs to consider learning outcomes and learning objectives b Fowler (2015) questions the overdependence on technological factors in designing learning activities in VWs, and so extends the model framework to include these pedagogical considerations. Such proposals call on an instructional design framework, which seems indicative of a structured way of learning. Virtual worlds can be equally effectively employed in both formal and informal learning situations, and in other educational scenarios such as cooperative learning, and game-based learning (Warburton, 2009). Learning and acquisition of knowledge does not happen a linear way and can occur through more fluid models (Savin-Baden, 2008); one such approach being through social dialogue drawing on Vygotsky’s concepts.

The sophisticated and engaging tools of new technologies are of secondary importance compared to the pedagogical approach they enable (Bronack, 2011:114). Virtual world technology enables real time discussion between all participants, learners and teachers, and a social approach to learning. Social approaches to learning fit with a movement towards seeing learning as being constructed in social situations, and with a new emerging model of literacy which values ICT and the digital devices we use. Modern society valued a model of literacy which was print-based because it met the functional needs of the industrial society (Carrington, 2005). However, the societal landscape is changing and bringing a model of literacy which values multimodal texts thus marginalising the importance of print-based literacy in educational situations. Enabled by the innovations in technology, society is relishing an explosion in social networking and new ways of developing and maintaining social relationships which is complemented by online socialising through virtual worlds (Carrington and Marsh, 2008:6; Davies and Merchant, 2009:4; Marsh 2007:273). Carrington (2005) feels more value should be accorded to popular forms of literacy practice: "Educators and researchers must simply recognise and validate the informal literacies with which children and young people engage as agentic participants in a range of textual cultures." (p480). While VWs have been utilised successfully to foster social opportunities and learning, more thought needs to be given to the underlying pedagogy in their use (Savin-Baden, 2010:125). Also, as a visual means of meaning making, a visual semiotic, it is useful to understand the various multimodal literacy practices their users need to employ to fully engage; by multimodal I refer to the use of "the multiplicity of modes of meaning-making", (Archer, 2006:451).

2.4.3 Issues with the use of virtual worlds in education

Despite initial excitement that VWs would be "revolutionary for education," (Peachey et al., 2010), their popularity seems to have waned almost as rapidly as it surged (Gregory et al, 2015). The interest of the HE community in VWs peaked between 2007 and 2008 when almost all HE institutions had a presence in a VW (Kirriemuir, 2009) or staff members involved in VWs (Wimpenny, 2013). Good et al (2008:63) reported that "approximately 36 UK universities have a formal presence in SL at the time of writing." and VWs were predicted to become an established part of the teaching repertoire of HE (Peachey et al., 2010: xxvi). However, within a few years of their creation, the spaces of these institutions in VWs, became eerily devoid of activity, often "underutilized and abandoned", (Gregory et al, 2015:10). The quick rise in interest and then equally fast decline is also reflected in the number of publications in peer-reviewed journals, which according to Wang and Burton (2012) peaked in 2009 and subsequently declined thereafter. There seem to be several reasons for the turnaround.

The waning popularity of VWs can be attributed to factors related to: institutional policy and decisions (Herold, 2012); barriers for students, and demands on teachers (Wilson et al, 2013; Englund, 2017). Herold (2012) cites the main reason for Hong Kong Polytechnic, which made extensive use of its virtual campus in Second Life between 2008 and 2011, pulling out of virtual worlds as an institutional decision. The main barrier to continued adoption in many cases seems to have been the withdrawal of institutional support in the form of “funding, technical or teaching support,” (Gregory et al, 2015:10); possibly an indication that universities have other financial priorities; Linden Labs withdrawal of the 50% educational discount in 2010, although later reinstated in 2013, might also have been a contributing factor (Childs and Peachey, 2013; Wecker, 2014). For institutions, there are barriers related to the uptake of SL on managed services because of the hardware requirement and need for regular software upgrades, both potentially a drain on IT resources in terms of practical implementation and continued support (Dudeney and Ramsay, 2009:12). This accounts for the concerns of my university’s computing services about installing the SL software on managed computer, which I alluded to in my *Vignette / Researcher journey*, Chapter 3 section 3.1. A further concern could be related to the media image of SL, and the institution being seen as providing access to online resources “of a potentially “adult” nature” (Dudeney and Ramsay, 2009:26).

With new technologies, the innovating enabling factors can also become the restricting factors, which may be the case with the accessing and using the virtual world environment. It is relatively easy to design different environments and physical simulations, or “representational fidelity” as Dalgarno and Lee (2010) would have it. However, the higher quality graphics make greater demands on the users’ computers and so require more sophistication in terms of equipment and graphics cards (Herold, 2012), thus excluding some. As well as the appropriate computing equipment, participants require a certain level of skill to access and use the environment (Zhang, 2013). The more sophisticated the interface, the more skill necessary; using affordances like voice chat is potentially more technically challenging and prone to problems of access (Rogerson-Revell et al, 2012:113). Use of the environment entails a steep learning curve for those who are new to Second Life, known as ‘noobs’ or ‘newbies’, affecting both learner and teacher. Induction, support and initial training are needed prior to engaging fully in activities in SL (Peterson, 2012). Some consider the initial effort worthwhile for the opportunities it offers language learners (Cooke-Plagwitz, 2008:551), but others (Rogerson-Revell et al, 2012:113) believe the overall benefits in terms of engagement cannot be justified because of the barriers. Students’ lack of participation is not always due to level of skills or technological factors, it can be due to attitude; some students may be bored, or find it silly being avatars in a virtual world, “VWs are often very interesting tools from the teacher’s point of view but they

are not necessarily that interesting from the student's point of view." (Berns et al, 2013). Herold (2012) argues that Chinese users tend to view virtual world spaces as totally separate from their offline lives and identities, and so find it difficult to see VVs as places for education.

Task design can be crucial to promoting interaction in activities in Second Life, and for those involved in the development of courses and activities, it brings new demands (Englund, 2017). In the case of language learning this means careful conceptualisation and setting up of activities (Hampel, 2006). In a pilot experience with student language learners and pre-service teachers Jauregi et al (2011) tested the effectiveness of activities according to task design principles which focused on three factors: the environment of Second Life; their language learning beliefs; the effect of anonymity. Tasks involving exploration of the environment of Second Life could produce dynamic communication for some of the time but at other times long instances of silence (*ibid* p980). Yet other non-context related tasks produced rich exchanges thus indicating the novelty value in interacting socially with others as avatars. Part of task planning includes consideration of the teacher/learner relationship. Technology mediated communication can be an equalising factor in the student/teacher relationship, and means the power dynamic is no longer solely in the hands of the teacher (Ushioda, 2011:207). Often experience plays a part; Deutschmann and Panichi (2009:325) found that students using voice chat in SL seemed to need active management of the conversation from teachers in initial sessions, but as they gained skills in the environment the same level of teacher involvement had a negative effect. Thus interaction patterns and the role of the teacher/instructor in planning and managing activities need to be considered in advance (Deutschmann and Panichi, 2009). Use of technology cannot ensure learning, and task design is an important consideration when using virtual worlds in education (Wang et al, 2012:325).

Technology might seem neutral, but its effect in activities must not be overlooked. An activity involving communication which is mediated by technology differs from a similar activity in a face-to-face setting because "technologies transform spatial and temporal relations" (Kern, 2014:341). Theorised from a Vygotskian perspective focusing on the cultural-historical perspective of language (Kern, p342), this mediation has a transformative effect on how communication is enacted (Wertsch, 1991). For example, chat, a written medium, takes on the immediacy of spoken dialogue, and can be part of a synchronous or asynchronous process according to the situation and the interactants involved. Virtual worlds offer several modes of interaction: synchronous spoken voice chat, and the visual in-world movements of the avatar actions; asynchronous text chat, private between individuals or small groups one, or all within virtual proximity. There are complex factors which the

user may need to manipulate to enable communication and new users need training (Peterson, 2012; Herold, 2012; Zhang, 2013). Deutschmann et al (2009) found a higher degree of participation from learners who had pre-course training than a previous cohort who had none. As I previously mentioned, the avatar is not equipped with the means to produce the repertoire of gesture or facial expression available in face-to-face communication (Petrakou, 2010; Panichi, 2015; Tan et al, 2016), and sometimes interpreting the intended message of a fellow participant in a virtual world can be difficult. This can be compounded by glitches in technology due to internet connections and the inadequacy of the software or hardware used (Herold, 2012; Rogerson-Revell et al, 2012), but, also, in the case of language learners, limitations in means of verbal expression of ideas. Although some technical issues are beyond control, with familiarity and training it is possible to become adept at communicating in VWs.

There may be advantages for delivering components of a course in a VW, but there needs to be a credible reason for doing so, and not solely for getting on the latest technology bandwagon. Students criticised the use of a virtual health centre in SL for role playing social work situations, stating that it was not a convincing environment (Martin, 2017:206). As the students involved were campus based, they saw no reason for doing something in SL that they could do equally well in class, which is not surprising. To enhance the student learning experience, there needs to be some perceived value in doing something online which can be done in a classroom. Language learners might perceive the value as an “investment”, as I said in the previous section.

2.4.4 Researching language learning in virtual worlds

Traditionally, research in computer assisted language learning, CALL, has tended to follow a linguistic perspective. However, there is evidence of a more recent trend which looks at what happens from a multimodal perspective (Calvo-Ferrer et al, 2016), and this approach might yield new information on how communication occurs in virtual worlds.

Much research into the use of digital tools for communication in language learning adopts a traditional linguistic perspective, which is restricted by the boundaries of SLA theories. Often “SLA research was concerned with discovering how these individual learners managed their interactions with L2 input and organised their L2 output”, (Norton and Toohey, 2001:310). Often research in CALL was concerned with correctness of form and negotiation of meaning. This was, in part, due to the language learning being preoccupied with measuring progress because ‘knowing a language’ corresponded to a structuralist account of language and language learning where language is viewed as an idealised form in which success is achieved by adhering to standard rules (Norton and Toohey, 2011). Grant (2010) looked at foreign

language education in China using a framework which draws on SLA and “educational” theory concerned with input and output. Deutschmann and Panichi (2009) and Deutschmann et al (2009) focused on ‘floor space’ or length of turns of learners and teachers, and then compared the ratio of the two. Peterson (2010; 2012) was preoccupied with counting the number of turns of Japanese learners of English using text chat in a virtual world activity, and the agents involved in the interaction. When researchers wanted a more in-depth interpretation, discourse analysis has been used: Deutschmann and Panichi (2009) conducted a discourse analysis of learner chat contributions to identify supportive moves such as ‘back-channelling’ (showing interest while listening, e.g. ‘really’; ‘oh yes’), and elicitors; Peterson (2011; 2012) also used discourse analysis to explore the nature of in-world text chat for evidence of collaboration.

New technologies have led to new modes of communication and meaning making (Levy, 2009:769) and new ways of researching are being developed in response. In an exploration of young peoples’ new literacy practices in a dedicated area of Second Life called Schome Park (Schome = school + home), Gillen (2009) created a virtual literacy ethnography from her position as a researcher in-world as an avatar by employing a synthesis of methods. At one point this involved corpus linguistic analysis by extracting items from a large sample of students’ chat logs and comparing them with a reference corpus to explore students’ use of language. The corpus provided a picture of how particular words, e.g. ‘school’ were used in collocation. This was combined with more interpretive work, discourse analysis, of exchanges between participants and her researcher avatar. Such studies make quantitative research from an SLA perspective appear flat and two-dimensional because they neglect the richer features that occur in social interaction. In my research, I looked to visual ways of presenting and analysing my data, and devised a new way of creating visual narratives of my data.

Competing positions vie for prominence regarding what constitutes linguistic knowledge with innatist theories drawing on Chomsky’s concept of the Universal Grammar and the human biological capacity for acquiring language, which tends to be concerned with grammar (Chomsky, 1976). Others view language learning as similar to other types of learning; “connectionist accounts, like generative accounts, conceive of linguistic knowledge as intuitive and tacit rather than conscious and explicit in nature” (Ellis, 2005:143). Measuring progress in language learning seems to amount to testing, but it is difficult to agree on what to test, let alone the tools to do so. I did not want my study to become tied up in trying to measure whether or what learning had taken place, because it would lead a more evidence-based route. As Ellis (1985) states, “... simply counting instances of conversational input in order to understand the process of input is wrong.” I was more

interested in discovering how communication is achieved, which would involve more in-depth probing. I was keen to take account of the full context, not just the words used.

While there has been a dearth of interpretative research of communication practices in virtual worlds, this appears to be changing. Dooly and Hauck (2012:143) emphasis the importance of qualitative approaches which are observational in nature and focus on the processes as opposed to the outcomes of learning. SL is primarily a visual experience and attention needs to focus on more than spoken language interpreted as text. By shifting the focus from how individuals function to include the activities and settings, provides a view of how learning occurs in social situations and draws of the work of Vygotsky and Bakhtin. When learning is considered to be located in the social, it is located within the action of the learner and the immediate environment in which the learning takes place (Vygotsky, 1978). This means it is important to look at the relationships between modes of interaction, the context and to study the social processes occurring. Complementing this is Bakhtin's theory that speakers learn to speak by appropriating the utterances of others and incorporate them into their own repertoire (Bakhtin,1981), and that this can be seen and explored as occurring through participation in communities (Lave and Wenger, 1991). In SL participants communicate using several modes; voice chat, text chat, and some limited use of avatar gesture. In order to better understand how communication occurs, a multimodal approach, which views communication as more than language, can provide a means of exploring the interplay between modes, "how meanings have been distributed across modes," (Jewitt, 2013:255). Even more interesting is the use of multimodal research techniques: Melchor-Couto (2016) provides insight into the student experience and anxiety; Wigham et al (2013) use an original framework to study multimodal communication in VWs. For me it indicated a need for the multimodal exploration of communication in virtual worlds, and it provided impetus for my research.

2.4.5 Summary of learning in virtual worlds

This section has focused on virtual worlds as learning environments in higher education and in language learning. I have looked at the affordances of virtual worlds and how educators have sought to exploit these environments in higher education and in language learning. I showed how this related to learning theories. I suggested the reasons for the decrease in the use of VWs, and stated some issues for those involved in their use as users and educators. Finally, I looked at how VWs had been researched in language learning mainly from a positivist approach, and suggested that a multimodal approach could reveal interesting insights.

In my view, despite the issues for learners and teachers, with planning and support, VWs can be useful platforms for effectively providing experiences and simulations. It is worth mentioning that, despite the general decrease in the use of VWs in higher education, in health care education there has been an increase in their use, especially in courses for those not on campus (Englund, 2017) so there is a niche for virtual worlds in education, particularly in training situations. As regards language learning, their strength lies in their capacity to support social interaction, and not as a space to mirror classroom practices. As such they are particularly suited to more informal ways of language learning and skills development through social interaction. Therefore, I chose to use our sessions in Second Life as spaces for informal learning and socialisation.

2.5. Literature Review: Learning spaces

During the process of reviewing my data and transcribing the sessions, the importance of spaces within the virtual world and in other layers became apparent. I realised that the virtual spaces and the spaces that were not virtual sometimes blended together, and at other times did not; there was a changing dynamic that I needed to think about. With this in mind, I began to explore concepts related to spaces, and added this section to my literature review after analysing the data.

When learning is viewed as socially constructed, it is seen as being distributed “across persons, tools, and learning environments,” (Leander et al, 2010:330). Thus, learning is not situated within the individual, the learning environment also plays a part. We attach meanings to spaces, constructing these through their use and over time (Burnett, 2011). So, spaces acquire a significance and evoke meaning, for example, the traditional space of the classroom, as a material space, has become synonymous with the concept of learning. Often spatial practices are informed by identity, and inevitably power relationships are evoked (Burnett, 2011). For example, the traditional classroom evokes particular teacher and pupil relationships and practices.

In addition, learning is distributed and accessed through tools which mediate the process, one of which is language. Language can be used in different ways and can adopt different discourses; it can also carry messages in different modes and means and traverse different spaces and temporal zones. Social and cultural practices are associated with the spaces in which they occur (Leander et al, 2010). Yet with access to networked technologies, new spaces for learning have been created and these can be conceptualised spatially in terms of the material or physical dimension, their connectivity and their capacity for supporting text as words or images (Burnett, 2011). For example, Brown and Pallitt, (2014) found that laptops, by creating new learning spaces, empowered students and afforded them with more flexible learning.

Researchers have noted various aspects of how learning relates to spaces in virtual worlds. Savin-Baden (2008) conceptualises them in terms of how they are used for engagement, allowing freedom from control. The scenario of the virtual world can become a space which is socially produced through engaging in communication mediated by an avatar. This may be a space where the issues of power and hierarchy which exist in material spaces, are less obvious. Students gain more control over learning and feel more power than in traditional spaces in universities (Savin-Baden, 2013).

Yet the virtual world spaces are not isolated from other spaces. They are connected to other online spaces, and to the material spaces occupied by the owner of the avatar. Thus, they become hybrid spaces (Burnett and Bailey, 2014), in which the front stage performance is enacted with the support of the backstage performer (Goffman, 1959). This provides an interesting relationship between the material and (im)material (Burnett, 2011; Davies, 2014). It was a relationship that I explored, wanting to see how identity is enacted in the virtual world space, and how the participants use the textual dimension to interact with each other and the environment.

2.6 Summary of Literature Review

This chapter introduced the background situation of international students in UK higher education institutions and the benefits for them of engaging in social and cultural interaction. It looked at concepts of language and how this translates into language learning, and it explored the relevance of identity in language learning viewed from the social perspective. It ended with a review of learning in virtual worlds and learning spaces.

The review makes a link between the focus of the research and the literature I selected as relevant, enabling me to provide a theoretical grounding for the analysis and interpretation of my findings. Of note are theories of how language is conceptualised as communication in social interaction, drawing on the concepts of Bakhtin; language learning as occurring through social interaction, drawing on Vygotsky's socio-cultural approach, and Lave and Wenger's concept of communities of practice; how social interaction is conceptualised as a performance, drawing on Goffman's dramaturgical theories; learning and the relationship between material and (im)material spaces (Burnett, 2011; Davies, 2014).

The literature relating to language and language learning shows a recent movement away from structuralist approaches with a concern for psycholinguistic elements to a more social perspective (Lightbown and Spada, 2006). While acknowledging that there is no superlative way to learn a language, it helped me to understand how I draw on theories in my teaching practice, and to understand my previous confusion between social approaches called on in education, and SLA theories originating from linguistics. As my teacher identity surfaced during the SL sessions (see Chapter 4 *Data Analysis*), this review helped me to account for the origin of some of these 'teacherly' practices. When language learning is seen from a social perspective importance is given to identity, and I hoped by adopting an avatar identity in a virtual world L2 speakers would feel less anxious. I hoped the experience would be more equalising, and would feel more in control as Savin Badin (2013) suggests is the case.

Some research into virtual worlds and language learning is concerned with measuring quantitative features (Deutschmann and Panichi, 2009; Peterson, 2010) and this can be located within quantitative methodology focusing on structuralist concepts of success. I rejected a structuralist approach with its focus on psycholinguistic elements in favour of a social approach to language learning and drew on aspects of language as communication and its social propensity for meaning making.

I planned activities in SL calling on the social semiotic of language in use (Halliday, 1978) and the importance of language as communication (Hymes, 1972) to prompt interaction. I based the creation of these activities on the principles of meaningful interaction (Scrivener, 2011), drawing on the Communicative Approach. I designed the online meeting space in SL as a relaxing informal setting. This was to encourage a relaxed informal social interaction and not a classroom setting. The design of spaces is instrumental in promoting how they are used (Burnett, 2011; Savin-Baden & Falconer, 2016), so by situating the meetings around a table overlooking an island idyll, this signalled the level of informality, and promoted the idea of social discussion.

I also drew on the advice of Jauregi et al (2011) as regards task design, which accounts for my attempts to incorporate an element of exploiting the affordances of environment (see Chapter 4 - *Story 7: Planning a trip* and *Story 8: Camping in Mongolia*). I used the 3D immersive feature to create (rez) spaces such as a coach station and a spaceship, and took learners to other spaces in SL such as a museum and to the top of a volcano in order to create interest and to exploit the link between spaces and how they evoke experiences (Burnett, 2011).

In the next chapter I describe my research methodology and justify my methods of data collection and analysis.

Chapter 3: Methodology and methods

Introduction

In Chapter 1 I introduced the situation of international students who come to study in the UK and my attempt to provide opportunities for them to interact in a virtual world. I also stated my research questions, and gave some limited information about the research project. In Chapter 2 I undertook a selective review of the literature relevant to my research focus. I described how globalisation and local UK policy had resulted in increasing numbers of international students in UK universities, and how I was involved as an English language and academic skills tutor in a university. I looked at language learning and how it has been conceptualised, and at the relevance of identity as a social construct in learning a language. Following that, I looked at virtual worlds and how they have been used for educational purposes in HE and then in language learning. Finally, I discussed the concept of learning being related to spaces, and how virtual worlds might be used as social spaces to provide opportunities for informal language learning.

In this chapter I explain and contextualise the methodology of my research and justify the approaches and methods I used for this research situation. I explain how choices in methodology are related to the positionality of the researcher and declare my epistemological stance. I set the scene for my research with a reflective account of my researcher journey to establish a rationale for some of my choices concerning the research and the methods I employed. I move on to look at the methodological framework I adopted in my research. This starts with a brief review of research traditions and methods employed in language learning which are grounded in positivist, quantitative approaches, and then leads into my argument for a more interpretivist methodology in my research. I give information about the study, the participants and context, and the data I have collected. I justify a visual approach to data analysis as being a suitable means for examining the rich visual data, and for exploring the interplay of spatial elements in real and virtual environments, and I explain the selection process for the inclusion of items in my analysis. Finally, I look at the ethical considerations involved in research, and in particular to research in virtual worlds, and explain how I approached this in my project.

3.1 Researcher Positionality and Story

In choosing a methodology the researcher is guided by what is practical and feasible, and by any situational factors involved. But no matter how value free or neutral a researcher wishes to appear, choices are invariably guided by their basic assumptions, and influenced by their most basic values and beliefs (Sikes, 2004). These sets of assumptions concerned with ontology,

epistemology and views on human nature and agency have underlying influences that might be viewed as contaminating the research. To avoid this, a declaration of stance is important. It informs and enriches the research and any perceived bias can be countered by the researcher attempting to be completely transparent about his or her basic assumptions (Sikes, 2004:21). Researcher positionality, when made clear, is not a bad thing.

My ontological stance is that social reality is “socially constructed, subjectively experienced and the result of human thought expressed through language,” (Sikes, 2004:20). I view language as a tool which is used to convey meaning, and, as I stated in Chapter 2, drawing on Bakhtin’s theory (1997), it is context dependent. In addition, I feel that language is not the sole contributor to meaning making, but is used in conjunction with other semiotic resources to socially construct meaning (Vygotsky, 1986). When reality is viewed as being socially constructed, meaning is not fixed, so for data to be considered as valid we need subjective accounts to explore and explain the experiences. This data would be qualitative; it would be concerned with “how the individual creates, modifies and interprets the world,” (Burrell and Morgan, 1979:3). This has implications for the research paradigm adopted which I explain later.

The aim of research is to gain further knowledge, and it is important to establish what is considered as acceptable as knowledge:

“..it is possible to identify and communicate the nature of knowledge as being hard, real and capable of being transmitted in a tangible form, or whether knowledge is of a softer, more subjective, spiritual or even transcendental kind, based on experience and insight of a unique and essentially personal nature.” (Burrell and Morgan, 1979:1-2)

My epistemological stance is that knowledge is not measurable, but experienced. From this standpoint, if knowledge is regarded as experiential, then people need to give accounts; it emphasises the importance of subjective experience, research is concerned with understanding the intricacies of how the individual creates and interprets the world he or she inhabits (Cohen et al 2011; Wellington, 2000). Sikes (2004:18) defines the resulting viewpoint as the interpretivist, naturalistic, subjective, qualitative paradigm. I explain in more detail later why I reject an approach from SLA which adopts a positivist, rigid viewpoint, in favour of a more interpretivist social approach.

In educational research, the values of the researcher impinge at every stage and they influence and guide their theories and positions: “As social researchers, our findings are devoid of meaning until situated within a social framework (May 2001:33). To fully understand research which adopts an

interpretivist approach, a reflexive account on the part of the researcher is needed. I have made clear my basic values and beliefs and now provide, through the use of a vignette, a subjective, personal account of the research. The style fluctuates between a personal, informal one, simulating my inner voice with a degree of reflexivity, and a formal, discursive one, that of the academic researcher.

I started my research journey with romantic notions of research and lofty aspirations about making groundbreaking discoveries. However, when it came to 'doing the research', I plummeted to earth and quickly realised that it is only possible to conduct a research study with the means available and, where there are constraints, then solutions, alternatives or workarounds need to be sought. Choices in my research project were as much the result of serendipitous events and participation in communities of practice and their support, as the appurtenances of grand theory. I believe my story also exemplifies the social nature of learning of which I am an advocate.

Vignette / Researcher journey

I was fascinated by Second Life, and felt it could provide a place for language learners to practice speaking where they would feel less anxious about speaking a second language (Cooke-Plagwitz, 2008; Turkle, 2008). I wished to test this theory and provide opportunities for international students in my university to use English to communicate in a social space, if possible, with home students. However, in retrospect, I see this was somewhat naïve. At the time, I lacked experience of virtual worlds and, as I began to plan in earnest, I encountered several problems. The proposal was beset with technical obstacles and constraints in the real and virtual worlds. The first obstacle concerned equipment and access to Second Life. To do so it was necessary to download and install the software client onto the user's device, considered a risky venture by computing services in the University and so excluded the use of managed computers within University premises. DECISION: my participants would have to use their own computing equipment, which could support the high-end graphics of SL.

This was not a bad thing as it utilised the unique affordances of VWs, namely that they can support real communication over a distance, without being governed by geographical or time constraints. It removed any temptation participants might have to talk directly to each other if we had used a computer lab. The language teacher in me was appeased as SL would be used for 'real communication' (Widdowson, 1978). Therefore, moving the site of interaction away from the

classroom necessitated real communication, and was enabling and equalising for all participants.

I was aware that I desperately needed more dexterity in the SL environment before undertaking any project there. DECISION: I responded to a call for participation in a free filmmaking course in Second Life, MachinEVO, run by Electronic Village Online, EVO). This is a professional development initiative in the language teaching community whereby techie enthusiasts run free courses annually. Even so, these courses are demanding and require a time investment of between 4 – 8 hours a week over six weeks.

I signed up for 'MachinEVO' in January 2014, and it changed the course of my life as a researcher. Not only did I learn the basic skills of a 'resident' avatar in SL, but also how to manipulate the camera/viewer in SL. This was filmmaking with avatars as the characters /actors against a backdrop of innovative virtual scenes. The first week was basically an induction into using the SL environment; the second focused on camera techniques and skills. Then in groups we set about producing a short machinima (machine-cinema films), and in a relatively short time, I gained a wealth of knowledge and expertise.

All this took place in Second Life on Edunation Island as we met in the guise of avatars. It was exhausting, but also exhilarating to compare progress notes with other groups, and then go off to shoot scenes as camera person or play a role as an avatar actor. The final step was to compile the shots into a presentable film, adding music, titles and credits and the narrative voice. This all sounds so simple, but I spent hundreds of hours learning to use the software, Camtasia, for screen capture and editing.

As the Oscars approached, excitement mounted and editing reached fever pitch. Our group won the Oscar for best machinima (2014), and went on stage to receive this at the Machinima Oscars awards ceremony! In true ludic fashion, to receive the award, I (Aneloz, avatar) tried to detach a glass of champagne from my hand, but instead detached my skirt!

The magic continued and I became part of a supportive virtual community. I rented a space, complete with house, on Edunation Island, paying real money of course. I had my own virtual space, was part of a community of educators, and also, as a resident Edunation Island had use of a resource bank of about 40-50 holodecks (ready-made scenes). These holodecks had been assembled painstakingly by

educators and included scenes such as, a hotel reception, a spaceship or a clearing in a jungle. This meant I could rez (call up) a range of scenarios to enhance and stimulate discussion for use with participants during my research project. I had entered into a community of educators in Second Life and made friends and contacts, who, while geographically dispersed worldwide, came together virtually to meet in the same space in Second Life. As a resident of Edunation Island, I attended meetings, and events 'locally', and eminent 'in world' conferences such as the annual Virtual Worlds Best Practice Conference (VWBP). Moreover, I maintained contact with other like-minded people.

