

DOCTOR OF PHILOSOPHY

Exploring learner identity in virtual worlds in higher education narratives of pursuit, embodiment and resistance

Steils, Nicole

Award date:
2013

Awarding institution:
Coventry University

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of this thesis for personal non-commercial research or study
- This thesis cannot be reproduced or quoted extensively from without first obtaining permission from the copyright holder(s)
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Exploring Learner Identity in
Virtual Worlds in Higher Education:
Narratives of Pursuit, Embodiment,
and Resistance

Nicole Steils

PhD

2013

Exploring Learner Identity in
Virtual Worlds in Higher Education:
Narratives of Pursuit, Embodiment,
and Resistance

Nicole Steils

A thesis submitted in partial fulfilment of the University's
requirements for the Degree of Doctor of Philosophy

2013

Coventry University

To Rebecca and Zoë - to the future

Contents

Detailed contents	<i>iv</i>
Chapter 1 Introduction	<i>1</i>
Chapter 2 Literature review	<i>10</i>
Chapter 3 Methodology	<i>53</i>
Chapter 4 Pursuit	<i>96</i>
Chapter 5 Embodiment	<i>135</i>
Chapter 6 Resistance	<i>197</i>
Chapter 7 Discussion	<i>225</i>
Chapter 8 Conclusion	<i>258</i>
References	<i>268</i>
Appendices	<i>297</i>
Content Appendices	<i>297</i>

Detailed contents

List of Tables	viii
Acknowledgements	ix
Abstract	x
Chapter 1 Introduction	1
<i>The study in context</i>	1
<i>My story in relation to the study</i>	6
<i>The study in summary</i>	7
Chapter 2 Literature review	10
2.1 Conceptualizing identity	10
2.2 Value, engagement, and opportunity: virtual world education and identity construction	20
<i>The perceived value of virtual worlds in higher education</i>	20
<i>Positioning learners and identities in a digital age</i>	26
<i>Identity construction in virtual environments: overcoming constraints?</i>	33
2.3 Expressing identity in virtual worlds through avatars	38
<i>Avatar creation in different virtual worlds and for different purposes</i>	39
<i>The Proteus Effect</i>	46
<i>Relationship with one's avatar(s)</i>	48
2.4 Summary and indications for the study	51
Chapter 3 Methodology	53
3.1 Methodological framework: narrative research	54
3.2 Researcher stance	58

3.3	Context of the data collection: research sites and participants	63
	<i>Overview of the data collection</i>	63
	<i>Access to research sites</i>	64
	<i>Second Life in modules as part of the Employability scheme at Churchtown University</i>	65
	<i>The Risk Assessment module as part of an Environmental Health course at Seaview University</i>	67
	<i>Overview of the participants</i>	68
3.4	Ethics	71
	<i>Positioning of research</i>	71
	<i>Access to participants and informed consent</i>	73
	<i>Ethical considerations unique to research in virtual worlds</i>	75
	<i>Data management, confidentiality, and security</i>	77
3.5	The data collection: methods and engagement of participants	78
	<i>Interviews</i>	78
	<i>Focus groups</i>	81
	<i>Observational data</i>	82
3.6	Data analysis: framework, preparations, and trustworthiness	85
	<i>Analysis approach framework</i>	85
	<i>Transcription as part of the analysis</i>	87
	<i>Inclusion and exclusion of participants, interviews, and themes</i>	89
	<i>Trustworthiness and member checking</i>	90
3.7	Shifting from analysis to interpretation to presentation	91
	<i>Phase one and two: Locating findings and themes</i>	92
	<i>Phase three and four: overarching findings and presentation</i>	94
3.8	Summary	95

Chapter 4 Pursuit	96
4.1 Framing Pursuit	97
4.2 Narratives of presented selves	99
<i>Positional identities</i>	101
<i>Professional identities</i>	110
<i>Alternative identities</i>	117
<i>Complex identities – a case study</i>	127
4.3 Summary	131
Chapter 5 Embodiment	135
5.1 Framing Embodiment	136
5.2 Narratives of relationship to and appearance of the avatar	140
<i>The avatar as a tool – utilizing the default avatar</i>	140
<i>The avatar as a tool – despite physical resemblance</i>	145
<i>The avatar as a tool – can have any, except the default, appearance</i>	152
<i>The avatar as an extension of self needs to resemble physical world appearance</i>	159
<i>The avatar as an extension of self can have any appearance</i>	164
5.3 Narratives of naming the avatar	173
<i>Avatar naming process dominated by functionality</i>	176
<i>Naming based on notions of physical world names</i>	181
<i>Naming based on forms of popular culture</i>	183
<i>Naming the avatar as a form of role-play</i>	186
5.4 Summary	193
Chapter 6 Resistance	197
6.1 Framing Resistance	198

6.2	Narratives of resistance	200
	<i>Resisting the value of virtual worlds</i>	201
	<i>Managing reality in virtual worlds</i>	206
	<i>Troublesome communication and interaction</i>	211
	<i>Anonymity, norms, and identity confusion</i>	215
6.3	Summary	223
Chapter 7 Discussion		225
7.1	Learning in virtual worlds: a threshold concept	226
	<i>Virtual Worlds are troublesome</i>	228
	<i>Rasmus: A transformational journey</i>	231
	<i>The boundaries of 'real' education</i>	233
	<i>Integrating play and learning</i>	235
	<i>Overcoming barriers through transformational learning</i>	239
7.2	Managing and managed identities through the avatar	241
	<i>Dimension one: dislocated avatars</i>	244
	<i>Dimension two: representative avatars</i>	246
	<i>Dimension three: avatars as toys and tools</i>	248
	<i>Dimension four: avatars as extensions of self</i>	249
	<i>Dimension five: avatars as identity extensions</i>	250
	<i>Rasmus – a transformational journey</i>	251
Chapter 8 Conclusion		258
	<i>Summary</i>	259
	<i>Limitations to learner identity in virtual worlds</i>	260
	<i>Changes to the avatar creation process in Second Life</i>	263
	<i>The importance of enabling identity in virtual world education</i>	265

References	268
Appendices	297
<i>Overview of the three data collection phases at the two research sites</i>	298
<i>Second Life modules as part of the Employability scheme at Churchtown University</i>	299
<i>Risk assessment module as part of an Environmental Health course at Seaview University</i>	302
<i>Approval by Coventry University's Ethics Committee</i>	305
<i>Example of participant information and consent form</i>	306
<i>Example of interview schedule (possible themes/prompts/questions)</i>	308
<i>Example of observation notes [slightly edited for reasons of anonymity]</i>	310

List of Tables

Table 3.1 Data collection phases	64
Table 3.2 Overview of participants in interviews and observations	69

Acknowledgements

My deepest thanks to

my participants, without which this thesis would not have been possible. You all have been inspiring.

my supervisory team: Professor Maggi Savin-Baden as my Director of Studies, as well as Dr. Katherine Wimpenny and Dr. Gurnam Singh as additional supervisors. You have been critical, encouraging, and full of trust.

my colleagues: Gemma Tombs and Matt Mawer, undertaking their PhDs alongside my study; and also Cathy Tombs and Sheila Leddington Wright. You have become dear friends. Michelle Cawley and Sonia Lal for always helping to overcome administrative challenges.

my (critical) academic friends, especially Dr. Alexandra Homolar, Dr. André Broome, Dr. Ian Dunwell, Dr. Rebecca Khanna, Dr. Lesley Gourlay, Dr. Frances Deepwell, and the team at CAW (Centre for Academic Writing at Coventry University) for your invaluable contributions in guiding this research.

my parents for supporting me along the way with their love.

my family and friends for thinking of me; especially Alex, Lilo, and Ian – I could always laugh and cry with you.

Abstract

This research study, funded by the Leverhulme Trust as part of the CURLIEW project, explored how learners understand, construct, express, and manage identity when virtual worlds are utilized in higher education and how the virtual world itself might impact on concepts of identity. In particular, the study focused on aspects of *learner* identity from the physical world and learner identity *in* virtual worlds, the latter being a ‘translation’ of physical identity markers onto the avatar. The research builds on the experiences of 75 student participants, who employed virtual worlds as learning environments. A narrative research approach was applied to thematically analyze interview, focus group, and observational data, collected from two educational contexts at two British universities. Three themes emerged from the analysis and interpretation of these data, which are presented as narratives of Pursuit, Embodiment, and Resistance. The study makes two main contributions to existing knowledge on learning in virtual environments: firstly, it reveals that virtual worlds are ‘threshold concepts’, in which students need to be able to align their learner identities with the utilization of virtual worlds to integrate them successfully in their learning. Secondly, the study develops a five-dimensional typology of the ways in which students engage and manage identity directly in the virtual world through their avatars. This typology includes: dislocated avatars, representative avatars, avatars as toys and tools, avatars as extensions of self, and avatars as identity extensions. The study demonstrates that engagement with virtual worlds and avatars in the educational context can provide a valuable opportunity to foster critical thinking, if learner identities are given a central place in course design and delivery. Then, virtual world learning can enable students and tutors to reflect critically on what shapes, influences, and constrains identity in virtual worlds, in the physical world, in higher education, and beyond.

Chapter 1 Introduction

Who do we think we are? Our identity reflects and defines how we understand and perceive ourselves and those around us, and it shapes our interpersonal relations. In order to ensure that learning is maximized in higher education, it is important to understand the identity of both learners and tutors, as it informs the educational context. This doctoral thesis explores the dynamics of learner identity in virtual worlds in higher education. The emergence of virtual worlds utilized as learning environments presents an intriguing new educational forum, in which identity might (or might not) be newly conceptualized, presented, and explored. This study uses a narrative research approach to examine the experiences of 75 participants studying educational modules that employed virtual worlds as learning environments. This thesis is a systematic analysis of what learner identity entails in virtual worlds, and how learners create and express their identity through their avatars when virtual worlds are utilized in higher education. The study shows how virtual worlds can be regarded as a 'threshold concept' (Meyer and R. Land 2003) and introduces a five-dimensional typology of learner identity in virtual worlds. This chapter presents the overall structure of the study, the key definitions of virtual worlds used in this thesis, and a short overview of the subsequent chapters.

The study in context

In a few short years our online social worlds have been transformed by rapid technological and software innovations, the expansion and routinization of Internet use throughout society as a whole, and the growing intensification of online practices for activities from grocery shopping to entertainment consumption, and from everyday retail banking to real-time workplace

conferences. Recent developments have also included a jump from social communities and interactions that are simply connected online, to a new level of hyper-connectivity. Against this background – where the rise of online social worlds is fundamentally altering how we live our day-to-day lives – the expansion of virtual learning environments is also impacting on the present and future of education.

This thesis investigates a radically new mode of learning, one which has quickly developed and expanded during the course of the thesis research. When this research project began in January 2009 the use of virtual worlds for educational purposes in higher education was increasing, but far from reaching mainstream. For that reason empirical research and publication on this topic were rare. Hew and Cheung (2010) undertook a meta-analysis of 470 research articles regarding the use of virtual worlds for educational purposes in higher education published up to March 2008. They found only a minority of 15 articles presented empirical research, while the majority of 455 papers were ‘opinion papers, conceptual papers, nonempirical descriptions of programme implementations, literature reviews or non-K-12 and higher education related’ (Hew and W. S. Cheung 2010:35). Nevertheless, as the frequent ‘Snapshots’ by Virtual World Watch (2008) stated, with only one exception, all universities in the UK had an appearance in Second Life in 2009. However, utilization differed from merely advertising some universities’ facilities and offers, right up to practical application in different courses over multiple disciplines at other universities (Kirriemuir 2009, 2010).

Given the novelty of utilizing virtual worlds in higher education, before approaching learner identity in virtual worlds, it is important to examine and define what, in the context of this thesis, is understood as a virtual world. Second Life has now become almost synonymous with virtual worlds (Spence 2008), and it is also the only example of a contemporary virtual world in university teaching utilized in this study. Therefore, it is important to explore what defines Second Life as the predominant virtual world, what distinguishes it from similar and related environments, and to offer a working definition of what comprises a virtual world.

Virtual worlds are identified and described under various other names and terms. Additionally, there is not one commonly accepted definition for 'virtual worlds', as the term is used for various platforms and concepts (Bell 2008; Messinger et al. 2009; Warburton 2009). How they are named and the language used to describe and define them might give an indication of how they are perceived or utilized, as well as in which historical, technical or sociological context they are placed by their inventors, users,¹ and authors of academic publications. Indeed, the overall project, of which this study was part, referred to them as immersive educational worlds as part of the CURLIEW title (Coventry University Research into Learning in Immersive Educational Worlds) rather than virtual worlds,² highlighting and confining this research towards the utilization in education. Additionally, both 'virtual environments' and 'multi-user virtual environments' (MUVes) are other common substitutes for the term virtual worlds, and are often used to title online platforms employed in education (Salt, Atkins, and Blackall 2008; de Freitas and T. Neumann 2009).

Opinions on what should be considered as a virtual world differ, and some definitions are wider than others. Bell (2008:2) proposes a wide definition which highlights attributes shared by a range of current virtual worlds and seems to be a good starting point: 'A synchronous, persistent network of people, represented as avatars, facilitated by networked computers' [quote bold in original]. However, as Bell states, this definition is meant to be rather broad and includes virtual gaming worlds such as World of Warcraft or Hello Kitty Online, often abbreviated to MMOs/MMOGs (massively multiplayer online games) or MMORPGs (massively multiplayer online role-playing games) as well as text-only platforms, often termed as multi-user dungeons/domains/dimensions (MUDs), besides environments like Second Life. De Freitas (2008:7), in her scoping study on virtual worlds, follows similarly a broader definition on virtual worlds and includes networking and

¹ Users, also referred to as participants or members (Messinger et al. 2009) or residents, which is the official Second Life term (Rymaszewski et al. 2008) of virtual worlds. I have chosen users, as it seems to be the most neutral term; however, it seems to have a more technical rather than a social connotation – the user of a computer, as one is commonly not a member of a computer and one is commonly not a user of a football club.

² Nevertheless, the term was later replaced by virtual worlds in successive publications out of the project (Savin-Baden, Wimpenny, et al. 2011).

gaming environments: 'A virtual or immersive world is an interactive environment often although not exclusively in 3D or animated graphics [...]. These immersive worlds can be used by many users at the same time'.

The social aspects of virtual worlds and the possibility of user interaction are also highlighted in Salt, Atkins, and Blackall's (2008) definition of virtual worlds. However, how users are represented remains unmentioned. In contrast to Bell they emphasize the 3D graphical dimension of virtual worlds and therefore exclude text-only and two-dimensional platforms from their approach:

Multi-user virtual environments, sometimes referred to as virtual worlds, is the term currently used to describe a persistent 3D graphical environment accessed over the Internet which allows a large number of simultaneous users to interact synchronously (Salt *et al.* 2008:11).

Importantly, here the aspect of persistence is shifted from the users towards the environment. However, their definition seems to miss one aspect that is central to this study: representation of users through avatars.

Another quality mainly linked to virtual worlds is the ability to create and build within the environment, which changes the environment persistently for all users. Boulos, Hetherington, and Wheeler (2007:233; similarly Damer 2008) describe this 'as 3-D social networks, where people can collaboratively create and edit objects in the virtual world (like a collaborative 3-D wiki space), besides meeting each other and interacting with existing objects'. In turn, Spence's (2008:5) definition emphasizes the potential openness of utilization of contemporary virtual worlds that separates them from virtual gaming worlds:

Virtual worlds are persistent, synthetic, three dimensional, non-game centric space [sic]. Virtual worlds are primarily social spaces that allow for other uses depending on the theme of the particular virtual world. Virtual worlds are either commercial or open source in design and implementation.

The last attribute emphasized by Spence is important because access to the code behind the appearance on the screen will influence how usable, flexible, and modifiable appearance and functions actually are, thus impacting on technical, social or educational possibilities and constraints. As Spence (2008:13) shows in his meta-analysis of 101 virtual world as well as gaming or chat hybrid platforms, a vast majority of 72 were based in the USA, 13 in Europe, 4 in Asia, 7 were presented with a multi-national status, but none came from Africa or South America.

A final characteristic of virtual worlds are their sensory qualities, which can evoke psychological sensations. Virtual worlds are often described as immersive environments or immersive virtual worlds (for instance Hew and W. S. Cheung 2010; Middleton and Mather 2008; Savin-Baden 2008, 2010). Immersion, or being immersed, is described as a sense of being there or of being 'in' the virtual world. The notion of immersion as a positive quality of virtual worlds is further explored in the Literature review (p. 20).

Examining the literature on definitions and scope of virtual worlds, and through my own experiences of Second Life, I have developed this definition of what is understood as a virtual world in this research study:

A virtual world is a persistent 3D graphical environment accessed over the Internet, which allows a large number of simultaneous users - represented by avatars - to interact synchronously with each other and/or with the environment, and allows them to feel as being in there.

The research in this study differentiates virtual worlds from virtual gaming worlds such as World of Warcraft, (text-only) chat-based networking platforms such as Habbo Hotel or Facebook, and two-dimensional environments. All these platforms and environments seem important in terms of being or sharing predecessors of contemporary virtual worlds, as well as being related in many ways. However, these platforms and environments focus partly on different aspects or emphasize one particular aspect, for instance text-based platforms emphasize communication and interaction, virtual gaming worlds focus on aims and content pre-defined by

the game (including use of avatars as characters (Tronstad 2008). Indisputably, hybrid forms exist and boundaries are blurred when regarding how different platforms and technologies are used, for instance contemporary multi-player online gaming worlds often consist of communication tools and are used to socialize (Axelsson and Regan 2006), but they usually neither encourage building nor creating personal material to enrich the environment, as one of their main objectives. Additionally, there are regions within Second Life that are based on gaming aspects, for instance role-playing in varied forms with or without sexual content (Rymaszewski *et al.* 2008:48–50) as well as first-person shooter games (Rymaszewski *et al.* 2008:278), for instance ‘New Jessie’ (Wikia Inc. 2012).³ Therefore, in this study, virtual worlds are understood as offering the opportunity to engage with the environment and with others in most imaginable open and undefined ways, but nevertheless restricted by the available technology.

A final key differentiation to make is that between what the virtual world ‘is’ and what is ‘not’ the virtual world. Boellstorff (2008:18–21) here discusses virtual in contrast to the ‘actual’ world. Instead this study differentiates between the ‘virtual’ world and the ‘physical’ world. While many participants in this study contrasted the ‘virtual world’ with the ‘real world’, the findings in this thesis indicate that the virtual world in higher education cannot simply be differentiated from the ‘real’ world as its utilization is part of the reality of respective contexts.

My story in relation to the study

As a researcher I came to this study from a background of face-to-face teaching, with relatively little experience of employing digital technologies in teaching. Before starting in the project, for over ten years I worked in an out-of-school educational programme as an educational developer, trainer, and advisor. The programme aimed predominantly to develop and enhance pupils’ social

³ One was developed by a group of students involved in this study as a project of their module assignment.

competencies. For two years, I was involved in training young counsellors in a peer counselling programme as part of the occupation. Furthermore, I was a teaching fellow at a German university preparing and evaluating education and teacher students' placements in schools. My special interest has always been in exploring and developing teaching and learning opportunities and methods, which enable students to engage with topics and content in interesting and motivating ways. While so far, my teaching methods have been based on face-to-face situations in classrooms, education and in particular higher education seemed increasingly to involve modern technologies, and new possibilities seemed to arise from integrating online, 'state of the art' graphical environments. An interesting and important question was, however, how the human being as a learner would respond to and 'fit' in these new environments.

As a PhD student with a German background, this study also provided the opportunity to learn about a different higher education system, although the 'Bologna process' had provided an initiative to align different higher education systems in Europe (Heinze and Knill 2008; Winkel 2010). Additionally, undertaking the research in an British context provided an opportunity – and often a challenge – to integrate a potentially different approach to social research in terms of perspectives and methodologies (Flick 2002a).

The study in summary

The study presented in this thesis is part of the Leverhulme Trust funded project, Coventry University Research into Learning in Immersive Educational Worlds (CURLIEW). The overall project aimed at exploring the socio-political impact of virtual world learning on UK higher education. It also sought to contribute a critical reflection to the knowledge regarding the utilization of virtual worlds in higher education contexts. Focussing singularly on the United Kingdom (UK) higher education context, while not ignoring other international research, the project undertook a multi-site and data-focused examination and analysis to

evaluate how students, educators, and policy-makers use, experience, and value virtual worlds. The project centred on three themes: pedagogical design, student experiences, and learner identity. This thesis is an analysis of the last theme and explores the question:

How do learners understand, construct, and express identity when virtual worlds are utilized in higher education, and how might the virtual world itself impact on their concept of identity?

In order to place the learner at the centre of this study, a narrative research approach was employed. This enabled a thematic analysis of students' narratives and descriptions to explore the utilization of virtual worlds in educational contexts. The central aim of this thesis is to inform educators, and other interested parties, how best to enable students to engage with virtual worlds in higher education successfully and critically. This study does not primarily evaluate in which educational disciplines or contexts virtual worlds could be successfully utilized. Rather, it is an examination of stories of learning and their impact on learner identity.

The thesis is divided into eight chapters. This Introduction situates the study within the wider context of the ongoing technological revolution in higher education and defines how virtual worlds are understood in this thesis, as well as outlining the context of the study. Chapter 2 forms the Literature review, which introduces pivotal publications that constitute the field of learner identity in virtual worlds. The Methodology that shaped the research is discussed in Chapter 3. The findings of the data collections and analysis are presented in three chapters, which are organized around three key themes. Chapter 4, Pursuit, focuses on students' aims, quests, and desires, which informed their positions and identities as learners and persons when virtual worlds were integrated in their education. Chapter 5, Embodiment, presents how students created, (re-)presented, and expressed identity in virtual worlds through the means of their avatar's body and name. Chapter 6, Resistance, concentrates on students' narratives, which expressed notions of opposing, rejecting, or resisting the utilization of virtual worlds in higher education. The Discussion in Chapter 7 outlines the key

contributions of the study, considering virtual worlds in higher education as a 'threshold concept' and introducing a typology of expressing learner identity in virtual worlds. The final chapter, Conclusion, surveys the main points of the study and sketches out the implications of the research for future utilization of virtual worlds in higher education.

Chapter 2 Literature review

The previous chapter introduced the research topic and scope of the study. A narrative approach, which will be presented in more detail in the following chapter, was employed to explore how learners understand, construct, and express identity when virtual worlds are utilized in higher education, and how the virtual world itself might impact on their concept of identity. Reviewing literature on the notion of virtual worlds revealed that virtual worlds are commonly seen as closely related to online gaming environments and social networking platforms. This chapter examines the research and literature that has shaped and informed the project, with the aim of bringing the reader up to date with what is conceptualized about learner identity as part of learning with and in virtual worlds. The chapter is divided into four sections. The first section, 2.1, examines concepts of identity as well as the relation of identity and higher education. Section 2.2 explores perceived values of virtual world learning, learner engagement with virtual environments, and opportunities for identity construction in virtual worlds. 2.3 concerns identity in virtual worlds and the notion of the avatar. The final section, 2.4 summarizes the findings from the literature review and informs how they shaped the research.

2.1 Conceptualizing identity

Identity – here understood as the identity of an individual person - is a profound phenomenon, lying at the heart of a most fundamental task in human existence: seeking to understand, find, and position ourselves, thus providing answers to the questions of ‘who are you?’, ‘why are you who you are?’, and ‘who do you want to

become?’ at the centre of this study. Identity is also a complex phenomenon as it is about making sense of self and narrating oneself in relation to our own past, current, and future selves as well as to who and how we are in different contexts, environments, and relations. Besides, identity is understood being always relational, social, and discursive (Hansen 2006:6).

Unsurprisingly, there is a wealth of often inherently contradictory, even oppositional theories and approaches that aim to understand what constitutes identity and how this matters. The first section of the following review of relevant literature highlights the complexity of the concept of identity, showing in particular that there is no single overarching concept of identity, and that conceptualizations of identity have changed significantly over time. The second section explores the relation of concepts of identity as a personal topic and discusses identity as a social and contextual matter. Here, I argue that the two concepts are useful perspectives with which to approach an understanding of identity, although they need to be seen as interdependent in actual life (Deaux 1993). The third section explores notions of identity in the context of higher education, emphasizing that the diverse university environment is marked by competing identities, interests, and positions.

The complexity of identity

Debates on the concept of identity have been informed by – and taken place within – many academic disciplines (Gee 2000; S. Hall 1996). As a consequence, definitions of what constitutes identity, how it evolves, and how it is to be understood can vary significantly, depending on the location of scholarly work within and between those disciplines (Stryker and Burke 2000). In their essay ‘Beyond “identity”’ Brubaker and Cooper (2000) argue that the wide and varied use of the term identity in the social sciences and humanities has led to a vague and ambiguous understanding of what identity describes and conceptualizes. It is therefore of critical importance to provide an overview of key applications and definitions of identity in contemporary research in order to set out how identity

will be understood and employed in this study and situate this within the broader field.

Historically, identity was implicitly understood as being characterized by the sameness or continuity of the self across time and space as well as in juxtaposition to others (Rouse 1995:357; M. B. Brewer 1993). As S. Hall (1996) highlights in his essay on 'Who needs 'identity'?', in recent years a variety of different disciplines have criticised the traditional notions of an essential, naturally constituted, unified or stable identity, and questioned key perceptions related to this understanding. However, he further emphasizes that even new concepts of identity are still based on these traditional views and cannot be understood without acknowledging them. He locates this paradox in the nature of identity itself, noting that:

Identity is such a concept – operating 'under erasure' in the interval between reversal and emergence; an idea which cannot be thought in the old way, but without which certain key questions cannot be thought at all. (S. Hall 1996:2)

This stance might reconcile Brubaker and Cooper's (2000:1) critique that through contemporary deconstruction of possible categories of identity, the notion has become weak for analysis: 'If identity is everywhere, it is nowhere'.

To approach the 'old' concepts D. E. Hall (2004) offers an introduction into the history of the idea of identity and its influences from a Western understanding. Hall (2004:3) differentiates between identity and subjectivity, although he suggests that the terms are often used interchangeably. Hall (2004:3) defines identity as 'that particular set of traits, beliefs and allegiances that, in short- or long-term ways, gives one a consistent personality and mode of social being, whilst subjectivity implies always a degrees of thought and self-consciousness about identity'. Hall seems to indicate that identity can be understood from different perspectives, a personal 'self' angle and a social, relational perspective that has influence on the individual. However, the two perspectives seem to be closely related and intertwined. Hall (2004) divides the historical developments and changes to concepts of identity into four stages and perspectives:

The first stage, a view held up to the seventeenth century, was initially largely influenced by Greek philosophy and in the Middle Ages by Christian church precepts. It presented identity as a concept that was 'assigned, rather than selected' (Howard 2000:367) through shared practices that demonstrated acceptance of given knowledge and beliefs and 'internalization' (C. Taylor 1989:124) or taking on of identity. Here, identity can be seen as outward-focused, aligned to traditions and dogmas presented especially by religious truths.