While I could not claim proficiency in the dexterities of operating in SL, or have all the necessary attributes required of a virtual educator, I had acquired some skills. These included the basic maneuvering skills; I could walk, run, jump and fly, and I could teleport from location to location. I could communicate by speaking and writing text. I was becoming adept at using the viewer/ camera to move around avatars and objects in SL and to zoom in and out. On the 'teacher' side, I was able to manipulate the environment by creating scenes from a repertoire of holodecks. The filmmaking skills I gained over the Machinima course later proved invaluable for my research; filming and using screen capture software were transferable skills which I used to collect my research data.



Figure (iii) Screen dump showing giving a notecard

Anyone who has experienced SL or another virtual world first hand is aware of the multi-tasking required to maintain an avatar in some semblance of movement and to communicate using voice or text. This is exacerbated if you are responsible for participants, newbies to SL, in a research project; and more so when maintaining conversation and with participants while filming the screen to record the sessions.

Figure (iii) gives an indication of what was happening on my screen at times during the sessions.

I took on many different roles during my research project and each impacted in some way on the research project, its design and my behaviour with different roles taking prominence at different times.

- 1. I became a teacher of SL skills: I inducted my participants into the features of SL. In the first sessions they depended on me for guidance if they were lost or struggling with SL affordances.*
- 2. I was a researcher concerned with ethics and protecting my participants in real and virtual worlds; I collected and recorded data.*
- 3. I was an English language teacher: I felt the degree of interaction depended on my skills; I was a facilitator, responsible for keeping conversation going between participants when it floundered.*
- 4. I was an instructional designer; I devised activities to exploit the VW environment.*
- 5. I was a filmmaker: I was concerned with the visual aesthetic and with shots from diverse angles; I also needed a record of contextual data.*

3.2 Methodology choices

There is a conflict between disciplines aligned with social sciences and those with the natural sciences which can be attributed to their differing views on ontology and their epistemological stance. Education, in the post-modern era, is viewed as being rooted in the social sciences (Carr, 2003); it involves people and is regarded as a social activity. Correspondingly, the understanding of educational enquiry is that it leans towards a 'qualitative-is-good-quantitative-is-bad' aphorism. It favours a social model within which value is placed on context and thorough investigation, and where "multiple perspectives and interpretations are almost inevitable," (Sikes, 2004:15). In stark contrast, language learning historically draws on psycholinguistic concerns with Second Language Acquisition, SLA, (Mitchell, 2009) and is aligned to the more positivist Applied Linguistics discipline (Gillen, 2014).

My study explored the naturally occurring interaction that took place between small numbers of HE students and a researcher (myself) in a virtual world. To do so I looked to theories aligned with the social for my theoretical lens. I looked specifically to Goffman's theory of impression management to understand how contributions from the virtual online environment and the offline environment support social interaction. I drew on Vygotsky's (1978) view of learning as occurring in social situations of a conversational nature in interaction either between expert (teacher)-student or between the learner-learner to explore informal learning. I considered this in relation to Lave and

Wenger's (1991) concept of communities of practice (COP) and, related to this, aspects of how situated learning occurs in groups.

Below I provide a brief overview of research approaches from SLA traditions and how some researchers draw on these to research aspects of language learning in VWs. I highlight the limitations of such approaches and show why I rejected them in favour of a more social approach. I then make a case for using sociocultural theory (SCT) as a theoretical lens through which to map my methodological decisions calling on Vygotsky's theory in relation to my study in which I focused on learning as it occurred informally in Second Life. I also draw on Goffman's ideas about impression management of interaction as it occurs in a community situated in a virtual world setting.

3.2.1 Methodology: Language learning research and theory

Much research into language learning relies on psychometrics (Nunan, 1992). In 1970s the emergence of specific theories about second language acquisition (SLA) initiated the change from a reliance on behaviorist-focused observation of teachers' actions in the classroom to a search for relationships between so-called input methods and methodologies and language output (Mitchell, 2009). It mainly relied on methods involving observation, description and analysis of classroom interaction, and contributed to interactionist theory (Mitchell, 2009:680). It tended to focus on three distinct areas: negotiation of meaning; corrective feedback; input and output. It regarded communication as an almost predictable, patterned process.

Research into the use of technology in language learning, Computer Assisted Language Learning, CALL, has had its own historical development which has tended to draw on interactionist theory from 1990 onwards (Bax, 2003). Although some researchers in language learning are calling for more qualitative methods to add depth to research, research in CALL clings to its positivist traditions and reliance on quantitative methodologies (Stickler and Hampel, 2015). This would account for the preoccupation with systematically counting the number of 'turns', and strategies such as instances of "addressivity" (explicitly stating using the name of the person they address) (Peterson, 2010) in research into language learning in virtual worlds. Such research makes sense in the context of research into the development of language learning from an SLA tradition, which I looked at in the literature review (Chapter 2.2). It explains why some researchers focus on instances of turn taking and floor space in VWs (Deutschmann et al, 2009; Peterson, 2010), and negotiation of meaning between participants (Toyoda and Harrison, 2002). However, in such studies there is a limited understanding of the learner and their complex relationship to the context and the resources they call on to interact.

Mainstream SLA research can be limiting with its focus on the cognitive, and its one-dimensional view of the language learner to the exclusion of them having other social identities (Firth and Wagner, 2007). It often tries to prove or explain a theory of language learning in use and starts with a hypothesis and seeks to justify this against external, objective reality (Nunan, 1992). I rejected methods which relied on interaction analysis because of their rigid dependence on instruments, considered to be problematic by Long (1980b). I also found discourse analysis, often used to analyse the use of functions in conversation interaction (Mitchell, 2009), to be restrictive, because I wanted to uncover more than phrases and expressions in language. Instead I looked to more interpretative methodologies concerned with the social. The more recent swing towards interpretative methodologies and the employment of ethnographic methods signals a further widening of research focus to include the social and cultural aspects of interaction, reflecting the trend towards sociocultural theory in educational theory (Swain and Deters, 2007). It is to this notion that I looked to for theoretical underpinning in my methodological approach.

3.2.2 Methodology: Sociocultural theory

I wished to explore what contributed to meaning making in interaction concerning my participants; to investigate the relationship between the different spaces and modes, online and offline, which participants used; in relation to this, to look at how the virtual world identity fitted with other possible identities. To do so, I needed methods which could accept multiple perspectives and this led me to look beyond approaches where language learning is viewed as occurring within the individual, irrespective of the social environment, and to consider more context dependent methods of research. I turned to sociocultural theory (SCT).

In SCT context is viewed as a source of mental development, and language as a meditational tool for thought. Studies which look to sociocultural theory for interpretation focus on the development of mental functions in a “social context, mediated by cultural artifacts or tools (such as language)” (Mitchell, 2009; 685-686). SCT is unique in that it makes a link between the internal, what takes place in the mind (psychology) and the external, the social. The advantage of this is that it enables research to look at the processes taking place internally and externally (Swain et al, 2010).

As described in Chapter 2, Vygotsky views learning as occurring in social situations where learner and expert construct reality together, each contributing to the construction (Baxter, 2012:4). Constructivist learning theory views the learner as an important agent in the process of learning.

When, in addition, consideration is given to environment it augments this to give a sociocultural perspective. As context is integral to sociocultural theory (Swain et al, 2010:x), it is important to explain the background and the situation and provide as much information as possible when looking at the data. A basic concept of Vygotsky's work was that the individual cannot be studied in isolation, and all relationships need to be included in the study: the tools, the context and mediational material. A further consideration in this framework is the fusion between expert and learner culminating in learning together and in collaboration with each other in some way. Although much of the theoretical underpinnings of SCT are attributed to Vygotsky, and in SLA literature are sometimes referred to as 'Vygotskian Social Theory' (Swain et al, 2010), these have evolved considerably and may have been interpreted in different ways from the original theories.

As detailed in the previous chapter, I also wished to explore how social interaction occurs in different layers to contribute to meaning making so I drew on Goffman's work on identity management to frame this. Goffman (1959) equates interaction to a stage performance wherein what occurs in the public domain, 'front' is juxtapositioned against a contradictory, parallel but hidden account 'back' stage (I explored this in Chapter 2 in more detail). This concept can be successfully applied to the online context. Dyer (2015) applies Goffman's theory to young peoples' involvement with online social networking sites and contends that social identity is formed in and through social interactions, and these are constructed for specific social situations. Lewis et al (2008) draw on Goffman's theory to research interaction in online social networking sites, SNS, and show how young people can choose how much to manipulate privacy settings to create role on Facebook which is hidden backstage from their parents. Interestingly, in online learning, Gilmore (2014) applied and extended Goffman's concepts of front stage and backstage to include: front stage online, backstage online and backstage offline, where the spaces of the two hidden sites contributed to the public performance.

Goffman evolved his theories about identity and performance to explain how individuals deliberately seek to perform a role for a specific audience, to act out situations between for example, lawyer and client, doctor and patient. The theories and application of the concepts of front and back stage were intended for what today we refer to as face-to-face interaction and not mediated interaction. And yet, as I have indicated, researchers apply Goffman's ideas to researching online interaction (Hogan, 2010:4). As Gilmore (2014) extended the number of 'stages' to three, I may suggest that other layers also contribute to interaction in virtual worlds. In addition, as my participants employ different modes to interact, and different modes affect interaction and identity performance (Kress and van Leeuwen, 2001), I look to

the concept of multimodality to explain how meaning is made (Kress, 2004). In this thesis, I employ a dramaturgical perspective to frame the social actions and interactions which take place as the performance of social identity in a virtual world and also other online and offline spaces which contribute.

The concept of social learning and SCT relates to other social theories, for example, Lave and Wenger's (1991) community of practice. In this model of learning the learner becomes part of the social structure of the group through interaction over time (Lave and Wenger, 1991). In my data analysis, Chapter 4, I highlight instances of learning taking place through interaction, and how participants work together to establish meaning.

The research took place in Second Life, SL, a virtual world, and involved a small-scale study of the interaction occurring between small numbers of participants in eight sessions over a period of a month. Accordingly, I feel the research warrants a qualitative approach in order to explore the rich data which was recorded in the sessions (Denzin & Lincoln, 2000:3). This complies with my views on language learning as a practice that primarily occurs in social situations when language is used to communicate (Wood and Wood, 1996; Mitchell 2009). My research involved people meeting in virtual world, not for the purpose of formal learning, but in order to interact with each other. There was an element of the formation of a community; students brought together by the goal of using English to communicate, combined with an interest in using new ways to exchange their thoughts and ideas and aspects of their life histories. Wenger (2010) contends that new technologies are compatible with the kind of peer-to-peer learning that occurs in communities of practice.

Using the frame of a community of practice (Wenger, 1998), as I explained in detail in Chapter 2, provides a way to analyse the social processes occurring as participants learnt to become members of the SL environment. By framing this as a way of coming together in order to participate (Wenger, 1998), it gave me the opportunity to observe the extent to which they become members of the community in terms of their trajectory. It also provided a framework to look at how participants developed ways of coping with communication and their use of different modes and resources to contributing to interaction.

Having re-established my theoretical lens, I move on to explain the framework and methodology in my research.

3.3 Methodology in my research

Green and Bloome (1997) make distinctions between “doing ethnography, adopting an ethnographic perspective and using ethnographic tools”. The research design of my study has a texture of ethnography; it is exploratory and is based predominantly on observation and my interpretation of the events I recorded and experienced as observer and participant in a virtual world. It fulfills many of the criteria that Denscombe (2014) lists as those pertaining to ethnographic study: the researcher spends time in the field, but is involved in a journey of discovery rather than a mere observer; the mundane is valued; there is an attempt to understand how people see their world as opposed to only the viewpoint of the observer. A fundamental tenet of ethnography is that it adopts a holistic approach which “stresses processes, relationships, connections and interdependency among the component parts,” (Denscombe, 2014:81).

My study is a narrative account of my interpretation of events and social interaction in an online community. Traditionally, ethnographic research tends to focus on cultural aspects and patterns within groups, to be intensive, and to take place over an extended period of time (Jeffrey & Troman, 2004). My study was originally intended to be a pilot study and involved intensive observation of the interaction between a small number of participants in a series of meetings over a month, and has, as I previously said, a texture of ethnography. Ethnography takes place in natural settings and I observed and recorded events happening in Second Life settings. While it could be argued that a virtual world is not a natural setting, ‘natural’ refers to how the research design is implemented in terms of disruption to the setting, and I did not seek to manipulate or disturb what occurred by the use of research tools (Denscombe, 2014:84). Thus, the naturalness of the setting was preserved. To approach research in online settings, Kozinets (2014) developed ‘netnography’ a method which “combines archival and online communications work, participation and observation, with new forms of digital and network data collection, analysis and research representation.” (p1). By declaring that the methods used included netnography, a researcher would “attempt to acknowledge, first and foremost, the importance of technoculturally mediated communications in the social lives of the members of the network.” (p 67).

In Chapter 1, I stated my opposition to measuring improvement in language in quantitative terms as in dissonance with my epistemological beliefs. In Chapter 2, I explained why I rejected the view of knowing a language as linguistic knowledge instead favouring the view of knowledge as a social semiotic. My study did not aim to focus on formal learning, as a participant observer, I wanted to gain insight into what was involved in communication in a virtual world setting, and this partly involved something called ‘techne’. Techne, a Greek word, often glibly translated as ‘craft’ viewed as a form of

knowledge, could be regarded as a kind of 'insider know how'. I draw on Boellstorff's (2008) interpretation of *techne* as being the creative ability to craft technology skilfully to find workarounds and solutions, and its application in virtual worlds:

In virtual worlds, *techne* produces a gap between the actual and virtual in the realm of the virtual. Swallowing their own ontological tales, virtual worlds for the first time allow *techne* to become recursive, providing humans with radically new ways to understand their lives as beings of culture as well as physical embodiment.

Boellstorff (2008:58)

Therefore, in a virtual world, knowledge of the culture can be interpreted as being is concerned with how my participants adapted *techne*.

I looked to other researchers of virtual worlds for guidance and considered the methods they had employed. The researchers in project NIFLAR conducted three pilot studies, each building on the previous, to improve the use of tasks for learners and L1 speakers to engage in together (Jauregi and Canto 2010; Jauregi et al., 2011). Jauregi et al (2011) describe their method as a case study; it focused on the effectiveness of the task through the lens of instructional design. Action research is also a frequently adopted method in education which integrates developing practice with research thus enabling the research of a practice from the position of the insider (Somekh, 2005:89). Often used as a mode of enquiry through which teachers can observe and analyse their practice in order to bring about changes (Wallace, 1998), strictly speaking, participatory action research, PAR, is not a method, but an orientation to research (Savin-Baden et al, 2010:166). Used to develop understanding of how second languages are learned and taught in order to improve learning for the learner (Mackey and Gass, 2016:268), it is appropriate for researching virtual worlds and classroom practice in language learning and was used to investigate the relationship between task design and student activity in oral proficiency courses in Second Life (Deutschmann, Panichi and Molka-Danielson, 2009). But neither case study or action research are appropriate methods for my study. My original intention was to regard the study as a pilot for a further round of sessions with another group of participants, but soon realised the richness of the data indicates a more in depth interpretive analysis.

As the study is my narrative, from my view as participant observer, it follows that the data could be subjected to multiple interpretations. This requires me to be as open and honest as possible in my analysis, and make convincing arguments for any claims I made. Researcher observers need to "reflect on and critically engage with their own participation within the ethnographic

frame,” (Tedlock, 2005: 467) to make a bridge between the subjective account of the researcher and the objective public account. To counter any influence due to the “observer” effect in my interpretation, I included some reflexivity (Wellington, 2000:45), and I have declared my beliefs as a researcher throughout this thesis, particularly in the vignettes, and I have given an account of my journey as a researcher.

My inquiry is distinctive in that it takes place in a new cultural space, an online virtual world where the rules for the researcher and participants are not defined, and, while formal teaching was not involved, I hoped that learning would occur. The in-world sessions would not attempt to mirror classroom practice, but be regarded as social spaces, as I declared in Chapter 1; the project was to use SL as a space for socialisation and acculturation. I did set up situations to encourage interaction, which I later realised could be interpreted as me moving into a teacherly role on occasion. So although informal learning may have occurred in the session in SL, the focus was to observe what happened when different people interacted together socially using different modes of communication. Any evaluation was concerned with how virtual, real and the hybrid spaces were used to contribute to meaning making during communication.

The original purpose of my study was to determine whether international students could improve their confidence in speaking English by interacting and speaking in a VW. From subsequent analysis of the sessions, however, other equally interesting themes surfaced particularly how social practice in virtual worlds is inextricably intertwined with other modes and spaces. Data analysis was to reveal, as I show in Chapter 4, that VWs are frequently not closed environments, but disturb, and are interrupted by, the real world to become hybrid and fluid spaces (Burnett and Bailey, 2014). My research became an exploration of how these spaces impacted on each other.

3.4 The Research Study

In this section I give information about the research study I conducted: a general overview of the study, a description of the participants and the sessions in Second Life, and a list of the data I obtained. I start by re-stating the research questions (RQs) from Chapter 1, which had continued to evolve as a result of analysing the data. The inquiry had shifted from being focused exclusively on aspects of language communication to encompass the spaces being inhabited and how they were used to aid communication. The questions are as follows:

Considering 6 HE students and 1 researcher from different cultural backgrounds in the context of a Second Life space:

RQ1. How do the participants manage communication and exchange information?

RQ2. How is social interaction shaped by spaces both in and outside the virtual world?

RQ3. To what extent do activities the participants are requested to do contribute to interaction and learning?

3.4.1 The research study: overview

The study consisted of a series of eight meetings, two per week, over a month between students, home and international, in a rented plot of land on an island in Second Life. The research was my individual initiative, prompted by my fascination with virtual worlds and the belief that they could be exploited as supportive environments for interaction. It was not funded, and I did not receive any assistance in setting up the project. In this section I give the details of the study, the participants and how they were recruited. I state what data was collected and how this was done. It is an objective account of what happened in the research.

3.4.2 The research study: participants

The research involved five international students and two home students from a university in the north of England. Participants were recruited in two ways: international students from my language/EAP classes, present or past, who responded to my request for participants. As prospective students preparing for the forthcoming academic year, they were keen to engage in activities which involved speaking and interacting with other students, and if possible those already studying main course subjects. I met those interested, and explained what was involved by using the participant information sheet (Appendix 3). Those who were still interested attended an induction and training session about Second Life given by me, during which they downloaded and set up Second Life on their own computing equipment.

The two home students were recruited through the university email system in response to my request for participants (Appendix 4). Unfortunately, it was not a good time to recruit and the response rate was low. My call for participants went out at the beginning of June 2014, a time when most undergraduate students were dispersing for the summer, and postgraduates were preparing to write dissertations. Despite only two responses, I was eager to proceed so I met them and explained what the study was about using the ethics form for home students (Appendix 3). Both seemed fairly keen at the prospect of taking part the project and signed Consent forms (Appendix 5). We had an induction session in which I gave them advice about as setting up Second Life and basic training into negotiating SL.

I believed that a face-to-face induction was critical for my participants in order to verify they could download the necessary software for SL, and had the correct settings for their particular device. I was effectively their only technical support, and I was not far from 'newbie' stage myself. I had developed a short induction course with a handout 'guide' to SL, materials which were based on my own induction experience with the 'Machinima' group.

Once participants had been recruited, consent forms signed, and induction sessions completed, the sessions started. It was not necessary for participants to be in geographical proximity to participate; the virtual world could be accessed through computing equipment with Internet access. However, participants needed to have suitable computing hardware, and a fast Internet connection. Most participants were resident in the same northern city during the research and accessed from there. One international student accessed from Saudi Arabia, and one home student accessed from somewhere in the south of England. The sessions took place in the evenings (BST) as four participants were studying on courses during the day.

3.4.3 The research study: the study project

The project took place in July 2014, and the 10-week International Summer School, ISS, was in full swing. This was a 'pre-sessional' introduction to the academic skills needed for study in a UK university and consisted of 22 hours of class contact time timetabled from Monday to Friday between 9 – 3.30. Four of the five international students were studying on 10 week ISS course so had to manage a heavy study load. All students were hoping to enter academic study in the following September; four at postgraduate level and one at undergraduate. I was teaching full time on the 10-week pre-sessional course; 22 teaching contact hours, lesson preparation and marking of weekly assignments. Two of the students doing the pre-sessional were in my tutor group, so I saw them on a daily basis in real life as well as in SL.

Over the course of a month, 8 meetings took place in Second Life, lasting between 60 - 90 minutes. The meetings, by common agreement, took place on Wednesdays and Sundays, usually early evening. Recordings were made of between 35 – 60 minutes of these using screen capture software, Camtasia. It was not possible to record the whole of each because of the large size of the files filming generated. My only equipment was a MacBook Air (MBA), which had low storage capacity and a warning message would flash on screen when this was exceeded. I also took field notes directly following each session.

3.5 Data from the research study

There were several sources of data for the study and differing levels of participation from participants as shown in tables (Table 1 and Table 2). The data for the study consisted of:

- Film recordings, 'machinima' of the sessions held in SL.
- Still shots of the screen showing the activity of manipulating SL
- Informal researcher field notes
- Texts from SL: chat logs; note cards of instructions; for activities
- Recorded interviews with participants on completion of the project

Table 1: Participants

Real life status	Number	Avatar name (as written in SL)	SL sessions	Audio interview
International students	5	Marozzi	1	No
		leen	5	Yes
		loncho1	5	Yes
		RogerMessi	3 + 1 briefly	Yes
		BryanY13	5 + 1 briefly	Yes
Home students	2	KrremlinDusk	1	No
		Matti46	1	No
Researcher	1	Aneloz	8	-

Table 2: Participant involvement (as noted in researcher diary)

	Date	Marozzi	leen	loncho 1	Roger Messi	Bryan Yi3	Home student	Notes
1	Sun 13/07	Y - laptop issues	Y	-			Kremlim Dusk	Problems with Morozzi
2	Weds 16/07	-	Y	Y - left early	Y	Y v. late	-	Recruited 2 new Ss
3	Sun 20/07	-	-	-	Briefly - got time wrong	Y	Matti	
4	Weds 23/07	-	Y	Y - late	Y	Y	-	Changed time as Loncho has dinner with host family
5	Sun 27/07	-	Y	Y	Y	-	-	Recruited new expert L2 user, but did not show up
6	Weds 30/07	-	-	Y	-	Y	-	
7	Sun 03/08	-	Y	-	-	Y slightly late	-	
8	Weds 6/08	-	- sent email later - forgot	Y issues with sound	- SL - left apology note	Y slightly late	-	

Note: Most sessions in Second Life lasted between 1 hour 30 - 45 minutes with some extra unofficial time for farewells, and arranging the next session.

Second Life session details: Appendix 6 contains a brief overview of contents of all eight sessions.

I used observation and technology to collect my data and record it. I wanted to capture what took place in the SL sessions, so that I could study what was happening in terms of spoken interaction, space and movement; so the visual as well as the audio recording could be transcribed. As I explained previously, my participation in 'MachinEVO 2014' had equipped me with camera skills. Using the SL camera viewer allows 3D camera shooting within the virtual world which, when recorded with screen capture software, provided a rich bank of data. However, the data recorded is my depiction of events as seen through my viewer, or camera, in SL as cameraperson and researcher. It is highly likely that none of the other participants 'saw' the events from the same perspective. I had developed limited camera skills and was able to zoom in

and out, focus on an object in-world and circle around it (the magic of 3D in SL) with my viewer to observe from any perspective. For example, when shooting footage of a group discussion seated on the balcony, I was not limited to the camera view from the eyes of my avatar, but could opt for an independent view which allowed me to rotate around the whole scene and capture shots from all angles as well as zooming in and out at will. Ironically, while my SL camera skills enabled different perspectives, they did not give me access to the camera viewer of others. Thus, I do not know what my participants could and could not see; their version of events; how they used their camera viewers.

The SL sessions were recorded using a commonly available commercial software programme, Camtasia, which recorded what I saw on my computer screen. The files were exported and stored as MP4 video format for analysis together with any field notes I made on completion of each session. Thus, data available for analysis consisted of: MP4 files (machinima / films) of the sessions; transcriptions of the spoken interaction recorded on the machinima; text chat records from SL; researcher field notes of sessions; audio recordings of interviews with participants after final session, together with transcripts.

The data did not solely consist of spoken exchanges; other activities happened peripherally. For example, participants communicated through their avatars using voice and text chat, either communally or in private. I wrote and sent notecards in SL to participants with instructions for activities. These written texts at times contained suggestion which prompted exchanges between participants. There was a textural element to negotiating the SL environment; participants needed to cope with written text in the drop-down menus to engage with the environment or manipulate their avatar.

3.5.1 Data analysis from the research study

The data generated in my project consisted of video recordings of activities in Second Life (machinima), my field notes, and audio recordings of interviews in the real world, and one by Skype, with participants on completion of the SL sessions. I initially transcribed the recorded material into text and then debated as to how to incorporate the researcher's field notes to provide a richer, more subjective account of the interaction as in the case of Gillen's account of Shome (2009).

Much of my data involved language, and researchers of interaction in virtual worlds have used various methods of discourse analysis to make sense of their data. Steinkuehler (2006:6) uses an interesting analysis "based on functional linguistics (Halliday, 1978) and big-*D* Discourse ...", which, according to Gee (1999:5), is concerned with how ideology and political affiliations may be aligned

with the choice of language. Deutschmann and Panichi (2009) used discourse analysis on some interactive sections of data as a means to detect supportive moves which were employed to maintain the interaction. However, my research focus was on social interaction and informal learning in a visually stimulating environment which supported speech, text, and movement and to focus only on one mode would limit my analysis. As Gee (2005:210) points out, there other agents that combine with text to produce meaning in online environments so a multimodal approach can provide a richer picture. I decided to use text and image and space on the page to analyse and present aspects of my data because the use of multiple modes assisted me in selecting and showing salient points from a mass of data. It also meant I did not have to 'transcribe' or transport the content of the images from Second Life into text, and so could give a more vivid account of the sessions.

The data could not be regarded solely as what is recorded on my screen, because there were invisible, sometimes audible, intrusions from other spaces; by this I mean that real life (RL) audibly encroaches into the virtual world of Second Life, and SL chat logs clearly show evidence of reaching into other digital spaces on the Internet. I do not view the online and offline, the virtual and the real world as dichotomies (Leander and McKim, 2003) but as overlapping to create new spaces which enable communication and knowledge building as well as heightening literacy practice for example, the SL resident can be directed to resources on the Internet.

As I stated previously, my route in this research has often been influenced by serendipitous events, and at a relatively late stage of the writing up this thesis, I chanced upon a way of presenting my data as visual narrative. I recount this in the following vignette as a lead into my rationale for employing a visual method, and the subsequent description of how I adapted it for my situation.

3.5.2 Vignette: My thoughts about data

The transformation of my vibrant video recordings of SL meetings into grey flat pack versions as textual transcripts was distressing me. How could I convey what I had experienced and seen during my research? I recalled a past debate on about the value of the visual image in contrast to written text, arguments in favour of the visual which drew on the adage – 'A picture is worth a thousand words' – were countered as shallow in comparison with capability of words to express abstract thoughts and ideas. Both can be equally usefully when called upon at different times for different purposes.

It was a challenge to condense my rich data into a two-dimensional, linear written account so I was pleasantly surprised to see a researcher at a conference draw on visual modes of representation to analyse data

(Bailey, 2016, New Literacies Conference). Here was a solution that would enable me to examine the complicated interplay of multiple sites and my perceptions of what was happening. It was compatible with my liking for the visual, and fulfilled my creative need to express myself using visual means. I began to feel very excited about data analysis, and I decided to use comic strip representations to highlight the salient themes I saw emerging from the data.

3.6 Visual research methodologies

I used comic strips as a means of making sense of and re-presenting my data. This method allowed me to better engage with the plethora of data from multiple sources because of the affordances offered to the researcher to provide comment and provoke thought through a powerful combination of image and text. Bailey (2016) shows how comic strips can be used to transcribe field notes and video data to present a spontaneous outburst of singing during a school-based Minecraft Club. Comic strips make it possible to juxtapose the visual together with the textual, but their use is not merely ornate for they are integral to the whole process of data analysis (Bailey, 2016:64). Engagement in the creation of visual narrative requires the same familiarity with and depth of understanding of the data as any academic research account. As text alone is not enough to show the relationship between image and text, the narrative of the comic strip creates a new hybrid space to present an account of what took place in different spaces (Smith et al, 2015:7). The resulting comic strip transcripts I compiled are an attempt to convey my interpretation of what took place in Second Life.

Sousanis (2015) holds that bringing other modes and integrating them into academic argument can be beneficial in expanding the vision within the research as opposed to a “rigid line of print-based argument,” (Smith et al, 2015:7). I found that by firstly producing a visual account, a ‘story’, of each of my sessions in SL helped me to highlight the salient, outstanding features, from the plethora of instances of interaction. The reproduction of the story in a small number of images together with the text within the comic strip highlights the message I wish to convey from a specific event during a session, thus enabling me to make sense of how the different layers contributing to communication were interrelating. I deal with words in my everyday practice within language education, but when they are combined with images in comic strips, they become really ‘powered up’ as one augments the other to create new symbiotic meanings. The comic strip story enabled the theoretical implications surfacing in each story to become more easily apparent and facilitated the subsequent textual accounts I supplied. This meant that although I was using images, it was not as a static embellishment to display shots of the meetings in SL, but as a dynamic representation of an experience. This use of multimodality as an added dimension in a

'conversation' can only add to the depth of the experience in the research of literacy (Smith et al, 2015:3), but is equally valid in observing communication. Thus I used comic strips (using Comic Life software) to 'storify' aspects of each of the eight meetings as a transcript from which to work.

3.6.1 Multiple sites

"Digital literacies, or literacies in online environments, bring particular challenges to research; one of these is the multiple constructions of space" (Gillen, 2011)

Also influential in my choice of visual representation was the fact that the spaces being inhabited were not only 2D or 3D, but multiple overlapping meshes which could not be delineated. Multimodal but also the multi-sited actions and experiences are a feature complementary to the nature of Second Life. By this I mean that Second Life is a three-dimensional environment in virtual space, but in communication with others, its users can also reach into other online spaces to embellish and clarify meaning. For example, interaction can be enhanced by providing a link to a website in text chat while having a conversation on the topic using voice chat with an avatar. Another factor is the extent to which and in what ways real life intervenes or interacts with the virtual. In most cases this can only be hypothesised, but sometimes the background of real life interaction is picked up and relayed into the virtual environment through the microphone on the laptop of a participant. I think this resonates with Bakhtin's ideas of dialogism in language (Vitanova, 2013:246) and extends how meaning is co-constructed.

As the digital becomes more rooted in peoples' lives, meaning making is increasingly taking place simultaneously across a range of contexts. How to comprehend these spaces and their relationship to each other is a problem for the researcher in more than one domain. In literacy studies, where literacy is viewed as a social practice, it is quite firmly linked to contexts. This is causing problems as digital texts cross material boundaries and occur less frequently as solely 'events' (Barton & Hamilton, 1998) in material spaces. Davies (2014), in an exploration of the role of Facebook in young women's lives, found they employed a diversity of resources to engage in meaning making visually and textually, online and offline. Davies proposes that we produce the spaces we subscribe to through our own discourses.

... we can understand space as something that is produced through our own discourses and that each space is defined in relational ways – that relationships mediated by multimodal interaction amongst people and things concurrently produce the space or domain of practice.

Davies, 2014:76

My sessions in SL can be comprehended as a 'domain of practice' in which the discourses of the participants determine the uses of space. Thus, if spaces are socially inhabited, then they are socially constructed and conceptualised, and meanings attached to items can be negotiated.

This multiplicity also resonates with rhizomatic views (Deleuze and Guattari, 1987) conceptualising relationships between items as equally situated along space-time path with no delineated beginning or end. This itinerant viewpoint of multiplicity is compatible with the concept of the Internet and with other digital means of meaning making; it also posits language as related to its connections with everything around it: "a rhizome ceaselessly establishes connections between semiotic chains, organizations of power, and circumstances relative to the arts, sciences, and social struggles ..." (1987:7). However, while Deleuze and Guattari may offer an unprivileged world viewpoint, I, as an interpretive researcher, feel the need to privilege and respond to what I see and open it for discussion. My reader can then decide whether to accept or reject my viewpoints.

3.6.2 The Process and analysis of data selection

I made comic strips of my data as part of the process of analysing it; I called them stories, and they constitute the backbone of my analysis (see Chapter 4 Analysis). It was a messy process of data extrapolation and interpretation. The production of each comic strip began with an intense dialogue and between me and the data; viewing the clips, reading the written transcript and referring to my field notes and reflecting. This took place with a view to seeking relationships between the data and my research questions; how incidents, snippets of conversation, and interaction could make relevant contributions to answering my research questions. This resulted in me noticing some themes emerging, and guided me to look for the following.

Related to RQ1, I selected items which affected how participants managed and exchanged information. As this was mediated by technology, I looked for occurrences of how technology affected communication, and instances of participants creatively using technology, *techne*, to communicate. I looked for how meaning making occurred.

I selected items which concerned the use of spaces and layers of interaction to answer RQ2. How the different spaces, real, virtual and hybrid, were used, and how items in one space might affect and disturb items in other spaces.

Related to RQ3, concerned with the tasks I asked participants to, I looked at what happened when participants had specific tasks to do; whether this resulted in longer spoken contributions and whether there were instances of learning occurring.

Once I had established an item or message emerging from the data that I wished to portray, I created stills from scenes in my videos of the sessions and added text. I edited the image to make it easily visible by increasing the light on dark images (it had been sunset in SL during most sessions), and, sometimes adjusting the size, converted these to picture format. I compiled the story into a comic strip format using a software programme Comic Life. By adding pictures and using the dialogue from my recordings of the sessions inserted into speech bubble format of the software, I built up a visual account of what I perceived to be a salient point. To do so: I extrapolated the images from the screenshots, manipulated the images, and then manipulated the story into a presentation of what I wished to highlight in relation to my research questions. So, as an interpretative account, it was a very subjective and focused attempt to relate what I observed in close examination of the data to my research questions.

My approach to compiling the comic strips changed after a couple of attempts. Initially, I had sought to present a series of images as representations of themes to illustrate the salient items surfacing in the recordings. For example, in *Story 1- Perceptions* I tried to highlight failings of technology using a series of panels with some accompanying dialogue in 'balloons', and narrator comments. However, an important element was missing. Comics are for recounting stories; as avid comic strip readers know. This narrative element was lacking from my comic strips as I realised from the blank faces of colleagues who viewed my first attempts. The first story, '*Story 1- Perceptions*' is a series of illustrations of the problems happening, not a story. So, acting on principles of comic strip writing (Kneece, 2015) employing storyline and use of panels to illustrate the action, I decided to make each comic strip into a story to illustrate an event or some relevant item relating to my research questions. I used snippets of dialogue from the transcripts I had made, preferring instead to rely on my comic strip stories as the mainstay for presenting the salient points emerging from the data. These comic strips then acted as a springboard for interpretation.

This method meant exercising discipline in the selection of items from the data, but it resulted in a dynamic representation of the data. Selection was dependent on intimate knowledge of the data and then required some deliberation about how to best present the story. The result is a subjective account and some would say it cannot withstand scrutiny. But, the weakness in this visual method, subjectivity, is also its strength. Comic strips are associated with popular culture, and could be regarded as spurious and superficial, but by the same token, they democratise data. In this context, that of research into a virtual world, where the data consists of recorded images of people and artifacts as representations of real life, comic strips are entirely appropriate.

3.7 Storifying

Transcription is to some extent influenced by the transcriber's previous experience of how to represent spoken language in a written form, "If talk is a social act, then so is transcription." (Roberts, 1997:167). There is a transformative process involved in translating the lived experience of the three-dimensional world of spoken and gestured communication into a two-dimensional representation as text, which favours language. Words become emphasised at the expense of other modes, and language is never neutral as words express "particular dispositions and value systems" (McKinney & Norton, 2004:193). To redress this I decided to use images, and also to add depth to the transcription of data and move from a rendition of data as pure language into a more visual mode. The data I transcribe is a series of screencasts, machinima films of the sessions in Second Life. They consist of sound, and movement, filming from different angles of my camera viewer in SL. But they also capture snatches of the world external to SL which occasionally encroach on the space. By using a visual mode, which also incorporates some text, I achieve a more faithful interpretation of events. Roberts (1997:170) suggests a reflexive account should be provided, but that also a layered approach in which different levels of depth can be used as needed by the researcher to represent what occurs. Whatever the particular system employed, it needs to be clarified for the reader. I opted for a visual presentation of my data and here I provide the key to understanding it.

The use of storying as a research methodology is becoming commonplace in narrative analysis. The technique relies on people relating their life stories, which are then interpreted and provide a useful lens for analysing how people construct the social world and the values they attach to their personal world (Denscombe, 2014: 291). Sikes (2005) chooses storying to provide an evocative account of a visit to a special school to illustrate school practices. This way of writing with recourse to a more emotional and dramatic discourse of the 'here and now' is an attempt to give the reader an authentic view of how the school really is as opposed to a more distant academic account. In a similar vein, I take recourse in narrative, but one drawing on a more visual kind of discourse because my data is principally visual and my experience is visually mediated. My data analysis does not rely on storying, but something I term as 'storifying'. The difference between these concepts is that while storying involves someone telling their story and this consequently being analysed, storifying is concerned with contrasting stories. In other words, I engage in a process of making stories out of data, or transforming facts into a story. While a story can be told using many modes, Denscombe (2014:291) stipulates stories used in narrative analysis should have three features: a purpose, such as a moral message, an account of an event; a plot line which shows some development between past and present; the involvement of people. A strong narrative is a powerful device, and comic strips which tell

stories are persuasive. My stories serve two purposes; they tell accounts of incidents that happen in the sessions, or present a message or theme I wish to bring attention to. The plot lines I create show how the happenings in the stories (past) link to my research questions (present). The characters in my stories are my research participants as they are represented by their avatars.

My stories are hybrid representations of the spaces I explore and analogous to the relationships between these spaces; neither comic strips nor photos of real life. The content is taken from the filming of meetings in Second Life, and uses still shots of virtual characters in a virtual reality. So they are real photos, stills from the film, but show a virtual space inhabited by virtual characters. Burnett (2011:216) differentiates between three spatial dimensions associated with networked technologies, “material or physical.”, “connected” – i.e. resulting from connections between people, places and texts, and “the textual” concerned with what appears on screens. My stories show what occurs in the virtual world meetings between participants in a series of comic strip panels, ‘boxes’ containing images, (see example in Figure (iv)). I add a layer of speech in some but not all panels using the comic strip stylistic device of the speech bubble to do so. The words I insert are taken from recordings, or their transcripts. In some panels, I add a ‘thought’ bubble, which is my interpretation of what I as a researcher, and also present at the session, perceive the person behind the avatar to be experiencing. The exceptions concern thoughts attributed to my own avatar, in which case these reveal my thoughts at the time.



Figure (iv) Example of layers of interaction in comic strips

I gave the stories headings and/or subheadings which tended to be indicative of the themes I wished to highlight in the story, similar to that of the headlines of news stories. I arrived at these headings through a lengthy process of engaging with the data in a search for items which related to my research questions, and is often the case, as in research within adopting a qualitative

approach (Denscombe, 2014). Another textual device in the stories is that of the 'narrator' box. This box contains text which either serves to describe the story in the comic strip or to make a comment on something of significance. Kress reminds us of the material aspects related to mode that bear "the stamp of past social-cultural work, ... the stamp of regularity of organization." (2005:174). This is why I chose to employ the stylistic discourse of the comic strip in textual inclusions in my comic strips. To do otherwise would be a betrayal of the mode; besides I resort to more academic discourse in the accompanying written account to each story. So comic strips consist of multiple layers of visual and textual components, and text used can be presented in visually different layouts according to purpose, these layers offer a way to "explore the messy complexity of real life practice," (Al-Jawad, 2013:371). The use of comics may seem inappropriately low culture in academia and smack of the carnivalesque of Bakhtin (in Storey, 2006) but recourse to another perspective is liberating in itself and offers an alternative viewpoint or 'Le regard' (Foucault, 1973) from the expected one. Thus adopting creative ways of viewing, can unlock more emotional responses to data.

3.8 Ethical issues

In this part, I explain how I considered the ethical issues at stake when research involves people, and when this also involves participants' representations as avatars in virtual worlds. I describe the measures I took, and the procedures I went through to obtain approval for this research project.

When research involves people, three main areas of ethical issues need to be addressed: informed consent; confidentiality; and the consequences of the material or data collected (Cohen et al, 2011). It is good practice to produce an information sheet for prospective participants which states explicitly what is expected of them, what will happen to the data collected concerning them, and to give guarantees of anonymity. There are further considerations when participants also have a virtual identity as an avatar, and the same principles of providing information, guaranteeing anonymity and gaining consent need to be adhered to. Research in virtual worlds requires two separate consent agreements; one from real life participants and another on behalf of their avatars.

Research involving students in the University falls under auspices of the Ethics committee and approval was consequently sought and granted. Endeavors were made to guarantee participant anonymity and to protect their safety. However, questions of ethics do not end there, and besides being answerable for providing information and guarantees to the participants involved during the research phase, the researcher is also answerable at

other stages (Wellington, 2000:55). For example, it involves accountability for how the voices of the participants are interpreted in data analysis when data which has been obtained using ethnographic methods (Clough and Nutbrown, 2002:82).

3.8.1 Ethical Procedures

I compiled two separate information sheets, one for international students and one for home students. In these documents, I stated clearly the purpose of the research, what it involved exactly, and what data I would collect, and what would happen to the data. I also explained this orally, taking care that the international students understood. I asked participants to give consent a) on behalf of their physical persona and b) on behalf of their avatars. There was an option for them to have the name of their avatar anonymised in the writing up of data, but all concerned gave permission for this to be used.

In the virtual world, I tried to make sure that participants referred to each other by their avatar name. Some of the participants had met in RL: the two Chinese males were in my tutor group on Summer School; the South American male had met the female from Saudi Arabia (both had been in my afternoon class the previous term); the two L1 speakers had met each once at the meeting I instigated to explain the project. Apart from those acquaintances / meetings, participants did not meet each other, except in the virtual world as avatars.

I felt a responsibility to protect the participants in SL. There are situations where 'griefers' obtain pleasure from exploiting their anonymity and behaving badly towards 'newbies' in SL. To avoid this, I had rented a plot of land in Edunation Island, and held the meetings there. We also visited other places in SL, a virtual museum, and some landmarks on Edunation Island, but I did not feel comfortable at the thought of going further afield and meeting up with characters I did not know, and I did not have a great deal of experience in SL. I think the most uncomfortable situation as an observer for me was during induction sessions when each new avatar was 'born' into a protected no man's land area. It was at this point I had to contact each new participant and to direct them to my space by sending them an invitation. Once they had reached my 'home', it was easy to get them to set this as the place they returned to in world.

3.9 Summary of Methodology

I started the chapter with a narrative of my researcher journey regarding my experiences with Second Life and the development of my virtual world skills, as an avatar, in manipulating the environment, and in filming. This was my personal learning journey and it showed how I moved from an outsider into an accepted member of a community of practice of educators in SL. I described

my theoretical framework, situating it within sociocultural theory, and drawing on aspects of Goffman's theory of impression management. I explained and justified my approach which drew on some understandings from narrative approaches and netnography, and I then gave specific information about my research study, its participants and matters pertaining to ethics. I explained how I decided to use a visual approach to data analysis and provided a justification for my choice of comic strips to do this. I explained their pertinence to analysis of data and how the themes of each story evolved, and how I applied narrative in my analysis. I described the process of analysis and the selection criteria for items highlighted in the scenes. In line with the importance of declaring social positions in qualitative, interpretivist research (Sikes, 2004), I have declared any possible an historical or background influences which may impact on this research. I now move onto the next chapter, my analysis of data from the sessions.

Chapter 4 Data Analysis

4.1 Introduction

Different methodologies generate different types of evidence and determine the nature of the data, whether this is 'hard' or numerical data or subjective accounts from interviews (Sikes, 2004:17; Wellington et al, 2000:97). Both my data, and the methods I have used to collect them, bear traces of my influence, which some positivists would term 'contamination', but to which I brazenly confess. I have selected the data that I wish to present in this analysis chapter because that is what qualitative researchers do, and because to give equal weight to all data would present a flat picture without any insights (Wolcott, 1994:16-17). I draw on the following raw data from two domains, the virtual and the real world, as my selection for analysis and interpretation:

- Screen capture of events happening in SL; as video and stills
- Spoken interaction between participants in-world
- Text chat interaction, public and visible to all, and private between my avatar one to one chat in world
- Menus specific to the software of SL
- Audios and transcripts of the interviews in the real world with the four international students involved after cessation of the project
- Events happening in the 'real life' context of the participants', on the other side of the computer screen, which occasionally intruded 'in world'.

I lost a chance to obtain further data through lack of experience as a researcher. Several months after the sessions had finished, I offered the four involved international students an opportunity to meet me individually and view clips of the sessions they had participated in. I did this as ethically sound practice, and to check I still had their approval to use the data. Two met me, and the other two pleaded heavy study obligations. We watched the sessions they had participated in, and chatted informally about the whole experience. However, in retrospect, I realised these had been missed opportunities to enrich the data by using a method similar to Pink's (2007:112-3) when she invited participants to talk with her about their experiences as they viewed video footage.

The purpose of analysis is to give meaning to the data and present what I learned from the research study. As a qualitative researcher, I started the analysis process with a description of selected items of data, which by their selection had already become tainted as "implicit analysis or implicit interpretation" (Wolcott, 1994:16). For me, the machinima clips provided a

vivid record of the sessions, and with each viewing, as I wrote an initial textual transcription, I felt a strong sense of the experience again. I wanted to use these pictures to capture the real flavour of the sessions, and to present my data. I selected items to present which spoke to me; snippets of interaction which would bring quirks of the environment under scrutiny; other snippets of interaction which were representative of what happened over longer periods; events which showed the positive and negative sides of using a VW. And because my intention in setting up this space was to move away from the traditional classroom transmission way of teaching (*2.2 Learning and Language Learning*), and the 'classroom-ness' (Burnett, 2014), I selected snippets for their 'unclassroom-like' quality.

This started with stills, taken from my machinima, as illustrations of events. But then I realised that I could use images to better convey the multi-layered nature of what was happening at any given moment in SL. I decided to show the themes I had identified in the data, as a series of stories told through comic strips. Thus, the comic strips do not act as embellishments or illustrations of my textual accounts, but as narrative transcripts which present and interpret the data. The presentation of my data as comic strip stories indicates the salient points I consider relevant to answering my research questions. The adoption of a visual narrative approach to data analysis seemed a natural progression from using images as illustration, allowing me to present the multimodal nature of the 2D landscape in which the project was located. Just as my students were positioned as multimodal readers, so too, I wanted my readers to also experience this way of engaging with the data.

During my data analysis, the research questions (RQs) evolved into their final shape, not unusual in qualitative inquiry as RQs may develop in response to data analysis (Denscombe, 2014:246). As I viewed my data, unpredicted themes had surfaced, concerned with unexpected intrusions into meetings in-world. This meant concepts I had not considered during my literature review needed exploration, one being the intrusion of offline activity into online spaces, and vice versa, as I stated, *Chapter 2.2.5*.

In this chapter I present the stories, in comic strip format, and follow each with a more academic rendering of my interpretation of their significance to my research questions. I highlight the themes that have surfaced in each story, however as argued above, I hope that much of the interpretation is also shown in the way I have selected and visually presented the data. I go on to discuss the events and emphasise the significant points of the research. Finally, I end the chapter with a summary and commentary on the main points emerging from the data analysis.

4.2 The Stories

There are eight main stories. Each story has a heading, and some contain sub-headings. I present each story as a comic book narrative, and in the ensuing explanation and analysis relate them to items I have mentioned previously in literature I referred to in Chapters 1 to 3. The Prologue sets the scene with information about the context and participants. I included a “Behind the scenes” section to point out the problems of being a participant researcher in a 3D virtual world.

Prologue

My Stories - Introduction; the researcher; the in-world context

Participants: the students; undergraduates; pre-sessional students

The Stories

Story 1: Perceptions

Story 2: Norms

Story 3: Embodied Spaces

Story 4: The Negative Speaker

Story 5: Chat and Chatbox; Smalltalk

Story 6: Spaceship Spaces

Story 7: Making Soup; Planning

Story 8: Massaging Technology; Camping in Mongolia

Behind the Scenes: Researcher Slips

Summary



The Researcher

I did not wish to adopt the form of a robot or an animal avatar. However, I did not intend my researcher avatar to look like me; I just wanted to be approachable. From the initial standard issue spiky-haired female with a red jacket, my avatar, with its distinctive green bob, had become a little more individualistic.

Spaces

The meeting place was the circular, stone-flagged terrace of my house, La Maison Bleu, overlooking a tropical beach setting. The waterfront scene comprised a (deserted) beach bar with several tables and chairs, and a sprinkling of palm trees. My terrace contained a compact round table with an open beach umbrella and four bistro chairs. The whole setting was meant to be relaxing and non-threatening – a place to chill out.



The international student volunteers in the stories are loncho1 (hereafter, Loncho), leen (hereafter Leen), RogerMessi (hereafter Roger), and BryanYi3 (hereafter Bryan). Another volunteer was Marrozi, but he had been unable to access the 3D environment, and was only briefly present at the first meeting. My participants were from different countries, different continents and had different cultural backgrounds, and English was the common language for them to communicate in. Leen was from the Middle East, Saudi Arabia;

Loncho from Chile, South America; Roger and Bryan were from China. I had met them all in real life (RL) and had at some time been their teacher.

Loncho and Leen had met in real life as students in my afternoon Social English class, Term 3, earlier in 2013-14. They had been studying English for several months already. At the end of the term in June, Leen had returned home for the summer to Saudi Arabia to await the start of her PhD the following September; Loncho had gone on to further prepare for entry academic study, and to do the 10-week International Summer School (ISS). Roger and Bryan had just entered the UK and were doing the 10-week ISS, in order to meet the entry requirement to start their academic courses in September. They were students in my tutor group and I saw them every day in class. All were intending to study academic courses, but at different levels: Leen, to do PhD, Loncho and Roger at postgraduate level, and Bryan at undergraduate.



The two home students, KremlinDusk and Matti46 (hereafter Matti), who agreed to participate in the research project were both undergraduates. At the time of the project, both were just ending their first year of UG study, and were just starting their summer break. They were slightly younger than all the international students except Bryan.



I selected the items in this story because the first session was dominated by issues with technology. This proved to be more of a barrier for some than others. Three participants, Leen, KremlinDusk (KD), and Marrozi turned up. KD initially could not hear us speaking; Marrozi could not see in the environment; I recorded the session, but, through an oversight using the settings, only recoded my own voice chat. I noticed it was not clear who had

picked up what information. I needed to check on this; it was not possible to rely on body language and so we all had to articulate information that we might have visually picked up in RL. At first the relaxed setting we shared seemed to prevent the technology problems from becoming a disaster. However, things escalated ...



Sound was a problem for KremlinDusk (KD) who could not hear anyone speaking, and had problems using the voice facility, so he resorted to text chat (3). I advised him to exit and then re-enter the 3D world as this can sometimes solve problems with the Second Life environment. KD did this, "*Just going out,*" (4)., and on this occasion leaving and then returning was fruitful, because on his return he could both hear and speak.

On the other hand, vision was causing the avatar of Marrozi to behave erratically. We caught glimpses of him charging around the virtual environment, often running past us, and even through us (this is possible in SL) as we sat on the terrace (9). At first this was slightly amusing, then, as solutions could not be found, tiresome. As we realised the severity of the situation for Marrozi, KD and I made numerous fruitless attempts to assist him to join us around the table (12). Technology had become the central focus of the session, distracting us from the activities that I originally had planned for the session. Marrozi's problems were caused by the low capacity for graphics of his laptop. This meant he had a limited perception of the beautiful island as a dark, shadowy grey impression (8); it became apparent he could see the chair I invited him to sit on (12). Sadly, the problem was insurmountable and Marrozi was unable to take part in further sessions. After this, I became more vigilant about the hardware, laptops usually, that later recruits to the project would use to access SL.

Technical issues were not exclusive to my participants, and I was frustrated to discover after the session that I had set the screen capture software to only record my own voice speaking on the video clip. I was not the first researcher to do this as Panichi and Deutschmann attest (2012:215), but it means I did not have a recording and of the spoken contributions from the other participants who turned up at the first session. So, for that session, I have a video recording with a one-sided conversation of my spoken contributions, ironically emphasising technology issues as the salient point emerging.

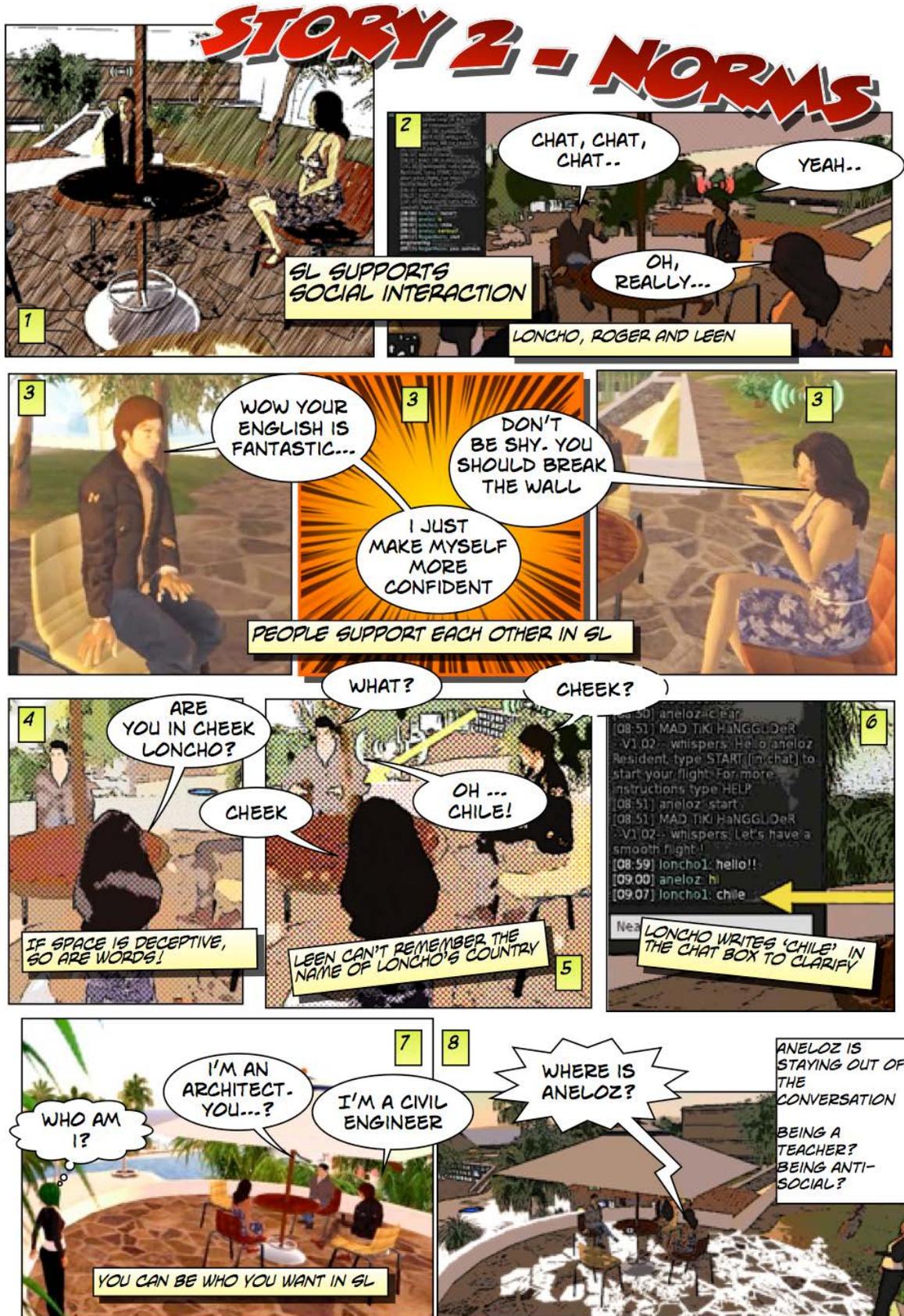
On a more amusing note is the inbuilt capacity of avatars to ape the human facility for seemingly, unconscious (?) persistent movement (5). This feature means avatars are scripted to make slight movements constantly, often regarding their nails with great relish (5), and if they are sitting, they cross and uncross their legs, or fold and unfold their arms. This is meant to enhance the immersive experience by convincing the user of credibility of the in-world presence (Dalgarno and Lee, 2010), but their repertoire is restricted and stylised (Minocha and Roberts, 2008; Deutschmann and Panichi, 2009:312), they look pretentious as they focus on their fingernails. Apart from this, other features of gesture and body language are available through menus and commands, but it needs some dexterity with the 3D world to be able to manage these. So generally, the prosodic features in f2f conversation are lacking in SL and their movements limited (Minocha and Roberts, 2008;

Deutschmann and Panichi, 2009:312), which means a greater reliance on language to communicate the message during social interaction.