The second stage, as defined by D. E. Hall (2004), started with Descartes' work (2008 [1637 & 1641]) in the seventeenth century, and was signalled through the renunciation from given, objective truths and a shift towards subjectivity, individuality, in short the 'I' (D. E. Hall 2004:16–23). It views identity as a process of working on oneself, thinking and reflecting on sources available to the individual, and challenging constraints as constituted by the Age of Enlightenment and the philosophies by, amongst others, Locke (2008 [1689]), Hume (1984 [1739]), Rousseau (2011 [1754]), or Kant (2007 [1781]).

The third perspective is based on the psychoanalytical work by Freud (1995 [lived 1856-1939]), studies on social class, namely Hegel (1977 [1807]) and Marx and Engels (Tucker 1978) in the middle of the nineteenth century, early feminist writing by for instance de Gouges (2003 [1791]) and Wollstonecraft (2008 [1792]), as well as early critique on concepts of race/ethnicity and colonialism by for example Douglass (2009 [1845]) or Du Bois (1996 [1903]). This stage is characterized by the focus on co-construction through examining individual's beliefs and allegiances, reflecting on non-rational and subconscious or emotional processes that influence understandings of identity, and critical engagement with inequalities.

The fourth phase, entitled 'the politics of identity' (D. E. Hall 2004:78) encompasses postmodern views on identity, as constituted by, among others, Lacan (2006), Foucault (1984), Kristeva (1986, 1991) and Butler (1993, 2006) or Bhabha (1994) in the twentieth century. Here, identity is characterized as being constantly 'under construction' and a process of searching for unification (D. E.

Hall 2004:83) within contexts of life which are described as complex, partial, fragmented, and undefined. '[I]dentity is never a priori, nor a finished product; it is only ever the problematic process of access to an image of totality' (Bhabha 1994:51). Finally, D. E. Hall engages with technologies which increasingly converge with the complexities of life. The following section reviews concepts of personal and social identity.

Concepts of personal and social identity

Understanding individual identity formation and development has been of interest to scholars in developmental psychology for over a century (Phoenix 2002). As concepts in developmental psychology have continually informed theory and practice in education (German academia, the field is called Pädagogische Psychologie [educational psychology]), conceptualizations from developmental psychology have informed educational views on notions of identity.

Traditionally, developmental psychological approaches to understanding identity and identity formation have focused on the so-called 'core' or 'ego' identity. Notable example is here Erikson's (1980 [1959], 1968) work on identity, which is further developed by other identity stage theorists such as Marcia (1980). Core identity for Erikson develops in stages during childhood and adolescence to become a stable understanding of oneself, which would only change in times of crisis. Although Erikson took social, cultural, and institutional aspects into account developing his stage model of ego identity formation (Schachter 2005), he dealt with them as different systems – inner mental processes versus outer contexts (Côté and Levine 1988; Penuel and Wertsch 1995). Instead, more contemporary developmental psychological concepts pay greater attention to the context and conditions of social, political, cultural, and structural influences in which the individual person lives and is exposed to (Baumeister and Muraven 1996).

When identity is discussed in everyday life, notions of identity tend to be thought of in terms of categories, markers, and metrics. These include age, sex/gender,

race/ethnicity, nationality, sexuality, profession, class, role/relation to other people in private or professional terms, or affiliations to interests, beliefs, and movements with regard to social, political, or religious stances, characteristics of behaviours and attitudes. Further individual aspects that make individuals identifiable include components such as given/legal names, often in combination with locations and declaration of time. Therefore, identity is often represented in declaration of and in affiliation to multiple, but distinguishable nominal and metrical categories and sub-categories which give indications and impressions towards 'who someone is' (Hacking 2007).

Understanding identity in terms of such categories and metrics relates to discussions around both sameness 'with others' – as the original meaning of the word indicates⁴ – and differentiation 'from others' (Andersen and S. Chen 2002). Hence, reflecting on identity means encompassing a sense of 'who one is' as much as a sense of 'who one is not'. This is also integral to Tajfel's (1981, 1982a, 1982b) work on social relations and intergroup affiliations, which also explores prejudices and discrimination against others. In particular, Tajfel's theory of social identity concerns ideas of 'in-groups' and 'out-groups'. In-groups, for Tajfel, are specific groups that an individual affiliates themselves with and to which they have a sense of belonging. Identifying with an in-group leads to the individual's subsequent adopting of the behaviours and stances of how the group is perceived. 'Out-groups', in contrast, are groups that individuals place themselves in difference to, establishing a hierarchical relationship that awards the in-group a higher, or better, status, wherein other groups are described as inferior, and whose behaviours and beliefs are often rejected.

Another way to understanding identity through a sense of 'being' or 'belonging to' in relational and social terms is by highlighting notions of 'construction and production'. Here, identity is conceptualized as socially, culturally, and historically constructed, and categories of identities are assigned with attributes that are described as 'typical' rather than naturally given or 'normal' – whether that refers,

⁴ In etymological terms identity is derived from the Latin noun 'identitas', which translates as 'sameness' (Dictionary entry 'identity' in Oxford English Dictionary online, www.oed.com, and Online Etymology Dictionary, www.etymonline.com).

for instance, to sex/genders, ethnicities, dis-/abilities, or cultures (Hall and Du Gay 1996) (for education see Baxter Magolda 2000; Prengel 1995). Constructing identity through such stereotypical descriptions impacts on how we perceive others, providing information 'shortcuts' to how we expect them to be or to behave. In turn, these constructions also influence how we perceive ourselves and how we produce descriptions and behaviours in relation to others. While categories and attributes may seem necessary to interact with others in everyday life as they, rightly and falsely, provide an understanding of other people's behaviours and actions (Douglas 1992), they can provide grounds for prejudices and discrimination.

Identity in the context of higher education

Sarup (1998:11) defines identity in a postmodern world as 'a construction, a consequence of interaction between people, institutions and practices'. Likewise, in the context of identity in higher education, attention has increasingly been drawn towards the interdependencies between the individual learner, the institution of the university and its representatives, and the higher education context at the beginning of the twenty-first century. Yet in what ways can students be viewed from the perspective of the institution and its representatives? What are the distinguishing and defining makers that signify a particular learner identity? Answers to these questions seem to reflect the need to understand 'who we are' in categories that both homogenize and dichotomize notions of student identity.

For example, Streeting and Wise (2009:n.p.), in their publication on values of higher education, offer a variety of terms to describe students' relationship to their universities: "consumers", "active participants", "co-producers", "partners", "community of learning" and "apprentices". While most of these descriptors of student identities communicate engaged and positive perceptions of students, understanding students as consumers of higher education ties into a more negative perspective on learning culture in the contemporary era. This mirrors the more critical views of students as 'customers' (Svensson and Wood 2007; White

2007), while higher education is portrayed as a commercial industry that requires the generation of profits (Bok 2003; Musselin 2007). Furthermore, students are characterized as 'deep versus surface learners' (Biggs and Tang 2007; Biggs 1999). They are also divided into 'traditional vs. non-traditional' student categories (Bowl 2001; Schuetze and Slowey 2002), which places the societal context that enabled their entry into university – such as the massification of higher education (Guri-Rosenblit, Sebkova, and Teichler 2007) or 'Widening Participation' (Hockings, Cooke, and Bowl 2007) – at the centre of their student identity.

An alternative yet prominent way to explore identity in the context of higher education focuses on the impact identity has on learning and teaching. Bracher (2002:93), for instance, captures the ways in which notions of identity and education are intertwined:

Education, like all other human enterprises, is a function of identity and desire: [...] The difficulty for education – what makes teaching one of the three 'impossible professions'⁵ – is due first and foremost to the fact that engaging and directing identities and desires is fraught with multiple obstacles, most notably the presence, in all parties concerned, of identity components and desires contrary to those motivating and directing the educational enterprise. The fundamental challenge for educators, then, is to understand the multiple identity components and desires that pervade the educational field.

While focusing mainly on the perspective of the educator, Bracher's perspective underscores two pivotal facets of education: firstly, he identifies education as a human undertaking. These human beings – students and tutors, but also policy makers – bring individual aims, anticipations, and experiences into the educational field and its contents, as well as towards other parties involved, such as peers, other tutors, or further university staff. Secondly, applying Freud to the context of identity in the classroom, Bracher (2002) emphasizes that education is one of the 'impossible professions' and characterized by different aims, anticipations, or motivations that are not necessarily the same and even might contradict each

⁵ Freud distinguishes between three impossible professions: Analysis, Education, and Government. He wrote that in the impossible professions 'one can be sure beforehand of achieving unsatisfying results' (Freud 2001:248).

other, which can make teaching and learning difficult. In turn, drawing attention to the individual student and the way they see and define themselves and others in the educational context rather than merely focusing on educational objectives enables students to be viewed as humans with emotions, interests, and aims, which they pursue inside and outside education. Placing the student at the centre of understanding identity in higher education also allows the researcher to take into account that students will have a personal background and a particular history in education as well as individual reasons as to why they have chosen to study at this degree level.

Examining students' aims and desires, anticipations and expectations, hopes and fears – in short, their 'learner identity' – is vital to creating a teaching environment that not only focuses on teaching objectives and outcomes, but also takes the individual learner seriously and understands, and aims to develop further, students as autonomous and independent personalities (Baxter Magolda 2000; Holzkamp 1993; Mezirow 1997). Teaching and learning is then understood as a process aiming to go significantly beyond classical conditioning or cognitive changes as described by Pavlov (1927). Instead, education is understood in a more fundamental way by considering learning through a critical constructivist perspective. Therefore, it is understood to be a complex individual approach and a social activity, as well as an ongoing exercise; human beings learn in every part of their life and cannot avoid learning (Vygotsky 1978; Piaget 1971, 1976; Honebein 1996). Moreover, learning takes place over the course of a whole lifetime (Bentley 1998). At the same time, the process of learning remains open to being influenced where specific conditions may lead to more successful and positive learning outcomes, while other factors can impede the process or quality of learning.

Finally, in the context of the increasing internationalization of national higher education systems, it is important to acknowledge that identities are formed and shaped by one's life context as this links to recognizing and valuing non-Western theorizations and views of identity (Page and Berkow 1991). Many students at UK universities, for example, will have grown up outside the discourse of 'Western' concepts of identity. Researching and conceptualizing identity in a globalized

university, therefore, needs to take into account that students might come from societal backgrounds that emphasize the group over the individual and that this counteracts a strong association of identity with individuality.

This concise overview on how identity has been conceptualized since the second half of the twentieth century shows that it can be studied from a variety of different perspectives, each highlighting different dimensions. At the same time, there has been a tendency to understand identity through (stable or unstable) abstract and manageable markers and categories. At the core, however, identity remains multi-faceted, as it is informed by and shaped through multiple interactions with partly complementary and partly conflicting, as well as contradictory identities, which again are constituted through intertwined sub-identities. It can therefore be diversely portrayed in different spaces and at different times, and in particular in relation to different people, and it can also be understood as an act of positioning towards and in dissociation from any influencing factors.

As the following discussion of both student engagement with virtual worlds and the opportunities of constructing identity in such environments shows, the spectrum on which students are perceived and defined, or might define themselves, is diverse, broad, and partly contradictory. This serves to further highlight the 'supercomplexity' of the field of higher education today (Barnett 2000, 2011).

2.2 Value, engagement, and opportunity: virtual world education and identity construction

While the previous section focused on understandings of identity, this section investigates perceptions on the value and use of virtual worlds in higher education. This is followed by a subsection on findings of learner's engagement with virtual worlds and related environments. The section finishes with literature on opportunities and constraints of identity construction in virtual environments.

The perceived value of virtual worlds in higher education

Several elements of virtual worlds are discussed as advantages, opportunities, or possibilities in relation to their utilization in higher education. In particular the potentials of immersion and enhancing distance learning are discussed. However, some negative and oppositional views on the utilization of virtual worlds in higher education counterbalance positive considerations. Both perspectives are now investigated.

Many early publications on virtual worlds for educational purposes have been 'promotional or even speculative, writing about what might happen in SL [Second Life] rather than what has happened' (G. Salmon and Hawkridge 2009:408). Evidence for the effectiveness of utilizing virtual worlds remained scarce (Hew and W. S. Cheung 2010; Jacobson and Azevedo 2008), as initial research publications were based on projects and small scale studies. Nevertheless, virtual worlds have been utilized in both formal and informal learning and teaching in numerous topics and with varied content. Examples are portrayed in the Journal of Virtual World Research and the special issues of the Association for Learning Technology Journal (ALT-J) (editorial F. Bell, Savin-Baden, and Ward 2008) or British Journal of Educational Technology (BJET) (editorial G. Salmon and Hawkridge 2009). For an update on the utilization of virtual worlds in education see Kim, Lee, and Thomas (2012).

As explored in the Introduction chapter (p. 1) regarding the working definition of virtual worlds in this thesis,⁶ virtual worlds are often perceived to offer psychological experiences of immersion and ‘being in’ the virtual world, as well as enabling interaction with other users which can feel ‘real’. The notion of immersion as a positive quality of virtual worlds is considered relevant and successful, in particular with regard to enhancing collaborative learning and teaching (Montoya, Massey, and Lockwood 2011; Savin-Baden, C. Tombs, *et al.* 2011; S. van der Land *et al.* 2011). Concepts of immersion are similar to concepts of ‘presence’ (Carr and Oliver 2010; Mania and Chalmers 2001). Here virtual worlds are viewed in the light of ‘a computer-generated display that allows or compels the user (or users) to have a sense of being present in an environment other than the one they are actually in, and to interact with that environment’ (Schroeder 1996:25) (see also Lombard and Ditton 1997). This is combined with concepts of ‘copresence’ or ‘being there together with others’ (Schroeder 2006), and the dimension of ‘connected presence or the extent to which being there together is mediated’ (Schroeder 2006:440). Thus, when ‘in-world’ the technology holds more influence compared to a face-to-face relationship in the physical world. Additionally, Rheingold (1991:256) introduces the concept of ‘telepresence’ in which one has a ‘form of out-of-the-body experience’ when in the virtual world. Immersion is discussed as being similar to what Csíkszentmihályi (1988) has coined as ‘flow’ sensations. Flow is characterized through being deeply focussed on and engaged with an activity, intrinsic motivation (Ryan and Deci 2000) towards and enjoyment of the activity, while ‘forgetting’ about the (physical) world around oneself. However, in relation to virtual environments and games, immersion is also negatively considered in relation to discussions about the link between immersion, engagement and notions of addiction (Chou and Ting 2003; Kuss and Griffiths 2012; Seah and Cairns 2008).

The aspect that a virtual environment can feel ‘real’ is highlighted as one of the great advantages of virtual worlds in comparison to other forms of online teaching (Mount *et al.* 2009). As Warburton (2009:419) states, ‘the immersive nature of the

⁶ A virtual world is a persistent 3D graphical environment, accessed over the Internet, which allows a large number of simultaneous users, represented by avatars, to interact synchronously with each other and/or with the environment, and allows the users to feel as being in it.

virtual world, crossing physical, social and cultural dimensions, can provide a compelling educational experience, particularly in relation to simulation and role-playing activities'. This seems to indicate two aspects that are also positively highlighted by Boulos, Hetherington, and Wheeler (2007) and Antonacci and Modres (2008): the first concerns the ability to collaborate and interact with others, which has great potential for varied forms of educational purposes. The second aspect refers to visualisation and simulation of educational content, which grants the ability to manipulate and interact with objects within the environment (Dalgarno and M. J. W. Lee 2010), as well as to create and change the environment itself in manifold ways, as additionally highlighted by Prasolova-Førland (2004). This includes possibilities to visualize and virtualize objects and situations difficult to achieve or non-existing in the physical world, with regard to overcoming historical or geographical barriers, or where a 'real' enactment would be too dangerous for parties involved, as for instance in medical education (Rogers 2011; Savin-Baden 2008). Interaction with others as social experiences, but also potential foreign language learning opportunities 'in situ' (C. Wang *et al.* 2009; Zheng *et al.* 2009), and overcoming cultural barriers through contact with foreign users of virtual worlds (Warburton 2009), are further potentials for educational utilizations.

The utilization of virtual worlds is particularly positively discussed with regard to distance learners. Virtual worlds are perceived to enhance experiences in distance learning, as facilitating knowledge and skills in virtual worlds will change and improve teaching opportunities (Duncan, Miller, and Jiang 2012; Kirriemuir 2008). Accordingly, several universities in the UK started using virtual worlds to facilitate education to distance learners (Virtual World Watch 2009). Distance learners are here defined as people who, due to individual preference or barriers such as lack of time, regional sprawl, or physical disabilities, do not join a traditional university course. Edirisingha *et al.* (2009) carried out a pilot study analyzing the educational potential of Second Life funded by the UK Joint Information Systems Committee (JISC). The study investigated and evaluated students' engagement in Second Life and how social presence and network-building among distance learners could be developed. The authors used data from interviews, in-world observations, and

records of chat logs for their analysis of four undergraduate students and two tutors involved in an Archaeological Theory course at the University of Leicester. Their findings (Edirisingha *et al.* 2009:476) indicated that the distance learners perceived learning in the virtual world as more pleasant than other ways of distance teaching, in particular due to feelings of presence and socialization. However, issues about the complexity of the design of an avatar were mentioned.

Although Edirisingha *et al.*'s (2009) publication and other reports on facilitating events or seminars in Second Life (Wiecha *et al.* 2010) support the assumption that distance learners especially benefit from learning and teaching in virtual worlds, the research in this area needs further work. There is still little understanding of virtual world impact on distance learners and their specific needs. Nevertheless, requirements might differ from learner to learner, as distance learners are as heterogeneous as learners in a physical classroom setting. Distance learners could have been involved in this study as participation was only pre-bounded by 'students at UK universities'. However, neither of the research sites utilized distance teaching, one used Second Life entirely as a classroom technology, while the other used Second Life as a medium for blended teaching on a campus-based course.

However, the positive considerations about enhancing learning and teaching through utilizing virtual worlds in higher education are paralleled by discussions of challenges and barriers. Causes that complicate the use of digital media similar to virtual worlds in educational contexts are documented by Rice (2007). He summarizes 12 publications proposing barriers to the implementation of varied multi-user 3D environments and computer games in educational contexts. The article's findings indicate possible perceptions of virtual environments, as well as possible barriers and reasons for issues and challenges regarding the utilization of virtual worlds in university teaching and learning, albeit that not all of the assessed publications refer to higher education directly. Rice indicates that computer or video games bear a negative perception and reputation. Rice here refers to a view that computer games are solely a medium for entertainment or recreational purposes (Schrader, Zheng, and M. Young 2006) in direct contradiction with views

on 'serious' learning. Thus, authors such as Koubek and Macleod (2004) or Gee (2009) warn that students could resist the enjoyment of playing as part of official education.

Adding to the negative reputation is a view that perceives computer games as violent, especially regarding first-person shooter games, which is discussed in relation to having impact on physical world violence (Sherry 2001). However, the research regarding the relationship between the use of media and violence is widespread, ambiguous, and contradictory. Kunczik and Zipfel's (2002) report on an estimate of 5000 studies assessing media use and violence which contained no explicit findings that video games or other related media lead to more violence. Even though virtual worlds are not first-person shooter games per se, relating to these platforms could influence the way students approach virtual worlds. Similarly the discussion on a relationship of addiction and computer games (Kuss and Griffiths 2012) cannot be ignored. Hence, students who reject or position themselves against games on these grounds might also resist their utilization in higher education.

A further source of resistance, as proposed by Rice (2007), is related to the virtualization of reality – and here in opposition to aforementioned positive considerations. Rice introduces the Affordance Theory described by Gibson (1977). The Affordance Theory states that an environment is perceived not only in terms of the shape of objects in it and its spatial relationships to these objects, but also in terms of affordances, that is, the possibilities for action with these objects. Dickey's (2003) work on distance learning, which discusses the virtual environment Active Worlds, indicates that some virtual environments might lack enough affordances to support 'real' world education. Rice (2007:256) suggests that virtual world development is ongoing and that some virtual environments might not be able to offer the sophistication that is needed for highly advanced affordances. Wang and Lockee (2010) return to the issue in relation to distance learning, and suggest that further research is needed to support claims that virtual worlds indeed provide environments which enhance distance learning experiences.

Additional reasons for resisting the use of educational game environments, as discussed by Rice (2007), are to be found in their potential lack of 'state of the art' graphics in contrast to other commercial game environments, which might disappoint students. Furthermore, Rice describes the lack of 'state of the art' computers in classrooms which can run sophisticated software, as a potential barrier to its successful utilization, which seems to be a technical hindrance that needs to be assessed before a virtual world is implicated. This goes alongside frustrating experiences of 'lag', a noticeable delay between user actions and reactions to these actions within the virtual environment when using Second Life (Warburton 2009). A further potential barrier is the division of educational content into short modules and a certain inflexibility of timetables for modules, which seems to relate to the modulization of university teaching and learning. This is a view shared by Warburton (2009), who adds that preparation of teaching and facilitating learning activities can be very time-consuming. Finally, Rice mentions that games do not always align immediately to teaching content. This seems a valuable point given the potential openness to purposing of a virtual world such as Second Life.

While virtual worlds seem to offer opportunities in higher education, they are not without challenges. As Macleod (2007:n.p.) summarizes:

As with any other technology applied in the support of education we need to be careful to make use of the opportunities that virtual worlds afford in ways that align with our, and our students', learning objectives, rather than deploying the technologies for their own sakes. But along with the inevitable mistakes there would seem to be considerable potential.

The next section explores whether and how students engage with virtual worlds or similar environments and applications.

Positioning learners and identities in a digital age

This section explores contemporary concepts and typologies of learners and users of digital technologies, as well as how learners engage with digital applications. Considering the research explored in this section, I argue that students' familiarity with digital technology differs fundamentally, and not all students prefer the use of technology for educational purposes from the outset – independently, at least, from their age.

Exploring how learners engage with and use digital technologies (formerly also information and communication technologies, ICT) and media, such as forms and combinations of computers, video games, mobiles, and the Internet, leads very quickly to concepts and claims of the 'new generation of students', which are described as approaching learning very differently to former generations. Terms such as 'Net Generation' (D. G. Oblinger 2005; Tapscott 1998; D. G. Oblinger and J. L. Oblinger 2005) or 'Millennials' (Howe and W. Strauss 2000) are of note and – possibly most prominently – that of the juxtaposition of the 'digital native' student and the 'digital immigrant' educator, a concept originally coined by Prensky (2001a, 2001b, 2005). Here the description of learners and tutors seem more positioned around 'who they are' than in terms of 'what they do'.

Prensky (2001a, 2001b, 2005) describes contemporary students as 'digital natives': students who have grown up entirely surrounded by and socialized through using and interacting with various digital technologies and tools, such as computers, video games, mobiles, and the Internet. As a result they 'are all "native speakers" of the digital language' and 'think and process information fundamentally differently from their predecessors' (Prensky 2001a:1). Prensky (2001a, 2001b) himself mentions no precise time for a beginning of the digital age, but considering students' age when entering university at around 18 years of age and from the publication date of the article leads to the beginning of the 1980s.⁷ The 'digital natives' are then contrasted with their tutors, referred to as 'digital

⁷ Some authors define a year for when the 'natives' were born in or born after: 1980 (Palfrey and Gasser 2008:1), others give 1981 (Hartmann, Moskal, and Dziuban 2005:n.p.), or 1982 (D. G. Oblinger 2005:8; D. G. Oblinger and J. L. Oblinger 2005:n.p.).

immigrants', those born before the digital age and who, following a metaphor of migration to a new country, need to learn about and adapt to the 'new' technologies and the languages and cultures that come with them. The greatest problem, as Prensky (2001a) claims, is that the 'immigrant' tutors will never fully be able to speak the 'natives' language, as their language will be 'accented' and 'outdated' if their mindsets and skills remain in the past. Thus, Prensky (2001a:6) prompts that 'if Digital Immigrant educators *really* want to reach Digital Natives – i.e. all their students – they will have to change' [emphasis in original].

Prensky's (2001a, 2001b) typology gained prominence and acceptance over the years (Palfrey and Gasser 2008; Barnes, Marateo, and Ferris 2007) and has been adopted outside research (as I have read the English terminology increasingly often even in German newspapers). However, the generalising claims and scarce evidence offered in Prensky's viewpoint articles have led to a critique of the concept (Bayne and Ross 2007, 2011; Bennett, Maton, and Kervin 2008; Sheely 2008) and a re-assessment of his claims (Caruso and Kvavik 2005 for data on students in the USA; C. Jones *et al.* 2010 for data on students in the UK; Kennedy *et al.* 2008 for data on Australian students) – as well as to proposing alternative terms and typologies (D. S. White and Le Cornu 2011). In particular the claims related to matters of identity are challenged, later even by himself (Prensky 2009): firstly, the close relation within the concept of 'digital natives' between birth year and competencies using computers and the Internet, and, secondly, the proposed implicitness and almost natural aptitude for using digital technologies in general, and for educational purposes as originally proposed.

Palfrey and Gasser (2008) adopt Prensky's terminology and characteristics of 'digital natives' and 'digital immigrants', albeit that they add another category of 'digital settlers' – people born before 1980 who invented the digital technologies – filling the illogical gap in Prensky's description. Additionally, they take the use of social media platforms into account, which were not widespread at the time that Prensky's original articles were published. Palfrey and Gasser (2008) are less bold in their descriptions of 'digital natives', as they conceive that not everyone born after 1980 might have the same familiarity and competencies with the same

technologies, as not everyone might have had the same access. In addition, familiarity and skilfulness might be dependent on a digital literacy, which is based on learning rather than 'natural' implicitness. Nevertheless, they (2008:10) remain linked to Prensky's framework and the delineation of parents and teachers as 'digital immigrants' unwilling and unable to become 'digital natives' because of language and cultural barriers. However, they request educators to accept and transform to meet their students' experiences and expectations (2008:239).

Palfrey and Gasser (2008:4) make references to notions of identity when they state:

Unlike most Digital Immigrants, Digital Natives live much of their lives online, without distinguishing between the online and the offline. Instead of thinking of their digital identity and their real-space identity as separate things, they just have an identity (with representations in two, or three, or more different spaces).

It is part of this study to investigate this statement and whether it remains valid when virtual worlds are used in education. In summary, although Palfrey and Gasser operate with slight reservations, they ultimately offer a terminology based on universal descriptions and characterizations. 'Digital natives', as long as they have access to digital technologies, are portrayed as a very homogenous group, with almost no differences in terms of gender, culture, social and financial background, or former experiences as well as motivations or expectations, which seems in the light of the findings of the studies explored below to be very unlikely.

White and Le Cornu (2011) introduce the concept of a continuum based on a typology of 'Visitors and Residents' as alternative terms to distinguish different approaches to the utilization of and engagement with digital technology, as distinct from the age-related distinction of 'digital natives and immigrants'. In their concept, White and Le Cornu take the development and use of current MMO/MMORPGs and social network applications such as Facebook into account, and distinguish between Internet-based information-gathering and social-networking sites. This leads to the description of a continuum of utilization between 'tool' and 'place', and polarising termination of users as 'visitors' and

'residents'(White and Le Cornu 2011:n.p.). They define that 'visitors' approach Internet linked technologies akin to 'an untidy garden tool shed' (2011:n.p.). Technologies are utilized solely to fulfil certain tasks, including communication; the Internet is seen akin to offline tools such as books, pens, the phone etc. Visitors are described to usually use digital technologies mostly anonymously and are 'unlikely to have any form of persistent profile online' (2011:n.p.), either due to privacy issues or not finding any purpose in interacting online or resisting online interactivity. 'Visitors are users, not members, of the Web and place little value in belonging online' (2011:n.p.).

In contrast, 'residents' assess value online 'in terms of relationships as well as knowledge' (White and Le Cornu 2011:n.p.). They approach sites in the Internet akin to 'a park or a building' (2011:n.p.) in which they share information and live part of their lives with others, friends and foreigners, 'they are likely to consider that they 'belong' to a community which is located in the virtual' (2011:n.p.). While 'visitors' leave almost no information of themselves behind when they leave mediated environments, 'residents' 'use the web to maintain and develop a digital identity' (2011:n.p.) in relation to their physical world identity. This is an interesting approach, which was not published at the time of data collection and main data analysis. However, it brings to consciousness the possible difference between understanding and engaging with online applications either as 'tools' or in terms of 'place/space'. If applied to views on virtual worlds: an understanding of a virtual world as a functional tool, for instance to build or to be creative, might impact differently upon engagement in contrast to an understanding of a virtual world as a space/place in which to socialize or which to 'inhabit'.

Regarding a critical re-assessment of Prensky's age-related claims, Kennedy *et al.*'s (2008) analysis of a survey conducted in 2006 at the University of Melbourne, Australia, followed Prensky's description of 'digital natives' and only considered answers from participants born after 1980. The research investigated first year students' familiarity with and preferences for established and emerging technologies and tools utilized in university education. A four page questionnaire was answered by 1973 students, of which 62.4% were female and 37.5% were

male. Besides questions on demographic information, students were asked about access to hardware and the Internet, use of and skills with computers, the Internet and mobile phones, as well as questions on students' preferences with regard to utilizing technology based tools in their studies (Kennedy *et al.* 2008:111). From their findings, Kennedy *et al.* (2008:117) come to the conclusion that contrary to Prensky's assumptions of a homogenous 'digital native' group of students, embracing and being proficient with a variety of digital technologies, students are rather defined through possessing a great diversity and there being 'a potential "digital divide" between students'. Thus, referring to Prensky's terminology, students did not speak one 'digital native language', but 'speak with a variety of tongues' (Kennedy *et al.* 2008:117).

Kennedy *et al.* (2008) discuss that beyond entrenched digital technologies, educators should be aware that students might not have the same and equal access to digital technologies, and might not show the same across-the-board competencies for other technologies. Moreover, the assumption that literacy with one technology translates easily over to another might be optimistic. Finally, using technology to support or enable studying could present students with further challenges:

Clearly we cannot assume that being a member of the "Net Generation" is synonymous with knowing how to employ technology based tools strategically to optimise learning experiences in university settings (Kennedy *et al.* 2008:117f.).

Unfortunately, Kennedy *et al.* (2008) give no further information whether participants' gender or socio-economic background influenced their findings. Jones *et al.* (2010), with reference to Kennedy *et al.*'s research, undertook a similar study during 2008 in the UK, collecting and analyzing survey data from 596 first year students from all age groups at five UK universities. They come to similar results, arguing that although the findings show significant differences between the age groups born before and after 1983, it would be too simplistic to perceive or describe these groups as homogenous in their use of technologies. Both studies give an insight and indication for what could be expected in terms of this study. It

seems likely that the warnings might also encompass virtual worlds, as many different skills are needed to efficiently utilize virtual worlds for different purposes, to what extent, however, still remains to be examined.

Regarding further learners at a British university facilitating courses in particular via digital media, Edmunds, Thorpe, and Conole (2012) employed the Technology Acceptance Model (TAM) developed by Davis (1989), to explore students' stance towards and use of ICT within study, work, as well as social and leisure contexts. Their research focused specifically on the impact of experiencing the use of ICT in the workplace on the acceptance and utilization of ICT in a study context. A survey was carried out with 421 students from six work-related courses at the Open University, who were both in current employment and part-time students. The six courses encompassed different subjects, namely technology, computing, engineering, two social work courses, and business studies (Edmunds *et al.* 2012:74). The Technology Acceptance Model as developed by Davis and presented by Edmunds, Thorpe, and Conole measured two factors: 'perceived ease of use' and 'perceived usefulness'. Ease of use is defined by Davis (1989) as the degree to which a particular information technology is perceived to be free of effort to be embedded into an activity, while usefulness is related to the individual's perception that the technology will enhance the performance of an activity. Davis argued for a consecutive pattern and causality in which 'perceived ease of use' causes 'perceived usefulness' which then leads into 'acceptance and use' of the particular information technology.

Edmunds, Thorpe, and Conole (2012) caution that TAM only measures two factors informing acceptance and use of technologies, and might only give a rudimentary insight into why a technology is accepted or rejected. They acknowledge that further variables impact on utilizing technologies, for instance motivational factors. Hence, they adapted the original TAM questionnaire for their survey and incorporated questions regarding motivational aspects, drawing on research carried out by Jones and Issroff (2007) regarding control, ownership, fun, communication, and continuity over contexts. Additionally, questions were asked regarding actual technology use. To analyse the survey data, a factor analysis was

carried out for the three contexts of study, work and social/leisure activities, and derived sub-scales subjected to analysis of variance (ANOVA), keeping the different courses as independent variables.

Edmunds, Thorpe, and Conole's (2012:76–81) findings reveal that the context in which ICTs are employed impacts on how students perceive ease of use as well as usefulness. The students in their study perceived ICT as more useful and easier to use in a work-related context compared to a study or leisure context. Motivational factors, such as personal ownership and control are also significantly attached to the context of work. For the authors this indicates that if a technology is perceived as functional and beneficial at work, this could possibly impact on how it is perceived and taken on in other areas. Additionally, the authors relate their findings to the use of ICTs in higher education, and conclude that tutors could draw on explicit links of ICT use where work and study are related, as well as explain possible links between future employment and certain technologies. In any event, perceived usefulness seems important in terms of acceptance and use of technologies as part of learning activities, and tutors should reveal how technologies are supposed to support efficiency in learning activities. Therefore, Edmunds, Thorpe, and Conole (2012:82) conclude:

While incoming generations of students may take technology for granted, the evidence here suggests that attitudes towards usefulness and ease of use will nevertheless play a strong role in willingness to develop new skills and technology usage.

Although information is given about the use of specific ICTs in the six courses, in terms of the survey, ICT is used in a general way encompassing all types of information and communication technology available to the students. The publication reveals no details as to which particular ICTs are perceived to be more or less easy to use or useful in any context. Fruitful for the study at hand, although the authors do not elaborate in great detail, is that the findings suggest that the studied course or subject has impact on the way technologies were used in the course or were perceived as easy to use or useful. For instance, the data concerning the social work students revealed that these students perceived ICTs in

general less easy to use and useful in a work or study context than the technology, computing or business students. Unfortunately, although gender and age of all participants are indicated, the reported findings do not account for these demographic notions of identity.

Contrary to claims that all students born after a certain date, namely around 1980, are familiar and confident with using any kind of technology, from the research on learners' engagement with forms of ICT, it appears that learners certainly make use of virtual technology, albeit to considerably various degrees. This could impact on how students engage with virtual worlds and how they approach matters of identity, the exploration of which was one quest of this study.

After exploring findings regarding typologies of ICT use and regarding students' engagement with digital technologies in this section, the next part examines understandings and positioning of identities of users of virtual environments in general and in higher education.

Identity construction in virtual environments: overcoming constraints?

This section investigates understandings of identity construction and how users in general, as well as students and staff in higher education experience and position themselves in relation to their identity and identity formation in virtual environments. I argue that notions of identity in virtual environments are intrinsically connected to identity in physical world settings. Furthermore, it seems that perceived opportunities of influencing notions of identity are partly depending on, firstly, anonymity of the virtual user, secondly, rendered by the conditions of a respective application and the abilities of a user, and, thirdly, impacted on by norms of both the virtual and the physical world.

At the end of the twentieth century, some publications describe virtual environments alongside the Internet in general in optimistic tones and anticipate opportunities and potentialities in terms of identity. It is frequently suggested that virtual worlds offer liberating opportunities that can overcome key restrictions of the physical world (A. R. Stone 1996; Turkle 1996), including distance, dimension, and economics, as well as different aspects of identity such as name, sex/gender, age, ethnicity, or social status. Cheung (2007 [2004]) discusses emancipatory potentials through strategic self-presentation, active involvement, and expressing 'who one is' beyond the restraints of the physical world on personal websites. However, it is in particular regarding interactional environments, for instance the text-based chat spaces as predecessors of contemporary virtual worlds, that the possibilities through new options to construct identity are discussed. The view behind the image is that users 'can describe themselves and their physical bodies in any way they like' (Nakamura 1995:n.p.). This is often connected with the possibility to represent oneself with a different sex/gender, age, or ethnicity through self-description, for instance in terms of 'gender swapping' (Bruckman 1993) or identity passing and 'tourism' (Nakamura 1995). These considerations are captured in the assumption that '[o]n the Internet, nobody knows you're a dog', as published 1993 in a cartoon by Steiner in *The New Yorker* (Steiner 1993). The possibility of be(com)ing someone else leads to the notions of self-creation, identity play, and having multiple identities in spaces described as 'laboratories for the construction of identities' (Turkle 1996:184, 1999). Nevertheless, it seems that experimenting with identity and a 'new self' relies to a significant extent upon the anonymity of the physical world person in relation to the virtual world user, a premise or condition which needs further exploration in the context of formal higher education settings.

However, as Nakamura's (1995) observational work regarding the interactional, text-based chat spaces LambdaMOO suggests, virtual environments are not created or experienced without notions and categories of identity, but based on creating and defining identity, and that the freedom of choice regarding identity 'is actually an illusion' (1995:n.p.). Initially, users have to create or decide on an 'self authored' name (1995:n.p.). Next, users must choose a gender from a selection of four

possible genders; without choosing a gender, new users cannot create an account. Although two choices are rendered as forms of neutral sex/gender, Nakamura suggests that many users are not accepting this choice and require further qualification from other users (1995:n.p.). As the next step of identity creation, new users are asked to write a self-description indicating further notions of personal characteristics. Nakamura highlights that descriptions of race/ethnicity are, firstly, not a required category to start an account, and, secondly, absent from users' self-descriptions. Nevertheless, through other indications in the descriptions, such as hair and eye colour, or through choice of wordings during later conversations, racial categories are assumed by other users. Moreover, Nakamura indicates that a direct articulation of ethnicity beside 'white' is perceived by other users as 'a form of hostile performance' (1995:n.p.). In contrast, self-descriptions based on animal or fantasy identities are often commented on in 'positive, amused, tolerant' (1995:n.p.) terms. The connection of understandings of identity in virtual environments to physical world categories comes further to the fore when the virtual and the physical interlap and the anonymity of the virtual user is 'compromised'. Stone (2007 [1992]) or Van Gelder (1991 [1985]) respectively introduce the narrative of 'Talkin' Lady', a male person in the physical world who performed and passed as a woman in the virtual world, but who's gender swapping became finally public and left some users feeling tricked and deceived.

Prior to the creation of learning environments in contemporary virtual worlds, Bayne (2005) undertook a research study exploring the formation of identity in online learning environments of students and tutors, with regard to their roles and the power hierarchies in higher education. Bayne suggests, by presenting an analogy of the Greek myth of Arachne and Athene by Ovid, that virtual learning environments could potentially redefine the elements of understanding both students' and staff's roles, and of the relationship between them. For Bayne (2005:27) the traditional hierarchical roles are challenged and relations become 'about mutability, deceit, mutation and metamorphosis'. Although Bayne argues for caution before overly celebrating the possibilities of online construction of identities in online learning environments, since the conditions and traditions of

education still remain when moving online, she argues that identities in cyberspace are more open for transformation (Bayne 2005:31).

Bayne (2005) introduces statements of six students' and three tutors' reflections on the construction of their identities within and for the online classroom. Unfortunately only limited information is given about the context of data collection and analysis. However, quotes of students and tutors are linked to interviews, and the presentation and interpretation of lengthy quotes indicate a narrative research or case study approach. Bayne's interpretation seems focussed on two levels of identity understanding: a relational level regarding the relationship between student and tutor and a personal identity level. Bayne (2005:31) examines the students' narratives under a theme of 'fear of *loss of control*' [emphasis in original] and in terms of 'danger, personality split, and deceit and perversion'. Thus, identity in virtual environments seems positioned as negative and 'fraught with anxiety' for students (Bayne 2005:35). The tutors' accounts, in contrast, are presented indicating feelings of power regarding control of contributions and performances (Bayne 2005:36–38).

Bayne's (2005) analysis concludes that several reasons could lead to the anxiety-led students' accounts and the more control-lead tutors' accounts: tutors being more familiar with the virtual environment, tutors being more knowledgeable about theories of multiple identities, and students being more open, less guarded, to express their anxieties in a research interview. It seems that the hierarchically organised identities of the physical educational context find re-assertion in the virtual educational setting, as practices from face-to-face teaching are taken over into the virtual setting (Bayne 2005:39). Finally, Bayne re-introduces the myth of Arachne and Athene and re-interprets Arachne's metamorphosis into a spider as a reward. This argument seems rather bold as the student does not willingly become a spider, in my understanding that would be necessary to claim that she 'embrace[d] the shape-shifting' (Bayne 2005:40). It seems the power relations here are rather neglected; Arachne does not have any agency or power of decision making but becomes a spider by the power of the tutor. However, as Bayne indicates, her findings regarding students' constructing identity is in contrast to

the literature celebrating possibilities of virtual environments. In this research, students' positions seem rather negative and less indicative of empowering and liberating opportunities.

Antonacci and Modres (2008) and Warburton (2009) confer the described opportunities and challenges for identity construction to environments for learning which encompass notions of graphical avatars. Antonacci and Modres (2008) highlight that through the opportunity and ability to customize and change avatars towards specific appearances, learners could reflect about both their own as well as other people's identities. They suggest that the virtual world offers opportunities of reflecting on one's own life through new and different experiences, and students could discuss how those experiences differ from living in the physical world. Additionally, students could gain insights into other people's lives, by customizing an avatar with an ethnically different appearance, by sex/gender changes, or by embodying a disability, which Warburton (2009:421) considers as 'individual and collective identity play'. However, Warburton also adds a note of caution towards the playfulness of identity in virtual worlds, suggesting that playful appearances could be confusing for others, so that building relationships or collaboration with others could become complicated. This seems a pivotal notion for further investigation.

This section explored virtual worlds and environments regarding their utilization in higher education. While opportunities with regard to immersion and in distance education are indicated, such use is contrasted by the considerable challenges experienced in higher education with regard to aligning virtual worlds with educational content or structures, or in terms of students rejecting virtual worlds as merely leisure environments. Additionally, the literature examining users' and students' engagement with digital environments and applications revealed that their knowledge, ability, and motivation differ considerably. Finally, opportunities and understandings of identity construction in virtual environments were reviewed. These notions will be further examined in the next section which focuses

on notions of the graphical avatar; a central means for individual users to explore and enact identity in contemporary graphical virtual worlds.

2.3 Expressing identity in virtual worlds through avatars

The etymological origins of the word avatar are to be found in Hinduism. The Sanskrit word Avatar or Avatara, in English literally meaning descent, is also often translated into incarnation. In Hinduism, avatar usually refers to the 10 appearances of the god Vishnu; the incarnation of the deity in human or animal form to counteract existing evil in the world (Little 1999; Tofts 2003). However, the origins of using the term in the world of the Internet are to be found in the name for computer game players' characters from the 1980s. For example, the player representations in the Lucas' game project Habitat were termed avatars (Morningstar and Randall Farmer 1991), and in the game Ultima IV – Quest of the Avatar, in contrast to use today, it was the goal of the game to become the 'Avatar'. The use of the term in the meaning of a virtual body was further established by the novel 'Snow Crash' by Neal Stephenson in 1992 (Stephenson 1992).

The literature regarding identity in virtual worlds is replete with examples of the avatar as the means and form by which a user will interact with other users in the virtual environment and with the environment itself (Rymaszewski *et al.* 2008; Meadows 2008; Boellstorff 2008). Meadows (2008:13) describes that avatars 'can be based on a real person's appearance or look nothing like them. Usually avatars are a mix of the real and the imagined'. Bailenson and Blascovich (2004:65) define an avatar as 'a perceptible digital representation whose behaviors reflect those executed, typically in real time, by a specific human being'. Nevertheless, the term was already used for two-dimensional pictures or icons of users, for example, in Internet communities and forums (Schroeder 2002), before the 'animated 3D representations of people or other beings' (Middleton and Mather 2008:209) of

today became available. However, following the release of Cameron's (2010) science-fiction film 'Avatar' in 2009, the term avatar seems to have become more widely established in society in general. In the film, the 'Avatar' was a genetically engineered physical body that allowed the person inhabiting it to appear akin to the indigenous people on a different planet. However, slipping in and out of different physical bodies remains at present a science fiction view of the future. Nevertheless, contemporary virtual worlds such as Second Life propose to offer the possibility to create and customize a virtual graphical avatar body and appearance to our wishes, needs, or desires.

This section is divided into three sections: The first reviews literature regarding avatar creation in different worlds and in the context of different purposes, the second pays attention to the Proteus effect, and the third part investigates findings on developing a relationship with one's avatar.

Avatar creation in different virtual worlds and for different purposes

The literature on avatar appearance focuses on the relationship between the context of the virtual environment and the creation process itself. For example, T. L. Taylor (2002:40) links engagement and using virtual worlds directly with identity creation and existence:

Through avatars, users embody themselves and make real their engagement with a virtual world. [...] Avatars, in fact, come to provide access points in the creation of identity and social life. The bodies people use in these spaces provide a means to live digitally – to fully inhabit the world. It is not simply that users exist as just “mind”, but instead construct their identities through avatars.

That avatars exist and have developed in diverse forms and shapes over the last 30 years can be explored in Cooper, Dibbell, and Spaight's (2007) publication on 'avatars and their creators'. Sixty-two portraits and short profiles of 'real' people and their virtual representation or alter egos in different multi-user virtual

environments (MUVEs) used for different purposes are presented. Through combining pictures of the physical person and the virtual persona, as well as a short narrative from each portrayed person (or persons, as sometimes two or more people share one avatar), different approaches to creation and customization of avatars become obvious. Some appearances reflect the physical appearance, others engage with different or opposite appearances in terms of age, skin colour, or gender. Additionally fantasy appearances such as a furry (impersonation as a feline or another animal with fur) or a spaghetti monster are presented.

Vasalou and Joinson (2009) undertook a study that examined how users create and customize avatars, and whether conditioned settings with attached aims impact on questions of self-presentation and similarity between a physical or 'real' person and their avatar. Although their study concerned static 2D icon avatars, their findings give indications which could inform the utilization of avatars in 3D virtual environments. This experimental study compared strategies for self-presentation on three different online settings and their according aims and purposes: dating, blogging, and gaming. In a laboratory experiment 71 UK students aged between 18 and 24 years, with no previous knowledge in dating, blogging, or gaming in virtual environments, were asked to create an avatar for one of the three contrasting purposes. The participants were given explanations and conditions concerning the three settings (Vasalou and Joinson 2009:512, 518). Participants were then left on their own to create an avatar. The software allowed the customization of a humanoid persona, with different sex, skin colours, hair styles or clothing choices, and options to create a background, for instance showing different locations and icons for pets or hobbies, alongside further fantasy options (2009:512, 515).

The analysis of questionnaire and interview data, in Vasalou and Joinson's (2009:517) study revealed the tendency that participants created avatars in a self-representative ('accurate') and self-reflective way, regardless of both the given context and that fantasy options were available. However, the participants reflected on the conditions of the different settings and discussed appropriateness of possible appearances. The gaming setting was especially seen by some as an

environment in which to be playful and explore different forms of identity or role-play. This last finding is important when regarding virtual worlds, such as Second Life, as a game environment, as this could indicate greater customization of avatars in a playful manner. Further research seems necessary to examine how other contexts, in this case education, could influence decisions about avatar individualization or customization. Moreover, the laboratory style of the study, where participants created their avatars on their own, does not take into account a situation when users are together as groups, for instance learners in one classroom together with a tutor and their peers, observing one another and giving immediate reactions and feedback to each other on the creation of avatars. Here, both the conditions of the virtual world, but also the setting of physical world, could influence the behaviour of creating or assembling an avatar. As Vasalou and Joinson remark, the study has its limitations. The participants are of a certain age group (18 to 24 years of age), and older users might in general make other decisions during their creation process. Additionally, no conclusions are possible regarding gender or cultural differences. Moreover, the research reflects only on the initial appearance of an avatar and not on how longer engagement might influence the representation.

Another comparative analysis, in this case examining the three different virtual settings of Maple Story, World of Warcraft and Second Life, was undertaken by Ducheneaut *et al.* (2009). They carried out a survey with 178 users investigating two questions: how and why users customize their avatars, and how easy and satisfying users find existing customizing tools in these three different virtual worlds. Through analyzing survey data and uploaded screenshots of 157 users' avatars, a comparison of the physical person' in relation to the avatar was conducted. The findings revealed that avatar creation differed widely between the three worlds. In World of Warcraft and Maple Story decisions about avatar appearance were often related to role functions of the game content. However, in Second Life customizing the avatar appeared to be an important activity, as most users admitted to spending a significant amount of time changing the appearance of their avatars. For example, Second Life users in the survey reported having an average of 41 different outfits, in order to be able to change the appearance of their

avatars. Moreover, most had more than one account in Second Life (in order to have more than one avatar), although almost every user (98%) stated they had or used only one main avatar.

A further result in Ducheneaut *et al.*'s (2009) study suggested that gender-swapping was common in Second Life, especially male users customizing female avatars. Another result linked to age; while younger users designed their avatar's to fit their age, those aged over 40 frequently designed younger looking avatars. Results regarding emotional attachment of users to their avatars indicated that the more the user was able to project their self in-world, the more the user was attached to the avatar. Additionally, the psychological relationship was explored. The results highlighted that users who tweaked the personality of their avatar were more satisfied with their avatar. Unfortunately, gender and age comparisons as well as results about emotional attachment were only presented as a result across all worlds. Hence, what can be directly attributable in the context of Second Life is uncertain. However, the authors suggested that users try to design their avatars as 'an idealized version of their own personality' (Ducheneaut *et al.* 2009:1160).

Developing a typology of identities based on avatar appearances in virtual worlds, with a focus on Second Life, Neustaedter and Fedorovskaya (2009) defined four types of users: 'Realistics', 'Ideals', 'Fantasies', and 'Roleplayers'.⁸ 'Realistics' were defined as users 'who want their VW [virtual world] and RL [real life] identities to be one and the same' (2009:n.p.), who constructed their avatars to be as close to their physical appearance as possible. This resonates with what Vasalou and Joinson (2009) have described as 'accurate' appearance. Additionally, those

⁸ Regarding virtual worlds in their similarity to similar gaming environments, Bartle's typology of 'gamer' approaches and identities comes to mind. Bartle (1996, 2003) classifies users of gaming environments, players or so called 'gamers', according to four key traits: achievers, explorers, socialisers, and killers. Achievers focus primarily on accomplishing objectives within the game, with their incentives for play found in the various challenges the game provides. Explorers, by comparison, are more preoccupied with traversing the game world and experiencing all the content. Of the final two categories, socialisers seek to interact with other players to form social groups and collaborative relationships. By contrast killers similarly seek social interaction, but in this case to defeat or dominate other players. Bartle argues that individual players all exhibit these four traits to varying degrees, and that the synergies between the groups are essential to create a stable population in an online world.

classified as 'Realistics' are trying to continue other facets from the physical world in the virtual world, for instance preferred activities. 'Ideals' will present their physical world identity, however, at the same time they 'aim to overcome perceived inadequacies' (Neustaedter and Fedorovskaya 2009:n.p.). 'Fantasies' are users who separate the physical world from the virtual world. They 'masquerade' in the virtual world. However, it is suggested that they have a continuing identity in the virtual world. The 'Roleplayers' are separating physical from virtual life, as do the 'Fantasies'. However, 'Roleplayers' are defined as those who constantly change appearance and behaviour according to a role given or taken on for new experiences. They are also described as having alternative accounts and, thus, avatars for different situations.

The findings given by Neustaedter and Fedorovskaya (2009) are based on observations and semi-structured interviews with 22 voluntary participants who were recruited in Second Life. While the observations indicated that the visual appearance of the avatars between the four types of users did not differ much (2009:n.p.), the interviews unsheathed explanations, reasons, and motivations behind respective avatar appearances. As aforementioned, similarities and dissimilarities between physical and virtual world may only become obvious to those who know about both the physical person and the avatar. However, that could become the case when the virtual world is used within a physical setting, for instance within a physical classroom setting.

Little is published regarding the names of avatars in virtual worlds in the literature. Research so far seems to have concentrated on avatars' corporeal form with regard to discussing implications of identity. During this study, publications of Conrad, Neale, and Charles's (2011; also 2010) studies became the exception. The authors indicate that the 37 undergraduate student participants, experienced the name creation process in Second Life as limited. Half of the participants created their avatar name same or similar to the physical world name, while the other half chose an unrelated name (2011:264-265).