The first session brought home the importance of perception. How we perceive reality may be a topic of academic, metaphysical debate, but in SL what, and how, we perceived things in sensory terms often became the initial focus of exchanges. In real life we assume that, unless someone is visually impaired, we see concrete things in the same way, and attach common meanings to the behaviour associated with them. For example, we share a common concept of what a chair is, and what sitting on a chair means. In Second Life however, our communication and perceptions are mediated by technology, and this disrupts our vision and affects our (avatar's) behaviour (as Marrozi in 9-12). A primary factor is being able to access the virtual world space. Technology shapes and challenges any interaction so that if there are barriers due to technology, as with Marrozi and his inadequate hardware, then participation is restricted, as noted by several researchers (Herold, 2012; Peterson, 2012; Rogerson-Revell et al, 2012) as I mentioned in Chapter 2 (see p51). Also of importance are our dexterity and skills as users of technology and the affordances of a virtual environment (Boellstorff, 2008). KD (4) solved his technical problems with a workaround, by exiting and re-entering, suggesting that the in-world space is a space/place to which people can drop in and go out of in the same way actors go on and off stage.

The ability to communicate is an important component in creating the feeling of social presence (Bronack et al, 2008; Sater,2015), and there seemed a preoccupation with hearing and being heard (1) in SL. Participants frequently asked, "Can you hear me?" for reassurance as there is nothing worse than talking into empty space. Presence and co-presence are important in a social-constructivist learning approach to learning (section 2.4.2). Despite the predominantly visual feel to the experience of SL, communication tends to rely on voice or text chat, both of which are language dependent, which explains the frequent requests for "Can you hear me?" As I pointed in Chapter 2, 2.4.2, the inability of the avatar to use body language effectively, means users will need to call on other strategies, as Satar (2015) proposes.

While those who use technology to mediate communication need to be 'tech-savvy' (Boellstorff, 2008), more importantly they need to have the means to access the technologically constructed environment. If computing capacity is not compatible with the requirements of the virtual world, as in the case of Marrozi, the social space does not exist. He could not function and contribute to the performance front stage in SL (Goffman, 1958). In subsequent sections of this analysis, I assume that the barrier of access has been discussed and overcome.





CHANGING CLOTHES IN THE MIDDLE OF A SOCIAL CHAT WOULD BE CONSIDERED RUDE IN REAL LIFE PLACES. IS IT ACCEPTABLE FOR AVATARS IN VIRTUAL MEETINGS?



In this story, I wanted to show how a supportive community evolved in the virtual world space and how participants encouraged each other to interact through interaction. It illustrates some similarities and differences between social behaviour in small group interaction in a virtual world as compared to real world. I introduced the framework I draw on for my analysis with a visual analogy to the layers of spaces which contribute to social interaction (Goffman, 1959).

This was the second session for Leen, but the first for RogerMessi (hereafter Roger) and for Loncho. I had met all of them in real life (RL) as their teacher. I had given each a short induction into Second Life and so had seen their (initial) choice of avatar.

Story 2 Norms

[1:30] We were seated around the table on the terrace. I briefly introduced them to each other, and slipped away to stand in the background (7). Roger started up a conversation tentatively (2). Then Leen joined in, and the difference in their speaking was immediately apparent. Roger had only been in the UK a short time, and struggled to express himself in spoken English; he sometimes missed out sounds and ran words together in unexpected ways, e.g. I've been in UK tweeks (= two weeks). Fellow participants were sometimes slow to respond to his comments as they were unused to his pronunciation. Leen, on the other hand, had lived and attended English lessons in the UK for nine months, from September 2013 to June 2014. She introduced herself briefly and spoke with ease, clearly and confidently (2). Roger expressed his admiration of her fluency in English (3). Leen accepted the complement gracefully and reassured Roger about his pronunciation (3 saying, "English language is not our native language so don't be shy." This was the first example of how supportive students were of each other in the meetings.

Next, Loncho introduced himself briefly, and engaged in a few exchanges of social catch up with Leen as they had met previously in my Social English class. Loncho had been in the UK for several months and in terms of fluency, was fairly at ease with speaking. There was a little confusion about where Loncho was, the UK or his country, when Leen asks, "– are you in Sheffield or in Cheek" (4, 5), resolved by Loncho writing 'Chile' in the text chat (6). Leen was surprised to learn Loncho was still studying English and doing the 10-week Summer School. Leen asked where I was (8) and I explained that I was nearby, on the edge of the terrace, close but keeping in the background so they could speak without depending on me.

The group maintained conversation successfully and spoke about several topics: aspects of their studies; the Wednesday afternoon guest lectures for

ISS; the trips for students; information about their countries; the high temperatures in Saudi Arabia. Occasionally there were silences, but also instances when they showed skill in interaction, and a desire to do so (9). Despite misunderstandings, which they managed to resolve, and requests for repetition of utterances, the group gradually became more relaxed as they got to know each other better. At one point Loncho suddenly stood up, turned his back to us (10, 11), and started to disappear (12). I was worried he was having technical problems, but then his avatar slowly transformed from a young male in jacket and jeans to a mediaeval warrior (13-14).

[40:00] I felt we should go somewhere and explore the virtual world a little. I had planned a shopping activity,

A: Okay, shall we try to do something else or are you happy just chatting?

R: Right I .. do you suggest that they can all give some more information about themselves and their families and talk about that...

Consequently, I put my activity on hold because of Roger's suggestion (9). I did not try to override him, because it would have been counter to my attempt to encourage informal learning, and to give them some control. They began one by one to give a more detailed account of their family backgrounds starting with Roger. He delivered a lengthy monologue-like account of his family. There was no response from the others, probably because it was not clear what he said. The teacher in me lamented the lack of interaction, and I desperately wanted to intervene and encourage a response from the others. But I held back and said nothing, and Roger finished talking about himself abruptly and invited Leen to take the floor.

Leen next volunteered some information about her family situation in Saudi Arabia. And, Loncho, curious for more detail, and perhaps because they had previously been classmates for a short time, questioned her further. Roger also joined in, and as the spotlight moved onto Loncho, the situation gradually became more dialogic with all three listening and responding to contributions in a fairly natural way. My frustrations dissolved, and I felt pleased the group was drawing closer together. From an unstructured activity, there was a discernible progression from giving information, to developing social interest and interaction, and then cultural exchange. I show one such instance, which is fascinating because of the exchange happening between three people from three continents with very different cultural backgrounds. I have not visualised this as comic strip simply because the scene was exactly the same as those in Pictures 4, 5, 7 and 9. The speakers are:

Le = Leen; Lo = Loncho; R = Roger

Le: so when you lived in Chile you live with your family

Lo: yes but when I go back to Chile I think I will live on my own now. I was living with my family because I don't want to spend so much money living by my own because I wanted to take money to come here. Because living with your family you don't have to pay rent and things like that

Le: *[laughs]* so in your culture it's free to live alone if you want?

Lo: - yes, yes

Le: you know in my culture if you are not married, and you are still studying or working, and you don't have any children or life you should stay with your family. In my culture maybe you know about that

Lo: yes I heard about that. In my culture it's not like that. If you have a work and you can pay your own rent and have your own things, you can move out.

Le: so here *[she is in Saudi]* many people save money before getting married. You eat and drink in a family home and do anything with them so you save your money

Lo: yes

R: yes so do I

Le: how about China Roger?

R: oh China if you want to ..., if you want to live China, you have to undertake lots of pressure - like you have to save money for buying house and you have to find a good job, but it's quite difficult to find a good job for student like me

They sustained this interaction for 8 minutes [40:00 to 48:00], and again I offered to take them somewhere.

ANALYSIS: Norms

Norms: A social and supportive community

First item of note was the building of a small community which welcomed in and supported outsiders gradually drawing them into the circle. Leen and Loncho, had met previously and had more experience of the UK and of speaking in English. Roger had only been in the UK for two weeks, and was not confident in speaking. It was clear that as they chatted, they were beginning to establish a supportive community of practice (Lave and Wenger, 1991), explained more fully in Chapter 2 (2.3.3. *Communities of practice*).

As a community of practice (CoP), they had elected to come to the sessions to share expertise and experiences. Their shared domain of interest was in using English to communicate, "Our aim is to practice our speaking." (Roger, 9), and possibly tackling life as a student in the UK. Leen and Loncho are the more experienced members in terms of living in the UK, and Leen probably

has the most expertise in terms of academic practice. They encouraged each other through interaction; building up relationships and gradually giving more information of their real-life situation. Specific instances of how the community was starting to work together were evident. Leen was supportive of Roger in his speaking inviting him to comment, repeat or clarify what he meant. Her encouragement made Roger more confident about speaking English when she said, "Don't be shy. You should break the wall." (3). When there was confusion, they worked together to establish meaning through negotiation, a feature of CoPs (Wenger, 2010), and learning was occurring through social interaction. Loncho clarified the confusion about the name of his country and wrote 'Chile' in text chat. The support extended to assistance in how to use features of the SL environment more effectively when Loncho gave Leen explicit directions about using the text chat box as she struggled with the menus in SL to open text chat; an indication of sharing resources of their practice within the online, virtual community.

As the feeling of trust built up, the supportive community came together and began to exchange thoughts and aspects of their life histories. Leen, Loncho and Roger started to proffer more personal, sometimes intimate information about their families and situations. This indicated a certain proximity as members of a group, which seemed to be conducive to learning. They discussed social and cultural experiences connected with learning in the University, which as I stated previously in Chapter 1 (pp. 5–6), is a means of entry into the academic community (Reinhardt and Zanden, 2011). Leen seemed to have taken on the 'facilitator' role, which signified she was taking on some degree of responsibility within the group. She was skilful at keeping the conversation going and drawing Loncho and Roger out if they appeared to be shirking. This might have been my reward for skulking in the background (8) and not intervening to give them some independence and power, which is so important for the development of learner autonomy (Ellis and Sinclair, 1989). I saw that Roger was being drawn in from a position on the outside to a member of the group, what Wenger would describe as 'peripheral participation' (1998).

Norms: Social behaviour and presence

A further item of note is social behaviour. The norms of social behaviour in interaction seemed to mirror those of the real world, and guided our actions in the virtual setting. But some behaviours in SL would be deemed anti-social in RL. For example, it would be strange to change clothing or appearance, as Loncho did, whilst sitting around a table in conversation with others (11). An avatar is answerable to the person controlling it in another space. Interaction in SL occurs through an avatar, which is manipulated by our commands in the backstage in-world layer. Avatar customisation is achieved by physical manipulation using the keyboard and mouse resulting in changes to the

avatar. This layer is only visible on the screen of its owner, but all those within proximity in-world would observe visual changes to the avatar occurring.

Dyer (2015) believes the props also contribute to the performance online. In a virtual world, the props would be the rendition of a particular context. The setting for our discussion in-world consisted of a table and chairs on a terrace on a tropical island, indicative of a place for relaxed social interaction. As an offline social construction, I hoped it would invite identity performances grounded in social chat. This would have been somewhat dependent on those present sharing the same cultural meanings (Van den Berg, 2008), and recognising the situation. Loncho adopted the norms of social interaction in the discussion so I can only surmise that, while experimenting with the environment, he had forgotten social norms, or thought we could not see him – I do not know. This lack of information is part of the ‘uncanny’ nature of the Virtual World and one which after a while, interactants seem to accept.

Story 2 Norms: Shopping

[48:00] To conclude the session, I took them ‘shopping’. I hoped the activity would bring some novelty and enjoyment, and prompt some interaction and use of language. I had access to a holodeck of a small shopping mall, the Boutique Renoir, which consisted of two floors of small boutique style shops. Here the participants’ avatars could try on and obtain different items of clothing, accessories and hairstyles – all for free. I managed to rez the setting, and eventually we all managed to teleport there. It was absorbing choosing new clothing and accessories, but it was somewhat chaotic to have three avatars crashing about in a small shopping mall. The focus on obtaining new clothing involved manipulating drop down menus to give commands, and controlling the movements of avatars as they wandered from shop to shop; there was little conversation.

ANALYSIS: Norms: Shopping

I had expected more spoken interaction in the shopping activity, but there was little. Their silence might be accounted for by the effort being put into decisions about their visual representation in our community; this was an important opportunity for them to mark their identity. Identity is important for language learners, as previously discussed in section 2.3.1. *Identity, language and language learning*, and during social interaction, language learners are concerned with how they present themselves to the world (Norton, 2013) as well as articulating their message. I had intended it as fun activity to end the session, but for them it was an investment that could impact on their learning.

The silence might also have been due to the skill required to manipulate the environment; or to tackle the reading required to scan and make meaning of lists of items and commands. For them this was a literacy practice occurring

in a new space for learning, see *2.5 Literature Review: Learning spaces*, and for me, in retrospect, for me, it was a missed chance to notice the literacy practice in shopping.

Story 2 Norms: layers of spaces and ANALYSIS

The last frame of Story 2, a triptych, *LAYERS OF SPACES* (15), is not a story but my visual representation of the layers that contributed to the experience of the sessions in SL; similar to an appendix, it is not essential to the story, but might help in understanding it. I draw on Goffman's dramaturgical analogy to social interaction being performed on a stage (1959), and I give my interpretation of how this relates to the different spaces involved in communication and meaning making in a virtual world. It provides a way of understanding the interaction taking place online, which other researchers have also used (Bullingham and Vasconcelos, 2013; Davies, 2012; Dyer, 2015; Marsh, 2011), and I first refer to in Chapter 2 in relation to identity, and then later in Chapter 3 to explain how I draw on the concept to frame my analysis.

The immersive experience in VWs forms the layer in which participants interact directly. It becomes the front stage for any social interaction and, depending on the level of involvement, can temporarily take precedence over real life. The in-world space is dominated by the visual mode, but it is enriched by language, both spoken and written. However, the real life, geographical or physical location, layer is always present on the 'other side of the screen', and around the person controlling the avatar. Despite the potential for multiplicity (even duplicity) of identity in VWs, the students' conversation focused on people's real identity, their real life and the real places they inhabited and not the virtual ones. The common factor was often their shared experience of Virfield and shared experiences as students, past and present.

The first picture represents real life and shows St George's Lecture Hall (a converted church), to which they allude when talking about the Wednesday afternoon lectures. Both Roger and Loncho had attended the lecture in St George's that week which was about Virfield. Leen, as a previous student, was keen to hear about this and relate to it. In this way, in the virtual world, they share past and present cultural experiences related to their real learning experiences to add a sociocultural perspective the concept of learning occurring through the mediational tool of language (Swain et al, 2010).

The second picture contrasts with the first. It shows the virtual in-world layer with its avatars, bright colours and exotic locations. The drop-down text chat box in the foreground, and the button bar of controls on the bottom are suggestive of another layer; partly on the screen, partly in SL but not quite, as it overlays the 3D environment. It is a layer which the participant manipulates

the SL environment and avatar in order to become effective in-world. It could be interpreted as the backstage in-world, and may become less apparent as users develop expertise and automaticity in negotiating the 3D world.

The third section of the triptych reinforces the idea that communication is being mediated through screens, and that, depending on the perspective of the viewer, the outlook can be different. What occurs is more complex than Goffman's (1959) front stage and backstage areas. Front stage is the visual layer in the 3D world; the voice and spoken communication layer, supported in-world by the skills and use of technology, the *techne* of the environment as Boellstorff (2008) would have it. Back stage is the real world physical space layer, which may have other people in it.

This sets the stage for further analysis in which I refer to the performativity and use the lens to explore interaction in the sessions. Although virtual worlds are often claimed to be places where people engage in identity play (Turkle, 1994), the opposite seems to be happening here. With their physical appearance in the backstage layer, when communicating through avatars, the students were keen to proffer information about their real selves and their experiences. Even Loncho, although he experimented with his avatar, he still presented aspects of his real life to the others.

3 EMBODIED SPACES

[11-13] Matti46: not sure
 [11-16] RogerMessi: Aneloz ,I'm so sorry ,cause I remembered a wrong time to meet .so I have to have dinner with my friend
 [11-17] aneloz: bye Roger - see you another time
 [11-17] RogerMessi: ok
 [11-17] Matti46: no
 [11-17] RogerMessi: sorry
 [11-17] Matti46: i dont think i can
 [11-18] Matti46: although my screen isnt purple this time
 [11-18] Matti46: not my voice, no mic
 [11-18] Matti46: i'll check in the house later if i have one
 [11-18] Matti46: ya
 [11-19] Matti46: now? i'll do it later, as i'm not sure i have one
 [11-19] Matti46: ok, i'll have quick look
 [11-20] aneloz: Matti let me know

ROGER GOT THE TIME WRONG AND ARRIVED EARLY BUT COULDN'T STAY - HE HAD A DINNER DATE IN REAL LIFE

ZZZZZ

ROGER DISAPPEARED AND JUST LEFT HIS AVATAR

MATTI COULDN'T SPEAK BECAUSE HE HAD NO MIC - HE LEFT TO GO AND LOOK FOR ONE IN HIS HOUSE IN REAL LIFE...

BACK SOON...

GO JUST ME AND BRYAN THERE REALLY...

MATTI DISAPPEARED AND JUST LEFT HIS AVATAR

IN THE SECOND SESSION THERE WERE FOUR AVATARS ON THE TERRACE ... BUT ONLY TWO WERE INHABITED!

YOU CAN'T HIDE YOUR REAL SELF IN SL!

BRYAN IS CURIOUS ABOUT THE ENVIRONMENT

YOU'VE BEEN HERE ABOUT AN HOUR. WHERE DID YOU GO

I JUST WALKED AROUND THIS ICELAND ...

IS THIS ICELAND ... ERM ... A SOLID ERM... TO THE OTHERS

IS THIS WHAT?

I CANNOT HIDE THE TEACHER IN ME BEHIND ANELOZ THE AVATAR. I CANNOT RESIST GIVING COVERT CORRECTION OF PRONUNCIATION

THE OTHERS ... ISOLATED?

IS THIS ICELAND ISOLATED FROM THE OTHERS?

THIS ISLAND IS RELATED TO THE OTHERS IN THE GROUP

AH ISLAND

IT'S HARD TO ABANDON THE REAL LIFE SELF (TEACHER) EVEN IN SECOND LIFE!

I selected these items to show the quirks of the environment and practices in virtual worlds, and what happens when something from another layer breaks through and disturbs the interaction in SL.

Story 3 Embodied Spaces

'Embodied Spaces' looks at examples of typical practices involving avatars to show how, when compared with real life, they border on the surreal. It highlights the uncertainty that I felt in SL as to who was present or what was happening behind the scenes.

When I turned up for the session on the terrace Roger and Bryan, were waiting; they had been wandering around Edunation Island for about an hour because they had misunderstood the meeting time. This had not gone unnoticed, as the 'landlord' of Edunation Island sent me a note to verify their claim to be my participants. Upon my arrival, Roger announced he had a social commitment in real life (a dinner date in a neighbour's flat) and would need to leave. His apology is recorded in the chat box (1) [11.17 SL time]. He left in real life, RL, but his avatar did not exit Second Life. Instead it stood there abandoned with bowed head for the whole of the session (2) and (3) while other participants were in conversation around the table. In SL when the person behind the avatar is not actively doing something in SL for any length of time, the avatar goes limp and hangs its head. This raises the question of what 'being present' comprises. I too have frequently left my avatar in an in-world space while I left the laptop to dash into my (RL) kitchen for something.

A home student had turned up, Matti, logging on from his house somewhere in London. However, he did not have a microphone and was communicating using text chat (1) and so he decided to search for a headset in his house. He left, and like Roger, abandoned his avatar at the scene (3). The chat record shows Matti's responses to my spoken comments [11.15 – 11:19 SL time] (1). This meant that although there were four avatars present in the SL scene, only two were inhabited, or in other words, had people present with their avatars in real life, Bryan and myself. The scene thus showed Bryan, and I seated around the table on the veranda, together with the inactive avatar of Matti, who had gone to search for a headset; and standing in the background, between the table and house, was the inactive avatar of Roger.

ANALYSIS: Embodied Spaces

Some practices in SL would be unthinkable, and physically impossible, in RL. As a visual mode SL is effective at persuading the "resident" of SL that they are present in the company of avatars in a 3D setting. Yet, Roger and Matti are clearly not 'there', signifying that the visible evidence of an avatar is not an indicator of 'being there'. A possible parallel to this in RL might be people acting as if they are fully engaged, often using gaze and body language, while thinking about other things to what might be the focus of discussion.

Is it more acceptable to leave front stage SL completely by exiting your avatar or to leave your avatar suspended? Looking at the situation through Goffman's (1959) lens of performativity, reveals an interesting shift. From the perspective of the individual concerned, the backstage layer no longer supports this particular front stage, and the performance has collapsed. The SL front stage layer, supported backstage by the person behind the screen manipulating the avatar, has now been put on hold. The situation backstage has taken precedence and become a front stage performance. Roger has gone to have dinner with his friend. Matti has gone to look for a headset. We cannot break through into their respective front stages unless they have some kind of digital device with them, and it is connected.

Conversely, Aneloz the avatar often disappeared into the wings to leave those present to interact. I did this by moving spatially to the side, out of view from the others, or by donning an invisibility cloak.

Story 3 You can't hide your real self

I struck up a conversation with Bryan hoping that Matti would return quickly, ('*YOU CAN'T HIDE YOUR REAL SELF*', 4). Bryan asked me a question, which I at first could not understand because of his pronunciation of 'Island' – (silent 's') - as 'Iceland' (4). I soon realised what he wanted to say and so I slipped into language teacher mode using a covert correction technique of replying with the item pronounced correctly (5). I was acting out the situation as if we were teacher and learner in the classroom.

ANALYSIS: You can't hide your real self

It was Bryan's first session. He was in my class on the International Summer School (ISS); I was his tutor and saw him every morning. He was hoping to enter an undergraduate study programme and was younger than most students on ISS (see *My Stories - Introductions*). I knew he was shy about speaking in English from the classroom. I wondered what he thought of Aneloz the avatar, with green hair. In real life (RL), we had a relationship, which, in terms of authoritarian power, could be described as hierarchical. I did not want to replicate the teacher-student relationship in SL, and preferred to try and establish a more relaxed, equal relationship, which I knew would be difficult due to the age difference. I felt I should shake off my teacher identity in SL to encourage interaction, but often found myself adopting traits of it. It was becoming apparent that I adhered to traits of my teacher identity in Second Life. In conversation with Bryan, I used a covert correction technique (5), and in the previous session, *STORY 2 PERCEPTIONS* (7), my avatar, Aneloz, can be seen hovering behind the group chatting together, which is very much what a teacher is expected to do during 'communicative activities' in the classroom. Although I had customised the appearance of my avatar, I carried aspects of my historical and cultural teaching past with me into informal online spaces. If an individual has many identities, which are

constructed and called on in response to social groups, as I noted, 2.3.3. *Communities of practice*, then could it be that the teacher identity is my response being with L2 users of English. Further instances of my ‘teacherly’ behavior surfaced in other instances, as I show in the ensuing stories; I note and comment on this phenomenon more fully in Chapter 5.

Story 3: Comparing interaction: three snippets of conversation

I show three snippets of the conversation to look at what happens when people of different backgrounds interact in virtual world space: Bryan and I (*RES* AND BRYAN*); Matti and I (*MATTI AND RES**); Matti and Bryan.



Story 3 Comparison - Researcher and Bryan

Maintaining a conversation with Bryan needed a lot of effort and demanded all my social skills. Bryan was unaccustomed to conversing in English, which involves listening and understanding as much as speaking; he showed signs of unraveling strings of words by repeating them to himself when he was

uncertain of what I said, “Live... quite...close,” (6). Listening to spoken English can be one of the most demanding tasks for the language learner because of the way English speakers seem to ‘run words together’ in connected speech. Bryan also needed time to call up the words he required to respond during any dialogue. The result was a laborious discussion.

What started as a simple conversation gambit from me about Summer School accommodation, led to confusion about how to refer to a type of dwelling (6). Bryan and his fellow students seemed to refer to their communal flats in the student village as ‘dorms’. Their use of this term could be due to cultural links to their previous experience in their home country. I was unfamiliar with ‘dorm’, and could not understand what Bryan was referring to. But Bryan received external help; there was an audible contribution from a voice in the background through his microphone saying something, probably in Chinese (7). I suspected Bryan had an audience of friends, (which soon became apparent), who were trying help him by supplying alternatives for ‘dorm’. When he referred to the ‘dorm’ as a dormitory, I understood the meaning (7).

The conversation continued and Bryan listed the places he had visited. However, the noises being picked up from Bryan’s RL space. An occasional banging had become a quite disturbing clattering, so I asked him who was present. He informed me he was in the communal kitchen of his student accommodation, and another two people were present, one of them was doing the dishes. This was a clear intrusion, and an unsettling one for me as a researcher. Bryan had an audience in RL, and as a researcher my first thought was ethics, and my promise of anonymity to other participants. I could do little about this situation, so I reminded Bryan of ethics, and invited the others to join the project officially, if they wished.

ANALYSIS: Researcher and Bryan

The conversation with Bryan (6, 7) highlights how language is socially negotiated between people until they understand each other, exemplifying Bakhtin’s philosophy, that language needs a context (Bakhtin, 1986). It also shows how the front stage performance can be supported by resources in the backstage RL, by Bryan’s accomplices behind his screen who help with the in-world conversation. When Bryan was struggling to find a way for me to understand what ‘dorm’ was, someone present in the layer behind his screen came to his assistance (7). This broke through into our shared SL layer, of front stage performance, not really disturbing it, but making us aware of others present in the background who might be called upon for assistance. It exemplifies the possibility of several spaces combing as “inter-related social realities” (Merchant, 2009:42) into the whole experience to assist the interaction. It raises the interesting possibility of learning drawing on resources from several spaces. There is also an indication of how Bryan,

through social interaction, as Bakhtin (1981) contends (see 2.4.4), has successfully appropriated the term ‘dormitory’ into his repertoire (7).

Our conversation was at times enhanced, and at other times disturbed by intrusions from other spaces (RQ2). There were examples of items breaking through onto our main stage in SL with different effects on communication. An intrusion occurred in the form of assistance from (a) friend(s) in Bryan’s real-life environment, his student accommodation. It had helped Bryan to have the assistance at hand in his chat with me about the ‘dorm’ (6, 7) and enhanced Bryan’s front stage performance. However, later on the activities in this space had become too noisy and, instead of enhancing, encroached as an intrusion. It indicates the Bryan’s RL space could be construed as a useful resource to be called on, a place where perhaps an interested audience of his friends watched on, but at other times as a place which was unsettling.



Story 3 Comparison Matti and Researcher

Matti signalled his return in the chat box. This was necessary, as we were not quite sure whether he was behind his avatar to support it in the backstage layer (for us) of RL. I chatted to him socially for a short time before introducing him to Bryan. I had met Matti briefly in RL and there was quite a generation gap between us so we could not be considered as peers, and while my avatar representation may have been a leveling mediator of the difference in status

between us in SL, I am sure he was aware of the difference in real life. We knew very little about each other. It is worth taking this into consideration when looking at the snappy interaction occurring between us (8, 9 and 10) as compared to the previous snippet of me talking with Bryan (6 and 7). There was a noisy intrusion from ‘outside’ at one point, a whirring sound (4, 5), which almost blotted out our conversation. It was the fan on Matti’s laptop, the hardware he used to access SL. This could be considered another fluid layer, at times a prop, at others an intrusion.

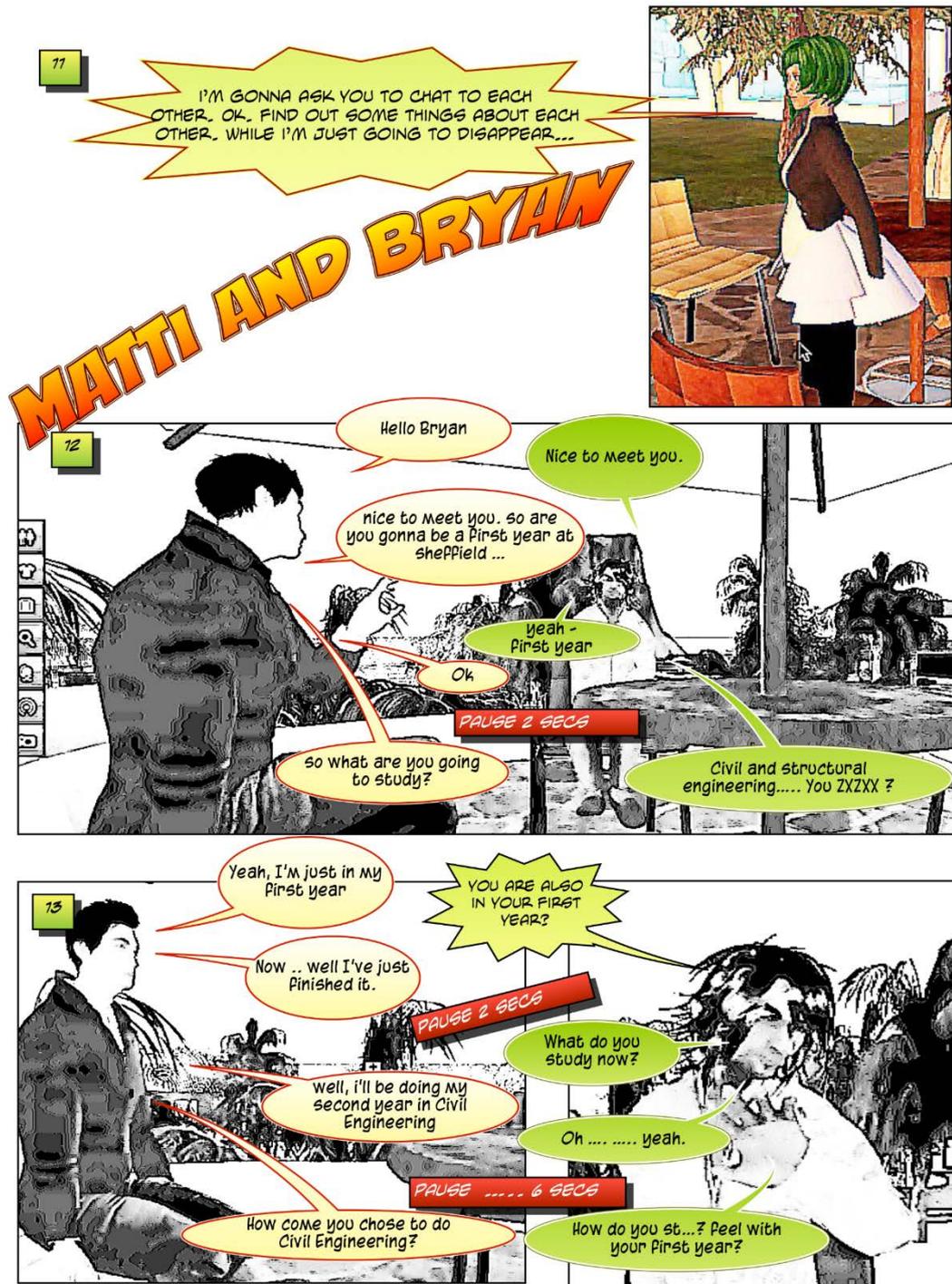
Story 3 Comparison Matti and Bryan

I introduced Matti and Bryan to each other (10) and left them alone to chat (11). I announced my departure, and made myself invisible while continuing to record the scene on my camera viewer (11). They managed to hold a conversation for about 8 minutes despite neither of them being naturally adept at social interaction, or versed in virtual world mediated social interaction; and with a stranger. To my delight, what unexpectedly emerged was that Matti had just completed Year 1 of the same course of study that Bryan was preparing to start in the coming academic year. I could not have planned this better if I had tried. This was pure luck, and very exciting for me.

ANALYSIS: Matti and Researcher - Matti and Bryan

Comparison of the conversations between Aneloz and Matti, and Matti and Bryan, illustrates the speed and seamless flow of a short exchange between two L1 speakers. In contrast, there was a laborious quality to the exchange between the two young males, one an L1 user of English, and the other an L2 user of English with little experience of speaking in English. Even though Matti, as L1 user of English, might be considered to be an expert, his social interaction skills were not so well developed as Leen’s who managed to keep a conversation going with her supportive strategies (*Story 2*). When Matti chatted with me, as Aneloz, he provided snappy responses to my queries, but he did not initiate and direct the interaction; I asked the questions to keep the conversation going (8-10). This could be due to his awareness of the status between us in RL, student and with researcher/ teacher in the University. But it could indicate that speaking competency (Hymes, 1962) is not only dependent on language proficiency, it is a social skill. In the conversation between Matti and Bryan there were frequent pauses, which are indicated in red boxes in the story (12, 13).

After initial exchanges, both showed limited strategies for initiating and directing the interaction and keeping the conversation going. I listened as an eavesdropper in the background, willing the pauses to be shorter and Bryan’s contributions to be more extended. When I had spoken with Bryan, I had taken responsibility for keeping the interaction going, but Matti, a student of his age, expected Bryan to be more active. Bryan needed to show more investment, *2.3.1. Identity, language and language learning, p35*.

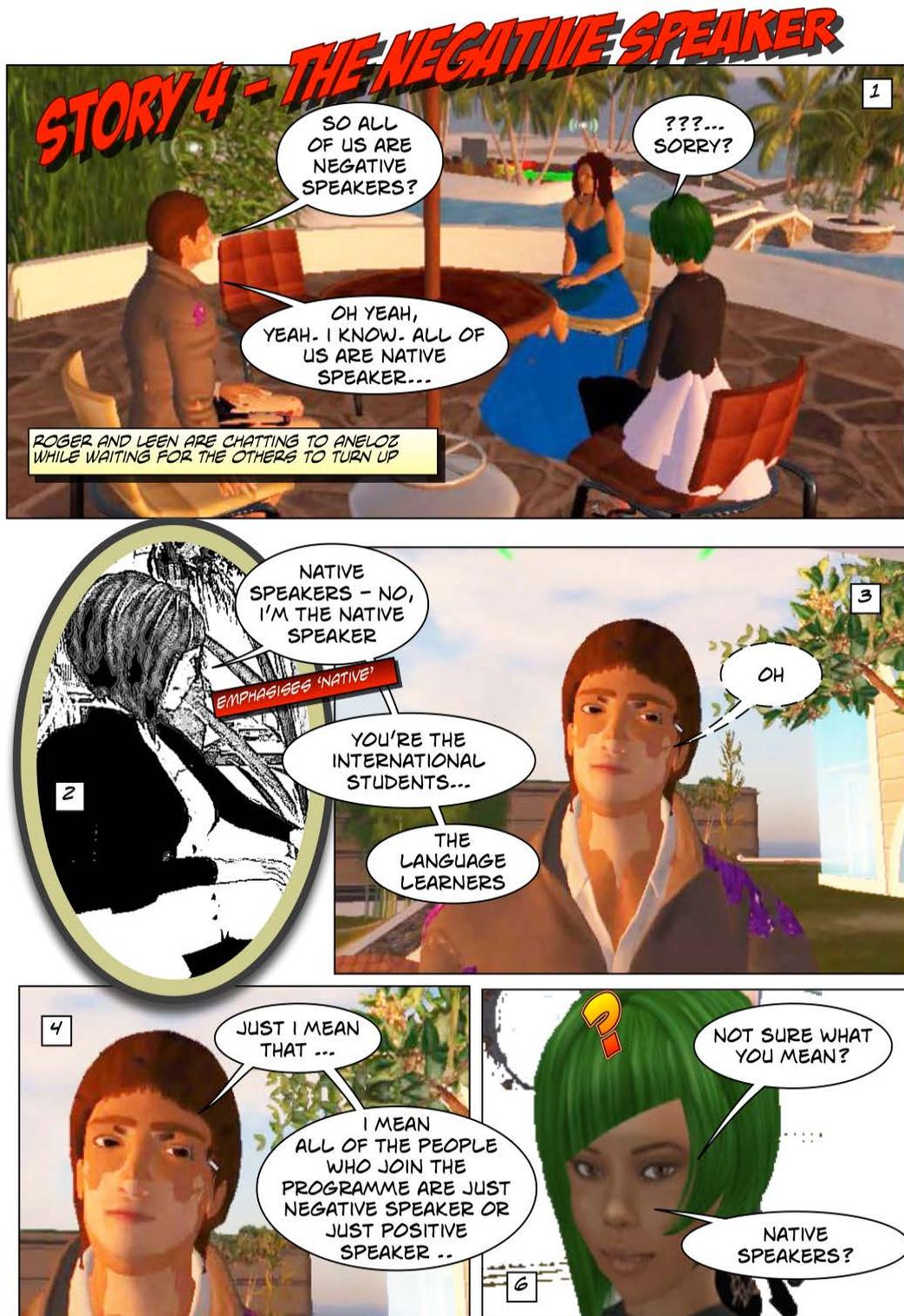


Nevertheless, Bryan experienced conversation with a student who had just completed his first year of the course Bryan would start in September. VWs support real time discussion and thus support the concept of learning as occurring through this social interaction within the action of the learner and the immediate environment (Vygotsky, 1978). Bryan had negotiated and learned the meaning of more vocabulary expressions: the concept of 'private' accommodation; and the expression a 'trek', used in exaggeration as a metaphor for a long walk from campus to Matti's accommodation.

Regarding skill in interaction, it seems that linguistic competency is not the only contributor to social interaction. Sater (2015) identifies several indicators of social presence in online interaction, as I stated earlier (section 2.4.2), and the adoption of some of these, such as questions, backchannels and verbal reciprocation could help keep a conversation going in an environment where visual clues of listening and paying attention are not available. In the conversation between Bryan and Matti, the pauses cannot all be attributed to Bryan. It could be that Matti and Bryan were uncertain of their parts in the performance, and had not decided how their virtual world identities could fit with other identities (Sater, 2015). Bryan was unsure of what to say to Matti; they had never met in RL, and it takes time to establish connection with new people. In Goffman's terms (1959), Bryan had not worked out what role to adopt in this 3D world. This was his first session in SL; he had not been present at the previous one when Leen, Loncho and Roger had tentatively got to know each other, and started to establish a supportive community. The situation resonated with Norton's (1997) view on language learning, stated in section 2.3.1, that it involves learners assembling and negotiating their identity, but also that they needed to be able to create enough interactivity to gain access to a community, which is what Bryan needs to learn. It was a start for Bryan.

Story 3 Lava walking activity

I let Matti and Bryan talk for about 8 minutes before re-joining them. Then I offered to take them around the island. We teleported elsewhere, to a high point on the island, the volcano. There, we walked through the lava, which prompted scripted screams from their avatars and laughter from all of us. We also practiced flying around the island. As before, in session 2, I found that activities involving movement in the virtual world did not generate as much language as when we were simply discussing topics whilst seated. I was learning that activities in-world which involve movement, spatial actions and where there is a no real need for communication, do not generate spoken interaction. There needed to be an element of decision making or exchange of ideas (Jauregi et al, 2010).



From the rich discussions and happenings in the fourth session, I have selected four items. The first related to language and misunderstandings, the second about teaching and learning from peers, and the third about unexpected disturbances breaking through into SL. The last item looks at using the space for a pairwork activity.



Story 4 The Negative speaker

There was uncertainty as to whether Roger meant 'negative' or whether he was joking and had mispronounced 'native' as 'negative' (7)(8). He made an interesting analogy to negative and positive speakers (4), but Leen and I were confused. Writing the word in the chat box was useful and helped clarify the

situation (9). Roger then admitted his pronunciation might be adding to the confusion, and then explained what he meant by a 'negative' speaker (11). He had created a new term; it was a valid definition, and in retrospect I see how clever it was. However, I responded in teacher mode and suggested 'shy' might be more appropriate.



Story 4 Is it the same thing?

Misunderstandings can occur when speakers allocate different expressions to represent the meaning of the same item. It can result in breakdown in communication until they establish a common understanding, as in the next story.

academic writing; probably echoing her teacher's advice and adding her own personal experience. This continued for several minutes and took the pressure off me.

I used my breathing space to check if anyone else from the group was around. No one visible in 'my friends' list. Then Bryan announced his arrival by typing "hello" in the text chat, and joined us at the table. Leen was giving excellent advice about reading academic articles. I was impressed by her 'teacher performance' and wrote in the text chat, "She is right" – and, "Good advice" (5), to which Bryan added "Yes". Text chat offers a discreet way to comment without interrupting, and it remains available for viewing later.

ANALYSIS: The Negative Speaker; Is it the same thing?

Every time I replay the negative speaker clip, I make sense of it in a different way. Does this happen because Roger changed what he referred to? Or was he being playful? Skilful in manipulating language? It exemplifies that how we understand something depends on the perspective we take, not unlike the idea of layers of meaning. On one level, as Roger suggests, 'negative' speakers are those who feel they have problems with speaking and are on the 'programme' (4), i.e. my research project, to improve this skill. But for me, a negative speaker for me, would be a pessimist, someone who sees the bad in everything. Aneloz the teacher suggested he meant 'shy', and Leen that it might be someone who is 'silent'.

There is a temptation to see Roger's use of the term 'negative speaker' from the structuralist SLA standardised viewpoint of language as an error (Norton and Toohey, 2011). I referred to this as one of the problems with structural approaches to language learning in section 2.2.2. But another way, a more social approach is to view Roger's contribution as how the participant-as-language "user" might express meaning (Firth and Wagner, 1997). In this instance, Roger knows the idea he wishes to convey, and although Leen and I suggested an alternative, 'native', he remained adamant the meaning he needed was negative, and provided his own definition of the 'negative speaker' (11). The meanings we attach to things evolve over time and through usage, as Mercer (2000:66) citing Bakhtin (1981) states, "we do not learn words from dictionaries, we take them for other people's mouths", and so meaning can be fluid, is context dependent, and includes an element of temporality.

A common understanding on meaning is reached more easily in '*Is it the same thing*'. This time Roger referred to 'write a paper' (1), 'finish a project essay'(3), and explained his writing task so that Leen could compare it her previous experience, 'extended writing', and see the project essay is the same thing. Misunderstandings occur when a message can be interpreted in different ways, or an utterance has been accorded with a different meaning by a particular community of language users (Kramsch, 1998). In Bakhtin's

terms, it was an example of the concept of 'heteroglossia', an utterance "suffused with previous uses in space and times," (Gillen, 2014:81) being used, which resulted in Leen's dominant perspective of the expression being momentarily eclipsed by Roger's. Of importance here is that, both cases exemplify how meaning is negotiated socially (Mercer, 2000:4), and show members of a community working together to establish a common meaning to understand each other.

There is evidence of a different kind of learning happening when Leen, taking on the role of teacher or expert, gave advice to Roger about his 'project essay' (4 and 5). It showed her appropriating what she had learnt on her academic reading and writing course, perhaps recalling the words of her teacher(s) and passing them on to Roger. This seems to be an example of Bakhtin's theory that language users appropriate the utterances of others (1981), but also of learning occurring socially as resources are shared by giving advice. Unlike the previous example, Leen and Roger were not collaborating to achieve communal resources; it was more a case of the traditional transmission of knowledge. However, it did occur in response to Roger's request, and possibly explanations such as this are frequent in interactions between novice and expert, both inside and outside classrooms.

Story 4 Breakthrough

I wanted to attempt an activity which involved pair discussions and for this we needed at least two tables. I planned to take them down to the waterfront area.

[10:00] We were preparing to walk down to the beach area, when there was an unexpected interruption coming over the microphones from RL. A young child was shouting in another language, and then crying.

Roger: Oh – a child yeah/

Aneloz: ????????/ your little boy?

Leen: (laughing) I'm sorry [the child can be heard crying] I'm sorry

Roger: Lovely

Roger: From the voice, I guess your little boy will be very lovely

Pause 3 secs

Aneloz: Yeah. How old is he Leen?

Leen: He's .. two years and three months.

Aneloz: Ooooh, very nice. OK. Just follow me.

We all chuckled. Leen stood up. We have had a glimpse into another Leen. Not the sophisticated femme fatale in the blue evening dress, but the mother whose child wanted her attention. I think we all softened towards her a little, on realising that she was balancing being a parent with taking part in the sessions.

ANALYSIS: Breakthrough

We see the effect of an unexpected intrusion into the meeting in SL on the terrace. The performance was disturbed momentarily when a microphone picked up a child's voice and projected it through the 3D software scripted environment, through our screens to reach us in our real-life layer. Someone has encroached on the performance, not part of the audience, nor of the backstage support. An intruder from the 'outside', as Goffman (1959) would have it, had broken through, as we heard Leen's child clamouring for her attention. She had told us about her child, but this made it more real, and added another dimension to Leen's identity. We enjoyed seeing this other side on our stage, as Roger commented, "Lovely".

I wrote about identity in VWs, 2.3.2. *Identity and identity management in virtual worlds*, and included Goffman's perspective on performativity. On the one hand, Benwell and Stokoe (2006) believe identity in virtual worlds cannot be considered as separate from 'real' life identities. On the other hand, Goffman talks about segregating areas to maintain an illusion. In this instance, Leen was performing an identity in-world which was on one level mainly concerned with aspects of her previous student experience in Virfield, and the time she lived there. When attending our sessions, she segregated her real life, the one behind the computer screen, from the VW in-world stage. When segregation fails, Goffman states the dilemma as making a choice; the performer can choose to accept the intruder and invite them into the stage, or temporarily deal with intruder, giving them attention and making them their front stage. Leen probably comforted her child, and then returned to us, but it seems to reinforce Benwell and Stokoe's of identity as being unstable, and no matter how hard we seek to maintain a performance, other identities may seep through; as my teacher identity seems to have kept doing.



Story 4: Pairwork – with task cards

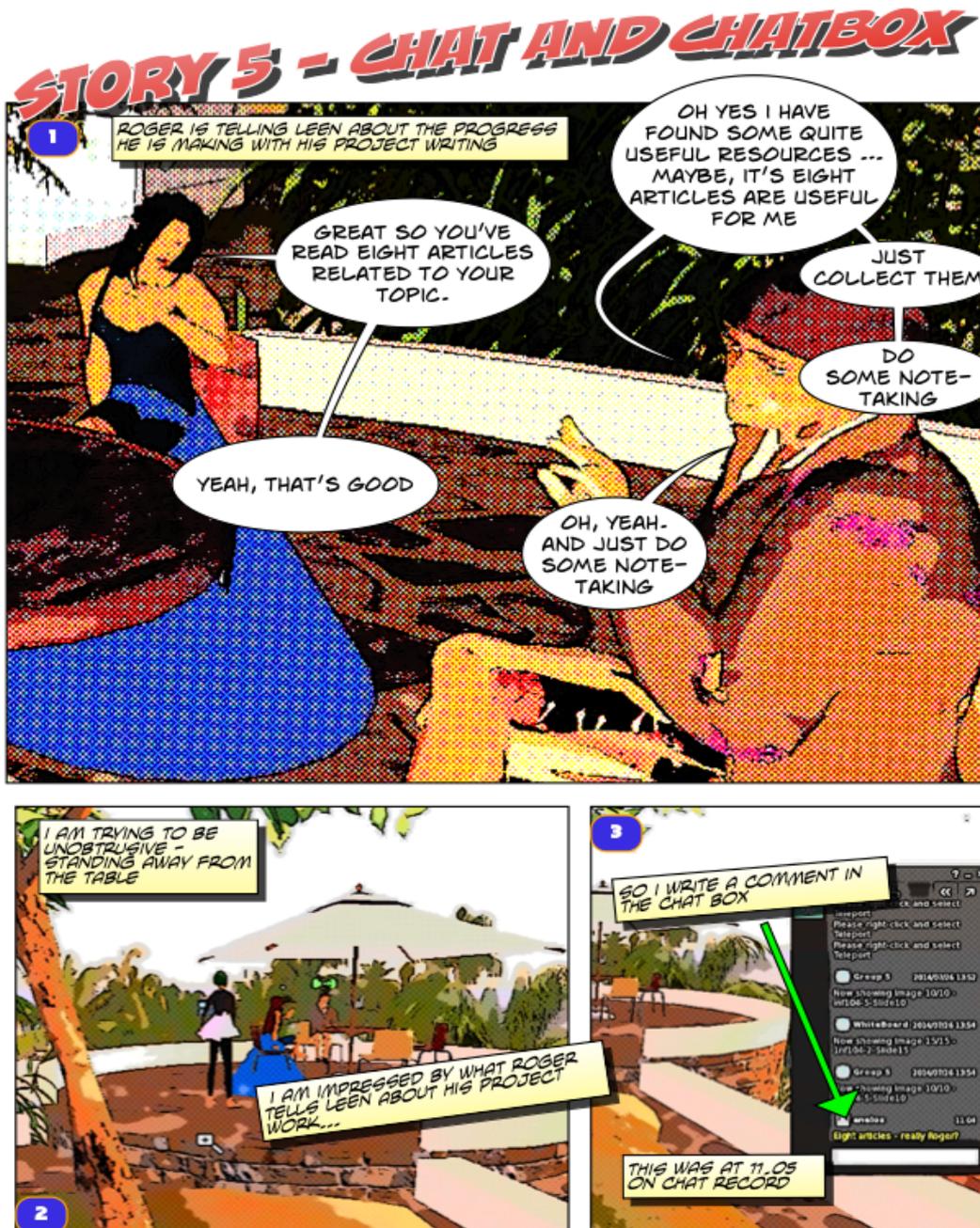
We began to make our way down towards the waterfront. Seated on the terrace, there were relatively few problems, but when we started moving, as I lurched drunkenly around with Roger and Bryan following, I realised that tasks which involved negotiating the 3D space needed other competencies. Leen, unable to keep up, was left behind for a while. I went back to help, only to find she had teleported to another part of the island.

Eventually, down on the waterfront, we sorted ourselves into two pairs (*'Pairwork – with task cards'*), on two tables; Bryan and I, and close by Roger and Leen. I distributed notecards, versions A and B, to set up a typical 'getting-to-know-you' kind of activity for two speakers. Paired with Bryan, we struggled to converse as we also heard Roger and Leen speaking loudly together. What a cacophony. We resorted to private voice chat and this worked well, and kept us all engaged for about twenty minutes. I quite enjoyed my conversation with Bryan; he was becoming better at keeping interaction going, interjecting with phrases like, "I partly agree" (was this appropriated from his Speaking class?), and was held back occasionally by searching for vocabulary. He was curious, and showed a natural interest in finding out about the UK, questioning me about places to go in the countryside.

The session finished with a playful watersport event. We sailed around the small bay in small dinghies or windsurfers which were moored on the quayside. Loncho had arrived and joined in, a little late, but ...

ANALYSIS: Pairwork – with task cards

Pairwork using task cards is technique I use in f2f lessons, and I worried that I might be 'mirroring classroom practices' in setting up a such an activity in SL. A criticism of the use of VWs, which I mentioned in Chapter 2 (2.4.2) was that courses and educators replicated traditional classroom practices, which in HE tended to rely on transmission methods (Savin-Baden, 2008; Bell et al, 2010; Gregory et al, 2015). In addition, in my Methodology chapter, I stated that I did not want to use SL to mirror classroom practices. However, I justify using the pairwork technique because it was not transmission teaching, but a way to promote discussion and exchange of ideas and thus encourage social interaction. I also use notecards in later sessions. I previously emphasised the importance of task design in promoting activities in SL (Englund, 2017), especially for language learning activities (Hampel, 2006), pointing to the experience of Jauregi et al (2011) in designing and setting up tasks. I found that, as did Jauregi et al. (2011) that activities which involved verbal interaction generated more interaction than those which involved the environment of SL. At this point in the analysis, I experienced twinges of regret that I was not focusing more on the linguistic achievements of my L2 users of English. I found myself covertly assessing Bryan, and could clearly see his prowess seeming to indicate that SL lends itself as a space for conventional and unconventional learning/teaching.

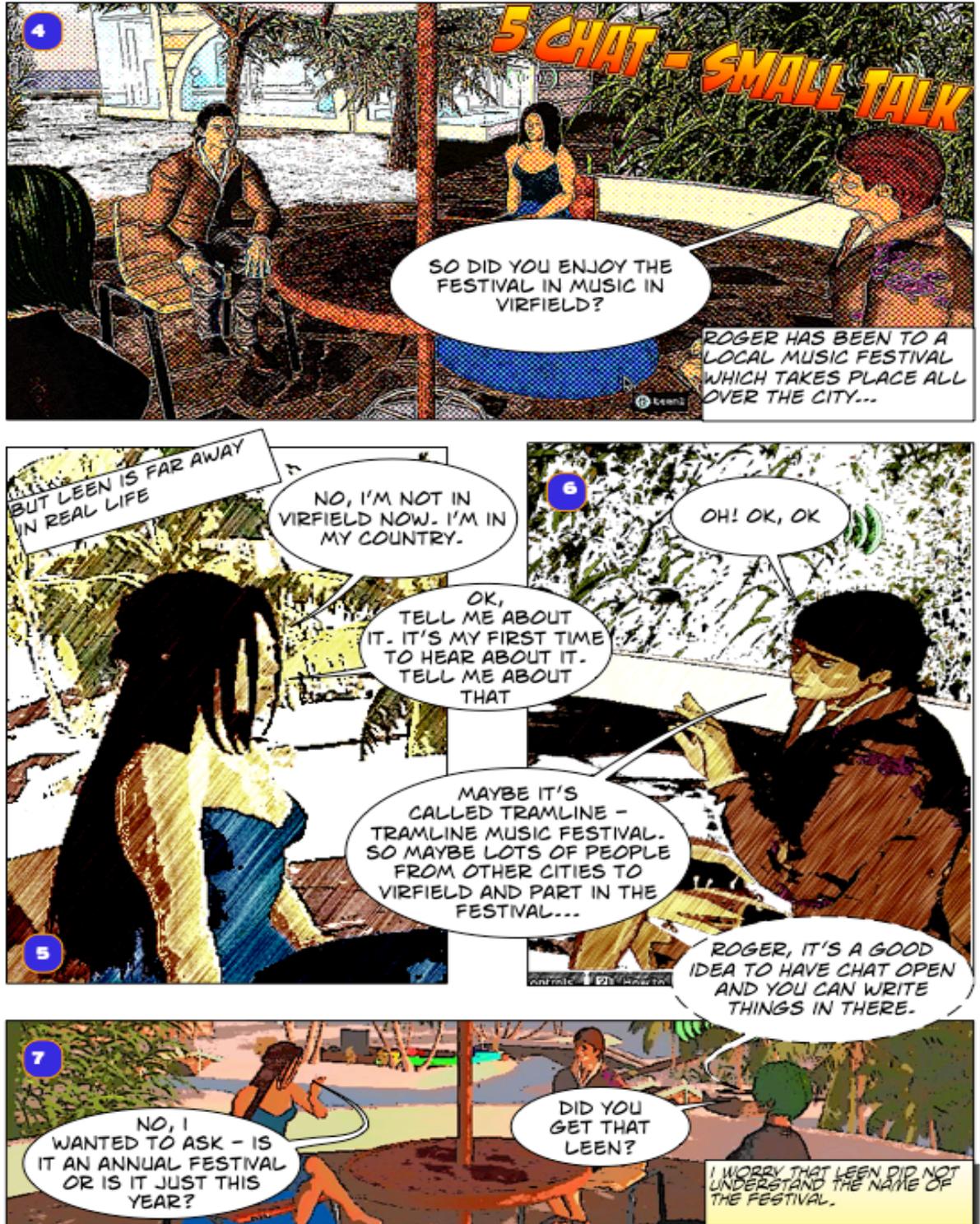


In the Chat stories, I look at how modes affect communication. Leen, Loncho and Roger attended the session.

Story 5 Chat and chatbox

While waiting for Loncho, or anyone else, to arrive, Leen was giving Roger more advice about his project writing (1). She was playing her teacher-advisor part and I was hovering in the background in my researcher-teacher role. When I heard Roger saying he had read eight articles for his project (1), as his tutor, I was impressed, and wanted to give praise, but this would compromise my position as eavesdropper-researcher (2). So I wrote a comment in the public chat (3).