Furthermore, there is literature regarding related virtual environments. Hagström (2008) has explored ways of and rationales behind World of Warcraft (WoW) players' creation of names. In WoW a chosen name cannot be changed, which is akin to Second Life. Hagström took a sample of 1366 names through observation and note taking of race, class, gender, and player's level. Hagström (2008:268) observed that neither character race nor experience level appeared to have had influence on players' imaginations: 'The names were as strange, odd, and funny for trolls as for humans'. The names seemed to have varied references and origins, such as mythologies, traditional and popular culture, references to fighting, having specific meanings in other languages than English, and what could be regarded in a Western sense as 'ordinary human names'. In a second step, Hagström collected narratives and information about players' name creating processes through postings on blogs, forums, in emails, and interviews. Findings here revealed further references drawing on players' private lives as names were based on nicknames, pets, or places of origin; others had translated their names to a different language or by making it sound 'sufficiently WoWish' (2008:269). Another phenomenon described by Hagström (2008:270) is the use of name generators, which allocate a user with a random name.

Similar to official restrictions to name giving in some countries (Israel 2010),⁹ in WoW players need to choose names, which comply with the official policies of Blizzard, the game's producer. Hagström (2008) reports that one player was forced to change his avatar's name to comply with Blizzard's policy, and as a result felt that he had lost part of his identity (CmdrTaco 2005). Additionally, it seems certain official state institutions influence name giving in virtual worlds. In China, where WoW is particularly popular, certain user names became restricted. For instance, the Chinese equivalent for 'Freedom' for a character could not be registered anymore (Siemons 2010). As Hagström (2008) demonstrates, beside

⁹ While it seems the UK has a very open name giving and changing system, for instance in Germany regulations by means of custom law are considerably stricter and cases have ended up in front of a judge with regard to the choice of first name due to gender- or ethnic-related conflicts. All newborn babies must be registered with a legal personal name consisting of at least one first name and a family name, the registry office will approve the chosen first name which should (not must by general law although often stated) indicate the gender of a child and must not oppose the child's well-being.

official rules, names undergo normative critique by other players, who draw conclusions about players' characteristics based on avatar names. For instance players who have character names that include swear words are marked as unserious and perceived as being young gamers, while players who use names that are too closely drawn from Tolkien's *Lord of the Rings* are perceived as 'stupid, tiresome', and uncreative, which relates back to the user being annoying. It is suggested that through a name a player demonstrates creativity and expresses personality (Hagström 2008:276). Thus, the research examined indicates that names in the virtual world might not be neutral, but an important part of social categorization. However, arguably, new players might not be aware of all norms and cultures in the gaming world, and might therefore give an impression entirely unmeant, which is interesting to encounter in terms of this study.

Bechar-Israeli (2006) investigates names in text-based Internet relay chats (IRCs), here specifically channels on Efnets from April 1994 until January 1995, where users had a name, commonly known as nicknames or nicks, but no graphical appearance. Bechar-Israeli introduces a typology of nicknames based on 260 nicks collected through interaction with other users. She discusses notions of maintaining and protecting nicks, as well as playing with nicks as forms of embodiment and role-play. Although nicks could be changed easily, Bechar-Israeli found that most users used a stable nick as they tended 'to become deeply attached to it' (2006:n.p.), and that the nick became part of their 'personality and reputation in the computer community' (2006:n.p.). Half of the users related their nick to some aspect of their self, which is interpreted as part of a 'natural' interest 'to try and bring their identity to the fore' (2006:n.p.). Nevertheless, although 7.8% of the users involved used their legal name, Bechar-Israeli declares participants' legal name are 'rarely' (2006:n.p.) used. She interprets using the physical world name as a form of showing attachment to this name, but also as a form of non-conformism towards the culture in IRCs indicated through playfulness and creativity, which could be expressed through the choice of nickname (Bechar-Israeli 2006:n.p.). However, she also concludes that fewer than expected users actually play linguistically when creating a nick and – similar to Hagström's examples – it seems

to depend on the individual what is perceived and categorized as 'playful' and 'creative' in the context of names in virtual environments.

Having explored the influences of the varied contexts such as different virtual worlds as well as different purposes on avatar names, appearance, and behaviours, attention is now turned to the Proteus effect.

The Proteus Effect

The Proteus Effect (Yee and J. Bailenson 2007; Yee, J. N. Bailenson, and Ducheneaut 2009) is named by the authors after the mythological Greek god Proteus who is 'notable for being the origin of the adjective "protean" – the ability to take on many different self-representations' (Yee and J. Bailenson 2007:271). The Proteus Effect, in Yee, Bailenson, and Ducheneaut's (2009:285) words, is a phenomenon in which users of virtual worlds 'infer expected behavior and attitudes from observing their avatar's appearance', and therefore conform their behaviour to expectations and stereotypes linked to the appearance of their avatars, even independently of how others might perceive them (Yee and J. Bailenson 2007).

The first two experimental studies (Yee and J. Bailenson 2007) explored how 'more or less attractive avatars' changed participants' behaviours, and how taller or smaller avatars influenced the confidence of the user. Based on findings exploring the theory of behavioural confirmation, that is when someone behaves particularly to confirm someone else's expectations (Snyder, Tanke, and Berscheid 1977), as well as findings on the interrelation of behaviour and attractiveness (Langlois *et al.* 2000), three hypotheses were proposed. The first hypothesis examined whether participants assigned with avatars with attractive faces, would walk closer to a confederate than participants with avatar with unattractive faces. The second hypothesis explored whether 'attractive' participants would disclose more personal information. The third hypothesis concerned the interrelation between

height and confidence, predicting that participants assigned with taller avatars would behave more confidently than participants with shorter avatars (Yee and J. Bailenson 2007:276).

Hypotheses one and two (Yee and J. Bailenson 2007:276–281) were tested in an experiment with 32 undergraduate students, while hypothesis three was tested in a different experiment (Yee and J. Bailenson 2007:282–285) with 50 undergraduate students. In both experiments participants wore head-mounted displays and were able to see their randomly assigned avatars akin to an image in a mirror. The participants were brought into a situation interacting with confederates. Analysis of the findings of both experiments provided support of the hypotheses and predictions. Combining the findings of the two experiments, the authors propose a confirmation of the predictions underlying the Proteus Effect, thus that the observation of appearance in virtual environments impacts on and shapes behaviour and attitudes, regardless of the behaviour of others.

After the initial two experiments, Yee, Bailenson, and Ducheneaut (2009) tested in two further studies whether the previous findings could be firstly, extended to actual virtual online settings, such as the game World of Warcraft (WoW), and secondly, transferred to a face-to-face setting. For the first study in WoW the authors (2009:296–300) hypothesized that users of respectively taller and more attractive avatar would outperform users of smaller and less attractive avatars, although neither height nor attractiveness have any functional benefit in WoW. As hypothesized, users with avatars regarded as tall and attractive were most likely to be on the highest level. However, the prediction that users with short attractive avatars would be on the lowest level was not underpinned by the findings from the samples. Therefore, it seems there is no straightforward interrelation and linearity between attractiveness and height, and performance in the game, so it follows that other attributes seem to have further impact. In the second study (2009:300–305), exploring whether virtual world visual appearance and behaviour would influence physical world face-to-face behaviour, 40 participants were assigned with taller or shorter conditioned avatars, again visualized on head-mounted devices. After interacting with a confederate, the devices and therefore the virtual setting were

removed, participants and confederates were seated facing each other and the experiment was continued face-to-face. Analysis of the findings from the virtual setting and the face-to-face setting show similar patterns in the negotiation task. However, there was not enough evidence to imply that effects triggered in the virtual environment did impact on the behaviour in the physical setting, or whether it was the context of repeating the interaction that triggered certain behaviour.

As much as the studies on the Proteus Effect show that virtual appearance and behaviour seemed to be linked, limitations to the studies leave many questions remaining. Most importantly, except for the WoW study, participants were assigned with particular avatars. Hence, no information is given to how participants would behave if they had been able to make a choice of appearance of their avatars themselves. No information is given about the physical person and how potentially physical world attributes influence the virtual reception. Further attention should be paid to the conditions of gender, age, or cultural differences. And finally, as WoW is a specific virtual world, and predominantly a game, the influences of the game's structure and content are unknown, as brought to attention by the 'creators of avatars' in Cooper, Dibbell, and Spaight (2007).

After investigating the Proteus effect, the final section concerns literature investigating how users develop a relationship with their avatars.

Relationship with one's avatar(s)

Warburton's (2008) blog 'Loving your avatar: identity, immersion and empathy' gives an insight as to how users might develop an 'relationship' with their avatar(s) in Second Life over what he calls 'time' and 'investment'. He develops a concept of the 'evolution of an avatar' and points out critical stages; additionally he proposes thresholds that need to be overcome before users would call their avatar an extension of themselves or, further, describe an avatar as having its own

identity. The concept summarizes Warburton's own experiences and the experiences of partly unidentified others collected from blog posts, entries in mailing lists, as well as interviews in-world and face-to-face at workshops. Warburton's (2008, n.p.) concept of stages and critical points is visualized in a graph in which 'time' is juxtaposed with 'investment' and three phrases are described. The three phrases of activities are 'Exploring, Professional, and Play' (2008:n.p.), which Warburton describes as partly antagonistic. 'Time' is defined as from the first moment of entering Second Life to masterful usage, and possible ruptures and schism when two phases of usage could happen at the same time. 'Investment' represents 'work' undertaken, but also development of empathy towards and with the 'virtual other'.

Two critical thresholds, as described by Warburton (2008:n.p.), are attached to the time line: The first is the 'technical and competency threshold', which encompasses two areas of possible issues: Firstly, technical problems caused by inadequate computer hardware or Internet bandwidth, and, secondly, mastering Second Life's requirements in terms of interface navigation. Here, negative comments from students indicate that using Second Life seems demanding. The second threshold is called the 'threshold of care' (2008:n.p.). Warburton describes this less as a clear moment but more as a process of developing a relationship with the avatar, in which the avatar gains importance and becomes 'an entity, even a personality, in its own right' (2008:n.p.) since its user is investing socially and culturally into being part of Second Life. On the one hand, both thresholds are understood as drop-out moments when no further investment into the use of Second Life happens. On the other hand, Warburton describes that overcoming both thresholds can lead to stages of 'schism' (2008:n.p.), where different contexts and cultural links in Second Life could lead to further usage of different and/or multiple avatars to manage Second Life for different purposes.

Unfortunately, Warburton (2008) gives only limited information about the participants involved in this study. It remains unclear whether all of his interviewees and workshop participants were students and tutors, and there are no or only very limited indications about the physical world background of

participants in terms of gender, age, or subject background regarding the incorporated blog entries. In these respects the blog entry must be seen as descriptive with limited information about the direct context of utilization of avatars. Nevertheless, as Warburton himself calls it 'a starting point' for further investigation, it offers a first structuring of identity development directly linked to Second Life, and brings to mind that developing a relationship with the avatar(s) could be a complex and difficult undertaking. This finding is supported by Veerapen's (2011) auto-ethnographical study of identity formation with and through the avatar, which indicates that understanding of and relationship with the avatar through engagement with the possibilities and over time changes and develops.

Bayne (2008) used ethnography to investigate learners' and teachers' perceptions of virtual worlds and identity in higher education. She presents findings related to feelings of strangeness and loneliness in virtual worlds, which are described as 'uncanny spaces'. Citations from a student's weblog posting: 'Avatars are nothing but corpses' (Bayne 2008:197) and further 'entering the virtual world is itself like one of dying' (2008:199) lead Bayne to suggest that some users perceive their avatars as attached with an artificially normed identity. Thus, Bayne describes experiences of intellectual uncertainty emerging from the 'blurring of the boundaries between fantasy and reality' (2008:199). By introducing the reader to the theory of the uncanny (based on Sigmund Freud's psychological essay 'The Uncanny') Bayne offers an explanation as to why these feelings might arise. She describes the fascination of virtual worlds but also the fear about ghosts and death, the questioning of how much life is contained in an animated being, and of remaining oneself when animated as a doppelganger in a virtual world. She suggests that some users anticipated this as a challenge, the more if cultural or religious beliefs are disturbed. Bayne highlights that, to some students, creating an avatar implies constructing a zombie of selfhood. However, Bayne proposes an opportunity for individual development in the confrontation of virtual and real identity while meeting others online, which in combination with new ontologies of teaching, could lead to a better understanding of selfhood. Therefore Bayne

(2008:198) argues, by referring to Barnett (2007:137), that virtual worlds could become spaces for ‘a positive “pedagogy of uncertainty”’.

This section about literature concerning the relationship between users and their avatars concludes the review of literature on notions of the avatar. It has been identified that avatars can take on varied appearances and names to express (parts of) identity, individuality, and personality. Avatar creation seems to happen in stages and the position towards one’s avatar can change and develop. The intended purpose for the utilization of avatars seems to influence the creation process. However, also the setting of the environment appears to condition how avatars are created. Additionally, it seems that the appearance of an avatar can inform behaviour in virtual environments. The following section will summarize the findings from the literature review and describe the indication for the study at hand.

2.4 Summary and indications for the study

Reviewing literature on concepts of identity revealed that identity is understood as a construction and an abstraction of a complexity that comes with categories, aspects, and impacting factors. It appears that identities can be different in diverse contexts and in relation to different people. The literature on identity expression in virtual worlds through avatars suggested that avatars’ names and corporeal appearances can be created differently to express users’ identity, individuality, and personality. Moreover, previous research indicates that neither names nor appearance are neutrally perceived by other users, since assumptions of users’ behaviour in-world or regarding the physical person ‘behind the avatar’ are drawn from the avatar.

While some studies conducted lengthy interviews and observations, other studies were based on surveys not always indicating the reasons behind decisions and behaviours. In addition, not all publications reviewed concerned application of virtual worlds in higher education and some research was based on experiments under laboratory conditions, which were dissimilar to conditions in higher education. What was needed was a study that looked specifically at students' understandings of and representations of identities in the virtual world across disciplines and contexts; this study undertook such a project. Thus, after analysing and critiquing the pivotal literature that informed and shaped this study in this chapter, the next chapter presents the methodology that framed the research project as a whole.

Chapter 3 Methodology

‘Men have forgotten this truth,’ said the fox. ‘But you must not forget it.
You become responsible, forever, for what you have tamed.’
(Antoine De Saint-Exupery, *The Little Prince*)

As outlined in the Introduction chapter, the aims of this study were to explore and inform learning and teaching with and in virtual worlds as a teaching tool and environment. The study has examined specifically how learners understand, construct, and express identity when virtual worlds are utilized in higher education and how the virtual world itself might impact on their concept of identity. After presenting the literature that informed this research, this chapter presents the methodological framework that has shaped the research process. This includes the theoretical framework and ethical considerations underpinning the study, the organisation and practical application of data collection, and the steps regarding the analysis and presentation of findings.

The presentation in this chapter does not follow entirely the chronological activities conducted in organising the research. After collecting the first set of data, the initial underpinning methodology, participatory action research (PAR), was changed to a narrative research approach. PAR was initially perceived as an overarching methodology for the entire CURLIEW project, of which this study was part, as described in the Introduction chapter (p. 7). However, due to ethical and practical challenges, the methodology needed reconsideration. The narrative research methodology dominated the remaining data collection, the subsequent data analysis, and the presentation of findings in this thesis. Nevertheless, underlying premises of PAR, which coincided with the researcher stance, have shaped the data collection and the engagement of students within this research.

This chapter is divided into eight sections. While section 3.1 explores the methodological framework underpinning the study, section 3.2 presents reflections on the researcher stance. Section 3.3 introduces the context of the study regarding the collected data, research sites, and participants. Section 3.4 reflects on the ethical considerations that shaped the research process. While section 3.5 presents the methods of data collection, 3.6 outlines the context of the data analysis, and section 3.7 considers further steps of the data analysis and the shifts to interpretation. Finally, section 3.8 provides a summary.

3.1 Methodological framework: narrative research

This section reflects on the narrative research methodology that has informed and shaped the study regarding data collection, analysis, and the subsequent presentation of findings in this thesis. Following Kesby (2000), the term methodology describes the theory and conceptualization of carrying out a research project while the term method describes the ‘practical’ tools and techniques used to collect and analyze data.

Narrative research is, as the name suggests, associated with the collection and interpretation of narratives or stories: narratives are, first and foremost, presentations of events and experiences of individuals or groups that can take on diverse forms of oral, written, or visual representations and materials (Riessman 2008). As Barthes proposes (1975:237 [1966]):

[N]arrative is present in myth, legend, fables, tales, [...] pantomime, paintings [...] stained-glass windows, movies, local news, conversation. Moreover, in this infinite variety of forms, it is present at all times, in all places, in all societies [...]. Like life itself, it is there, international, transhistorical, transcultural.

Narrative research approaches have gained an increasing interest and profile within qualitative research in the social sciences and humanities since the 1980s (Casey 1995; Squire, Andrews, and Tamboukou 2008). This is discussed as the 'Narrative Turn' (Riessman 2008:14; Cronon 1992), challenging positivist empiricism in research and gaining momentum towards holistic humanist approaches (Polkinghorne 1988). Narrative research or inquiry, in the same way as many qualitative methodologies, has different varieties and stretches over various disciplines: chiefly, it is used as an umbrella term for partially conflicting concepts (Squire *et al.* 2008; Mishler 1995:87), although key aspects and aims can be found in most definitions (Casey 1995; Squire *et al.* 2008). Several academic disciplines and professions adopt a narrative research approach and have contributed elements to the general framework (Casey 1995; Riessman 1993). According to Squire *et al.* (2008:1) the methodology is structured to be 'able to see different and sometimes contradictory layers of meaning, to bring them into useful dialogue with each other, and to understand more about individual and social change'.

In the humanities and social sciences, the overarching aim of narrative research is to explore, understand, and illustrate how individuals or groups make sense of aspects of their lives through selective stories (Riessman 2008; Squire *et al.* 2008; Clandinin and Connelly 2000; Casey 1995; Cousin 2009:93–108). It is this key aspect of the narrative research framework that links the methodology to identity, and thus, to this study and the exploration of notions of identity in higher education. On the one hand, narrative research in the social sciences is often concerned with (auto-)biographical research (Krüger 2003; Bertaux and Kohli 1984). On the other hand, narrative research approaches are based on the belief that humans are 'storied selves' (Rosenwald and Ochberg 1992; Eakin 1999; Bruner 1990; Sarbin 1986; McAdams 1997) and that people without narratives do not exist (Polkinghorne 1988). Moreover, as Holstein and Gubrium (1999) argue, narratives are important to form identity. Similarly, Clandinin and Connelly (2000:xxvi) propose that '[p]eople live stories, and in the telling of these stories, reaffirm them, modify them, and create new ones. Stories lived and told educate the self and others, including the young and those such as researchers who are

new to their communities'. Therefore, narratives are often produced and evaluated by the teller or narrator with a particular listener or audience in mind (Riessman 2008:3). Researchers can approach narratives to understand how individuals reconstruct and renegotiate identity (Freeman 2006) or even manage identity (Kraus 2006), in relation to others or society.

In this study, narratives were collected as data in the form of interviews and observational notes. Participants' narratives formed the centre of attention regarding the analysis, and became an integral part of the presentation of findings. Nevertheless, it is contested and discussed, even within the field of narrative research itself, what should be comprehended as narrative data, how a research process should be undertaken, and what the research should aim for (Squire *et al.* 2008). One debate concerns the definition of what counts as narrative data and whether a narrative as data in social research must have the classic literature form of 'beginning, middle, and end' (Riessman 2008:3-7). Following Riessman's (2008:23) wider view that '[n]arratives come in many forms and sizes' and P. Salmon's (P. Salmon and Riessman 2008:78) demand for contingency within narratives: 'Whatever the content, stories demand the consequential linking of events or ideas', this study considered any account by participants that expressed some kind of plot and development, whether they were more descriptive or more storied, as narrative data.

Another ongoing debate in this context is whether narrative research should concentrate on collecting and analyzing 'big' or 'small' stories (Squire *et al.* 2008:7-12). This depends on whether the attention is directed at linguistic phenomena in everyday conversations in 'small' stories (Bamberg 2006), or instead approaches the research with a view to gaining a rich insight into participants' experiences in 'big' stories (Freeman 2006). As this study concentrated on several narratives' thematic content, situated around a particular experience and time in the lives of the participants, the research is understood to be positioned within the 'big story' realm, while at the same time individual details regarding use of language and structure of narratives were not ignored.

Regarding the aims of this research, a main aspect of this study was to place the participant and their narratives at the centre. Participants were positioned as 'experts' of learner identity and my role was that of a learning, 'naïve' researcher, as described in an 'objective hermeneutic' stance (Garz 2003). Hence, the research was organized in order to give participants space and time to express their positions and experiences, and to critically engage with their identities. However, this was easier said than done, as is discussed throughout this chapter. Nevertheless, the narrative research methodology gave the opportunity to concentrate on students' individual personalities and 'voices'. With this I mean that the students and their individual stories took centre stage within this study. As Riessman (2008) argues, in contrast to other forms of qualitative research, research underpinned by a narrative methodology seeks to generate findings from the individual narrative vignette or case rather than by concentrating on varied aspects or themes over many cases. Therefore, the findings in this form of research were situated and highly contextualized around participants' accounts.

Considering epistemological critique (Phillips 1994) that narrative research has not enough 'value', as it lacks evidence and truth, it may be difficult to find the right balance of analysis and presentation of narrative data. However, narrative research is not ignorant to notions of questioning the validity of findings generated in this form of research. Moreover, it can be an integral part of the analysis process to acknowledge that different readers will possibly interpret the same account in different ways: 'Readers are inherently part of the interpretive process, bringing their positioned identities and cultural filters to interpretation' (Riessman 2008: 111); even the same reader will possibly read the same account differently as readers change over time, which enables one to see new aspects (Andrews *et al.* 2007:98; Iser 1993:10). It is therefore part of narrative research to acknowledge and argue that there is not 'all truth' or total objectivity in findings, but to seek trustworthiness and plausibility (Webster 2007) in the presentation of findings.

Another way of answering critique to narrative research is to examine another critical comment by Atkinson and Delamont (2006) on narrative research frameworks, which points out that some narrative investigation has paid too much

attention to the individual account of a narrative, while systematic conclusions about social action or systems are disregarded. Incorporating meta-analysis of patterns and analysing singularities of given data could bring 'evidence' to life. Therefore, drawing from detailed analysis of individual students' narratives, in order to present topics and emerging themes embedded in the wider context and vice versa, was one way of engaging with the 'limitations' of narrative research, aiming to explore and show how students make sense of their virtual and physical world identity and presenting links between them.

This section has reflected on the main methodology that has informed and guided the study. A narrative research approach, with a wider definition of narrative data and centring on exploring and presenting participants' themes and views, was perceived as most useful to inform the research. How this methodological framework has guided the organisation and design of the study is explored in further detail in the following sections. However, acknowledging that the research process was influenced by my 'voice' and identity as a researcher and educator, the next section presents my researcher stance.

3.2 Researcher stance

While the previous section introduced the narrative research framework that has shaped this study, this section reflects on my own stances, norms, and assumptions that have further influenced this study as part of researcher reflexivity. The section explores how the change of methodology coincided with a change of perspective on this research, while retaining my values regarding education. As Denzin (2001) argues, researchers do not stand objectively outside their research; the moment any engagement and interpretation takes place, their stances, assumptions, beliefs, experiences, and life conditions and context have impact on the research process.

This, for instance, will influence how participants are approached, the way data are collected, the analysis process, and also how findings are presented. If I wanted to describe my 'research style' (Flick, Kardoff, and Steinke 2004) or place myself within a research paradigm (Guba and Lincoln 2005), integrating my values and experiences in 'active' education as well as my experiences in research as gained in this study, I would position myself within a social constructionism paradigm, influenced by critical thinking (and action) as now explored.

As indicated in the Introduction chapter (p. 6), I have worked in educational contexts in the past and this has influenced how I approached this study. My stance on education, as expressed in practical teaching in the past and now in research in the present, has been influenced by what Adorno (1971:88) has proposed in a radio lecture with regard to 'Education after Auschwitz' in 1966:

The demand that Auschwitz will not be/happen again, has to be the first regarding education. [...] Any debate about the aims of education is invalid and irrelevant against this demand that Auschwitz will not recur. [translation by the author]¹⁰

My stance is that the aim and purpose of higher education should be to take a person to maturity. Here I draw on Adorno's discussions concerning '*Erziehung zur Mündigkeit*', to use the German term [Education towards/for maturity, translation by the author] (Adorno 1971). *Mündigkeit* can be translated as maturity or being of age.¹¹ For instance *Mündigkeit* in German legal terms means to be legally able to vote, to drive a car, which is the case when reaching 18 years of age. However, in educational and philosophical terms its meaning is less clearly defined. I follow Adorno's (2003a:785) definition of *Mündigkeit*: 'Mature/of age is one who speaks

¹⁰ Die Forderung, daß Auschwitz nicht noch einmal sei, ist die allererste an Erziehung. [...] Jede Debatte über Erziehungsideale ist nichtig und gleichgültig diesem einen gegenüber, daß Auschwitz sich nicht wiederhole.

¹¹ Further possible translations: majority or '(mature) autonomy' as for instance in translations of Habermas (1989 [1962]; Alford 1987) Majority indicates the link to Kant's goal of enlightenment to lead to majority, which is integral in Adorno's discussion. The translation to autonomy indicates its intricacy, as autonomy is another term that is aligned with many concepts and connotations in English as in German. A student, for instance, can be 'mündig' and autonomous in views on issues in one's subject, although could still be financially depending/non-autonomous on his/her parents.

for himself, because he has thought for himself and does not merely repeat someone else' [translation by the author].¹²

Additionally, concerning both education and research – and here possibly not only research on education – I follow Adorno's stance that oppression and humiliation of individuals or a group of individuals should not have any space and place. Every individual's dignity must be preserved. Therefore, as an educator as well as a researcher I must not take advantage of the individuals with whom I am involved. I took a stance that throughout my participant engagement I must be prepared to reflect on power relationships and the conditions experienced by the participants and I. However, my experiences in active teaching in formalized contexts, namely in schools and universities, had taught me that high values of criticality and inclusion are sometimes difficult to achieve, as various, partly conflicting interests influence, complicate, or even preclude a transformation of conditions. Focus on assessments, inflexibility regarding teaching content, and financial considerations seem to overwrite educational objectives with regard to developing critical personalities, so that integration of critical thinking in everyday education can become a challenge.