As a community, they were supportive of each other in their interaction, and of anything related to study (1), which was apparent from the time devoted to discussing Roger's writing assignment (2). It was more evidence of learning in a community of practice (Lave and Wenger, 1991), and Leen coaching Roger in the ways of academic writing. They were also quite successful at holding conversations on a range of topics of general interest, and of relating this to their experiences and cultural differences.





Story 5 Chat – Small Talk

'Small Talk' was a typical example of the unstructured social interaction that occurred in sessions now that they knew each other quite well. It shows a snippet of a conversation concerning an annual music festival the city hosts. Roger was very excited about his experience of it, and he tried to describe it to Leen, who, in real life was not in the same city, but far away (6). Such is the power of the immersive 3D world and feeling of proximity during interaction that he assumed she was also in Virfield (4 and 5). This assumption was probably also reinforced by Leen's apparent knowledge of

the city and of the academic culture which Roger was experiencing on the pre-sessional course.

I became aware of a gap in the conversation (9) and wondered if I had technical problems or perhaps that Leen and Roger were communicating using private IM chat. Then I saw Roger's hands typing furiously in the air, accompanied by the sound of typing (10). He had moved from the voice chat real time communication layer with Leen to the text chat communication layer; from the synchronous to the, arguably, asynchronous. This was visibly apparent, from the hands of his avatar, and audibly apparent. Then a public chat message from Roger appeared, "*just find out them, and underline something relevant to my topic.*" (11). I was a little surprised and confused until I realised it was a response to my text message "*eight articles – really Roger?*" (3), posted some four minutes previously when he and Leen had been discussing his written project.

ANALYSIS: 5 Chat and Chatbox; Chat and small talk

Occasionally, the use of other modes interrupted the synchronous social interaction which took place in SL using voice chat. Text chat was used by participants to assist the interaction when required. It could be used overtly or covertly, and had been used for several purposes: to clarify words spoken in voice chat (Story 2); to suggest expressions (Story 4 and 7), and, if unable to speak, sometimes to leave a message (Story 1 and ,3) or a notification about presence or absence (Story 3).

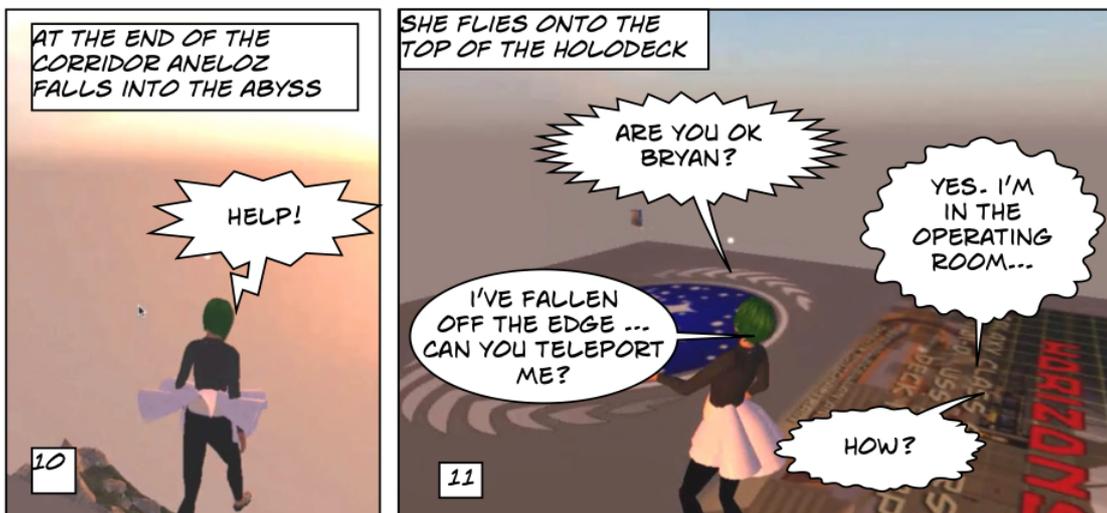
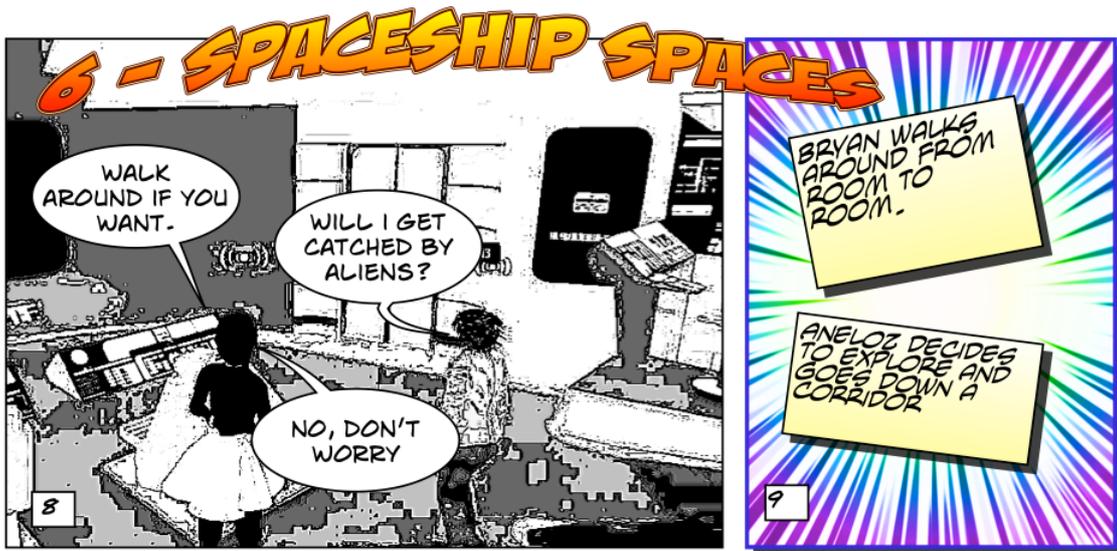
We need to bear in mind the effect of technology on interaction as "technologies transform spatial and temporal relations" (Kern, 2014:341). I previously pointed out the transformative effect that technology has on how communication is enacted (Wertsch,1991), and it is apparent that text chat can be used synchronously or asynchronously depending on the use it is accorded in different situations. Text chat is a form of written text, and a persistent log of communication. Boostrom regards text chat in SL as a dynamic communication tool "occurring in real-time or near real-time." (2007:3), but I dispute this. When I wrote a comment for Roger, it was to avoid disturbing his spoken conversation with Leen. In this instance, there was such a time difference between my posting the comment and Roger reading it, that it took on an asynchronous nature. Text chat can be used in a more synchronous way when those present adopt to use it in this way, as it the case in Stories 2, 4 and 7.

In virtual worlds communication can swing between the use of voice chat or text chat, either public or one-to-one, IM, and multiple modes can be used at the same time. Users need to be alert for possible postings and have the chat

text box on their screens, and new users need some kind of training (Peterson, 2012; Herold, 2012; Zhang, 2013).

Goffman's (1959) model proved useful in analysing different modes and means of interaction. The main stage in SL uses voice chat as the mode of communication. It is supported by in the in-world layer of environment manipulation, and can call on text chat as a prop. In some cases, text chat could be the main or preferred way of interacting, and then it takes on a synchronous, dynamic mode of interaction. When text chat is used in an asynchronous manner, it should not disturb the main action, front stage. The case of Roger's delayed reaction to my text chat comment about his written project distracted him from the conversation with Leen. It is useful to bear in mind that although it was visibly and audibly apparent in-world that Roger was using his real-life keyboard, the purpose was not necessarily intended for SL. Until the message appeared in the chat box, we are uncertain as to why he is using his keyboard.

Then Loncho arrived and they began a conversation which seamlessly moved from one topic to another topic: visas for study in the UK; government support for study in their respective countries; the Scottish referendum (topical at the time). This discussion lasted for about 15 minutes without intervention from me. It could have been taking place in any coffee shop in any location such as the ease of interaction. There was only the occasional reduction in sound quality and they covered several topics: education and obtaining grants for study and visas; the size of cities in UK; local events happening in Virfield, such as music festivals and religious festivals.



I tried to make the sessions more stimulating by taking advantage of the unique affordances of the Second Life environment. I rezzed the holodeck scene of a spacecraft. Bryan and Loncho turned up and we teleported to the Horizons Galaxy Starship for a discussion about space travel.

6 Spaceship spaces

Bryan was clearly excited and moving around exploring the environment (1). He did not quite know what to expect here, and he had probably played games in which aliens appeared because he enquired excitedly:

Bryan: Will I be caught by aliens?

Aneloz: No, no. There are no aliens here. Don't worry. (I reassure him)

I explored the spaceship too, but somehow, I fell out into space (3). My avatar fell for quite a way until I landed on some rocks below. On the menu, I found the 'fly' command and flew up above the surface of the holodeck. It appeared to be a cube from the outside, and I did not know to get back inside to the spaceship scene. Unsure, I landed on the topside and started to walk across the surface (4). I asked Bryan for a teleport in order to get back inside (4, 5).

I told Bryan that in a spaceship the 'operating room' was called the 'bridge' (6) and I wrote 'bridge' in the text chat record. Then I realised I had written in private chat with Loncho, and had to write it again in public chat.

Loncho joined us, and he and Bryan sat in the pilots' seats in front of the huge windscreen from which an amazing the starscape seemed to be hurtling by. I fumbled with the control menus to find my notecards and then to distribute them to Loncho and Bryan, something which would take two seconds in real life. The notecards contained prompts for a discussion about space, which I hoped the spaceship environment would stimulate. I include this snippet to show how disjointed voice chat can be. Bryan was keen to start the discussion.

B: yes ... Shall we start the conversation?

L: \$%&*£ [*sound distorted*]

A: Can you start the conversation?

L: Ah Ok err .. well Bryan would you like to go into space? [*sound is bad*]

B: Err yes, but I think there are too much radiation in the space ... so ... we need, we need .. much preparation .. before doing that.

L: Before doing that, what do we have to do

B: We have to do ... many .. do much preparation for going to ... for going to the the space

Pause

B: Like err So what's your opinion?

Pause

B: Can you hear me?

Pause

B: Is his device is Ok?

Loncho disappeared. I sat in the vacant pilot's seat next to Bryan to stand in until he overcame his problems.

A: Ok Bryan. If you had a chance to go into space, you said because of the radiation you wouldn't like to go. If there wasn't the radiation ...

Pause

A: Does China have a space programme?

Pause

A: Are they sending people into space?

Pause

A: Bryan?

I realised my microphone was not on. Bryan had not heard any of my last few utterances (another event to make me squirm).

A: I'm sorry, I was speaking with my microphone off. Does China have a space programme Bryan?

B: S'raight programme..ah yes. They are prepared to land on the moon.

ANALYSIS: Spaceship spaces

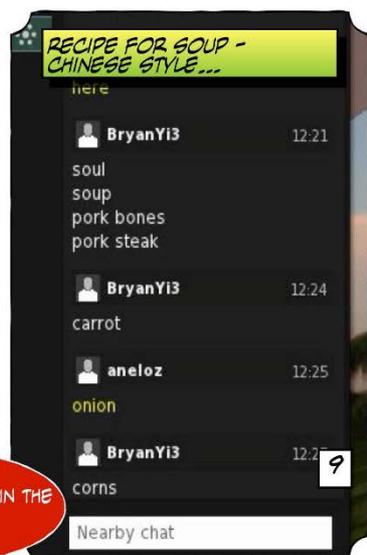
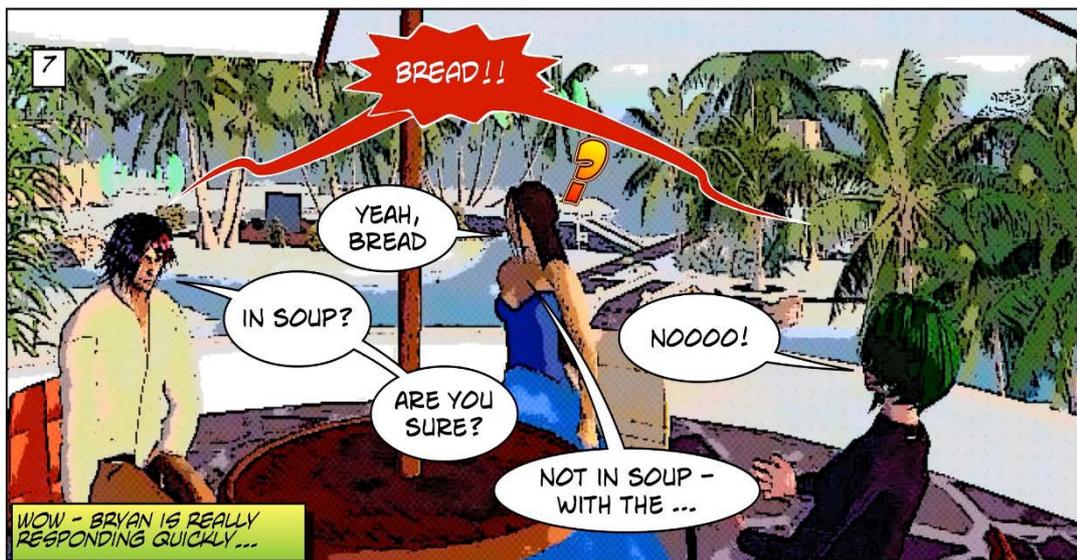
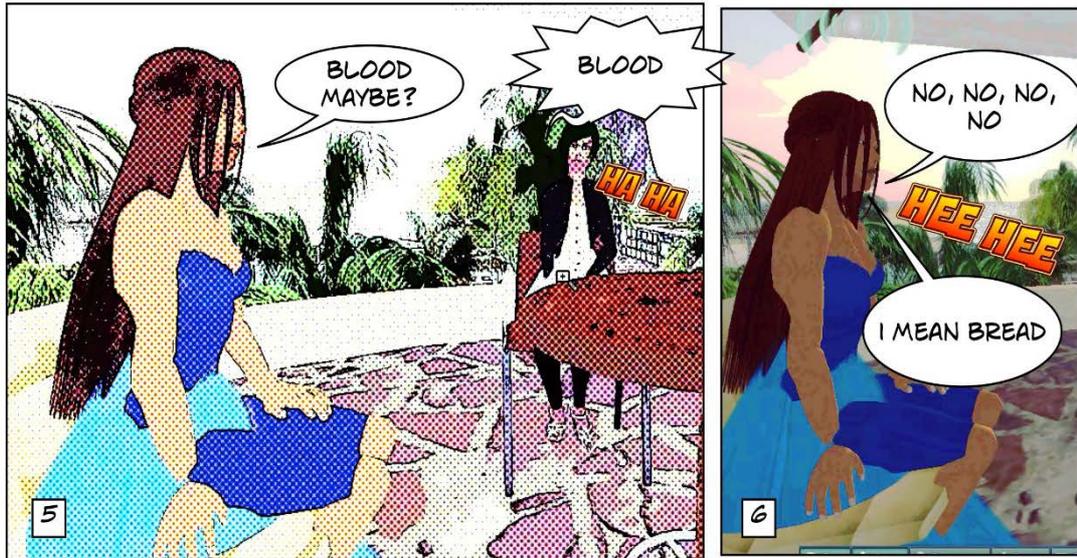
On looking back, I feel I made so many mistakes with SL. As a professional I found these quite embarrassing, and, as I played back the scenes for my data analysis, I spotted more and more of them: I fell off the holodeck and didn't know how to get back in; I mixed up public and individual text chat; I omitted to switch on my microphone when speaking. What transpires from this are the demands on the teacher of using the environment. My research was a small-scale project involving a few participants, and I struggled with technical aspects of SL. Clearly, in uses of VWs involving bigger numbers, there needs to be technical support and training and, when running courses in Higher Education as Herold (2008) states, institutional support.

My teacher identity surfaced several times: I responded to Bryan's request for the spelling of in 'bridge'; I set up a pairwork discussion activity, and distributed notecards; I sat in for Loncho when he had tech problems. However, here's the rub. In SL, in whatever teacherly activity I attempted, I felt out of control.

As for the scene and the task, I had tried to use the affordances of the 3D world in a playful way, evoking its immersive properties to create a spaceship to spark conversation. As Dalgarno and Lee (2010) uphold, the graphic interface can promote learner interaction, and support a sense of presence, which is important to the experience of being in virtual spaces with others in VWs (Bronack et al, 2008), as I explored in *2.4.2 Learning theory and virtual worlds*. Bryan clearly enjoyed the change of scene from our usual table on the terrace (7), and seemed inspired, to explore (8). He was investing more in the sessions, an important part of language learning, according to Norton, as stated in *section 2.3.1*, and was willing to take part in conversations and to initiate discussions even though he might not always have the correct vocabulary to hand. Loncho too was willing to engage in conversation about space, but his contributions were limited because of technical problems



Despite problems of pronunciation, the students managed to exchange information about culture. It also pushed them to find the language to express their ideas.



Story 7: Making Soup

We were talking about food, and Bryan became the centre of attention as he told us how he made soup and revealed some cultural traits of Chinese cooking. [8:18] He announced the mainstay of the soup to be the mysterious, ‘porponz’ (1), which was proving challenging for Leen and I to understand. Then, in the chat box, Bryan wrote the words “soup” followed by the words “pork bones” (3). This clarified the mystery. I knew that Leen’s religious background, as Muslim, would see eating pork as unacceptable, but most likely Bryan was not aware of this; pork being the most popular meat in his country. But Leen did not comment except to inform us the ‘animal’ most likely to end up in the soup pot would be ‘lamp’ in her country (3).

I was impressed at the speed at which Bryan responded to Leen’s comment about making soup with bread: “Are you sure?”. This is the fastest I had heard Bryan respond and it was comparable to L1 speaker in term of speed – remarkable (7). Bryan had, at this point, attended several sessions in SL. Although his range of vocabulary sometimes limited his contributions, and skill at taking part in interaction had improved. Here he was interacting on equal terms with Leen, a female from a different culture, who was older than him, and about to do PhD. His confidence was apparent, and he was taking risks with new words as I show next. The topic was clearly inspiring Bryan who volunteered more information about the ingredients going into his soup, but the vocabulary he needed was not part of his repertoire. It was apparent from the background noise of typing, he had to laboriously look up the words (8), and then add them to the chat box (9). Leen and I tried to help.

Aneloz (A): So, what else is in the soup?

Bryan (B): Carrot [“carrot” has just appeared in the chat box.

Leen (L): Really

B: and a .?????. How do you say that ...

A: onion? (guessing)

B: a onion [struggling to pronounce the word]

L: garlic, parsley? (Leen is also helping)

B: garlic

(Sound of typing - I write “onion” in the chat) / Pause

B: and err corn, corns, corn

L: Ohh!

(Bryan writes “corns” in chat)

A: Corns

All together: “CORNS”

A: Ah interesting

B: Yes

A: I know what you mean; you mean the very small ones

B: Err no

A: Is that the ones you find in Chinese stir-fry

B: er the regular one

ANALYSIS: Making Soup

Food is a subject on which most people can hold forth. However, a topic which is easy to talk about in one's own L1 is incredibly difficult in another language when you have to search for every vocabulary item before speaking. If the purpose of language is to "meet the needs of its communities and individuals (Lantolf, 2001:2), then to understand what went into Bryan's soup we needed to work together in a collaborative attempt. There is an element of peer scaffolding (Donato, 1994) between Leen and Bryan as they discuss possible items. But we are all learning something in this interaction; whether it is the names of the ingredients for soup, or how to make it in another culture. Bryan was finding some of the words for himself, probably in an online dictionary, but this needed to be reinforced by hearing others say them out loud and use them in a context. (Lave, 1988; Lave and Wenger, 1991). There were several instances of confusing pronunciation in this short exchange, and Bryan used the text chat box to get help with this. Often they were aware and could self-correct, as with Leen and the 'lamp' (3) and 'blood' (5). In other cases, the pronunciation of some new words was too difficult and I helped; Bryan with 'onion', and his garbled 'pork bones'.

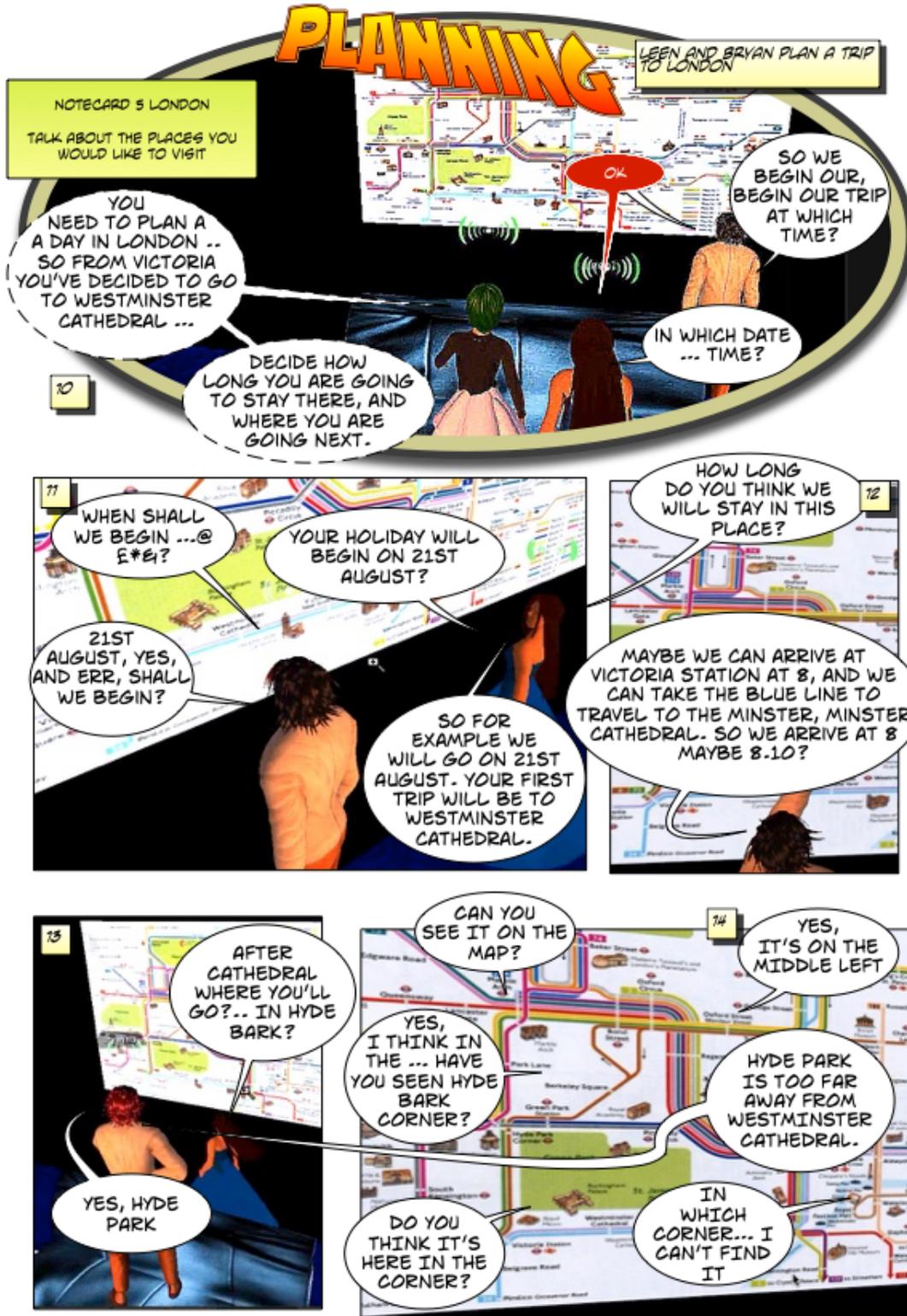
Story 7 Planning trips

The '*Planning*' story calls on virtual world spaces as a prompt for an activity. Inspired by a weekend in London, from which I had just returned, I had created an activity around planning a day in London. Leen and Bryan were present at session 7. Most students from other countries visit London at some time while in the UK, so as a warm up, I asked them to talk about the places they had visited or would like to visit, or had heard of in London.

I asked them to plan a hypothetical day in London. To bring the activity to life I took them to a holodeck scene which had a gigantic map of central London on the wall (10). The map had a simplified version of Underground system, and pictorial representations of the main sights. I asked them to use the map to plan their day in London. It took them both some time to understand the map; this is a different representation of space, and not one everyone is comfortable in deciphering. and it made use of a real-world artifact, a map (14), in the virtual world setting.

Leen and Bryan had good access to SL with no technical problems, so were able to cooperate with each other. The size of the map was gigantic in relation to the avatars, so they could be seen walking from one side of it to the other (11, 12), jumping, and even flying (Bryan,13) to view the places on the map. After some initial confusion, they oriented to the map and they began to suggest a feasible itinerary. This included several landmark places

and also the means of getting there; either on the Underground or walking from place to place. They assisted each other in locating the landmarks on the map (14).



ANALYSIS: Planning trips

The planning activity indicates how tasks can contribute to interaction. It was a good mix; it called on the use of space, as they needed to move their avatars to see and understand the layout of the map; social interaction, to collaborate and make a plan; real knowledge about London and its famous sights was useful, but not necessary. The virtual space added an extra layer to this, and helped to shape and focus the discussion. While they did not actually visit any virtual places in a virtual London, the rendition of the real map in a virtual space encouraged interaction and the use of language to describe spatial features, “in the corner”; “on the middle left” (14). The map and the activity exemplify the connection between online and material spaces. The map is an interesting phenomenon, a hybrid space; as a 2D virtual artefact in a 3D world, it was a virtual representation of a RL space and it created a link to the RL space. It links the material and the (im)material (Burnett, 2011; Davies, 2014), concepts I looked at in 2.5 *Learning spaces*.

I was uneasy with Leen’s use of pronouns, sometimes using ‘we’ and including Bryan in the plan, but at other times using ‘you’ and excluding him (11). I was worried she had misunderstood the activity. Another possibility was that it was simply language slips. But then it occurred to me that even as an avatar, she could have been struggling with feelings of disloyalty to her husband about planning a trip, even hypothetically, with another male. People do not abandon their ‘real’ life identities when they go online, or even when they interact through an avatar, if anything, virtual worlds tend to recreate the conditions of RL (Benwell and Stokoe, 2006). We had already glimpsed an aspect of her identity, that of family person and mother, revealed due to a child’s voice from her RL space breaking through into the SL space, in *Story 4 Is it the same thing?* Was this another aspect breaking through, that of family person and wife? The clue to this identity may be accounted for linguistically with Leen’s use of “you” instead “we”, which could be due to her holding on to some aspects of her identity as a married woman in real life. Goffman (1959) suggested that we manipulate our identities to present the one we wish, which to some extent is dialogic in collusion with others present (Simpson and Gresswell, 2012).

ANALYSIS: Massaging technology

I end as I began by calling attention to the problems of technology and the necessity to massage it. It became apparent that students needed to be able to manage the technology used to mediate interaction; perhaps to accept and accommodate the instances when technology overrides and manages communication by enabling or disabling it.

Engaging in social interaction mediated by technology can be difficult if there are glitches, but it can also be liberating. Virtual world spaces (VWs) are available and accessible from any location with a good Internet connection and suitable equipment (laptop or other device). Bryan was not tied down to his 'dormitory', but was accessing from his friend's accommodation. In contrast, Loncho's connection and access seemed to falter at times and caused distress to others as well as restricting his communicative abilities (1) (2). It meant time was wasted massaging technology, trying to establish a connection, or achieve better quality audio. In contrast, Bryan, even though attending the session from unspecified geographical locations, was able to participate fully.

I asked Bryan to procure a headset from his friend (4) because, when engaging in voice chat, the audio quality is much improved with the right equipment. A USB headset is recommended by gurus in the Second Life Knowledge Base with a good microphone to avoid broadcasting ambient noise from the local real life. It also prevents an echo of the avatar speaking being picked up and being broadcast through the 'voice' of another avatar in proximity. In session, 8, every time I spoke, my voice was being picked up and then played through the speaker on Bryan's laptop and then through his avatar's voice chat in SL, resembling an echo. It was unnerving to hear an echo of my voice coming from Bryan's avatar.

Story 8: Camping in Mongolia

Once I had established that no one else would turn up, we teleported to the 'woodland campfire scene'. I had become better at manipulating the affordances to hand, and quickly rezzed the scene (5). Bryan and Loncho were also quick to respond to my teleport offer, and arrived within seconds, clamouring to know where they were (6). They seemed to enjoy these kind of adventures in the SL environment and the change of scene from the terrace. I sent them notecards, which asked them to discuss their experiences of camping, and contained some ideas to keep the conversation going. I saw my teacher identity coming out again as I set up the activity in a teacherly manner, checking that they could understand (7). However, it was unconventional for a teacher to be sitting cross-legged on a treestump, as I

was (6); and for pupils to be sitting on logs, leaning backwards with their hands behind their heads in such a relaxed, informal manner (10).



There was another of those special moments when real life surpasses the virtual world, and for me this happened with the realisation that Bryan was telling us about his real experience of camping in - Mongolia! Both Loncho and I were entranced and waited impatiently to learn more (9). However, Bryan's range of vocabulary was being stretched to the limit (8, 10) as he obviously called on all his resources in all the layers he could access: his real life setting; the online dictionary; Loncho and I in the virtual world (10, 11, 12). We heard Bryan speaking Chinese as he requested help from his friends (12); we heard the sound of typing as he searched online for translations for words to describe the kind of accommodation he stayed in, an item which might not translate because as concept it was only identifiable and associated with a lifestyle in Mongolia. Eventually, he settled for the word 'tent' to describe the place he had slept in, but it was obviously a poor substitute for the Mongolian dwelling place he wanted to describe (13).



ANALYSIS: Camping in Mongolia

There are examples in the story of the different layers being used as resources to feed into communication. Bryan is being assisted by his friends in backstage RL in the 'dorm' (12). Loncho and I make suggestions, in text chat (11) or voice chat (12, 13). There are indications of an online dictionary being used, and probably his friends are searching for words on their digital devices too. This was a joint effort at social supportive learning; it was collaborative, drawing on Vygotsky's theories, and it drew on the concept of learning in the communities of practice, both concepts I explain in Chapter 2, *2.2.4 Social approaches to learning; 2.2.3 Communities of Practice*.

However, I want to bring attention to Bryan, the language learner, and L2 user of English was pushed beyond his comfort zone with language, and his response to call on every possible resource to get his message over. Bryan, in response to our obvious attentiveness was exhibiting real signs of learner investment as Norton, whose ideas I referred to in section 2.3.1. Identity, language and language learning, would call it. Another interesting phenomenon is how all the spaces have blended into one in order to maintain the story of camping he wants to tell us, which relates to theories of the material and (im)material spaces, which I look at in section 2.5. There is evidence of Bryan crossing the RL and VW spaces (12), and putting his research into an excellent performance for a rapt audience.

On a darker note, I saw myself so involved in wanting to here about camping in Mongolia, that I almost excluded Loncho (9 -13). This was not me calling on my teacher identity, teacher mode, this was me being inconsiderate, in the way that I mentioned in Chapter 2, *2.2.3 Problems with structural approaches*, that L1 speakers become impatient with learners and exclude them, "we' do not let them" (Norton, 2013:41). My only excuse is that it was frequently difficult to understand Loncho when his connection was unstable.

Behind the Scenes: Researcher slips

These are the bits I edited out, which illustrate the difficulties of being a researcher avatar in Second Life.



Disappearing slip

In the middle of a conversation with Leen, I saw my avatar suddenly catapult across the terrace. I apologised, but I had disturbed the interaction. It happened because I had inadvertently double clicked on my laptop, a command for my avatar to teleport. To make things worse, I could not see where I had landed, and had to use my camera viewer to survey the scene. I saw my avatar standing behind Leen, so I walked around her chair and sat at the table with her again, "Sorry, what were you saying Leen?"

Speaking to myself slip

Another frequent error was to speak without switching on my SL voice chat microphone. This is easy to do as voice chat returns by default to the 'off' position when manipulating other menus in the SL environment, as I often did. It usually took me several seconds to wonder why I was getting no response to my contribution to the conversation, and to realise no one had heard me.

Appearing in slip

In Session 3 I left so Matti and Bryan would talk to each other without relying on me (x1). In fact, I hadn't left, but instead had made myself invisible (x2), and after about 8 minutes, I attempted to re-join them. I was standing opposite them at the table and attempted to re-appear. However, when I 'discarded my invisibility' through the menu of options, I neglected to request clothing. To my horror I saw my avatar starting to appear standing opposite the boys by the table wearing only a camisole, barefoot and bald (x3, x4). Behind me was Roger's unembodied avatar wearing jazzy Bermuda shorts, its head hanging limply.

In real life, in my house, at my laptop I was frantically fumbling with the keyboard and scanning drop down menus in SL trying to work out how to bring my clothing back (x5). The conversation between Bryan and Matti continued as I (Aneloz, researcher) stood brazenly with hands on hips in my underwear. Finally, I selected an outfit and pressed 'wear', and magically my clothes appeared (x6). I do not know if they were aware of this exposure, and did not want to ask. The idea that the 'teacher' was standing there half clothed was mortifying for me.

While a visible entity in SL is no guarantee of embodiment, SL spaces can be occupied by invisible lurkers, and camera viewers can focus on anything within a virtual setting. Some would take issue with my practice as a researcher donning my 'invisibility cloak' and being in attendance at the conversation between Bryan and Matti (Merchant, 2009:99). I certainly got my comeuppance for engaging in this questionable practice, when I later struggled to reappear clothed. I do not think this practice is any worse than using the camera viewer to film from different angles; my participants were consenting adults who had been fully informed of what to expect prior to giving their consent. In a classroom situation in activities where my learners engage in pair or group discussion I would expect to monitor them unobtrusively, and help out when needed, and I feel that becoming invisible, or positioning my avatar in the background during interaction between participants achieves a similar end. Throughout the project, despite adopting the guise of Aneloz the avatar, my participants seemed to retain the essence of me as a teacher, and so aspects of behaving as I would in the language classroom would be in keeping in these situations.



The story of me being 'exposed' and the embarrassment I felt brought home to me how much I identified with my avatar as a representative of the 'real' me in SL. Identity is implicated strongly in the virtual space, and I obviously carried my teacher identity with me all the time, despite the exotic island setting overlooking the harbour.

I cannot help feeling that the learning journey had been as much mine as the other participants. If they had technology problems, I certainly had them as a researcher in Second Life in my efforts to record data; if they were not adept at manipulating their avatars, then I certainly was not much ahead of them; if they had problems with the different communication tools, then from the number of times I spoke when my microphone was not turned on, or wrote private text chats instead of public, then I was less adept than my students. What the data analysis reveals is not the errors of the learners, but the errors of the researcher. I am relieved that it all happened behind the mask of Aneloz in a layer of virtual reality.

Concluding Remarks

The analysis of data in this section has set out to look at what happens in communication practices when a researcher-teacher and students in university, L1, and L2 users of English, interact using avatars in a virtual world, Second Life. I developed a new visual approach, which I called storifying, to analyse and present the data as comic strips. The method draws on narrative approaches, and the comic strips mediate my interpretative representation of events.

The framework created to examine events views communication as socially constructed and draws on Goffman's theory of performativity (1959) to look at what contributes to communication from different spaces. The approach to analysis has been informed by the Vygotskian concepts of learning and Bakhtin's perspective of language as socially situated.

A summary of the main findings of this analysis forms the first part of the next chapter of this thesis

Chapter 5: Reflection & Evaluation

The previous chapter gave a narrative account of data from the project. This chapter firstly examines the findings and themes arising from my interpretation of them in relation to theoretical perspectives previously mentioned, and to my research questions. I then declare what the research contributes to the field. In the next section I will reflect on the study and make recommendations as to alternative ways of handling the empirical phase. I look at the implications for practice and consider how further projects might enhance the themes my research has touched upon.

5.1. Summary of the study

This section presents my interpretation of the findings from the data in the previous chapter in relation to communication practices in a virtual world. It starts with a recap of the aim of the research and the three research questions.

The purpose of the research was to explore communication practices of L2 speakers of English in a virtual world. The research questions (RQs) were:

RQ1. How do the participants manage communication and exchange information?

RQ2. How is social interaction shaped by spaces both in and outside the virtual world?

RQ3. To what extent do activities the participants are requested to do contribute to interaction and learning?

The theoretical framework drew on concepts from education, language and literacy; applied linguistics and language learning; learning spaces, with prominence given to theories which view language and learning from a social perspective.

5.1.2 Findings

I draw several key findings from the study which I briefly discuss.

Communication

1. Communication is impossible or extremely limited without good access to SL and some skill in using its affordances
2. Participants shape the communication to reflect their needs and interests by creating a community
3. The use of an avatar enhances communication and contributes to the experience
4. Participants negotiate meaning to understand and establish common meaning using language and different the modes and space available

Spaces and Interaction

5. Identity is constructed in response to social interaction
6. Participants call on multiple spaces to support interaction
7. Communication spaces and modes shape communication
8. Unexpected breakthroughs affect identity; unsettling and enhancing it
9. Spaces and their boundaries are in flux

Activities

10. Activities which involve an element of discussion contribute to interaction and learning
11. Activities which rely on interaction with the VW environment, spatially or through object manipulation, can require skill and literacy, and generate less interaction
12. Setting up activities reinforces the teacher role

Communication

1 Firstly, communication is impossible or extremely limited without good access to SL, and some skill in using its affordances.

Being able to access to the virtual world space of Second Life (SL) is paramount. This is evident in *Story 1 Perceptions*, where we saw Marrozi running around aimlessly, unable to join us at the table or to communicate. Kremmlindusk also initially had problems with audio and using voice chat, but he overcame them. In *Story 8, Massaging Technology*, conversation with Loncho was spasmodic due to sound distortion. Yet, theoretically, as web-based technology, access to SL was possible from anywhere with a good broadband connection as shown by Bryan accessing from his friend's 'dorm'. Technology features strongly as a barrier and an enabler when it mediates communication (Wegeriff, 1998). In essence, if the issues caused by technology are too difficult to overcome, then communication cannot take place.

As well as having access, the user needs to have some basic skills in manipulating the modes of communication in SL: several times, I forgot to enable my microphone and no one heard my words; Leen was unaware initially of how to use text chat, and may have missed messages in this mode. As I stated, 2.4.3, there are issues which might necessitate a trade-off; simplicity or high level sophistication of graphical interface and complex modes of communication which require skills and training.

2 Secondly, participants shape the communication to reflect their needs and interests by creating a community.

Education is a social practice and, drawing on the theories proposed by Lave and Wenger (1991), referred to in Chapter 1, being able to enter a learning

community and engage with it is an important part of language development. Entry is accomplished through interaction and participation, and members progress gradually until they achieve full membership.

The students in the study started to build a small community of practice through their social interaction in the SL meeting space on the terrace. This began during the conversation in the second session between Leen, Roger and Loncho in *Story 2 Norms*, and mainly relied on, but not exclusively, voice chat. Thus they were using language to create a community of practice, the purpose of which was to give them opportunities to develop their skills in interaction in English. The effort put into the building of a community was significant because they were exhibiting agency and creating opportunities to use language and interact socially, which as I pointed out in 2.3.1. *Identity, language and language learning*, is what characterises the most successful learners (Norton, 1997; 2001).

Language is a means to socialisation (Chapter 1), yet learning a language entails more than learning its systems and how sentences are constructed (Firth and Wagner, 1997). It could be the case that we all have an innate system for learning as Chomsky (1965) insists, but ‘knowing’ a language is not the same as ‘using’ it (see Chapter 2, 2.2.1).

Examples

The following examples indicate the building of a community, and of how participants shape communication to reflect their needs.

In *Story 2 Norms* the process of establishing a community of practice was started as the conversation between Leen and Rodger developed. When Rodger expressed his insecurity about speaking, Leen encouraged him to speak. In the same session, 30 minutes later Rodger seemed to already have gained enough confidence to suggest “we have to speak and speak,” and to initiate an activity. We saw Rodger moving from a peripheral position, feeling uncomfortable in using English to being an instigator in the topic of conversation, and showing an active pursuit of what was important for him.

There was further evidence when Rodger engaged Leen in a discussion about academic writing and asked her advice. The assignment was part of his course, and he directed the interaction to suit his need to discuss academic writing.

Other examples are when:

- Leen kept Roger talking about the Tramlines Music Festival he had attended, thirsty for news of happenings in Virfield in *Story 5 Chat – small talk*;

- Leen, Loncho and Roger directing the general discussion to explore aspects of each other's cultures, and learn about how family life and work influence living choices in *Story 2 Norms*.
- Leen, Roger and Loncho moving seamlessly for one topic to another in a discussion that lasted 15 minutes and covered a range of topics: visas for study; education and government support in their respective countries.
- A popular topic in several sessions the content of the Wednesday afternoon lectures and their opinion of the lecture.

The overlap in RL spaces they inhabited is interesting; Roger and Bryan were members of my class; Roger, Bryan and Loncho, all attended the Wednesday lectures; Leen had attended Wednesday lectures previously as part of her course. Leen and Loncho had been in my social English class.

The discussions at the meeting place on the terrace, were always unstructured; participants could choose the topics of conversation without my interference. In fact, in session 2, I postponed the shopping activity I had planned for 20 minutes when Roger wanted the group to exchange more personal information.

Unfortunately, Bryan missed the initial forming of the community in session 2. If he had been present at that session, he might have been more confident in his meeting with Matti, in *Story 3 Comparison Matti and Bryan*. However, Bryan gained confidence in later sessions, and by *session 7, Making soup*, he was confidently explaining how to make soup to Leen, although out of his language comfort zone and speaking to someone older than him from a different culture.

3 The use of an avatar enhances communication and the experience.

Integral to the experience of the virtual world is the embodiment of the self as an avatar, which invokes the feeling of being present with others, as avatars, in the 3D environment (Bronack, 2008), the importance of which I looked at in Chapter 2, *2.4.2 Learning theory and virtual worlds*. The feeling of presence and co-presence might endorse the social interaction taking place in real time between my participants, but for language learners the use of an avatar does more than this to enhance communication, as I show.

The avatar is an important part of the performance in SL; it mediates social interaction for users of SL, and so is important to a social-constructivist approach to learning (Minocha and Roberts, 2008). Rather like a marionette, which responds to commands in a wooden like manner, the avatar provides a visual confirmation of presence in SL and, under our direction, responds with limited flexibility of movement. There has been some debate about the quality

of interaction they provide, with some declaring that this impacts negatively on interaction (Petraoui, 2010; Dalgarno and Lee, 2010), including language learner interaction (Panichi, 2015; Tan et al, 2016). An exploration of the affordances offered by the avatar was not a focus of this research, and is beyond its scope, but I believe that for social interaction using language, it is fit for purpose. As the virtual world space is unreal, and avatars are our virtual representatives in it, to make them more lifelike is unnecessary, and might be distracting.

In social interaction in SL the focus is on the spoken performance, which is mediated through the avatar. I likened social interaction in SL to Goffman's front stage and backstage concepts of interaction happening in layers, wherein lies a unique attribute to assist language learners. With the avatar enacting the performance, the person behind, backstage is free to attend to finding the props needed to polish the performance. This is important for L2 users of English. It means they do not need to put effort into the visual aspect of maintaining the performance by looking attentive, maintaining eye contact, and nodding as face-to-face interaction requires. This leaves them free to perhaps search for the language they might need in a dictionary, or receive help from a friend backstage RL. In my project, the sessions tended to focus on speaking activities, so when participants were seated they were not distracted by trying to manipulate their avatar within the environment.

Examples

As I was not privy to what happened in the layer backstage RL, it is difficult to say with certainty what was happening. Indications were the instances of an avatar going through the motions of typing, often accompanied by a clicking sound. This indicated the use of the keyboard, perhaps to look something up online. Other indications were instances when the sound broke through into the SL performance layer, the voice helping Bryan in *Story 8 Camping in Mongolia*. I enlarge upon the phenomenon of breakthroughs further on.

However, the avatar is not simply a mouthpiece, it is a way of interacting and moving within the 3D space. And these skills were required when we went shopping in Boutique Renoir, *Story 2 Norms: Shopping*, or had to walk for one place to another, as I showed in *Story 4: Pairwork – with task cards*. Although I argue further on that activities which involved the use of space did not produce much spoken interaction, these, often 'fun', activities were instrumental in building up shared experiences as members of a community, and as such, contributed to sociocultural concepts of learning. Some of these activities were (see Appendix 6): session 2, the shopping trip; session 4, sailing boats around the bay; session 5, searching for diplodocus in a history museum, an activity incorporating movement and literacy in reading the exhibits; session 7, using the virtual map.

4 Participants negotiate meaning to understand and establish common meaning (using language and different the modes and space available).

Given the relationship between language, culture and literacy, Chapter 1, *section 1.2.1*, and as language is used to exchange thoughts and ideas, then meaning is negotiated socially (Mercer, 2000). Mercer's ideas sit in contrast to Chomsky's (1965) concepts of the innate nature of language development, which cannot be observed. Bakhtin (1981) also views of language as being located in social situations, and meaning being context dependent. Such theories relating to language as occurring in interaction mean we can observe what occurs. I noted several examples of meaning being negotiated socially.

Examples

Firstly, in *Story 3 Comparison - Researcher and Bryan*, the example involves Bryan and myself negotiating the term 'dorm' to refer to Bryan's room or flat (I am not exactly sure). I had never heard the term 'dorm', although I was familiar with 'dormitory', which for me had connotations of boarding schools, something I had only read about in children's books. I was surprised when Bryan said Roger was "in his dorm" (7). I was aware of the accommodation in shared flats in the student village, but had never heard them called 'dorms' before. This was a term that Bryan and his friends had developed, perhaps a translation from a similar concept in his country. Bryan helped me to understand the expression by using the full form of the word 'dormitory', which was supplied by his friend backstage. In the ensuing conversation, both of us use the term 'dormitory' as the new term commonly agreed.

There are a further two examples in *Story 4 The negative speaker and Is it the same thing?* and both involve Roger negotiating meaning. The first concerned the use of 'negative', and involved some confusion in case he had intended to say 'native'. Roger called on the text chat affordance of SL to clarify his intention was to say 'negative'. Roger had skilfully added a new meaning to 'negative', which could be applied in this context, and in our discussion about participants who were involved in the sessions. This resonates with Vygotsky's (1978) theory that learning is located within the action of the learner and the immediate environment. The interaction is mediated by the SL environment, Roger, Leen and I all contribute to establish what a 'negative speaker is' by using voice chat and text chat. It is an example of language being used in a fluid and creative way, and the modes and spaces have contributed to this.

The second example occurred between Roger and Leen, and concerned the terminology for a piece of writing the student had to do as part of ISS. As a teacher on this course I was aware that we referred to it as 'the project', but also that on similar courses during between September and June, almost exactly the same task was called 'extended writing'. So in *Is it the same thing?*, Leen and Roger had accorded the term with the meaning given it by their different communities of users (Kramsch, 1998); for Leen 'the project' did

not exist, but for Roger it was very much a part of his course, and one he was extremely worried about. As Bakhtin (1981) sees it, everything is relational, so Leen and Roger needed to negotiate their different understandings which had been handed to them from previous uses. They took recourse in language to do so, and as Roger elaborated on what he needed to do, Leen understood and started to respond, thus working together to establish meaning.

Finally, in the *Story 8 Camping in Mongolia*, Bryan was desperately searching for a way to express the concept of the dwelling he stayed in Mongolia, but to no avail because such an expression belongs to the cultural tradition of Mongolia. The closest approximation Loncho and I could supply was 'tent', an inadequate, but temporary solution so that the conversation could progress.

Spaces and Interaction

When learning is taken as social constructivist, it involves social interaction in contexts, and to participate, people need to know how they are positioned in relation to others. This also applies to language learners, and in any social situation they are engaged in negotiating their identity and how they are positioned (Norton, 1997). I framed my observations of the meetings and interaction in SL through the lens of Goffman (1959), and the next three findings are related to his theories of social interaction as being enacted as performances on stages, which are related to the spaces in RL and VW. I discussed this in Chapter 2, 2.3.2. *Identity and identity management in virtual worlds* and again in Chapter 3, 3.2.2 *Methodology: Sociocultural theory*. I extended Goffman's concepts to include backstage in-world (or online), and acknowledge the existence of a vague, undefined space which seems to blend and cross the boundaries between spaces, to create hybrid spaces (Burnett, 2011). Goffman's theatrical metaphor has been successfully applied to understanding interaction in online environments and social networking sites (Gilmore, 2014; Dyer, 2015).

5 Identity is constructed in response to social interaction.

Drawing on Goffman's (1959) claim that identity is played out in social spaces, sees performances occurring in response to the people involved and the situation. This dramaturgical view posits identity as being formed through and relative to the situation in which social interaction occurs. I give several examples of this, starting with how my teaching identity is played out during the sessions.

In SL I tried to avoid acting as a teacher because I wanted to set up an informal learning space. Yet I observed several instances of my teacherly behaviour:

- in my interaction with Bryan, in *Story 3 You can't hide your real self*; I was acting out the teacher by covertly correcting Bryan's pronunciation and modelling the pronunciation of 'island' with a silent /s/.
- in *Story 6 Spaceship spaces*, I could not resist teaching Bryan the vocabulary for the 'bridge' of the spaceship, and then writing it in text chat.
- in *Story 2 Norms*, my avatar can be seen hovering in the background, eavesdropping on the main conversation around the table between Leen, Loncho and Roger. This is a typical classroom monitoring technique during freer communication activities.
- in *Story 8 Camping in Mongolia*, I set up the pairwork discussion, giving instructions and notecards with the practiced air of the experienced classroom teacher.
- In *Story 5*, I endorsed Leen's advice to Roger by writing in the text chat "I think she is right" and "Good advice". So I was using text chat as a backstage prop to support Leen's performance.

Goffman places importance on the props and staging as influential to the performance. In our sessions, these were the software scripted graphic renditions of the spaces our avatars occupied in SL, and the modes of communication available; voice chat and text chat. I had deliberately chosen the chilled out setting on the terrace of my rented SL property, and the artefacts of the table and chairs as opposed to any semblance to a 'normal' classroom like setting. So the space was not suggestive of classroom type activity or roles. Leander et al (2010) believe there to be a connection between social and cultural practices and the spaces in which they occur, which is because of the meaning accumulated through their use over time (Burnett, 2011). So why was I enacting the teacher in a space which did not evoke reminiscent of a classroom? Goffman maintains that when social interaction is viewed as a performance, sincerity is questionable and the individual works to produce a contrived enactment. And the individual is not alone, as the audience is complicit in the performance, thus accounting for identity emerging as socially constructed from the context of social interaction (Bucholtz and Hall, 2005). Identity is not essentialist, but relativist, and it can operate simultaneously on many levels and across borders as indicated from the research of Savin-Baden and Falconer, (2016:996) who found that during a VW activity students retained their own identities and "demonstrated a strong sense of being present in the physical world and the virtual world at the same time".

In SL I considered myself to be a researcher; I had instigated a study and all it entailed. Yet, when confronted with participants who were L2 users of English, I seemed to align my performance with that of my classroom teacher identity. This is not surprising given that all the participants had been students

in my classes. They too were complicit in this performance, and it may be that I was enacting a teacher identity in SL in response to my perceived expectations they had of me.

There is an example of Leen acting out a teacher identity in response to Roger's request for advice about his project writing in *Story 4 The negative speaker*. This is repeated in *Story 5 Chat and chatbox*, in a performance of transmission teaching with Roger, who played his part by listening passively. I contributed by expressing my praise in the text chat thus validating it as good teacherly practice.

Although we manipulate our identities in performances, there are some aspects we may find hard to abandon. It could be that Leen struggled to abandon aspects of her family life completely, making it difficult for her to engage in an activity which involved planning a hypothetical trip to London with Bryan, *Story 7 Planning*. This could have accounted for her choice in language of the pronoun 'we', thus including Bryan in the plan, then later 'you' which excluded him (11). Indicating as Benwell and Stokoe, (2006) state, we adhere to some aspects of our RL identities in online situations.

6 Participants call on multiple spaces to support interaction

Linked to the idea of layers of social interaction being performed, is the concept of the spaces or layers which contribute to it. The backstage area, where the real self works to polish and perfect the performance, where the real 'unselfconscious response' to the situation takes place. As everything is relative, what could be termed as front stage in SL, with a supporting backstage in RL, applies only to this specific interaction. Identity can operate on many levels simultaneously (Bucholtz and Hall, 2005), so that backstage RL, could at the same time be a front stage for another performance being enacted there.

Participants create hybrid spaces when they cross from one space and reach into another. This is often done in order to enhance the performance in SL, but it is also at these points that learning occurs. Taking the example of Bryan, logging in to SL from the kitchen of his 'dorm'. He was working hard to maintain interaction with me (or Aneloz) in SL through his avatar. His friend(s) was observing, but provided assistance with the performance, as we saw in *Story 3 Researcher and Bryan*, and again in *Story 8 Camping in Mongolia*. These were the noticeable examples of the existence of backstage help because they audible, picked up by Bryan's microphone, but others may have gone by unnoticed.

The text chat mode can also be regarded as a prop, there to assist the main performance taking place using voice chat. Text chat was used quite

frequently in moments of uncertainty, 'negative' and 'native', *Story 4 The negative speaker*; to check spelling, 'bridge' *Story 6 Space and spaceships*; or to suggest expressions, 'pork bones' 'carrot' 'onion', *Story 6 Making soup*, 'tent' 'sleeping bag', *Story 8 Camping in Mongolia*.

There may have been other backstage resources which participants called on, probably in the form of an online dictionary on their laptops or other digital devices, or those of friends' present backstage. Bryan was evidently searching in *Story 7 Making soup* as his 'typing' hands are visible in the cartoon (2). I left links to websites in the text chat during conversations with Bryan which would lead to information about the local area. Perhaps this kind of activity could be encouraged so as to make connections between topics discussed, and resources or items of interest in other spaces.

7 Unexpected breakthroughs can be unsettling

Goffman stresses the importance of segregating the front stage from the backstage, and keeping intruders, 'outsiders', from the performance. The reason for this being that any identity enactment is specific to the audience and setting, so an intruder presents the performer with a crisis of which identity to adopt.

Examples

- An example of this dilemma was when Leen's performance was interrupted. She had been embellishing an identity during the discussions in SL as someone who was interested in Sheffield, and someone with experience of university practices, and had adopted the role of teacher and facilitator of the community of practice. In *Story 5 Is it the same thing*, this was disturbed by an interruption from her child, and she was momentarily torn between this identity and that of the mother. As she focussed on her child, the performance shifted for her, and RL temporarily became front stage; we heard her speaking to the child in Arabic.
- Another example of an unexpected breakthrough was when the noises coming from the Bryan's RL kitchen in his 'dorm' became overwhelming in the SL space, as Bryan's flatmates were cooking and doing the washing up rather loudly. I found the possibility of an uninvited audience to the sessions a little unsettling from my position as researcher responsible for participant privacy. It raises the question of how Bryan coped with juggling the identity he enacted with his friends, and the identity he enacted in SL, which could be interesting to follow up.

8 Communication spaces and modes shape communication

As I said previously, 2.4.3 *Issues with the use of virtual worlds in education*, when technology mediates interaction, its effect can transform “spatial and temporal relations” (Kern, 2014:341). This can affect how communication is enacted, with unexpected results in SL with its different modes of interaction (Wertsch, 1991).

Example

An incident which exemplifies this, was the case of Roger breaking off interaction in one mode and space to respond to a comment made in another mode and space, in *Story 5 Chat and small talk*. Roger and Leen were chatting synchronously using voice chat about a social activity Roger had attended. One minute he was describing it to Leen, and then went silent while his avatar started going through the motions of furious typing. I thought he searching for something in a dictionary to contribute to the conversation with Leen. However, he was writing a response in text chat to a comment I had written there some minutes earlier. My intention in using text had been to not disturb the social interaction between Roger and Leen. However, the comment had not only disturbed it in several ways; it had caused the front stage to be relocated to the text chat; it changed the mode of interaction from voice to text; it had affected the time frame, giving precedence to the asynchronous mode of text.

I am not sure why Roger chose to reply in text chat, and not in voice; perhaps because he was responding to me as the teacher. But it indicated that care needed to be exercised when using text chat, and that I should refrain from making comments in discussions between participants.