Therefore, before starting the practical part of the research, I never expected that employing any methodology would be straightforward or 'easy'. Nevertheless, many aspects of a PAR methodology seemed valuable to this project. As Kidd and Kral (2005:187) claim, PAR 'promotes personal growth', which seemed complementary to my approach to education and was explored as a research methodology in theory and practice at the beginning of the research process. As the name suggests, PAR belongs to the family of methodologies commonly termed Action Research, alongside varieties such as participatory research, collaborative action research, or evaluation research (Cohen, Manion, and Morrison 2007:297–313; Robson 2002:201–221; Kemmis and McTaggart 2005). Essential to these methodologies is the aim to bridge 'the divide between research and practice' (Somekh 1995:540), in order to overcome what has been reflected as a critical

¹² Mündig ist der, der für sich selbst spricht, weil er für sich selbst gedacht hat und nicht bloß nachredet.

limitation of former approaches to research, namely to have an impact on or improvement of actual practice (Rapoport 1970).

In short, a researcher conducting PAR aims to gain knowledge to change and improve certain situations and the participants' lives (Kemmis and McTaggart 2005; Fals-Borda 1991). To achieve this target, the methodology seeks to involve participants at all stages of research. Participants are to become 'subjects and coresearchers' themselves (Argyris and Schön 1989:613) or, as Reason and Bradbury (2001) title, it is research conducted 'with people rather than on people'. PAR has recent roots in organizational research (Whyte 1989) and in empowering and emancipatory social work with rural communities in the 1970s (Fals-Borda 1991; Park 1999; B. Hall 1993; Freire 1970). I follow Kroeker's argument (1996) that participants are most likely to be committed to the research if they can be active parts of the development of action or change collectively. Or, as Kidd and Kral (2005:187) put it 'colloquially', PAR should 'get the people affected by a problem together, figure out what is going on as a group, and then do something about it'. However, this is 'easier said than done' (Simonson and Bushaw 1993), as became apparent during my own experiences in the field.

As a (former) practitioner and teacher, I was aware that most forms of research do not primarily aim for direct improvement to practice. Aiming for such an outcome in my own research, however, seemed appropriate and fitting. Furthermore, aiming to place the participants at the core of the research, and promoting them as active subjects, reflecting with them rather than on them, was appealing, as I argued that those who make the experiences are experts of their experiences, but do not always gain the opportunity to express their thoughts and reflections on these experiences. Nevertheless, I was concerned about the aim of practically achieving change for a group or community, which is a fundamental principle of the PAR framework. Therefore, this research should be seen as being based on the ethical and philosophical considerations integrated in critical theory and PAR approaches, in particular in the positioning of and engagement with participants.

With the change to the narrative research methodology, my research focus and interest regarding data collection and analysis shifted: from directly initiating change towards exploring and analysing how students understand, construct, and express identity when virtual worlds are utilized in everyday education, with the aim to inform future educational contexts. My newly developed research interest coincided with the research paradigm of constructionism, and more specifically social constructionism. Social constructionism in the tradition of Berger and Luckmann (1990 [1966]) and further defined by Gergen (1985, 1999) examines how individuals understand and make sense of their everyday life through interacting with others. It explores the social and cultural processes in which knowledge and perceptions are continuously and mutually constructed. In my view this also relates directly to researching notions of identity, as Crotty (2003:58) proposes that ‘social constructionism emphasises the hold our culture has on us: it shapes the way in which we see things and gives us a quite definite view of the world’. This perspective on research corresponded to a narrative research methodology as this can provide a framework that takes the social context of the research not only into account, moreover, it is taken as paramount:

Stories don’t fall from the sky (or emerge from the innermost “self”); they are composed and received in contexts – interactional, historical, institutional, and discursive – to name a few. Stories are social artifacts, telling us as much as about society and culture as they do about a person or group (Riessman 2008:105).

This reflection on my personal stance towards education and research concludes the exploration of the theoretical framework that informed and shaped the study. While the research was initially influenced by a Participatory Action Research methodology that coincided with critical thinking, the underpinning methodology was changed to a narrative research approach and a social constructionist perspective was developed. How this methodological framework has further influenced and shaped the organisation and design of the study is explored in further detail in the next sections, beginning with a section about the research sites and participants.

3.3 Context of the data collection: research sites and participants

This section gives an overview of the data collection, introduces the two research sites and the contexts in which the data collection has taken place, and introduces the main participants in this study. This is perceived to give context to the more detailed reflections regarding engagement of participants, ethical considerations and consent, as well as data collection, analysis, and presentation of findings in the following sections.

Overview of the data collection

The data collection was conducted between October 2009 and December 2010. 75 students and three tutors contributed to the study and a substantial volume of data was collected. The main body of data comprises of:

- 37 students interviewed in 27 interviews accumulating to 21 hours and 30 minutes of oral material (transcribed verbatim)
- 2 focus groups with 14 participants, 60 minutes oral material (transcribed)
- 1 student interviewed in Second Life (4 hours) using text communication
- 4 recorded interviews with tutors (ca. 3.5 hours, not transcribed)
- 100 hours observation of five entire modules producing observation notes
- additional field data from unrecorded conversations

These data were collected in three phases at two universities: The first and third phase data were conducted at Churchtown University, where Second Life was utilized as a classroom technology as part of an undergraduate level module on Employability. The second phase was conducted at Seaview University, where Second Life was utilized in the context of a vocational Masters course on Environmental Health.

Table 3.1 Data collection phases

Phase	1	2	3
Date	Oct. – Dec. 2009	March – May 2010	Oct. – Dec. 2010
University	Churchtown	Seaview	Churchtown
Interviews	14 with 22 students; 2 with 1 tutor	6 with 6 students; 1 with 1 tutor	7 with 9 students; 1 with 1 tutor
Focus Groups		2 with 13 students	
Observations	60 hours/3 modules; 39 students		40 hours/2 modules; 30 students

A further detailed overview can be found in the Appendices (p. 298).

How access was gained to these research sites, how the virtual world of Second Life was integrated in the two respective contexts, and an overview of participants on whose interviews and conversations this study is based, are presented in the following parts.

Access to research sites

Allocation of research sites to the three PhD studies in the overall CURLIEW project was centrally managed by the Research Fellow attached to the project at the time. She also managed original contacts with the module developers and tutors at those sites. Communication with and allocation of research sites through the Research Fellow allowed a more senior and experienced researcher to approach potential research sites, to centralise contact and talk ‘with one voice’. Furthermore she was responsible for the distribution of data collection opportunities to enable those involved in the project to collect sufficient data. The Research Fellow lead on discussions regarding engagement and collaboration with the host university, for instance opportunities for data collection and how the host university could benefit from the research; and also ownership of intellectual

property rights to the data and findings, which led into signing 'Letters of engagement'. Once issues of engagement and collaboration were discussed, in which I was involved, the further design and arrangements with staff and how to engage students at the two respective research sites were my responsibility, which was in some instances easier said than done.

The original concept was that each PhD study would be allocated to three different university sites. However, as finding sufficient research sites for the whole project developed as a challenge, new arrangements were made. At many universities, the implementation of virtual worlds was still in development and would in some cases not allow for data collection. Unsurprisingly, not every academic involved in teaching with or in Second Life was interested in collaborating with this project and would provide access to their students. In other cases university policies prohibited access to students for external researchers, although local staff members indicated interest in collaboration. Nevertheless, two universities which integrated Second Life in their modules became 'my' two research sites and are now presented in further detail.

Second Life in modules as part of the Employability scheme at Churchtown University

The first and third phase of data collection, which comprised of interviews and module observations, was conducted at Churchtown University, a post-1992 university in England that focuses on teaching and training courses. While this part gives a short summary of the research context, a more lengthy description can be found in the Appendices (p. 299). At Churchtown University, Second Life was utilized in the form of two modules on learning about utilizing Second Life: A Beginner Level module was available to second-year undergraduate students and an Experienced Level to third-year undergraduates. In total five modules on Second Life were observed and interviews with students in these modules were carried out over two years. The modules on Second Life were part of a university-

wide mandatory Employability scheme aiming to enhance the employability of students, by developing work-related skills and competencies as well as personal qualities and attributes.

In the module guide, Second Life was introduced as 'essentially a game, albeit one with no specific goals'. However, the objective stated that learning in the virtual world was intended to enable students to take 'understanding and learning back into the real world'. In the sessions, Second Life was utilized in two ways, firstly in its own right exploring the environment of Second Life as well as its functions and tools, and secondly, applying the new knowledge and skills by developing a project in Second Life with fellow students in the Beginner Level modules, or collaboration partners from outside the module in the Experienced Level modules. The modules were run in computer laboratories on the university campus. While three observed modules were in the early evening, when Second Life was quite 'busy', two Beginner Level modules were in the morning in the UK, when there were fewer opportunities to interact with other users of Second Life. For the assessment, outcomes of the project work and reflections on the team work were presented in the last session.

Both levels of modules focussed on building and scripting in Second Life, rather than on the social components such as interaction with Second Life residents or participation in group networks outside the module. While the first three sessions introduced Second Life's functions and facilities in the Beginner Level modules – or re-introduced them in the Experienced Level modules respectively, the remaining sessions were reserved to work on self-chosen projects with support by the respective tutors. Although students could have worked theoretically on projects not based on 'building and scripting' in Second Life (building in this instance includes using meshes to create clothing etc. (Rymaszewski *et al.* 2008)), in practice only one team worked on a project that evolved around an exploration of different sub-cultures and groups in Second Life. Building work was carried out on small individual islands with a 'sandbox'¹³ function. Although these islands were

¹³ Sandbox areas in Second Life enable every user to build in Second Life, as a user usually needs to own or rent land in order to change or build in the environment.

situated 'high in the sky' and potentially 'out of view' for visitors of the main university island, the access to the area was unrestricted.

The Risk Assessment module as part of an Environmental Health course at Seaview University

The second research site was at Seaview University, which is also a post-1992 university in England with a focus on teaching. Second Life was embedded in a module on risk assessment and safety management as part of an Environmental Health Masters course (MSc). The description is based on conversations with the module developer who also facilitated the module and the data collected; again a more lengthy description can be found in the Appendices (p. 302). Data were collected through interviews with students and two focus groups including the tutor/developer of the module and an MSc research student on the project. In contrast to data collection at Churchtown University, where data collection followed the time of utilizing Second Life, here data were collected after the learning activities with and in Second Life had concluded.

At the heart of the module, based on a situated and experiential learning approach, were case simulation and role-play activities, which introduced and applied the work of an Environmental Health Officer with regard to investigating a breach of safety regulations, after an accident had happened in a warehouse. In practice, this included examination of the scene and interviews with witnesses. These activities were transferred into Second Life with the concept that the simulation in Second Life would provide a safe opportunity for students to actively experience the investigation of an accident, as closely as possible to a 'real life' accident situation. The simulation in Second Life comprised a pre-built scenario in which an accident would happen. The accident was observed by colleagues of the tutor, who role-played warehouse workers through and with their avatars. Being in Second Life at the time of the 'accident', the colleagues became 'witnesses' to the accident.

For the students the learning activities incorporated asynchronous and synchronous elements, which included examination of the accident warehouse scene in Second Life, and carrying out role-play interviews in Second Life with one worker-witness and one with the so-called manager of the warehouse, who was role-played by the tutor. However, students were not informed who would role-play the witnesses or the manager, although many students guessed that at least one role was embodied by the module tutor. The interviews were conducted utilizing the chat functions, which also provided the student immediately with a transcript of the dialogue. Students were aware that the tutor would retain a copy of the transcripts, in order to provide students with feedback on the interview process. After presenting the research contexts, the next part introduces the main participants.

Overview of the participants

Table 3.2 introduces the participants in the interviews and observations that formed the centre of this study. The table indicates the participant's pseudonym in combination with biographical characteristics, namely sex, age, and national/geographical background. It also provides information about the module in which the virtual world was utilized. Additionally, it indicates, firstly, regarding students in the Employability modules at Churchtown University the main programme of study, and, secondly, regarding students in the Environmental Health course at Seaview University the first degree course or professional background. Also the year of studies, in which the interview took place, is indicated. Finally, the interview number indicates in which phase of data collection the interview was conducted. Interviews with students number C1-C23 were conducted at Churchtown University in phase one, S1-S6 were conducted at Seaview University in the second phase, and C 24-C33 took part in phase three. The descriptions are based on participants' accounts at the time of interview or conversation.

Table 3.2 Overview of participants in interviews and observations

Interviewee Pseudonym	Sex	Age	Module/University main studies or background	Background Description	Study Year*	Interviewee No.
Andrea	female	28	Environmental Health/Seaview, 1st degree: Sociology	English	1M	S1
Astrid	female	19	Employability/Churchtown, main course: Media Production	English	2U	C20
Berend	male	20	Employability/Churchtown, main course: Logistics	English	3U	C6
Bettina	female	19	Employability/Churchtown, main course: Media Production	English	2U	C19
Ela	female	20	Employability/Churchtown, main course: Multi-Media/Graphic Design	English	2U	C10
Falk	male	20	Employability/Churchtown, main course: Geography	English	3U	C5
Frank	male	20	Employability/Churchtown, main course: Sports Therapy	English	2U	C16
Gerrit	male	19	Employability/Churchtown, main course: Media Production	English	2U	C13
Henrike	female	27	Environmental Health/Seaview, 1st degree: Geography	English	1M	S2
Holger	male	44	Environmental Health/Seaview, background: Construction Industry	Welsh	1M	S4
Julius	male	20	Employability/Churchtown, main course: Civil Engineering	English/Indian	2U	C23
Karsten	male	20	Employability/Churchtown, main course: Sociology and Criminology	English	2U	C29
Katja	female	20	Employability/Churchtown, main course: Business and Finance	Chinese	3U	C9
Katrin	female	21	Employability/Churchtown, main course: Physiotherapy	English	3U	C28
Kordula	female	24	Employability/Churchtown, main course: Product Design	English	2U	C27
Kurt	male	20	Employability/Churchtown, main course: Forensic Investigation	English	2U	C15
Lars	male	19	Employability/Churchtown, main course: Law	English	2U	C18
Lena	female	19	Employability/Churchtown, main course: Criminology	English	2U	C26
Leonie	female	26	Environmental Health/Seaview, 1st degree: Human Biosciences	Welsh	1M	S5
Lerke	female	24	Employability/Churchtown, main course: Forensic Investigation	Welsh	3U	C33

Lorenz	male	21	Employability/Churchtown, main course: Theatre/Drama	English	2U	C22
Mareike	female	19	Employability/Churchtown, main course: Business administration	Romanian	2U	C11
Max	male	24	Employability/Churchtown, main course: Mathematical Sciences	Bangladesh	3U	C1
Moritz	male	19	Employability/Churchtown, main course: Architectural design	English	2U	C32
Nele	female	22	Employability/Churchtown, main course: Accounting Finance	Chinese	3U	C8
Oliver	male	21	Employability/Churchtown, main course: Computer Science	English	3U	C2
Pascal	male	20	Employability/Churchtown, main course: Logistics	English	2U	C31
Patrick	male	20	Employability/Churchtown, main course: Sports Therapy	English	2U	C17
Rasmus	male	20	Employability/Churchtown, main course: Theatre/Dance	English	3U	C25
Silas	male	22	Employability/Churchtown, main course: Media Production	English	3U	C4
Silke	female	19	Employability/Churchtown, main course: Media Production	English	2U	C21
Stephan	male	26	Environmental Health/Seaview, 1st Degree: Biochemistry	Welsh	1M	S3
Sven	male	21	Employability/Churchtown, main course: Management Engineering	English	3U	C3
Thorsten	male	20	Employability/Churchtown, main course: Media Production	English	2U	C12
Timo	male	19	Employability/Churchtown, main course: Economics	English	2U	C30
Tobias	male	21	Employability/Churchtown, main course: Engineering	Welsh	3U	C7
Students in observations:						
Dorothee	female	<25	Employability/Churchtown, main course: Sociology		2U	
Saskia	female	25	Employability/Churchtown, main course: Media Production		2U	
<p>*Legend: 2U = Undergraduate, 2nd year, (Beginner Level module) 3U = Undergraduate, 3rd year (Experienced Level module) 1M = Masters course, 1st year</p>						

This section presented an overview of the data collection regarding data collected, the context of research sites, and the main participants involved in this research. The next section presents the ethical considerations underpinning the study.

3.4 Ethics

This section outlines the ethical considerations underpinning the research design and organisation of this study. It draws particular attention to the positioning of the research topic, engagement of participants, and data management issues. Official ethical clearance to conduct the study was gained from Coventry University's Ethics Committee on 17th July 2009 (see Appendices, p. 305).

Positioning of research

The main ethical considerations focused on the well-being of participants, the wider field of education, and myself. In analogy to the researcher stance (p. 58), the research design and organisation of this study was built upon the understanding that education – including any research on education – should seek development, prevent harm, and is in accordance with the principles of the Nuremberg Code (Shuster 1997). As a consequence, every care was taken to avoid harming and deceiving participants, or other parties involved including myself, at all stages of the research.

Research on learner identity was approached in this study as a sensitive issue (R. M. Lee and Renzetti 1990; McCosker, Barnard, and Gerber 2001), which became constitutive for the subsequent research process. I understood 'sensitive' concerning topic and participants here both in emotional terms, and also with

regard to the role of participants as students in modules. Drawing on my experience in education and in particular my engagement within a counselling project, I understood that reflecting and sharing about oneself can be enjoyable. However, it can also bring conflicts and traumas experienced by individuals to the fore. As Lee and Renzetti (1990) observed, sensitive research topics can be experienced as a threat by participants. Thus, according to Lee and Renzetti, every research topic has the potential be experienced as frightening. Nevertheless, some topics tend to be more sensitive from the outset than others. Following R. M. Lee and Renzetti (1990:512):

These include (a) where research intrudes into the private sphere or delves into some deeply personal experience; (b) where the study is concerned with deviance and social control; (c) where it impinges on the vested interests of powerful persons or the exercise of coercion or domination; and (d) where it deals with things sacred to those being studied that they do not wish profaned.

While Lee and Renzetti emphasize that the potential threat arises out of personal experiences, Hydén (2008) highlights that threat perceptions arise out of the relational circumstances of participants. I was aware from the outset of the risks that a study on learner identity can involve as the research focus was likely to bring in the private sphere of participants with regard to social and cultural relations and experiences, including individually 'sacred things'. I was also aware that institutionalized higher education modules, including those observed in this study, are a potential source of social control through peers and staff, which may render participants more vulnerable and/or sensitive.

Overall, I ensured to pay due respect to emotional issues of identity and potential vulnerability of participants (McDowell 1996). I acknowledged that engaging in research on learner identity requires an investment by participants in revealing emotional aspects of their identity, which can be an interesting and enjoyable journey for the participant. However, when bad memories come to the fore or when participants become aware of problematic life conditions or personal conflicts, feelings of entrapment can emerge, and participants can experience distress or confusion. Involving participants in the research needed a balance of

engaging students in in-depth reflections on the research topic on the one hand, but also enabling students to feel safe, comfortable, and confident on the other hand. It also required me to undertake responsible handling of distressing situations, which did occur during interviews. Here, a placement in a mediation project as well as my past engagement in training counsellors had provided me with useful tools that I knew I could utilize during such situations. For instance, it was important to me to concentrate initially on topics and issues 'offered' by students and only to probe or take issues further when students seemed prepared to reflect and share further information. Additionally, I ensured that I was able to refer students who needed further help to, for instance, the respective University Counselling Services at any time.

With these initial ethical considerations in mind, how students were approached at the two respective research sites, informed about the study, asked to participate, and to give informed consent, is presented in the next part.

Access to participants and informed consent

From the outset and at any time in the process the engagement with the research was supposed to be voluntary and due to competent and informed consent, which I perceived as a contract with the students. After the module developers and tutors had given consent to collaboration and offered access to students as presented previously (p. 64), it became critical to engage students at the two respective research sites. The context at Churchtown University presented the opportunity to engage students in varied ways. As the modules utilizing Second Life were about to begin, the tutor offered to introduce me at the beginning of the seminar series and to allow me to ask students for consent to observe them and the module for this study. Out of the observation and through classroom conversations, opportunities arose to ask students to participate in additional interviews. At Seaview University the direct utilization of Second Life had already finished in the module before I became involved. Here, it was perceived as useful to organize focus groups

regarding reflective writing on the experiences in the module, with a view to engage students in sharing and exchanging on their individual experiences. I conducted these focus groups to make the findings available for the future of using virtual worlds in higher education at this site and in general. Through conducting the focus groups, I was able to invite students to take further part in individual interviews. At any time, students were informed that the participation in any of these data collection contexts was voluntary and that they could discontinue participation.

At the beginning of each data collection process, students were informed about the objectives and content of the research study through a written consent form (see Appendices, p. 306), which also included information about my identity, as well as information of how to withdraw from this study. The written information was accompanied by an oral explanation of the study and a short self-introduction of myself as the researcher. This was followed by an opportunity to ask questions regarding any issues of the research or myself. I emphasized to participants that I was aiming and asking for their knowledge and experiences, and that they could not 'say or do anything wrong' in terms of the study, but that hopefully through shared reflection we could aim and inform both their own development, as well as future education, with or in virtual worlds. Students were then asked to sign the consent form. This process was carried out before the start of the observations at Churchtown University, the focus groups at Seaview University, and every interview with a new participant – therefore some students have consented twice to be part of the research, and eight students have given consent three times.

However, observing physical classroom actions at Churchtown University presented challenges to the premise of voluntary and consented participation. It is discussed (Nolen and Putten 2007) that students might feel unable to reject observation and participation by a researcher, as they might consider that participation is 'officially' expected by the tutor or the university, while declining participation would have negative effects for them in terms of assessment and certification of the module. The same could be assumed regarding the participation in the focus groups as organised at Seaview University. This links to the threats

due to the context of the research as discussed in the previous part. It was therefore pivotal as part of the information process to assure students that data and findings would be anonymized to prevent disclosure of individual information.

How students were engaged in the varied forms of data collection and in the subsequent analysis, including valuing each participant equally but also reflecting on the challenges of involving students more actively in the research process, is further discussed below in this chapter. This section will now turn to specific ethical considerations regarding research in virtual worlds.

Ethical considerations unique to research in virtual worlds

Although the main data collection largely took place within the physical world, where I met participants physically and was able to inform about and discuss the research, some data were collected exclusively in the virtual world. The module observation included note-taking regarding students' avatars and activities in Second Life. Additionally, one interview as requested by the participant was conducted in Second Life via a 'private'/instant message conversation (although an organising conversation and obtaining informed consent took place in a face-to-face, physical context). The possibility of engaging more with participants in-world, for instance regarding distance teaching, led to considering specific ethical recommendations concerning research in virtual environments (Ess and AoIR ethics working committee 2002; Grimes, Fleischman, and Jaeger 2009; Brownlow and O'Dell 2002; McKee and Porter 2009; Boellstorff 2008). Ethical considerations with regard to this study are now discussed.

As Grimes, Fleischman, and Jaeger (2009) propose, although direct physical harm may be non-existing (which can be debated in itself) during research in virtual environments, emotional or financial harm can have negative effects on participants. With regard to this study I anticipated emotional risks, for instance

that talking about expressions of identity in virtual worlds could evoke remembering negative experiences and discomfoting situations. Additionally, I considered participants' avatars as 'real' indicators for the physical person behind the avatar (Boellstorff 2008:129; McKee and Porter 2009) and as potentially precious or 'sacred' following Lee and Renzetti (1990:512). Research in virtual environments or on the Internet should follow general ethical considerations regarding engaging participants and confidentiality, as discussed in a physical world context (Ess and AoIR ethics working committee 2002; Brownlow and O'Dell 2002). I would not consider research in virtual worlds and engaging their users different to any other research, and would therefore apply the same ethical norms as I would in the physical world. The virtual world is arguably as real as the physical world; interaction happens with human beings, and different people have diverse identities and varied ways of engaging with life and research.

Regarding transparency and making myself public as a researcher in the virtual world (McKee and Porter 2009; Boellstorff 2008): as I was not researching the virtual world in its own right, but students' interaction with or in Second Life, I kept my own identification in-world within boundaries. Avatars/users of Second Life, who would come to the open and publically accessible university island, but who were not part of the module, were ignored regarding the research. However, my avatar, in the label on 'first life', indicated a researcher who visited the virtual world in this function. However, an element of self-protection was included, as the label only gave my physical world first name and not my surname. However, I was prepared to disclose this information at any time should someone ask for it. This is aligned to an understanding for conducting research in the physical world, that I would not introduce myself to all guests in a café, should participant(s) wish to undertake interviews in a public space. However, I would always be prepared to inform, should anyone be interested in the research or request information. I only informed students in the observation orally about my avatar's name. In future research I would clearly state the avatar name on participant information sheets to give students another option to communicate with me beside phone number, email address, or postal address. The management of collected data and ensuring data confidentiality and security is the topic of the next part.

Data management, confidentiality, and security

Every signed consent form assigned each student with a unique participation code. Only I had access to the combination of codes to physical name and later the pseudonyms used in the Findings chapters. I thought it pivotal to know students' physical names in interviews and classroom conversations. However, I prevented calling out surnames during interviews, and during the observations I ensured that note-taking happened in a covert manner, only using code names or pseudonyms. Interview and focus group data were collected through digital recordings. The files were coded according to participant codes and stored in password-protected files, in compliance with Coventry University Codes of Practice and the Data Protection Act (with specific regard to the provisions of the Act for sensitive and personal data).

Verbal data were translated into transcripts, removing any identifying names or details to ensure anonymity of participants and allocated institutions as far as possible. This included removing avatar names and university region or island names from transcripts. This process was continued in the presentation of findings in this thesis. However, it needed a balance of how much detail to give while still ensuring confidentiality and anonymity with regard to participants and institutions. As the context of the utilization in respective courses is part of the presentation in this thesis and is given in some details, it is not entirely possible to ensure total confidentiality. That is, others could assume the 'real' person or institution behind participant and university pseudonyms. However, as participation in interviews or in the study in general was never disclosed to others and as students will have finished their courses at the time of publication, the advantages of disclosing details about the person or context were perceived as outweighing the theoretical possibility of tracing back to particular persons and institutions.

While this section considered the ethical considerations, which have guided and informed the data collection and analysis process, the next section presents the different methods of data collection.

3.5 The data collection: methods and engagement of participants

This section reflects on the process of data collection and how students were engaged in its process. Three forms of data collection have dominated in this study. Firstly, qualitative interviews with individuals and small groups, which were almost all carried out as face-to-face interviews in the physical world, secondly, physical world focus groups, and thirdly, physical world classroom observation that included observation of activities in Second Life. In according sections, the underpinning considerations and the experiences in the field are explored and discussed. In addition, some conclusions for future research regarding the value and limitations of the methods are considered.