9 Spaces and their boundaries are in flux; they blend, merge and separate

During interaction, there often seemed to be an overlap between the spaces involved; at the times they merged and at other times they separated. My participants often negotiated several layers of material and (im)material spaces (Davies, 2014) through the course of their discussions, at times participating in the interaction in SL, and simultaneously in events in their ‘real life’ spaces. Spaces seemed to intersect and the ‘real’ and virtual overlapped to create hybrid spaces (Burnett and Bailey, 2014). Savin-Baden and Falconer, (2016) consider that for learning to have ‘permeability’ it is important students are able to inhabit two spaces at the same time, or metaxis, as they refer to it. From the perspective of learning as being socially constructed, space is socially produced through interaction and so learning does not occur within the individual, but as Leander et al (2010:330) state is distributed “across persons, tools, and learning environments.”

Example

An interesting example of this blending of spaces was the trip planning activity; it made use of a virtual map of a real place, London, in a virtual space. The artifact of the real map merged into the virtual space. The discussion between Bryan and Leen involved conceptualising the 'real' London, and how they would move from one famous sight to another using a 2D map. Social interaction centered around making joint decisions using voice chat in a collaborative effort to make a feasible plan, which could be carried out in RL.

Activities

10 Activities which involve an element of discussion contribute to interaction and learning.

In the sessions, I tried to incorporate use of the affordances of SL; to combine spoken communication with some experience of the weird and uncanny world of SL. Besides drawing on my experience as a language teacher, I looked to previous studies concerning language learning tasks in VWs, particularly those used in project NIFLAR, which I mentioned in '3.3 Methodology in my research'. From the activities I tried out, I found those that generate the most social interaction, as in the classroom, involve an element of decision making or exchange of ideas (Jauregi et al, 2010).

Examples

A fairly successful example of this was the pair speaking activity we did in *Story 4 Pairwork*, based on prompts on notecards, but the most successful task was *Story 7 Planning*. This involved a fair amount of speaking, as Leen and Bryan had to work together to make decisions and plan a day in London. It involved some spatial movement as the map was so large in relation to the avatars that they needed to move around in the space to view it. In addition, it made links, through the task and the artifact of the real map to cross the virtual space to the real life one. At the same time, the map emphasised virtualness of the environment, closing the gap between the real and virtual; reminiscent of the way Leen's child had momentarily closed the gap between Leen and real life, but also made a break into the fabric of the virtual world.

11 Activities which rely on interaction with the VW environment, spatially or through object manipulation, can require skill and literacy, and generate less interaction

In stark contrast to the conversations when the group was seated and chatting informally around the table, were activities that needed any kind of spatial movement using the avatar. This necessitated the use of menus to move the avatar within the 3D environment.

Examples

- In *Story 3, Pairwork* I lost Leen for a short time when we walked down to the waterfront. She was unable to keep up with Roger, Bryan and I, as we walked, and then could not see us. It meant any spoken interaction was concerned with how to move around in SL.
- Another example was in the shopping task, *Story 2 Norms*, where those present focused on the negotiating the menus to 'acquire' their goods, and to wear them. Conversation, which had developed to cover a range of topics, almost ceased as the those in the shopping mall became engrossed in what and how to acquire items.
- Again at the end of the session in *Story 3 Lava walking activity*, when Matti and Bryan and I teleported to the volcano and did some 'lava walking' and flew aimlessly over the island, there was a lack of purpose to it. This was not well planned, and at the time, I wanted to make the experience in SL a little more interesting and active for them.

These attempts to use the affordances and unique features of the SL environment illustrate the criticisms of the use of VWs which I mentioned in Chapter 2, 2.4.2 *Learning theory and virtual worlds*, namely that consideration needs to be given to learning outcomes (Dass et al, 2011; Fowler, 2015).

12 Setting up activities reinforces the teacher role

When setting up activities I enacted my teacher identity, as I remarked on previously. While it indicated my skill in doing so, and helped those involved to understand what they were being asked to do, on the other hand, it was imposing some level of control over the interaction. And had two impacts. Firstly, it made it more difficult for me to step out of the teacher role, and for the students present to see my identity in SL as other than that of teacher. Secondly, by enacting a teacher identity I was imposing control by dictating the topics to be discussed. In *Story 6 Spaceship spaces*, I lamented feeling out of control. While this distressed my teacher identity, it could be seen as an equalising factor between me and other participants, and if I had really wanted to escape the idea that I was in control, then it could be construed as a good thing. As I stated previously, in Chapter 2, the most successful L2 users of a language are those who are able to exercise agency (Norton, 2000). However, in order to increase agency, they needed to have more control.

5.2 Summary of findings

Communication

The findings indicate that a small group was adept at organising themselves into a community to make the best use of the SL environment to meet their needs. This was assisted by features of the environment, especially the use of an avatar and access to different modes of communication enabling them to interact and establish common meanings. Language and literacy practices help produce space in a co-constructive dynamic; language and literacy is produced in the space, and is a response to it that also produces this space (Davies, 2014).

In answer to RQ1, when participants can access the environment, they make good use of communication possibilities and use the space to show learner agency and invest in learning.

Spaces and Interaction

The findings indicate that it is not only the spaces that shape social interaction, but the people we interact with. It seems that we make choices, and constantly juggle our identities as we slip from one performance into another, and this involves crossing from one space to another; not quite closing the curtain on one performance, but breaking off to maintain another interaction which requires the enactment of another identity in another space, and perhaps another mode. As Benwell and Stokoe (2006) maintain, we do not abandon the identities we enact in 'real' life, but by viewing identity using Goffman's performativity lens, it seems we decide how to enact identity in interaction in response to those present at any moment. SL provides us with the option of being involved synchronously in multiple sites of identity enactment, and at any time a participant can choose which takes precedence. This can be visibly noticeable on occasion by indications of avatar being 'embodied' by its user, or audibly by some voice or sound from the RL environment of the user, but on other occasions this enactment of another identity happening in RL may also go unnoticed.

How modes are used in the spaces which contribute to interaction has a bearing on interaction. Modes of interaction in SL are complex and some training may be needed (Peterson, 2012; Herold, 2012), but agreement needs to be reached as to how modes are to be used, particularly text chat. This would avoid situations like that of Roger breaking off interaction in one mode, voice chat to engage in text chat.

In answer to RQ2, social interaction is shaped in response to who we interact with, the mode we employ, and the context of the interaction. Contextual factors influence the traits of an identity enactment we feel are appropriate for a specific site of interaction; participants manage multiple sites

synchronously, which sometimes blend, or at times contribute to interaction across spaces.

Activities

The findings indicate that activities which incorporate decision making and need some discussion are more successful for the purpose of using language. There is a case for activities that incorporate some aspect of incorporating the use of the SL environment, but such activities need to be carefully planned, with a view to learning outcomes related to the students' needs (Dass et al, 2011; Fowler, 2015). In addition, it may be necessary to weigh up the effect of incorporating activities against the loss of learner agency, and to consider giving participants more agency so as to encourage investment (Norris, 2000).

In answer to RQ3, for activities to contribute to interaction and learning, they need to be designed with a thought to the outcomes they encourage, and, to extent to which participants could become involved in decisions regarding choice and content of activities.

Conclusion

L2 speakers of English are often denied access into spoken exchanges with L1 speakers (Norton, 2013), as I pointed out (p26-27), and my aim in the project was to set up a safe space in SL where they were allowed in. The purpose of this 'rehearsal' space was to provide opportunities for them develop strategies for interactivity which could be called on later in 'offline' situations (p36-37).

The key findings indicate that language learners gain from engaging in informal interaction in a virtual world community in terms of learning and developing agency. This was indicated by the level of investment the learner showed in shaping the space to reflect their needs and interests. The affordances available to them in the environment supported their communication because of the multiple spaces, in-world, online and in 'real life', that could be called on as resources during conversation.

5.3 Contribution to the field

In the process of this research I have achieved two things: first is this account of research which has unearthed new perspectives on how L2 speakers call on resources in order to express themselves in a virtual world setting; second is a new way visual way to present the data from the use of different spaces which contribute to social interaction in a virtual world, Second Life. In addition, there have been immeasurable personal gains as I developed as a

researcher of education, and explored the ontological roots of practices in my profession of language learning. My personal struggle has been to accommodate two different theoretical approaches to learning, one with its roots in linguistic theory and traditions of learning, and another drawing on theories from social sciences, education and literacy.

This study adds to the growing body of knowledge of how social interaction occurs in the region where online and offline spaces merge and overlap. It contributes towards understanding “the interwoven nature of online and offline lives” (Dyer, 2015:218). Much research into language learning in virtual worlds has focused on outcomes in terms of an idealised form of language and has ignored the social aspects of communication. This comes from language being theorised as universal (Gillen, 2014) and learning as located within the individual. Dooly and Hauck (2012:143) state the need for qualitative approaches which are observational in nature and focus on the processes as opposed to the outcomes of learning. So this research tried to understand how participants negotiated layers of material and (im)material spaces to manage communication (Davies, 2014).

A further claim to originality is the approach to data analysis I developed and termed ‘storifying’. This predominantly visual, but also textual device, used comic strip format to give a dynamic interpretation of items of significance in the sessions in SL. It used the images from machinima, in 2D rendition, together with dialogue from the transcription to illustrate social interaction in the SL space to create a hybrid space (Smith et al, 2015) and invoke the flavour of the interaction.

5.4 Reflections and evaluation

The limitations of the study concern its size and the small number of participants involved, making it difficult to generalise on the findings.

As regards data analysis, it tends to be limited to my interpretation, and would benefit from other perspectives. I missed an opportunity to involve the participants in the interpretation of what occurred in the sessions participants; to ‘talk with the video’ as Pink (2007) had done in her research into life, homes and cleaning, undertaken for Unilever in 1999. Pink, developed a method whereby a video tour was made of each individual’s home and they were invited to a session to view the films and describe the practices verbally and embodied performance (Pink, 2007:106-7). Although I invited the international students involved to view the machinima of the session they were in, this was not structured. This could have been part of the data analysis process and would have enriched my perspective of events. This would have enabled me to find out more about back stage area relevant to

each participant, as well as their perspectives on their front stage performances.

5.5 Implications

There are several implications for situations where virtual worlds might be used as spaces for language learner to engage in social interaction.

- Firstly, some consideration needs to be given to initial basic training, particularly in how to use the various modes of communication.
- Regarding modes of communication, ground rules might need to be established about how these are used, particularly by those in control; text chat comments by those not involved directly in discussions can be disturbing and maybe should be reserved for later, if at all.
- Decisions need to be made as the nature of the sessions; how unstructured or structured will they be.
- If activities are used, consideration needs to be given to the amount of manipulation of the environment involved. The first few sessions should require relatively little manipulation of the environment.
- Learning in communities of practice, CoPs, is more effective, and depending on the numbers, small group formations might encourage this.
- The question of whether and to what extent control and leadership are exercised needs to be decided. As CoPs become more established, they can be self-regulating. CoPs can also be involved in making decisions about activities, thus increasing agency and encouraging investment.

5.6 Suggestions for further research

My research has been unique in looking at how participants manage communication in virtual worlds from a social perspective. As I pointed out, there is place for further exploration of this which takes into consideration multiple perspectives. Further projects of a similar focus could build on the insights gained in this study into how the online and offline spaces contribute to social interaction in-world.

Further research might explore the impact of developing CoPs, and look at how learners could develop agency and take more control by making decisions and gradually developing their own activities in SL.

Appendices

Appendix 1: Activity notecards

Activity cards sent as 'notecards' in Second Life to participants

Task	Notes of use
<p>1. Similarities and Differences Card A Ask your partner questions to find out about what you have in common (similarities), and what is different in the areas on your card. Ask as many questions as you can to find out about your partner's:</p> <ol style="list-style-type: none"> 1. Family 2. Holidays – past / preferences 3. Food and diet <p>You start the activity and go through all the topics. When you have finished, it is your partner's turn.</p>	<p>Session 2 as a pair work activity. Ints were in pairs: Leen and Roger; Bryan and Aneloz.</p>
<p>1. Similarities and Differences Card B Your partner will ask you some questions about your life and you should try to answer them. When they have finished, it is your turn to ask them questions.</p> <p>Ask your partner questions to find out about what you have in common (similarities) and what is different in the areas on your card. Ask as many questions as you can to find out about your partner:</p> <ol style="list-style-type: none"> 1. Education 2. Hobbies / leisure activities 3. Experience of language learning 	
<p>2. Plan a trip to London 1. Talk about places you would like to visit / OR have visited in London. 2. What is the best way to get there? 3. Do you know any good places to stay overnight?</p> <p>Make a plan for a one or two days in London with another person.. Decide which places you will visit and how long you spend in each place.</p>	<p>Used in the 'planning trip' scene with Bryan and Leen to plan a day in London.</p>
<p>3. Camping Have you ever been camping? Talk about this and tell the others of any occasion on when you went camping.</p> <ol style="list-style-type: none"> 1. Plan a camping trip. Think about where you would like to go; how you would travel there. 2. Decide some activities you would like to do while you are there. 3. Finally make a list of what you would need. 	<p>Used in the 'woodland fireside scene' in session 8 with Bryan and Loncho.</p>

Appendix 2: Ethics approval



The School Of Education.

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Dear Anne

ETHICAL APPROVAL LETTER

The Impact of Virtual Worlds on the Speaking Development of Language Learners

Thank you for submitting your ethics application. I am writing to confirm that your application has now been approved.

We recommend you refer to the reviewers' additional comments (please see attached). You should discuss how you are going to respond to these comments with your supervisor BEFORE you proceed with your research.

This letter is evidence that your application has been approved and should be included as an Appendix in your final submission.

Good luck with your research.

Yours sincerely

A handwritten signature in black ink, appearing to be 'D. Goodley', written over a horizontal line.

Professor Dan Goodley
Chair of the School of Education Ethics Review Panel

cc Julia Davies
Enc Ethical Review Feedback Sheet(s)

Appendix 3: Participant information

INFORMATION SHEET FOR PARTICIPANTS: L1 SPEAKERS OF ENGLISH

Study Title: The impact of virtual worlds on the speaking development of language learners

Anne Turner



I would like to invite you to participate in this original research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

I am interested in how speaking and interacting with a native speaker in a three-dimensional (3D) virtual world, Second Life, can affect the speaking development of language learners. I would like to identify how beneficial the use of virtual worlds are in developing learner confidence in speaking. I would also like to identify which task types encourage interaction and use of language.

I hope that this project will act as a pilot study to provide insight on how to develop the use of virtual worlds to provide opportunities for international students to interact with home students. At the conclusion of the study, I will provide you with a newsletter summarising the main findings.

Why have I been invited to participate?

You have been invited to take part as an expert speaker of English on a course of study in the university who would like the opportunity to interact with prospective international students who are keen to speak with students in the university. You are also invited as someone who might enjoy taking part in online games and be interested in undertaking activities in a 3D virtual world together with language learners.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and

without giving a reason. If you choose to either take part or not take part in the study there will be no impact on your marks, assessments or future studies.

What will happen to me if I take part?

I will ask you to download a software package onto your computer and register as a user of Second Life, which is a 3D virtual world. You will then need to choose a representation of yourself, an avatar. You will then be given a short induction of two sessions into how to use some basic features of Second Life and how to operate in this virtual world as an avatar.

I will then ask you to use your avatar to undertake a series of tasks together with one or more members of the research project. I have designed the tasks so as to encourage social interaction with other people who are represented by avatars. They are designed to take place in various situations and locations in a Second Life which I have previously checked for suitability.

I will ask your permission to record your contributions in the 3D virtual world for use in analysis. This will include film recordings of your avatar which will include your spoken contributions using the voice facility. I will ask you to keep a record of any public text chat in the 3D virtual world and to give me a copy.

After doing the tasks in Second Life I will ask you to reflect on what happened and how you felt about interacting. I may ask you to engage in a discussion with other project members and/or myself regarding your feelings about using the 3D virtual world as a way of developing speaking. The discussions may take place either through representations of the project members as avatars in Second Life or in real life discussion groups. They will be based around a semi structured interview pattern and will take approximately 10-15 minutes. It is intended as an opportunity for you to express your views on the use of 3D virtual worlds as a learning space and the use of avatars for the development of speaking skills. These conversations will be recorded.

Interviews in Second Life will be recorded using screen capturing software and later transcribed into text. I may supplement these with my field notes. Recordings of face-to-face interviews will be transcribed into text.

Will what I say or do in this study be kept confidential?

As part of the presentation of results, your own words, and the words of your avatar may be used in text form. Contributions you make in the real world will be anonymised, so that you cannot be identified from what you said. Contributions you make in the virtual world, Second Life will be linked to your avatar, but not to your real world identity. Actions and spoken language of your avatar may be recorded in Second Life, and records of text chat in Second Life will also be kept. I will ask you whether you wish me to anonymise the name of

Appendices

your avatar and to give it a pseudonym in the presentation of results and any other reports.

The data collected in the project will be used in my thesis or in other reports and will be published and may also be used in presentations, but your real life identity will be kept anonymous. Please note that:

- You can decide to stop the participating in the project or in any discussion/ interview at any point
- You need not answer questions or undertake tasks that you do not wish to
- Your name will be removed from the information and anonymised. It should not be possible to identify anyone from any reports or publication of data from this study
- You can decide whether your Second Life identity as an avatar is anonymised. However, it will not be possible to identify you in the real world from any use of your avatar name in reports or publication of data

All of the research data will be stored digitally and as hard copy at the University of Sheffield.

What are the possible disadvantages or risks of taking part?

There are no risks involved in participating. If you feel uncomfortable at any time during activities in the 3D world, you can withdraw. I will give you assistance on how to quickly withdraw completely from a situation or to return to my 'safe' home. In the interviews, if there are questions that you find distressing or intrusive, you are free to not answer those questions or to withdraw from participating.

What are the possible benefits of taking part?

You will have an opportunity to experience interaction with someone from another country and a different culture to your own. You will also gain experience of Second Life, a virtual world and their possibilities, which you may find useful and enjoyable. At the conclusion of the research I will send you a summary of the general findings and how these may lead to any general outcomes resulting from the project.

What will happen to the results of the research study?

I am conducting the research as a doctoral student at the University of Sheffield, in the Department of Education, supervised by Dr Julia Davies, j.a.davies@sheffield.ac.uk. The results of the research will be used as part of

my thesis in the Doctorate in Education. The audio and/or video recordings of your activities made during this research will be used for analysis for the assignment, and may be used for illustration in conference presentations to talk about teaching and learning. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

What should I do if I want to take part?

If you agree to take part, you should sign a 'Participant Consent form'.

Who has ethically reviewed the project?

The project has been ethically approved via The School of Education's ethics review procedure which is monitored by The University's Research Ethics Committee. If you require further information, please contact Anne Turner, a.e.turner@sheffield.ac.uk . If you have any concerns about the way in which the study has been conducted, contact: Dr Julia Davies, The School of Education, 388, Glossop Road, Sheffield S10 2JA; Tel: (+44) 114 222 8087

Thank you for taking the time to read the information sheet. Anne Turner

Date: 2 May 2014

INFORMATION SHEET FOR PARTICIPANTS: LEARNERS OF ENGLISH LANGAUGE



Study Title: The impact of virtual worlds on the speaking development of language learners

Anne Turner

I would like to invite you to participate in this original research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

I am interested in how speaking and interacting with a native speaker in a three-dimensional (3D) virtual world, Second Life, can affect the speaking development of language learners. I would like to explore how beneficial the use virtual worlds are in developing learner confidence in speaking. I would also like to identify the task types that encourage interaction and use of language.

I hope that this project will act as a pilot study to provide insight on how to develop the use of virtual worlds to provide opportunities for international students to interact with home students. At the conclusion of the study, I will provide you with a newsletter summarising the main findings.

Why have I been invited to participate?

You have been invited to take part as a language learner who is preparing to enter higher education on a course of study in the university, and as someone who needs or wishes to develop speaking skills in preparation for this. You are also invited as someone who might enjoy taking part in online games and be interested in undertaking activities a 3D virtual world.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. If you choose to either take part or not take part in the study there will be no impact on your marks, assessments or future studies.

What will happen to me if I take part?

I will then ask you to use your avatar to undertake a series of tasks together with one or more members of the research project. I have designed the tasks so as to encourage social interaction with other people who are represented by avatars. They are designed to take place in various situations and locations in a Second Life which I have previously checked for suitability.

Appendices

I will ask your permission to record your contributions in the 3D virtual world for use in analysis. This will include film recordings of your avatar which will include your spoken contributions using the voice facility. I will ask you to keep a record of any public text chat in the 3D virtual world and to give me a copy.

After doing the tasks in Second Life I will ask you to reflect on what happened and how you felt about interacting. I may ask you to engage in a discussion with other project members and/or myself regarding your feelings about using the 3D virtual world as a way of developing speaking. The discussions may take place either through representations of the project members as avatars in Second Life or in real life discussion groups. They will be based around a semi structured interview pattern and will take approximately 10-15 minutes. It is intended as an opportunity for you to express your views on the use of 3D virtual worlds as a learning space and the use of avatars for the development of speaking skills. These conversations will be recorded.

Interviews in Second Life will be recorded using screen capturing software and later transcribed into text. I may supplement these with my field notes. Recordings of face-to-face interviews will be transcribed into text.

Will what I say or do in this study be kept confidential?

As part of the presentation of results, your own words, and the words of your avatar may be used in text form. Contributions you make in the real world will be anonymised, so that you cannot be identified from what you said. Contributions you make in the virtual world, Second Life will be linked to your avatar, but not to your real world identity. Actions and spoken language of your avatar may be recorded in Second Life, and records of text chat in Second Life will also be kept. I will ask you whether you wish me to anonymise the name of your avatar and to give it a pseudonym in the presentation of results and any other reports.

The data collected in the project will be used in my thesis or in other reports and will be published and may also be used in presentations, but your real life identity will be kept anonymous. Please note that:

- You can decide to stop the participating in the project or in any discussion/ interview at any point
- You need not answer questions or undertake tasks that you do not wish to
- Your name will be removed from the information and anonymised. It should not be possible to identify anyone from any reports or publication of data from this study
- You can decide whether your Second Life identity as an avatar is anonymised. However, it will not be possible to identify you in the real world from any use of your avatar name in reports or publication of data

All of the research data will be stored digitally and as hard copy at the University of Sheffield.

What are the possible disadvantages or risks of taking part?

There are no risks involved in participating. If you feel uncomfortable at any time during activities in the 3D world, you can withdraw. I will give you assistance on how to quickly withdraw completely from a situation or to return to my 'safe' home. In the interviews, if there are questions that you find distressing or intrusive, you are free to not answer those questions or to withdraw from participating.

What are the possible benefits of taking part?

You may improve your communication skills and increase your levels of speaking fluency and accuracy. You will have an opportunity to experience interaction with a native or expert speaker of English. You will also gain experience of virtual worlds and their possibilities, which you may find useful and enjoyable. You will have an opportunity to develop contacts with students in the university. At the conclusion of the research I will send you a summary of the general findings and how these may lead to any general outcomes resulting from the project.

What will happen to the results of the research study?

I am conducting the research as a doctoral student at the University of Sheffield, in the Department of Education, supervised by Dr Julia Davies, j.a.davies@sheffield.ac.uk. The results of the research will be used as part of my thesis in the Doctorate in Education. The audio and/or video recordings of your activities made during this research will be used for analysis for the assignment, and may be used for illustration in conference presentations to talk about teaching and learning. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

What should I do if I want to take part?

If you agree to take part, you should sign a 'Participant Consent form'.

Who has ethically reviewed the project?

The project has been ethically approved via The School of Education's ethics review procedure which is monitored by The University's Research Ethics Committee. If you require further information, please contact Anne Turner, a.e.turner@sheffield.ac.uk . If you have any concerns about the way in which the study has been conducted, contact: Dr Julia Davies, The School of Education, 388, Glossop Road, Sheffield S10 2JA; Tel: (+44) 114 222 8087

Thank you for taking the time to read the information sheet. Anne Turner

Date: 2 May 2014

Appendix 4: Recruiting email

Copy of email for Open request on ANNOUNCE distribution list for expert users of English

Dear Student,

I am an EdD student looking for participants to take part in a research project on the impact of virtual worlds on the speaking development of language learners. I am interested in how speaking and interacting with a native speaker in a three-dimensional (3D) virtual world, Second Life, can affect the speaking development of language learners.

To participate, it is crucial that you are an expert speaker of English.

If you agree to take part I will ask you to undertake some tasks with a non-native speaker of English in a 3D virtual world. You will adopt a virtual identity as an avatar for this and you will need to download the software for this onto your computer (there is no risk involved). The meetings and tasks can take place at times which suit you and the participants involved. I will ask you to do this on several occasions and then take part in a focus group to discuss the experience.

If you are a fan of 3D games like Minecraft, you will enjoy this.

If you are interested and you would like to know more, please contact a.e.turner@sheffield.ac.uk, and I will get in touch with you.

All responses are anonymous and strictly confidential. You may withdraw from the project at any time.

The research has been approved by the University of Sheffield's Department of Education Ethics Committee and is supervised by Dr Julia Davies,

j.a.davies@sheffield.ac.uk

Kind Regards

Anne Turner

Appendix 5: Participant consent form

Participant Consent Form

Title of Project: **The impact of virtual worlds on the speaking development of language learners**

Name of Researcher: **Anne Turner**

Participant Identification Number for this project:

Please initial box

- 1. I confirm that I have read and understand the information sheet dated **2 May 2014** for the above project and have had the opportunity to ask questions.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. (a.e.turner@sheffield.ac.uk; 07703758329)
- 3. I understand that my responses will be anonymised before analysis. I give permission for members of the research team to have access to my anonymised responses.
- 4. I wish / do not wish (delete as appropriate) my avatar to be anonymised before analysis.
- 5. I agree to take part in the above research project.

Name of Participant <i>(or legal representative)</i>	Date	Signature
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Name of person taking consent <i>(if different from lead researcher)</i> <i>To be signed and dated in presence of the participant</i>	Date	Signature
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Researcher <i>To be signed and dated in presence of the participant</i>	Date	Signature
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Copies:
Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/pre-written script/information sheet and any other written information provided to the participants. A copy for the signed and dated consent form should be placed in the project's main record (e.g. a site file), which must be kept in a secure location.

Appendix 6: Second Life session details

	Date / BST	Content of sessions (notes from researcher diary)	Recorded
1	Sun 13/07 18.00	Leen and K Dusk (Homie), then later Marrozi. I created the Boutique Renoir and took them there to change clothes and hairstyles. Unfortunately, most of time was spent trying to help Marrozi – his graphics card is not suitable and he can't "see" what to do or where to go. (Did KD get bored with this?)	28:44 min
2	Weds 16/07 17.00	2 new recruits – 4 Ss turned up (Bryan quite late). Chatted around the table, and then took them 'shopping' to Boutique Renoir again.	48:10 min
3	Sun 20/07 19.00	Only two, Matti and Bryan. Very interesting dialogue when Brian realizes that Matti has just finished year 1 UG of the course he is hoping to start in Sept. I make mess of invisibility! Go lava walking on volcano.	35:56 min
4	Weds 23/07 18.00	4 Ss - Guided conversation. Placed in pairs on two different tables. Each participant had a notecard (A + B) with prompts to ask / talk about. Ended at waterfront with water sports activity – sailing boats	17:41 min 53 min
5	Sun 27/07 19.00	Leen, Loncho and Roger. First some general chat – they want to get to know each other and about each other's customs and culture – it is Eidd and Leen tries to explain about this. After that, I took them to a museum and gave them a task; to find a copy of a dinosaur, diplodocus.	18:13 min and 18:59 min
6	Weds 30/07 19.00	Loncho and Bryan only – Loncho having problems a little with connection and SL. Some general chat and then I created the 'Spaceship' holodeck and took them there as prompt for speaking. We had a discussion about space and the possibility of other life forms.	27 min
7	Sun 03/08 20.00	Leen and I chatted – I had been to London for the weekend so we talked about the sights there; then Bryan appeared – a bit late. When it apparent no one else was coming I prepared holodeck of 'Bus Station'. The reason is that there was a good map of London Underground on the wall there. Using a notecard task, the brief was to work together and, using the map, to plan a day out in London.	35:58 min
8	Weds 6/08 19.00	Bryan and Loncho (I had problems hearing him). While they chatted I prepared holodeck and then teleported them to Forest campfire scene; gave notecards – directions to talk about camping – very interesting as both had been camping. Loncho had tech access problems and left. Bryan and I chatted for longer – ate marshmallows! Gave advice (with links) to place to go in Peak District.	36:41 min

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