Interviews

The main method of data collection was to engage students in qualitative interviews. Although diverse material can be analyzed under a narrative research framework, oral interviews turned into written transcripts still seem to be at the centre of narrative research frameworks (Riessman 2008). Interviews in this study were perceived as an opportunity to engage with participants in an open way, asking and inviting them to express their experiences regarding their engagement with notions of identity in virtual worlds. Friebertshäuser (2003b) distinguishes qualitative interview methods in educational research with regard to how much they pre-structure the process of an interview. She qualifies two categories: firstly,

guided or semi-structured interview methods, and secondly narrative interview approaches. Similar differentiations can be found in Flick's (2002b) introduction of qualitative methods to collect verbal data; and in Hopf (2004:204) who proposes the qualities of these interviewing methods: 'They unite a high degree of openness and nondirectivity with a high level of concreteness and the recording of detailed information: they are therefore superior to other interview variants'. Guided or semi-structured interview methods involve forms of pre-formulated questions and schedules to give some boundaries and structure to the interview in terms of content and process. Nevertheless, they are defined as transformable, for instance the topic order can be changed or additional questions, in reaction to the interview situation, can be freely formulated. In contrast, narrative interview methods are defined as interviews that decidedly do not involve pre-organized questions or structures. These interviews are described to evoke interviewees to talk about aspects and experiences of their life, of their own choice and spreading over a wide research topic (Friebertshäuser 2003b; Flick 2002b:117–167).

Hence, both narrative and semi-structured interviews are perceived as engaging participants in a dialogue and conversation with the interviewer, who is rather facilitator than investigator, offering the interviewer's position with a view to initiate further debate and new insights into the interviewee's perceptions and experiences. However, these forms bear the risks of being influenced by the researcher. Influences can arise through misunderstandings, due to ineffective formulation or presentation of questions, but more importantly asking suggestive questions due to specific assumptions being made by the interviewer (Richardson, Dohrenwend, and Klein 1965), which could entice interviewees to answer with regard to social desirability (Friebertshäuser 2003b:371). Moreover, they can induce notions of acquiescence, giving answers or agreeing with the researcher, as this is perceived by interviewees as desirable to the researcher (Schuman and Presser 1981). However, narrative interviews are described as difficult to conduct for inexperienced researchers (Hopf 2004:208), while semi-structured interviews can give guidance and confidence as to what topics to include and what questions to ask in order to probe further. It is important to achieve the balancing act of concentrating on and engaging with the participant, while not falling into the trap

of 'interview guide bureaucracy' (Hopf 1978), regarding focussing on questions, which could lead to more stimulus-response investigations.

Nevertheless, narrative interviews seemed to give participants the greatest agency in terms of proposing their own topics and themes, and the initial interviews were perceived with a view to involving interviewees in the most open way possible. However, while students engaged in interviews and their accounts informed my research to a degree, some themes introduced by students were perceived as outside my study frame. With first interview experiences and the change of the methodological approach, I finally drew on Flick's (2002b:158–166, 2000) 'episodic interview' method, at the boundaries between narrative and guided interviews, as he defines this method as a variation of narrative interviews, which involves pre-formulated topics and questions. These questions are formulated with regard to invite and evoke narration from participants with focus on specific situations or towards particular topics in their context. This seemed to follow the goal of narrative research 'to generate detailed accounts rather than brief answers or general statements' (Riessman 2008:23). However, in an 'episodic interview' the interviewer does not expect participants 'to style <narrative plots>' (Flick 2002b:160 [translation by the author]), but allows them to concentrate on their own experiences contextualized towards the situation in which they have taken place. Thus, the choice of presentation in the interview, whether they are more descriptive or more narrative, as well as the choice of specific content of the situation, is left with the interviewee's subjective evaluation of relevance. This approach seemed valuable in a study that aimed to evoke and listen to participants' own views on notions of identity regarding virtual worlds, their own experiences, positions, and evaluations. Additionally, it offered an avenue of integrating the interviews prior to the change of methodology. Nevertheless, pre-defined topics narrowed the possibilities of themes, necessary to remain in the frame of the study. An example of themes, prompts, and possible questions that guided the interviews can be found in the Appendices (p. 308).

Interviews were audio-recorded on digital recorders with consent, which produced files that could be listened to repeatedly in the analysis process. Audio-

recording was started after participants had given consent. Often participants mentioned information before or after the recordings; these were only considered when they informed the content of the interview. Additionally, an interview protocol was conducted after each interview, securing information regarding incidents such as specific activities, the engagement of participants, the development of dialogue, and the atmosphere, which helped to reduce the loss of these additional aspects through only audio-recording. On a few occasions some notes were taken during the interview. However, in interviews I wanted to be able to concentrate on the dialogue with the participants, even if this meant that some information was lost. Similar measures were conducted in the data collection on focus groups, which is presented in the next section.

Focus groups

Another set of data were collected in two focus groups, which were solely carried out at Seaview University, regarding the utilization of Second Life in the Environmental Health course module. Focus groups in general are described as 'collective conversations or group interviews' (Kamberelis and Dimitriadis 2005:887). The focus groups at Seaview University were perceived as an opportunity for students to engage in a dialogue and discourse with each other, and with the tutor (if they so wished), who was present in one focus group, outside the official educational context. A second focus group, which included an MSc research student, who had conducted their own research on the module, was set up in parallel, for students who wanted to participate in research, but not talk about their experiences directly with the tutor. The aim of the focus groups was to inform my research, but also more directly the future utilization of Second Life in the Environmental Health course module. The groups were organized in a sense that they centred on students' exchanges on topics of interest to them, while the tutor and the MSc researcher would involve themselves as participants and moderators, rather than investigators. My role was to inform about the objectives of the focus group, collect consent, start the discussions, and introduce a new topic

for discussion if necessary, but rather to stay in the background. Participation in either focus group was perceived as voluntary.

Twelve out of eighteen students, who had attended the preceding seminar, participated, six with the tutor, six with the MSc researcher. Both groups started with a topic to invite narration regarding my research topic: 'Identity in virtual worlds – You and your avatar'. In the first group students started to talk and discuss on their own, so I could quickly leave the room and start the second group. Here more explanation was needed to 'get students going', I therefore accompanied this group, should further assistance being needed. Both focus groups were digitally audio-recorded and later translated into transcripts. On reflection, the focus groups have informed the topic of my research and contributed to finding themes and sub-themes. However, in terms of emancipating students, as discussed with the tutor and the MSc researcher as part of the focus group facilitation, both groups were too dominated by the tutor and the MSc researcher respectively, who seemed to follow their own agenda by introducing several questions and topics, rather than allowing students to develop topics or ask questions themselves.

Both focus groups were audio-recorded on digital recorders with consent, which produced files that could be listened to repeatedly in the analysis process. The audio-recording was started after all participants had given consent. Additionally, some notes were taken after the focus groups finished, securing information regarding the process of the focus groups and my initial reflections and reactions. Securing initial reflections and reactions has also been part of the note-taking in the observation of modules, which is discussed in the following section.

Observational data

Observational data were collected in five modules solely at Churchtown University. As module sessions were conducted in computer labs as classrooms, each student

usually sat in front of a computer screen, later clustered when team work started in the modules. The observational data were collected to inform the context of interview data, for instance to detect consistencies or differences regarding the verbal interviews, and also to identify any emerging topics and issues which might become narratives in their own right. The literature on observations distinguishes five dimensions of observation: open versus concealed observations, participatory versus non-participatory, systematic versus unsystematic, observations in the natural context versus observation in initiated situations, and observation of own behaviours versus that of others (Flick 2002b:200).

The observations in this study were perceived as: firstly, open, as all students were informed and had given consent to be observed and become part of the research. Although the so-called Hawthorne effect, which describes that participants change their behaviour specifically because of an ongoing study (Cook 1962), needs to be considered, not informing participants was perceived as unethical. Secondly, participatory, although I avoided interrupting the learning and teaching process when new aspects were introduced or plenum activities happened, I engaged students in conversations about their activities during phases of solo or small group activities. Additionally, I became part of the group with regard to conducting ethnographic field work (Friebertshäuser 2003a; Angrosino 2005) with my own role, nicely termed 'the observation lady' by one of the students, which distinguished me both from the learners in the module and also from the tutor. Nevertheless, I engaged in the educational activities (with varying success) as a fellow student, and became a motivator and co-tutor in some situations, besides being a researcher concentrating on aspects of the study. Thirdly, I used unsystematic and unstructured observation, which followed no predetermined topics or schedule but aimed to notice and appreciate all activities. However, in the second phase the observations became more focussed on emerging narratives that developed as part of the activities in the classroom or in-word. Fourthly, the observations were carried out within the natural context of the physical classroom and the virtual world; no particular extra settings were introduced to enable observations. And finally, the observations focussing on others, while reflecting on my own biases, were always part of the analysis of observations.

A challenge regarding the conduct of observations was to decide where to direct my attention, towards the activities in the virtual world or in the classroom. I literally kept my eyes and ears open: while engaging with students in the classroom, I kept 'half an eye' on the computer screens to watch activities in the virtual environment, while also listening with 'half an ear' to other ongoing activities. Here I applied my experiences of active teaching, as I perceived this as similar. While lecturing or paying attention to one student or group, other senses are directed to other activities in the situation at hand. In total, 100 hours of modules were observed and a great amount of field notes were secured. Notes were written both during and after each session. The activity of note taking happened openly. However, I ensured that students could not read the notes themselves.

Notes concerned information about students' engagement with the virtual world, learning and teaching tasks and processes, the classroom surroundings and atmosphere, open and hidden conflicts, and interruptions. During the sessions I sketched the field notes, drafting keywords and short memories, which were later transferred into a table in the first phase of data collection (an example of the first session observed can be found in the Appendices, p. 310). In the second phase data were more often formulated as narratives in form of continuous text. Observations and note-taking were time-consuming. Nevertheless, they not only informed the interview data, they also offered occasions to experience virtual world teaching and learning (auto-)ethnographically. Engaging and conversing with students in the classroom was an opportunity to gain students' trust, which often led to their later willingness to participate in interviews. It also provided an opportunity for extra students to become directly involved in the study, who were unable or unwilling to be interviewed.

This section examined the three main forms of data collection, interviews, focus groups, and observations. The next section presents the analysis and interpretation of the collected data.

3.6 Data analysis: framework, preparations, and trustworthiness

Following established principles of narrative research, an essential component of this study was the selection and application of an analysis technique suitable for the data collected. The previous sections explored the various forms of qualitative data to be analysed, which included 22.5 hours of interview and focus group audio-recordings, partly sorted notes representing 100 hours of observation, and numerous additional notes taken to add to official data collection. The parts in this section consider the framework for the analysis, methods of engaging with as well as systematically analyzing and interpreting the data, and how they were composed and crafted for the presentation of findings.

Analysis approach framework

This section reflects on the analytical framework that shaped and informed the study. After conducting several attempts to make sense of the varied forms of collected data, the analysis of the data was finally dominated by a thematic analysis approach centred on searching for individual content within the collected interviews, and then combining these to form over-arching themes, as established in narrative research methodologies.

Regarding established analysis within the narrative research realm, Riessman (2008) distinguishes between four different analytical approaches, which produce different findings. Firstly, a thematic analysis focuses exclusively on the content or 'what' a narrative tells. Secondly, structural analysis additionally undertakes linguistic analysis and examines both the way a narrative is told, and the context in which the narrative was experienced. Thirdly, dialogic/performance analysis, which varies from the two former approaches, since it focuses on investigating to which audience and to what purpose a narrative is told. The approach examines the dialogue and interaction between narrator and listener, and prescribes an active role to the investigator. Fourthly, visual analysis sets visual representation

of data at the heart of the analysis (over written or oral data). Slightly different from Riessman's (2008) four approaches is Mishler's (1995) typology. He distinguishes between three main sets or problems on which narrative research and analysis concentrates: the first set focuses on the content of the narrative and how this is ordered and represented temporarily in the narration. The second set covers linguistic strategies of telling stories and analyzes narratives with regard to achieving coherence and structure. The third set regards the social, psychological, and cultural situation of the narrative; it concentrates on the purpose and function of narratives in interpersonal and social contexts. Further strategies and approaches can be found in Cortazzi (1993).

In this study, a thematic approach was chosen regarding the analysis of the data and the subsequent representation of findings. This drew on Riessman's (2008:53–76) examples in her exploration of different thematic analysis approaches in previous research studies. This allowed the integration of the diverse forms of data collected, and gave the opportunity to integrate a great variation of narratives from many students. As Riessman demonstrates, there is not only one way to analyze data with the aim to bring different themes and important topics to the fore. Thematic analysis approaches can differ in what they consider to be narrative data, and the theoretical stances underpinning the analysis of those data. What is important in their approaches is that 'narrative researchers keep a story "intact" by theorizing from the case rather than from component themes (categories) across cases' (Riessman 2008:53).

The methods and tools conducted to analyze and interpret the data are presented in the following parts, starting with reflecting on the process of transcribing or translating oral data into textual transcripts, and then into narratives for the presentation of findings in the thesis.

Transcription as part of the analysis

This part reflects on the transcription process from verbal data to written transcripts, which is seen as an integral part of the analysis and interpretation in narrative research (Mishler 1991; Riessman 2008:21–51). Additionally, it considers how the initial transcripts were later edited to form part of the presentation of findings in the thesis.

The process of transcription from dynamic face-to-face conversations via the medium of audio-recording into the linearity of text is always a process of translation and interpretation. This includes transformation and changes to content, for instance by omitting or adding content; it is a selective and subjective activity (Macha and Klinkhammer 2003; Heinzl 2003; Riessman 2008:21–51). Nevertheless, already the audio-recording is a translation, since it changes the experience of the physical conversation in the first place; while it brings elements of the oral conversation to the fore, it omits all other sensual experiences. My protocol and note-taking after every interview helped to reduce the loss of these additional aspects, although this was as selective as the following two transcription processes. The writing and editing process of transcripts in this study had two phases: Firstly, the transcription directly from the audio-recordings, and secondly, the editing of quotes for the presentation of findings in the thesis. As in other narrative studies (Riessman 2008:29), both phases were time-consuming and not straight-forward. Decisions had to be made both as to how to transcribe in order to be able to work with the material, and how to present the transcripts, in order that others could understand the narratives in the publication.

Phase one saw a very thorough transcription process:¹⁴ The transcriptions were structured around the person mainly speaking at a time, therefore emphasizing on

¹⁴ Legend of indicators in transcripts:

' ' indicates indirect speech within the speaking

- indicates unfinished sentence, break in sentence

[] indicates addition and explanation to statement of person speaking, for instance pausing, noises

{ } indicates simultaneous speaking

punctuation marks, such as commas and full stops, follow intonation in the verbal interview rather than grammar rules

[...] indicates ellipsis in quote

the content of each turn of conversation and the interaction in the interview. Additionally, not only were audio data written verbatim, including all word repeats, stutters, or word fillers (err, um, like, you know), but many additional points of information were added to the transcript, for instance indications when sentences seemed unfinished or broken, indications for indirect speech, indications for emotions ([laughs]), indications for pauses including the time of pause ([3 sec. pause]), indications for simultaneous speaking, as well as utterances and short feedbacks ({Ok, I see, yeah}). The usage of punctuation marks followed rather the intonation of verbal sentences than grammar rules. The style of transcription was chosen to allow varied approaches to further analyse the transcripts, for instance in-depth thematic analysis (Heinzel 2003; Riessman 2008:53–76; Mishler 1995), thick description (Geertz 1973), and structural analysis (Gee 1991).

In the second phase, regarding crafting narratives for the presentation of findings in the thesis, the transcripts were ‘cleaned’ (Riessman 2008:35) to make them more accessible, albeit losing some of the content. ‘Cleaning’ in this instance meant that in the quoting of participants’ interviews filler words, stutters and word repeats, most feedbacks and utterances, as well as some indications of emotions were removed. Additionally, quotes were substantially shortened or only significant quotes were chosen to enrich the presentation of narratives as findings. In the instance of very long sentences in the original transcripts, some punctuation marks were added in the final presentation to indicate when interviewees changed topics within a sentence.

Every interview was listened to at least four times. The first time occurred before the transcription process, in order to note emerging topics and to consider whether an interview could be omitted from the described thorough transcription process (only the interviews with tutors have not been transcribed verbatim). The second time of listening to interviews was to transcribe the recordings. The third time was to control the transcripts regarding absent, misplaced, or similar sounding words, as ‘mistakes’ in the transcripts can change the content severely. However, at this stage some notes were made regarding the search for thematic

narratives within one interview to speed up the analysis process. The fourth listening, after initial themes were established, was undertaken to control the transcripts again to the oral data, and to check whether the initial interpretation would still stand up to re-listening with substantial time having passed since the interview and the initial transcriptions.

Inclusion and exclusion of participants, interviews, and themes

Making decisions about which interviews and narratives, and further, which themes and sub-themes emerging from narratives, to include in the final presentation of findings, and which narratives might need to be omitted, was a challenging and conflicting process. As it was one aim to equally involve students in the study, it was hard to not represent participants in any of the findings chapters. In many cases omitting narratives felt alike omitting the participants.

Two interviews, one with the MSc research student at Seaview University and one with a student at Churchtown University outside the module context, have not become part of the final analysis of 'learner identity' narratives. Although I perceived all participants as experts of their own lives and experiences – and all parties involved as learners, with me being the biggest learner of all, these interviews concentrated on different topics in contrast to other students' interviews. As the interview with the MSc research student developed mainly into an interview concerning the experiences in the Environmental Health course rather than her personal experiences, and the interview with the further Churchtown student turned into an interview regarding the development of Second Life from the start to the present day, these interviews were regarded as 'expert interviews'. Meuser and Nagel (2003) describe expert interviews in educational research as part of evaluation processes, in which decision-makers in educational institutions or wider policy, and seasoned and experienced practitioners and tutors in the field, contribute to a study through their expertise and experiential knowledge, in contrast to knowledge and experiences of

laypersons or beginners. These two interviews, alongside the four interviews with the three module developers and tutors, stood outside the other collected data with regard to learner identity. However, all these interviews have informed the study and enhanced the knowledge regarding the context of the respective modules, or for background information regarding the development of Second Life inside and outside of education.

In the later process of analysis and interpretation, it became pivotal to focus on interviews and finally narratives that illustrated the emerging themes and sub-themes 'best'. The findings were initially presented in four main themes. However, a chapter on notions of interaction was discontinued as the other three themes, Pursuit, Embodiment, and Resistance, appeared as stronger and more multi-layered.

Trustworthiness and member checking

In the end, the analysis of the interviews is widely based on my own interpretation, as integrating participants in the analysis process was almost impossible due to time issues and other commitments of the participants. However, findings were presented and discussed with scholars as part of the supervisory process, and with experts in the field during presentations at seminars and international conferences. Although students were repeatedly invited to engage in the analysis process, involving them as equal and emancipated partners remained an ideal, which in reality was very hard to achieve. Although some participants expressed interest in contributing further to the research, only two students were interested in the interview transcripts and were available for a longer follow-up conversation. Other students, who I observed in the following year in a follow-up module, welcomed further observation and conversations in the classroom, however, they also expressed that they felt that they could not contribute 'anything new'. Asking them to take part in mutual analysis of their initial data, for instance through reading the transcripts, resulted in students expressing that they were unable to

contribute towards this analysis, since this was a time commitment they could not offer in their last year of studies, as they were needing to concentrate on their final assignments and exams. Nevertheless, no student has withdrawn from the study to date.

Although further engagement would have been valuable, I also respected these evaluations of their life situations. However, students expressed, when faced with suggestions of how I had understood their data, confidence that I would 'fairly and correctly' analyse and represent their views and identities when writing up the analysis. In my view and in accordance with the Copyright, Designs and Patents Act 1988, the copyright in the spoken word of the person being recorded belongs to the individual. Although their informed consent had given clearance that their words could be used in the research, I regarded students as owners and myself as a 'carer' of their data. In this role I saw myself as being allowed to use the data, installed with their trust that I would change nothing, and represent their positions in accordance with the content of the interview.

3.7 Shifting from analysis to interpretation to presentation

While the former section has already explored pivotal parts of the analysis process, this section reflects on the process of shifting from the initial steps of analysis to an interpretation of narratives and finally the presentation of findings. This process can be described in four phases: phase one was dominated by searching for emerging topics to inform the further data collection, phase two centred on the interpretation of individual interviews, phase three focussed on clustering narratives to overarching findings, and phase four was dominated by further 'condensation' of findings to themes, which led to the decision making process of how to present themes and according narratives in this final thesis.

Phase one and two: Locating findings and themes

The first phase of the analysis of data arising from interviews, focus groups, and observation notes concentrated on finding issues and topics within each individual set of data. Initially, interviews were listened to and observations read with a view to describing the content with lots of loose keywords and my reactions as an initial interpretation. The findings during this phase informed the further process of data collection.

In the second phase, the interviews became the centre of attention regarding the further analysis of data, while the observation notes resulting from module observations, alongside further field notes, were regarded as additional information supporting the interpretation process. As a tool for analysing the now transcribed interviews, the individual transcripts were read and interpreted 'sentence by sentence', searching for emerging narratives, indicated through longer engagement or repeated engagement with the same or similar topics within one interview. Additionally, transcripts were searched for metaphors, tipping points, oppositional talk, and summaries of processes or distilling, in order to capture developments to form emerging narratives. The emerging topics concerned not only the content of the narratives or 'what was said', but also meta-communicative aspects regarding how I understood what the interviewee had told me and my reaction to it. The narratives were then coded with abstract keywords of emerging topics, content, and 'interpretation/reaction', so as to make the thematic analysis of topics and themes overarch as many interviews as possible. Initial topics concerned: expectations, resistance, opportunity, game, communication, interaction, roles, tutor, conflict, anxiety, avatar appearance, hair, tool, extension of self, avatar name, conflict/disturbance, playing, annoyance, uncertainty, authority/power, skills/dealing with Second Life, virtual world expert, newbie, status object.

This phase was supported by drawing on communication theory, in particular Schulz von Thun's (1981, 1998) understanding of communication and interaction. In Schulz von Thun's (1981) model of interpersonal communication, messages are

seen as being sent with four sides to them: factual content or information, self-revelation, relationship, and appeal. These messages are then received with 'four ears' (1981:44–45), that interpret the message with regard to the factual content, what is disclosed about the sender person in this message, what is disclosed about how the sender positions the relationship between sender and receiver, and what is it the sender might expect from the receiver as a reaction to the message (1981:44–68). I have taken the 'four ears' as tools to apply to the interpretation of the interviews, in order to bring different layers in the interviews to the fore. While the 'content ear' of searching for topics and themes discussed finally dominated the analysis, the 'self-revelation ear' of searching for signs regarding what the person disclosed about their identity was equally important. Although the 'relationship ear' and 'appeal ear' have never been ignored, they became less important as the analysis focussed more on emerging and overarching themes in the body of data, and less on the relationship between participants as senders and me as receiver (or vice versa) in interviews or during observations, as it would have been in a dialogic/performance analysis as defined by Riessman (2008:105–140).

However, this phase was also accompanied by considerable struggles. It was hard for me to leave my identity as an educator behind. As indicated above, this was and is an identity that emphasizes on the development of a learner and aims to 'cater' for individual's needs. To refer to Schulz von Thun's (1981) four 'ears', both my 'self-revelation ear' and 'appeal ear' were very attentive towards what the student might need. Savin-Baden (2004) recommends integrating the biographies of participants to make sense of their contributions. However, for me it was almost an opposite experience. As I had the biographies of most students in my head, I needed to approach the transcripts as 'fiction' literature. At this moment the transcripts became stories decoupled from the person who had told them, and I could start to handle them and the underlying complexity much more effectively. Another struggle concerned the use of pseudonyms in narrative research or qualitative research in general; it needed consideration with regard to how much a pseudonym might influence how a participant was perceived. This was layered further when the avatar names became a focus of investigation in this study.

However, in the end, all participants were allocated with pseudonyms, acknowledging that the names will impact on readers' interpretation of their statements. The potential alternative of using for instance letter-number combinations, however, seemed impersonal and was finally dismissed. Struggles also accompanied the other two phases.

Phase three and four: overarching findings and presentation

The third phase concentrated on clustering and uniting the topics that had emerged in the individual interviews and focus groups into overarching findings. This included bringing together both narratives with same and similar topics, and also narratives that seemed to discuss oppositional content, in the form of 'counter-narratives' (Andrews 2002), which are discussed as being in tension with the narratives one might expect to find or dominate. The focus group transcripts were here integrated regarding the topics that had been introduced by participants or when discussions happened with regard to narratives and counter-narratives. This phase led over into the fourth phase, in which overarching topics were further clustered into overarching themes, representing the topics, which had been discussed within the highest number of interviews, as well as paying attention to topics that seemed oppositional. This led to the themes and sub-themes as presented and discussed in the findings chapters, and also led the decisions regarding which themes and according narratives to present and which to omit in the thesis. Finally, three themes, Pursuit, Embodiment, and Resistance feature in the thesis, represented by exemplary narratives and counter-narratives.

This phase was accompanied by another set of struggles, in particular regarding what Cousin has summarized as 'opposite ends' in writing-up in research: 'These opposite ends express a tension between the need to reduce the research text for intelligibility and the need to maintain its integrity so as not to do violence to people's testimonies' (Cousin 2009:33). As indicated above, omitting narratives from the findings, and making decisions about which narratives illustrated findings

and themes 'better' than others, felt often as 'betraying' other participants' contributions. Acknowledging some participants at least by mentioning their names in summarizing parts in the findings chapters was one way of integrating those students, as well as not deleting names from the participant table, even if their narratives do not feature in the following chapters.

3.8 Summary

This chapter has presented the methodology, which has shaped the study and the methods of data collection, analysis, and interpretation that have led to the presentation of findings in the following three chapters.

A narrative research approach, with a wider definition of narrative data and centring on exploring and presenting participants' themes and views, was perceived as being the most useful to inform the research quest. 75 students have participated in this study. However, in particular 26 interviews with 36 students finally shaped the data collection and analysis. Narratives collected in further interviews with students and tutors, two focus groups, and data collected in 100 hours of module observation added to the study through underpinning and informing themes and sub-themes.

After introducing the literature and the methodological framework, the thesis turns now to present the findings of this study in form of narratives and considerations in three themes that emerged from the collected narratives: Pursuit, Embodiment, and Resistance.

Chapter 4 Pursuit

Here you are in pursuit of amusement all day long.
(Jane Austen, Northanger Abbey)

This chapter on the theme of Pursuit is the first of three chapters presenting the findings of this study, which investigates how learners understand, construct, and express identity when virtual worlds are utilized in higher education and how the virtual world itself might impact on their concept of identity. These three chapters address the research questions through presenting the findings of the analysis of learner identities in virtual worlds in higher education in students' narratives. Each of the findings chapters is centred on one of three key themes that emerged in the study: Pursuit (learner quests, aims, and desires); Embodiment (avatar creation and positioning of the avatar); and Resistance (contestation, critique, and rejection of virtual worlds).

This chapter focuses on the theme Pursuit. Pursuit is here understood as aims, quests, and desires that students narrated to have informed and shaped their past, present, and future self-conceptualization, both on a general level and in their positions as learners. It thus includes different dimensions that are relevant to individual students' identity formation and enunciation processes: Pursuit can take place in the present educational context, in the professional and private spheres, and as a quest for meaning and self-relevance as proposed and constructed in students' narratives. Focusing on students' (re)conceptualization of identity in the context of virtual worlds in higher education, the chapter explores students' narrated reflections, positions, and discoveries on pivotal questions of identity, such as 'who am I now?' , 'who do I want to be now?' , and 'who do I want to be in the future?'

Centred on the theme of Pursuit, this findings chapter examines how students make sense of virtual worlds in higher education, how they are able to generate relevance of virtual worlds in their learning, and how they give meaning to the use of virtual worlds in higher education – in general and with respect to their (re)conceptualization of identity. In particular, it investigates the relevance and role students ascribe to the use of virtual worlds in higher education, whether and how students relate this way of delivering and engaging with module contents to their learner identity, and to what extent students' positions toward virtual worlds in higher education change with experiencing their use in this context.

This chapter is structured into three sections. Section 4.1 frames the theme of Pursuit through concepts and theories that have specifically informed the analysis of narratives towards this theme. Section 4.2 explores and presents students' narratives with regard to the theme of Pursuit. Four sub-themes emerged from the findings which are presented in respective sections. Section 4.3 summarizes the findings in this chapter.

4.1 Framing Pursuit

This section introduces the main concepts and understandings that have inspired and informed the theme of Pursuit.

Initially, the theme draws on notions of 'possible selves' as discussed by Markus and Nurius (1986). The concept of 'possible selves' combines recognizing present situations and identities with a view of developing future selves, which are distinguished as 'ideal selves that we would very much like to become', 'selves we could become' and 'selves we are afraid of becoming' (1986:954). Possible selves are seen as relevant in the process of learning, as they can provide insights into meaning-making and self-relevance as they may enhance individual motivations

towards achieving desired selves (1986:962). By exploring students' individual learning objectives, their aims and interests, as well as anxieties regarding possible future selves are revealed and reflected. However, as Markus and Nurius emphasize, possible selves are closely connected to experiences and influences in the present and past of the individual. Positions, feelings, and personalities derive from the interaction and comparison with others in the same social context as the individual (1986:954).

Additionally, the theme of Pursuit is approached and understood in terms of transformational learning (Kegan 2009; Mezirow 1997, 2009), which is interested in forms of teaching that enable forms of learning beyond informational or instructional training, and aim towards autonomous thinking and potentially challenging previous epistemologies. To achieve these transformational forms of learning, Kegan (2009:41) postulates that educators should seek to understand students' existing ways of knowing. Students' narratives are analysed for notions of students' perspectives and stances based on what is 'available' to them to inform identities (Farrell 2000; Hacking 2007; S. Hall 1996) or what Mezirow (1997, 2009) has described as 'frames of reference'.

'Available identities' as well as 'frames of reference' are understood as a combination of knowledge and capabilities, concepts and orientations, values, beliefs and emotions, as well as the discourses students engage in as they encounter teaching actions and interactions with others in education. This tacit knowledge and the shaping of such orientations can be based on students' prior experiences as well as the influence of others, and are important as 'they selectively shape and delimit expectations, perceptions, cognition, and feelings. They set our "line of action"' (Mezirow 1997:5). Therefore, both how students position themselves towards virtual worlds in general and how they persist to find meaning and personal 'fit' in their use in higher education in particular, might impact on their 'success' in achieving pursued future selves. Furthermore, understanding students' positions 'intellectually and empathically' (Mezirow 2009:91; similarly Clouder 2005) gives educators the opportunity to offer new or contrasting perspectives and identities.

Finally, this theme reflects on motivational factors within the ongoing education process. Motivation is understood as activating a life changing orientation towards a positively perceived aim (Rheinberg 2000). It is seen as a number of factors that invoke a wish to learn. Motivation can come from inside a person or be influenced from the outside or external factors; in classical psychology these are defined as intrinsic and extrinsic motivations (Ryan and Deci 2000). Therefore, through understanding students' pursuits and motivations, what they could possibly achieve (and in a further step what they resist), and through examining factors of impact from their life-world ('where students come from or are now'), it is possible to reveal and reflect upon their available identities in their process of becoming and being learners in virtual worlds in higher education. This could potentially lead to a better understanding of students' needs with regard to their pursuits.

This section has introduced the underpinning concepts framing the theme, the next section presents the different pursuits and identities as expressed in students' narratives.

4.2 Narratives of presented selves

This section explores how students presented themselves as learners and individuals in their narratives regarding the utilization of virtual worlds in their education. The section examines how students' identities were developed and established in the context of how students understood and positioned virtual worlds in general and in the context of their programmes of study or modules. One way of discovering where students 'come from' or what students draw on in relation to virtual worlds in education was to explore how students understand and relate to virtual worlds or how they would describe Second Life to others. Answers to such questions offered insights into how students perceived and positioned the virtual world.

Reviewing all participants' narratives, a strong majority of students who participated in this study compared the virtual environment with a 'computer game' or 'online game', relating it to a variety of popular Internet based gaming worlds such as World of Warcraft or The Sims series. Notably fewer students compared virtual worlds with other mediated environments for socialising, namely social networking platforms such as Facebook or Habbo Hotel. Other students related the virtual world to communication tools, such as Skype or MSN Messenger. As explored in the introduction to virtual worlds, Second Life and gaming worlds as well as networking sites have several features in common; the comparison by many students seemed therefore unsurprising. Nevertheless, besides highlighting similarities, many students also discussed discrepancies and alternate understandings.

Assuming that Second Life is only approached and understood in terms of other virtual environments, while ignoring contrasting views seemed rather short-sighted. Examining whether Second Life was explored in its own right by students new to virtual worlds at the time of their use in the educational context and how these students reflected on their initial experiences, revealed further indications towards understanding students' positions and identities with regard to virtual worlds. Students' narratives revealed differing and contrasting present and available identities, that is opinions and positions, which were dependent on differing origins, influenced by the individual's knowledge about and experience with Second Life as well as several factors from outside the university context prior to the educational utilization.

Four sub-themes emerged from the narratives which are explored and presented in the following four sections. The first section explores narratives in which position and meaning-making is related to notions of virtual worlds as 'games'. The second section explores narratives in which the relation to students' current programmes of study or potential future professions is highlighted. The third section concerns exploring alternative and new identities. Finally, the fourth section illustrates the complexity of learner identity through a case study.

Positional identities

This sub-theme explores students' narratives in which taking a particular position or stance regarding their own understanding of virtual worlds became pivotal to understand them as learners and persons. In these narratives, meaning-making and self-relevance were related to notions of an understanding of virtual worlds as 'games'. The section starts with the narrative of Silas, who took on the position and identity of a virtual world expert during the interview and classroom conversations. Additionally, the sub-theme introduces students' narratives, who positioned virtual worlds as environments for 'having fun' – in many cases with a view opposing the Employability module scheme in which they were situated.

Silas, a male, 22 year old, Media Production student in the Employability module Experienced Level (for a description of the modules, please see section 3.3, p. 63), initially became interested in Second Life as a new media form prior to his university modules. In this context he proposed a developed and developing disciplinary identity that was reaching outside his university study. Silas was very knowledgeable and experienced about Second Life's building functions, communication and interaction facilities, as well as social norms. I/my avatar had met Silas' avatar before in Second Life on Churchtown University island, and we had a short text chat conversation at the time. Through seeing his avatar, a giant dragon, and his Second Life name during the classroom observations our previous meeting became apparent. As we were situated in a computer lab with Second Life running on one of the computers for the interview, Silas took the opportunity and turned the interview into an introductory session into the virtual world, explaining the facilities, teleporting his avatar to different places and frequently changing his avatar's appearance. In the following excerpt Silas started his introduction by relating Second Life to other games but also to the physical world:

Nicole: So, how did you get into Second Life? Why was Second Life interesting?

Silas: I tried Second Life before, when I say before, before I came on that first [Employability scheme] course. And to be honest, it was like, 'you look at me, I have an avatar and I can fly around.' But that

does get kind of boring after a while, especially since Second Life does not really have anything you might call a quest. It's a game, but it has no mechanism, it has nothing to do. [...] Anything you have, you really have to script for yourself. So it's open-ended; so open-ended, there is nothing to do, which is not always great. [...] Especially since when you first start out, you really have nothing. You have no money [...] but if you really wanna afford anything good, because the same works for the same sort of like a game, money game system. You really have to have a very good credit card, either that or find employment within, which is not easy whatsoever. I managed to script by, but that's about it.

Nicole: Yeah, either scripting or [tutor] yesterday said, 'Do a bit of dancing somewhere.'

Silas: No, that does not always work either [...] Of course just like everywhere else, Second Life is shock full of prostitution [...]. There is a huge industry here, just for that, and sadly that's the best way of making money [laughs].

Nicole: So, we're back to real life.

Silas: Pretty much. Yes, Second Life is the same as the old life, just with better graphics. [Silas, C4: 12-17]

During the interview Silas established an identity of knowledge and experience about Second Life and took on a role of tutor and advisor. He distinguished himself from me, the Second Life newbie who was interested but also needed instruction; and he also distinguished himself from the tutor by negating the tutor's recommendation on money-making opportunities. Throughout the interview he was 'showing off': not only was he frequently changing the appearance of his avatar, but he also belittled other people's avatars. His position towards avatars is further discussed in the following chapter on Embodiment (p. 152)

Although Silas established a position of power during the interview, there was also an aspect of vulnerability in his narrative, namely insecurity about having access to money and 'goods' in the virtual and physical world – and it seemed that for him the best way of making money in the virtual world was inaccessible. It brought to consciousness that Second Life can be predominantly about consumption and status – as the physical world. Second Life is produced by a private business, Linden Research Inc., but also run by people and businesses within Second Life

who want to make physical world money. And Silas described that the ‘really good’ objects would cost more than the equivalent of a few British pennies in Linden Dollars¹⁵ and he indicated that he might not always have access to spare money to spend on ‘anything good’. In general, at the beginning of each Beginner Level module, students were provided with 50 Linden Dollars, which for instance enabled students to upload snapshots during a treasure hunt. In this case no student was excluded due to their economic situation in the physical world. However, I later observed several students buying objects or scripts from the Second Life Marketplace¹⁶ (Linden Research, Inc. 2012) for their projects, and one student bought an almost finished project for the assessment from the Marketplace for several thousand Linden Dollars, which raised questions of equal access to educational content and the objectives of the Employability module.

Silas’ position on the virtual world was that you can explore, play, and experiment in Second Life; however outside of set tasks, for instance in educational terms, it needed to come from your own interest or through interaction with other people, as the environment itself would only offer limited obvious activities and incorporated tasks which make it very different from other gaming environments, which would typically contain quests, aims, and objectives.

Positioning Second Life as a game took a different turn in **Astrid**’s illustrative narrative. Astrid, a female, 19 year old, Media Production student in her 2nd year, was concise, almost blunt in her expression of what she wanted to pursue in the Employability module Beginner Level:

If I’m brutally honest I just wanted to play a game for my module [she and fellow students laugh]. That’s really the only reason I picked it. I thought it would be nice and easy to do. [Astrid, C19-21, 37]

¹⁵ The exchange rate for Linden Dollars to the British Pound depends on the rate between US Dollar and the British pound. During the research period 1 British Pound equalled approximately 400 Linden Dollars.

¹⁶ On the Second Life Marketplace users can buy virtual items from other Second Life users.

Astrid's statement demonstrated a position that was based on a conception and assumption that virtual worlds in HE would be about 'playing a game', which she anticipated to be enjoyable, straightforward, not worrying, and maybe not too time-consuming, which could be an encouraging signal to utilize virtual worlds in HE. However, her intonation in this remark, which emphasized on the 'just', somehow qualified the statement to be pivotal to the development of her learner identity. In the following remarks, Astrid indicated that 'playing a game' in a university module to her meant not investing any particular time or effort beside the absolute mandatory. However, her phrasing 'if I'm brutally honest' also seemed to indicate that she was not convinced that others, potentially peers, tutors, her parents, or I as the interviewer/researcher, would approve of her approach to a university module. Astrid's position seemed initially informed by the module description that referred to Second Life as being 'a multi-user virtual environment' but also as being 'essentially a game'. However, Astrid's remark also indicated that she had not assumed that the module was developed entirely for leisure and entertainment. The repeated conception/misconception that playing is for leisure and not related to 'serious' learning activities concerning virtual worlds is further discussed in the chapter Resistance (p. 211).

Astrid's remark indicated that she was not opposed to learning in the virtual world – potentially the contrary – but her position of resistance revealed an underlying conflict of not really knowing how to engage with the modules on Employability in general.

Julius, a male, 20 year old, Civil Engineering student in the Beginner Level module shared a similar position:

Well, the thing I found, when I first came to [Churchtown] university, the Civil Engineering course that I'm doing is very well run and everything that they do is aimed at and creating like a very and well rounded professional individual, so I thought course-wise I was OK, but then I was told I need to choose an [Employability] module, and I looked at the list of all the things that were there and there was nothing really complimentary to the course that I'm doing, so I thought, 'OK I'll try something different, I'll try something new and have a bit of fun with it.' [Julius, C23: 28]

Julius' statement illustrated that the Employability module concerning Second Life was not chosen out of a particular interest in the virtual world in its own right, but rather as a solution out of the dilemma of being unable to find a module that more obviously related to his course. This position was reflected in further interviews by other students who were enrolled on Second Life Employability modules.

Struggling to find meaning and relevance in the Employability scheme also left **Ela** a frustrated learner. Ela, a female, 20 year, Multi-Media/Graphic Design student, also opposed the Employability scheme repeatedly in the interview and during classroom conversations. From week to week she exhibited more frustration and an identity of distance and opposition to the content of the module, the teaching activities and other students in the module, by working on a project on her own. However, there was an initial avenue of meaning and self-relevance in a module on virtual worlds which could relate the Employability module to her main programme of study, as she revealed in the interview in week six of the module:

I'm doing a Multi-Media course which is about Graphic Design, it's about developing games, programming them and I thought-. To be honest, I wanted something easy, so I could concentrate on my main studies, and just do this as-, you know, 'cause I had to do it. I thought, 'Ok I might as well pick something that vaguely relates,' because the graphical interfaces, the scripting language that is on there [...], it's got the game, it's I say it's a real life world, but it's a game as well, I would just use it as a game, so it has some effect on my course. It's got all the multi-media side of it, it works quite well [Ela, C10: 8]

Throughout the interview, Ela related to a desired future self as a professional game designer. However, she remained rather sceptical, or realistic, about her future plans and aspirations and whether such a self could be achieved, as she related the games industry to the ongoing recession, so she kept herself open for other possibilities alongside technical aspects of multi-media as her main focus.

Ela: [I am interested in] developing a game [...] I don't wanna to sit down and playing them, I wanna look at how they are created. Same with Second Life, it's interesting.

Nicole: What is interesting about Second Life?

Ela: The way how you can interact with the characters. If I say 'up' it goes up, so the basic control movements, and you can also interact with other people [The tutor] just showing us how to build and then incorporating scripting languages. It's a worldwide thing to think about, other people can, in Africa say, can build a little building and I can go into it with them there, it's fascinating. It's like an extended version of the messenger. [Ela, C10: 27-29]

Although her main interest focused on the engine and algorithms behind the visual environment on the screen, she indicated awareness of and integrated social aspects of the environment, user interaction with the environment, and user interaction with other users in a global sense in her description.

Ela was one of a minority of students in this study who had actually joined and personally experienced Second Life prior to the use in the educational context:

I saw it when it first came out and it was like, 'oh it's like a next- a real life version of The Sims.' [...] To be honest, I didn't like it. I was on it for about a week, every other day and it was nothing there, so I ended up coming off, because obviously it just started and you couldn't do half of the things you could do now. And it just didn't take my fancy, but 'cause I'm having to do it in this module, it's like, I would never stood there and make a wall. [Ela, C10: 32]

Later in the interview Ela revealed that she did not find Second Life a 'real life version' of The Sims. However, she could not find any meaning in persistently using either environment. Furthermore, this remark revealed rather a persistent frustration with Second Life and the module. Ela had decided to build a house in Second Life, feeling compelled to approach a project that was building related as led on by the tutor's teaching activities. Here, she indicated that building a wall for a house, which had taken her the duration of the last session, was a very frustrating experience for her:

Why am I doing this? Why? [Ela, C10: 46]

Unfortunately Ela remained stuck at this position. She battled for the next three weeks with building a house that she finally finished. However, during the

presentation in the final session of the module she talked very negatively about her own project:

Here it is and it has no purpose whatsoever. [Ela, observation notes 1: 10].

It left me uncomfortable when she presented her project in that way, as I had observed that she had put thoughts and effort into it, which she could have presented in the more positive ways that she had discussed with me during previous sessions, and it now felt as if she could almost damage her own 'reputation' that way. Nevertheless, with this remark, distancing herself from the work and claiming that her work was the result of a meaningless exercise, she kept her identity of 'distance' to the module and the Employability scheme intact.

In the above narratives regarding students in the Employability scheme, Second Life seemed not always to be chosen by an intrinsic interest or the driving factor in its own right, but rather as a resistance towards the whole Employability scheme. Nevertheless, other students' narratives indicated a self-related meaning and position to the virtual world. Therefore, positioning themselves as 'being into games' and predicting and assuming 'fun' from a module concerning virtual worlds without a direct negative stance towards the Employability scheme seems to have motivated several students in their work with virtual worlds, which is explored in the following part.

'Being into games' as an initial interest and the motivating factor to enrol on the Employability module concerning Second Life was mentioned by several students, for instance **Gerrit**, a male, 19 year old, Media Production/Film student, and **Kurt**, a male, Forensic Investigation student:

I don't really know, I mean, in all fairness, there's no big story towards it, I was late for choosing my [Employability module] and I just literally dropped a pin in the book and chose it. But, I don't know, I've always been interested in, like, computer games and stuff like that, so I thought, I'll give it a go. [Gerrit, C13: 6]

When I looked through all the options, there weren't very many interesting ones. I was looking through a few; some seemed okay, but, when it was on Second Life, they said about playing games, learning about that, and that's something I'm into, so that's appealed to me, so I picked it because of that. [Kurt, C15: 4, similar 40ff.]

While both students indicated 'being into games', Gerrit on the one hand seemed to have ended up in the module rather by accident and indicated his approach to the module in a playful manner, while Kurt's narrative on the other hand proposed that it was an informed decision to enrol on the module. When I probed what 'being into games' meant, both students indicated that they had played in similar gaming worlds without naming a specific environment. It seemed that their hands-on experiences were rather in the past and neither of the students had any experiences with Second Life prior to the module. Kurt's narrative coincided with Astrid's narrative above, insofar as he seemed to relate to the module's manual in his approach 'playing games'. However, he immediately positioned the module's objectives on a meta-level, 'learning about that', which might be more in accordance with the module's and HE teaching objectives.

Lerke, a female, 24 year old, Forensic Investigation student, offered a similar perspective as she also had no prior experience with virtual worlds before she enrolled on the Employability module.

It looked a bit of fun generally; I'd never ever seen it or heard of it before and it sounded like-, my little sister plays The Sims game, and it sounded a bit like that, so I thought, 'oh, let's give it a go,' 'cause me and the other boys in the class, we live together and we said, 'oh, we'll just sign up' and that's why we did it. It looked quite fun and it sounded quite fun, so we thought, 'yes, why not.' [Lerke, C33: 4]

Her position on virtual worlds was informed by her sister's experiences with The Sims game series. However, another perspective became evident in Lerke's narrative, the direct impact of wanting to study a module with friends – almost regardless of the content of the module. Lerke was not the only student in the context of the Employability modules who emphasized that the opportunity to study a module with friends, some of whom were on other degree courses, had motivated them to enrol on the Second Life module. Berend, Tobias, Falk and Sven;

Bettina, Astrid and Silke; Frank, Patrick, Katrin and Lerke; Karl, Pascal and Moritz; Lars, Rasmus and Lena as well as Katja and Nele and Gerrit all indicated that the openness of the module with regard to discipline or degree background (there were no enrolment restrictions) had allowed them to engage in learning that was based on an identity that values friendship and mutual support. Nevertheless, these narratives were partly contrasted with other narratives involving competition and delineation. This leads to understanding learners as complex personalities with complex identities, as further discussed in the last section in this chapter (p. 127).

Lorenz, a male, 21 year old, Theatre/Drama student likened Second Life to his past experiences with The Sims and Habbo Hotel environments, but emphasized that Second Life was unique in the sense that users were enabled to customize objects, build their own material and design the world from scratch [Lorenz, 22: 2-4, 46]. He positioned Second Life as part of the module as being both play/game and work:

Nicole: Do you enjoy the module so far? Or, do you enjoy Second Life?

Lorenz: I enjoy, yeah. It's like you're playing games, but really you're working. So, anything where you're playing and working is always good. [Lorenz, C22: 5-6]

Lorenz's narrative proposed a learner identity that combined playing and working, enjoyment and seriousness or playful learning. Second Life was here positioned as an environment for playful working and learning.

A final position on virtual worlds, as aforementioned in Silas' narrative, was to define Second Life in a context of business and commercial gain. Beside other students, **Holger**, a male, 44 year old student from the Environmental Health course echoed Silas' comments:

What I see about [Second Life] is social networking and games, but, for example, for the owners it's money, you know, they're always selling something. [Holger, S4: 70]

This sub-theme explored students' positions and opinions on virtual worlds in general and its use in higher education. Comparing the virtual world with a game dominated the narratives in this sub-theme and students demonstrated identities in terms of positioning or meaning-making of virtual worlds in education in relation to viewing virtual worlds as gaming environments. However, other students positioned Second Life more towards their field of study and offered pursuits based on disciplinary identities, as explored in the following sub-theme.

Professional identities

Besides relating Second Life to games as examined in the prior sub-theme, this sub-theme explores how students linked the use of virtual worlds directly to their current disciplines, programmes of study, teaching and learning content, as well as their potential and future professional identities.

Although the Employability scheme at Churchtown University was trans-disciplinary and theoretically separated from the individual programmes of study that students are enrolled on, some students aligned the virtual world to their particular subjects or courses to make sense and give relevance to the Employability scheme as well as the use of virtual worlds. However, other students related the virtual world more directly to notions of Employability and the objectives of the scheme at Churchtown University as described in the scheme handbook.

As part of the Environmental Health course at Seaview University, the utilization of Second Life was perceived as directly related to the actual work of an Environmental Health Officer through the simulation of an accident investigation, as illustrated by **Andrea's** narrative.

Andrea was a female, 28 year old, Master's student on the Environmental Health course, with a background in sociology and community work. When I asked her

why she had enrolled on the MSc course, she spoke about her employment background, and then expanded how she had hoped that the programme of study could build on her previous work experiences and would hopefully offer future career opportunities. Although she described the course as demanding, she had enjoyed the variety of different teaching approaches utilized by the different course tutors. Our focus during the interview, however, was on Second Life as part of the teaching in the risk assessment module. She repeatedly reflected on the practical experiences linked to aspects of the work of an Environmental Health Officer that the utilization of Second Life had offered.

At the beginning of the interview she summarized her experiences, also relating back to a discussion on alternative teaching methods as discussed in the focus group that had taken place three weeks prior to the interview.

But then this whole Second Life thing is completely new to me and my career. And when [tutor] first explained it, it was a bit daunting for me. But, in hindsight, I really think, it is the only way to do that kind of assessment. We discussed, in our focus group, whether it could be done in role-plays and stuff like that, and for me, doing, like an accident investigation that we did in Second Life, in role-play, would be just too much, I think. Especially if [tutor] was acting the part, I think, it just would feel false and I couldn't be myself in that, it'd feel not as effective way of learning. So I really value doing this Second Life thing, definitely. [Andrea, S1: 2]

During the interview we explored and expanded in greater length on the topics mentioned by Andrea in this first remark. Initially Andrea told her narrative rather chronologically; however, later we went back and forth through her experiences. She began at the introduction of the course, when Second Life and the e-portfolio were mentioned for the first time:

In the beginning I was, kind of, cursing [laughs] the electronic things, 'cause that was just one thing on top of another, which I wasn't aware of at the start of the course. I just thought it was going to be like the Thursday, Friday lectures, and then you're reading, and assignments, but not the extra tutorials that you have to do on top. [Andrea, S1: 6]

It became clear, that the module started unexpectedly with an introduction of 'electronic things' compared to her previous learning and university experiences. Here she demonstrated a learner identity to whom blended and mediated teaching methods were entirely new. However, her laughter indicated that this was of no particular concern; she rather expected and accepted that parts of the course would be unfamiliar to her. The same seemed to apply to her position towards virtual worlds, as she indicated her openness to learn new things. Andrea continued by describing how she and the other module students had been introduced to Second Life and its functionalities, in particular getting familiar with the avatar, moving around, touching objects to gain access to information, taking screen shots as well as the chat communication functions for the later interviews in-world.

I just didn't know what to expect, it was a bit crazy. And the actual controlling the avatar was quite difficult at the beginning. [Andrea, S1: 12]

I thought maybe [the utilization of Second Life] could've been explained a bit better at the start, but then [...] it was, like, our first day, everything was new, [...] I got there in the end. [Andrea, S1: 33]

Andrea described her struggles in particular with the movement and teleporting functions, as she had managed to teleport into a different area and needed to be found and 'retrieved' by the tutor. Here she positioned herself as a beginner to virtual worlds, and later in the interview she revealed that she had neither played nor experienced any virtual games before and had no plans to do so in the future. However, she had used MSN Messenger and Facebook, so the communication functions were familiar.

She went on to describe the accident scenario and here some slight doubts emerged, as indicated above in the word 'daunting', of whether she could come to terms with the use of Second Life for the purpose of the module.

We had a little run-through the Environmental Health island, and I still didn't really understand it, only when you actually went into the

accident investigation, that brought the relevance to it all. [Andrea, S1: 12]

It became apparent that the purpose of using Second Life as intended by the tutor was not obvious to Andrea at the beginning. It needed the actual, practical experience to understand what the tutor had hoped to achieve and to make it meaningful to her. Andrea described how the simulation of the accident investigation, including the interviews with a witness and the manager had added value to the course and her learning:

[The investigation in Second Life] has added that, sort of, opportunity to have experience in a practice way, but, I think it's fairly realistic in, you know, the responses were obviously real, the witness. So that, it's the most real, in a virtual way, kind of, that doesn't make sense, but do you know what I mean? [...]

Talking to the witnesses, and stuff, could really throw some curveballs, you can't learn in class [...], but you've got that, sort of, safety blanket that is not real, still. So, you've got a chance to, if things go wrong, that you're not affecting anybody's lives [...] Despite in practice, you know it won't run exactly like it has done in Second Life, I'm aware of that, every case that I've got to deal with, will have to be, sort of, dealt in a individualistic way, suiting to that scenario. [...]

For me how to deal with people is daunting, now that I've got the theory and what I should be doing. But how to react to the general public in different scenarios is still unknown really, I haven't had that experience. So, any sort of experience, [...] talking to the witness, you could get their reaction, how they felt, and their responses to your questions, and how you should react back to them. It's that sort of interactivity that was really good. [...] I think having experience, in that respect is useful; it's not just theory, it is putting it into a real context, [...] and you can reflect on that and learn from that experience then. [Andrea, S1: 33]

Linking theoretical elements from Environmental Health law and procedures to practically applying the knowledge in the simulation in the virtual world helped Andrea to understand the role of the Environmental Health Officer, and how others react to the person in this role. The simulation gave her the opportunity to interact with 'real' people without seeing them face-to-face as it would have been the case in a physical classroom role-play situation.

As a first-time experience of doing this kind of scenario, wean you into that kind of practical work experience [...], I think it's definitely a good first base. Whether it could be added more, through role-play-; I wouldn't like to just jump into a role-play though, that really would frighten me to death [laughs] and the same with doing it face-to-face as through Skype and seeing my face and talking. But then maybe I need to be frightened a bit more into it. [...] Through having this Second Life experience, I can relate to the general approach and then take that onboard when, sort of, seeing it in a real-life situation. [Andrea, S1: 57]

Andrea felt less pressured, less self-conscious using a virtual world form of role-play compared to a possible physical classroom setting. This added to her summarizing remark at the beginning that it would feel 'false' and she could not be herself in a physical role-play situation with the tutor. Although Andrea knew that the tutor would get a copy of the interviews to provide feedback – possibly role-playing the manager herself – and Andrea felt aware that she wanted to give a good impression, she also wanted to take full advantage of the opportunity.

What I wanted to get out of it was how I would cope in a real-life context, you know, and learn for it for my work, so I wanted to be me as much as possible. And I wasn't really worried about making mistakes, I knew, ultimately, that this was just a virtual task and didn't have the consequences, but I wanted to make this as a real situation as possible, so that I could get the most out of it, 'this is what I would do in a real situation, was it a good way of approaching it, how can I do things differently, what should I do in a real context,' and stuff like that. [Andrea, S1: 73]

As intended by the tutor, the virtual environment had provided a layer of safety to gain first experiences in interviewing processes and dealing with responses, offering an opportunity to reflect on how one can constructively operate in the given setting. However, the virtuality of the situation provided a secure environment but also a layer to remind Andrea that this was a teaching and learning situation and that 'reality' and working face-to-face would confront her with new challenges, as the next step to becoming an Environmental Health Officer after the course would be to shadow Officers in practice in the following year.

However, not every student took to virtual worlds so smoothly. This is illustrated in Henrike's narrative in this chapter (p. 117) and in Stephan's narrative in the chapter on Resistance (p. 201; p. 206)

Nevertheless, other students approached the virtual world with a strong professional and personal interest, as is illustrated in **Kordula's** narrative. Kordula's learner identity could be interpreted as a 'virtual and mediated environments expert' identity. However, Kordula, a female, 24 year old, Product Design/Toy Design student in the Employability module Beginner Level, would never have claimed that identity for herself in terms of the Employability module, particularly as she had no experiences with Second Life prior to the module. Therefore, I suggested that identity to her in our conversations during classroom observations, when she disclosed her knowledge and experiences. In other circumstances she would potentially resist this identity, as she repeatedly indicated, that not every person of her acquaintance approved of her interests and spending time online. It seemed that I gained her trust and she accepted the expert identity. In the interview she shared her vast experiences with virtual worlds, online gaming worlds, and networking sites, of which some were mainstream and others seemed rather specifically related to her personal interests or Internet cultures.

Against this background, it was almost surprising that Kordula had no experience with Second Life prior to the module, so exploring its functions and interactive possibilities was on her list of 'pursuits', besides informing herself about its cultures and norms through interacting with others. Moreover, in a professional sense, she also followed a quite tangible pursuit for the Employability module very much related to her main programme of study. Kordula was already running a small business in which she designed and produced soft toys based on customers' specifications. She saw a possible extension to her business in designing and customizing avatars in Second Life or to produce physical world toys from avatars.

I sort of have my own business, I get people-, they have their characters and they give me a reference, like pictures and that. They say, 'could you make this for me as a plush, as a soft toy.' And that's what I do for them. I make their characters as a soft toy. So I would love to-, that's what I like about Second Life, because people do commission other people to make their avatars as Second Life avatars. I'd like to be able to do that as well. I think it would be quite lucrative, and it would be lovely to make a toy with that much possibility. [Kordula, C27: 176]

Accordingly her module project focused on avatar appearance and changing them beyond the options that come with the default Second Life 'change appearance' facilities, as she was investigating skins, meshing, and scripting opportunities. Immediately, when I mentioned in the interview, that I would like a tree appearance for my avatar, she started designing a tree on a piece of paper based on my specifications, turning her identity into a designer and my identity into a customer-client for the next few minutes of the interview. For Kordula the module offered the opportunity to combine and pursue her private interest for virtual environments and cultures as well as her professional identity as a designer and artist in a self-meaningful way.

Further students, for example **Mareike**, a female, 19 year old Business Administration student [C11: 95-99] and **Oliver**, a male, 21 year old, Computer Science student [C1-3, 15] highlighted that Second Life and the Employability scheme module provided an environment to pursue creative endeavours that usually would be neglected in their courses. **Lerke**, a female, 24 year old, Forensic Investigation student, at the end of the Experienced Level Employability modules, related her reflections on what she had pursued and achieved to the objectives of the Employability scheme to make sense of and give self-relevance to the experience of utilizing virtual worlds:

As far as the [Employability scheme], you know, to enhance employability and things, I don't think necessarily I would get a job somewhere else because I'd taken part in Second Life. But I could still say I demonstrated teamwork, I demonstrated organisational skill, and presentation work and whatever, those are the positives for me. Yes, I would do it again. [Lerke, C33: 111]

For Lerke general objectives of the Employability scheme took precedence over particular aims that she might solitarily achieve by using a virtual world. Arguably, experiences in teamwork and presentation skills can be achieved in different ways; however, Lerke left the modules with a positive experience linking the use of virtual worlds and teaching Employability skills in university education. Although this remark might sound like a repetition of the objectives given in the Employability scheme manual, considering Lerke's statement in the context of the whole interview and conversations with her in the classroom, it became apparent that she had struggled to find practical meaning in the use of Second Life in the context of the module's theoretical objectives. It was only through her own practice over time and reflection that she gained the confidence to express that she could now 'demonstrate' those skills.

While this sub-theme highlighted narratives in which the virtual world was aligned to current or future disciplinary and professional identities, the third sub-theme concerns students' narratives which featured exploring alternative and new identities.

Alternative identities

The third sub-theme presents narratives in which students explored the possibilities of alternative and new identities through, firstly, exploring the environment and options offered by Second Life and, secondly, learning and teaching approaches facilitated within the virtual world.

Being certain he would find disciplinary fit and even the possibility to enhance his prior knowledge and experiences with regard to his programme of study, **Karsten**, a male, 20 year old student enrolled on a joint sociology and criminology degree course, took on a learner researcher identity for his project in his Employability module Second Life Beginner Level. He embraced the idea of Second Life as a social

place and focused in his pursuit on aspects of Second Life that connected with notions of subcultures and alternative lifestyles and ignored the building functionalities (teaching content in the first three weeks) as he positioned himself:

I'm not a builder, I've never been one for, sort of, going round buildings. I like to talk and I like to research within like, wider society. Society and social sciences have been my interest for a long time now and I think Second Life's helped me to realise that potential a bit more. [Karsten, C29: 81].

In focusing on the social aspects of Second Life for the assignment Karsten, however, remained an exception from the students observed in the five Employability modules. The interview was undertaken at a time when Karsten still developed his project.

Well, Second Life, I think I wanted to explore-, as a sociology student I wanted to see the different forms of society on a macro and a micro level and I thought this could be a good example of giving myself experience within one type of micro society. Some people view it as a game, as a simulated world, but from my own personal experience so far, it definitely is a prime example of a society within just a different context, a different setting. So I thought as a bit more experience to broaden my horizons of just life in general as it is, [...] it would give me an advantage particularly into, like, applying different contexts and meanings to the ideal of society, which I feel will come in handy in my studies in particular. [Karsten C29: 2]

In the presentation of his project, Karsten phrased his description of Second Life not as one micro society, but as many micro societies within a 'meta micro society' [observation notes, 5: 10]. At the time of the interview Second Life was still very new to him; however, he related it to The Sims series in as much as users would customize avatars, but Second Life would not have set game goals or parameters and he positioned Second Life throughout the interview as an environment that offered possibilities for individuality:

It's a lot more freedom and choice in what people choose to do ultimately [Karsten, C29: 32, similar 42, 152], [a place for] wish fulfilment, people can be, who they want to be and do what they want to do on it, which is no bad thing in my opinion [Karsten, C29: 99, 67].

Karsten extended his view on Second Life to the module when he assumed – and was granted – the same freedom of choice of what to do for his assignment, as aforementioned he remained the only student neither to build any nor to script with ‘objects’. In the interview he specified that he was planning to explore ethnographically how people with alternative lifestyles and specific subcultures existed in Second Life, and whether they aimed to achieve political goals, for instance to challenge stereotypes in the physical world; as examples he referred to subcultures such as Goths, Punks or Skinheads, or people with ‘sexual interests different from the norm’ in terms of Furies¹⁷ or BDSM¹⁸ cultures [Karsten, C29: 8, similar 53, 81]. However, he himself had not been in contact or interacted in-world with any user of Second Life outside the module thus far. This was in contrast to his team partner, Dorothee, who had integrated with Furies and Vampire cultures. One contact with a Vampire left Dorothee’s avatar bitten and ‘frozen’ and it needed the support of the tutor to be ‘reactivated’. It was his team partner’s practical experience that Karsten repeatedly related to during the interview, and which posed questions for him of how to interpret this situation, was it ‘acceptable, bit of fun, or deviant’ [Karsten, C29: 10] to bite other users’ avatars, has the fact that such behaviours have happened in a virtual world impact on how they are interpreted – questions similar to those explored in this study.

Karsten was at the time still uncertain how to react to the situation. He put it down to choice and freedom within the virtual world to live out fantasies and that it was a choice of his team partner to put her avatar at potential risk. For Karsten, for the moment, this situation raised questions of online security and identity protection, which he was interested in from his disciplinary background in sociology and criminology. Although he repeatedly positioned Second Life as an environment of tolerance and acceptance of difference, where people could potentially find release and life outside lifestyles without the reprisals typical to the physical world, he

¹⁷ Furies are users who customize their avatars to appear in form of (anthropomorphic) furry animals, for instances cats, foxes, squirrels, or leopards (Rymaszewski *et al.* 2008:40, 233). Karsten seems to reference specific furry communities within Second Life, in which role-playing or embodying a furry existence incorporates sexual aspects and activities.

¹⁸ BDSM, often short for the combinations of bondage and discipline, dominance and submission, and sadism and masochism, describes a variety of sexual practices involving dominating and submissive roles (Ortmann and Sprott 2012). Second Life hosts several areas dedicated to BDSM activities, for example Gorean communities (Bardzell and Odom 2008, Sixma 2009).

separated both worlds from each other. In contrast to all openness to alternative lifestyles and identities, his narrative had an aspect of protecting his identity to it that ran through the interview in two ways: Firstly, he did not give out any personal information that related his avatar to his physical world identity, as he feared hackers could abuse that information [Karsten, C29: 12, 22, 71]. Secondly, he did not to enter areas in Second Life that he thought would put himself or his computer at risk [Karsten, C29: 28, 61].

Nevertheless, regarding positive experiences so far, Karsten positioned Second Life as an opportunity for exploration:

Karsten: [Exploring the environment] has helped me to educate myself more personally, like, on my own views of what I want to do with my own life and what I'd like to achieve with my own. So I'd say the potential for me has been fulfilled. It's given me a chance to educate myself and then in another context to do things I wouldn't usually go about doing in my everyday life. So it's definitely been a good tool for me. It's that element of it being a tool, it's a means to an end. It helps to fulfil potential, within that virtual setting and then educate myself to whether I'd want to carry it out in a physical setting. So for me it's definitely a good tool.

Nicole: Great. That's I think what the course should be about or is about as far as I understand it.

Karsten: Absolutely, yeah. It's an education itself and an end, like, education within the actual game, how to use it. But then an education on the self as well to see what it teaches about yourself and the places you visit, the people you interact with, what activities you actually do in Second Life. It can be enlightening at times in terms of what you actually consider yourself to be and talk about as shown through the virtual setting. So, yeah, I'd definitely say that's a point to educate you more about yourself as well as the game itself. [Karsten, C29: 122-124]

It seemed that, within reason, Second Life offered an opportunity for Karsten to explore new possibilities that he would usually not encounter in his physical life. It seemed that Karsten was positive that he could transfer the experiences in the virtual setting to the physical world. The environment was here perceived as an environment for experimentation with new concepts and behaviours. Karsten indicated that getting familiar with the environment and the facilities of the avatar

had not only allowed him to become more knowledgeable and (limitedly) skilful with regard to Second Life, but also offered an opportunity to reflect on his own current understanding of his identity, here he considered Second Life as a 'tool for education on the self':

Positioning Second Life as a means of trying out new possibilities for oneself was a feature also mentioned by **Lars**, a male, 19 years old, Law student, who defined Second Life as

an idea simulator [Lars, C18: 53].

Prior to the module Lars had observed Second Life during a show production. While he was in a physical world study, the show was also live streamed into Second Life to be viewed by users, which had raised Lars' interest into the virtual environment. However, he had never actively used it himself. Lars compared Second Life to another online game, GuildWars, and immediately qualified it as being different from Second Life:

Lars: I mean, there's no similarities there, at all, apart from you're moving a little guy on a screen, both fun in their own way.

Nicole: Do you see any advantage to Second Life?

Lars: It allows you to explore possibilities, you can say, 'well, this is what I want to do in real life, maybe I can see how I will like about it in Second Life, let's just try and work backwards a bit.' Or, if you want, you can say, 'well, this is what I'm doing in real life and it's kind of dull, what would it be like, if I had done this instead, in Second Life' and try it. Yes, it allows you to have a second life, basically, as the name suggests.

Nicole: Do you think the second life is better than the first life?

Lars: It's freer. More possibilities.

Nicole: In?

Lars: You can fly for one thing, that's pretty awesome [laughs]. If I could do that in real life, I would be all over the place. Obviously, yes, you have a lot more freedom, 'cause you can-, I mean in real life you can't buy your own island, build your fortress of doom or whatever,

but in Second Life that's a possibility [...] In the same way in Second Life, if you want to, you can design and play musical instruments, whereas in real life that's obviously a skill that takes you years and years to learn. [Lars, C18: 30-36]

For Lars, Second Life was a place to try out possibilities. However, these possibilities referred to objects or skills based on a stable identity, rather than experimenting with personalities or being another person in contrast to Karsten's pursuit. Lars, however, was confronted with alternative identities during the treasure hunt in the Employability module:

Nicole: Have there ever been situations when you felt uncomfortable? [...]

Lars: In Second Life, not so much no. I mean, when we entered the photograph contest, there were a couple of moments, where [...] we were in some very dodgy places, especially when we had to get photos of the furry, that freaked us out, especially when we realised we were basically in a furry sex bar, and couldn't find the door, that was creepy, very creepy. But apart from that, there is no incidence, I got on all right. [Lars, C18: 37-40]

Lars struggled with the experience of being confronted with Furry identities in Second Life, as the students in this Beginner Level module were asked to take screen shots including references to Furry and also Gorean culture¹⁹ and their avatars during a treasure hunt. Although Furry and Gorean cultures are very much part of Second Life, they were still not mainstream, I was left bewildered that the tutor asked the students to contact the areas in Second Life without any further offer to exchange or discuss their experiences.

There is an argument that students might feel embarrassed to talk about private explorations and experiences in Second Life as part of an official conversation, as became apparent from a conversation in the first focus group from the Environmental Health course. Here the module tutor enquired whether students had explored Second Life further than the environment used for the educational

¹⁹ Sixma (2009, also Bardzell and Odom 2008) who explored the Gorean culture in Second Life describes it as a specific role-playing community engaging in sexual play of domination and slavery based on the rules laid out in the novels by John Norman (1967).

simulation. For **Holger**, a male, 44 year old student with a background in the construction industry and chartered surveying, it seemed initially indisputable that one should explore the virtual world in its own right. However, other students on the course could not see any reasons to explore further and dismissed the idea that Second Life could have further appeal for private explorations. As no other student further engaged in the conversation between him and the tutor in the focus group, Holger stopped telling about his experiences.

Holger: I had a look around yeah. That's why-, you have to, don't you? [Holger, FG01: 132]

Holger: Yeah, right, I probably, I don't know, I wouldn't say how many hours I've spent, but maybe three hours, four hours, ok and-

Tutor: Do you think, you are embarrassed about it?

Holger: I am not embarrassed about it, I just like to say, when I go into something I like to fully explore it, ok [...] [Holger, FG01: 150-152]

Holger's remark indicated a learner identity in which exploring and making sense based on his own experiences was pivotal. Holger did not want to take what he had perceived as the tutor's stance for granted and wanted to explore what Second Life 'was about' for himself. As the interview with him revealed, he had actually explored and engaged with Second Life to a greater degree than indicated in the focus group, as the virtual worlds had been unknown to him before the introduction as part of the risk module. Holger, however, expressed understanding for his fellow students not being interested in exploring Second Life further, in his words:

You are either into it or not. [Holger, S4: 37].

That experiencing Second Life practically could challenge and transform established views on and enable a new understanding on teaching and learning was illustrated in **Henrike's** narrative. Henrike was a female, 27 year old student on the Environmental Health course with a first degree in Geography. Her

narrative could also fit in the chapter on notions of Resistance, as Henrike indicated several negative expectations and anxieties. However, the ability of 'breaking through' her initial barriers came to the fore.

Henrike: I was expecting it to be a bad experience, 'cause I thought, I really wouldn't like it at all, and I wouldn't get on with it, and I wouldn't know what I was doing, but it was definitely better than I thought, easier than I thought, and, yeah, in the beginning I thought, 'this is rubbish, I'm not going to learn anything from this' and that changed.

Nicole: So you needed a little push over the threshold?

Henrike: Yeah, definitely and you're just thrown into things like that in the beginning of the course. And, yeah, it's just the little push that you have to do something, so you've got to get on with it and they obviously know what they're doing. They're not going to make us do anything that's going to have no benefit or no use, so, yeah, definitely changed my mind on that. [Henrike, S2: 63-65]

Henrike indicated in this passage from the middle of the interview a summary of her journey with Second Life. On reflection her immediate reaction, when she was confronted with the utilization of Second Life, alongside further forms of e-learning, was a conglomeration of negative assumptions that could have potentially stopped her from engaging with Second Life. Henrike anticipated she would not have any positive emotions concerning Second Life, not be able to use it appropriately and she seemed to have sensed a risk of not being able to learn and improve knowledge and skills. Hence, there was barely any internal belief and intrinsic motivation to start to use Second Life for her learning.

Her initial negative assumptions could be based on former experiences, followed up here with an assumption of not being able to succeed in using the application in a meaningful way for her studies. Matters of anxiety came to mind, fear of not being good enough/not having enough knowledge or competencies 'how to do it', combined with the fear that the tool would not be sufficient enough for her learning. When being told that the risk module would be carried out mostly utilizing forms of e-learning, she had reacted negatively. When I asked her about her experience with Second Life earlier in the interview, she immediately focused

on the aspect of e-learning and how she initially saw herself not fitting in a learner identity that concerned mediated learning.

I wasn't too keen on the whole e-learning to start with. I'm not a very computer-, e-person, I don't play games on computers at home or anything, so on a first, when we were doing some kind of accident investigation on Second Life, I was a bit scared, 'cause it's all a bit different, and, it was right at the start of the course, so you don't have anyone, just go in, say log in, have to create an avatar and have to do this and have to do that, and it was just all a bit-, lot's of information all at once, so I suppose, I was a bit scared of having to do that. But, yeah, I can see how it has helped us, because it would be difficult to do that in a real situation. And, also doing it [the interviews with the witnesses] on computer, not face-to-face, you have a bit more time to think about things, so you can construct your questions and things like that a bit easier. So yeah, I wasn't keen to start with, but I can see how it's been useful. [Henrike, S2: 26]

Here Henrike emphasized what she had indicated earlier in the interview, when she had declared herself as a person using computers predominantly as a tool for writing essays and being reluctant to explore further ways of using them. However, the alignment with the subject of the module, as discussed in Andrea's narrative, gave the utilization of Second Life meaning and disciplinary relevance with regard to a professional future. This was important to Henrike as she emphasized that she had long considered, whether the course was right for her and whether she could financially afford to study again.

You can see how it relates to Environmental Health practice, whereas a couple of other bits in the module, it's not so much, it's a bit more theory and don't always relate back to Environmental Health. So that was good. [Henrike, S2: 86]

Nevertheless, Henrike remained sceptical towards virtual worlds and repeated later on in the interview that she could not find any reasons, other than educational ones, for spending time in virtual worlds:

Henrike: I don't think it would. I just don't think I'm that kind of person, I'd use it again, obviously, if we had something to do on the course and I think it is good for learning, but I don't think anything

would make me wanna go on it and I wouldn't use it just for- [she hesitates]

Nicole: Leisure or?

Henrike: Yeah, at home. No. Some people who spend hours on Facebook and there's some kind of farm on Facebook and people spend hours on-, I just don't understand it and that's not something I wanna do at home. [Henrike, S2: 144-146]

Henrike established an identity in which online environments would not fit. Although she was aware of contemporary gaming and social networking environments, she resisted their appeal in general. However, as a learner she offered an open position after overcoming initial barriers.

Henrike was clearly unfamiliar with computer games or any form of social networking online. When I asked her how she would describe the setting of the simulation or Second Life in general, she struggled:

I don't really know, because I haven't got anything else to compare it to with computer stuff, [...] Just, what I would imagine a computer game setting to look like. [Henrike, S2: 132]

Later on in the interview she indicated that more background information about Second Life, before being asked to use it, would have probably helped her to understand the environment being utilized for the simulation better.

Henrike proposed that being introduced to another way of using a computer, here learning in a virtual world, was a challenge. However, Henrike's ability to take on the challenge and to successfully engage with the simulation led to a transformation of her previous views. Once the preliminary barrier was overcome and an integration of familiar attributes and the unfamiliar environment had taken place, new ways of thinking occurred. Furthermore, this narrative highlighted anxieties regarding the use of Second Life, such as not being able to deal with the technology and interfaces that make Second Life run. Henrike did not perceive the use of Second Life as 'fun and easy' – very much the opposite. While in Henrike's case her trust in the tutor helped in transforming her perception of herself and

learning, it seemed that other students remained rather stuck with their initial viewpoints. Their narratives are further explored and discussed in the chapter on Resistance (p. 200).

Henrike's narrative concludes the sub-theme on alternative identities. The narratives presented in this sub-theme revealed that students approached the virtual worlds with a view to exploring potential alternative and new identities. The narratives illustrated that differing pursuits and experiences were taken to the virtual world. While Karsten's narrative concentrated on researching other people's identities, Lars' narrative positioned the virtual world as an opportunity or test to try out ideas, interests, and skills before exploring them in the physical world. Holger's and Henrike's narratives revealed exploring alternative ways of learning and familiarizing with new tools and methods. The final sub-theme in this section, which is based in particular on one narrative, explores the diverse influences and sources of impact that inform the complexity of learner identity in the context of higher education.

Complex identities – a case study

This section focuses on one student's complex identity, **Thorsten's** narrative, as derived from the interview and observations in the classroom as well as in Second Life. It aligns individual factors and aspects of learner identity, highlighting the partly contrasting identities Thorsten engaged with and the roles he took on during the weeks of the Employability module. Some aspects of his identity lay rather open while other, rather hidden aspects of his identity came more to light by connecting observations and other interviews together.

Thorsten was a male, 20 year old, media production student, in the Employability module Beginner Level. Reviewing other narratives in this chapter, it was not surprising when Thorsten initially compared Second Life to other online games. However, he expressed that he had very limited experience with these games as most of them would not run on his computer. He, nevertheless, described

exploring and engaging with specific gaming environments within the whole of Second Life. However, he indicated that his main focus for using Second Life prior to the module was related to his main programme of study and here he related Second Life to the science-fiction film *The Matrix* (A. P. Wachowski and L. Wachowski 1999) and called it a

low resolution version of that [Thorsten, C12: 15].

This led him to relate the module to his present and future self. He positioned himself as a film maker learner and relating Second Life to a film became more self-relevant and potentially nestled in a disciplinary or professional identity:

I go, I log on, it's fun for me, 'cause I'm learning to become a film maker [...] My group for this project is setting up a gallery with our art work in, so my job in this is to take the screen shots and Photoshop them to put them in the gallery, and it's quite useful for me learning to be a filmmaker, 'cause it helps me like learn how to set up the shots and stuff like that to get interesting images. [Thorsten, C12: 15]

His work was clearly important to him and during the interview he showed me screen shots he had taken prior to our meeting and explained to me what he was trying to achieve with the project. Here, his facilitator and helper role came into play, which is further explored below.

Foremost, Thorsten appeared, in particular in the first three or four sessions, rather bored and underwhelmed by the teaching and learning activities in the classroom. I initially suspected that his demonstration of boredom and sometimes disruptive actions in-world were informed by his superior knowledge about using and employing the several functions taught during sessions to the other students in the module. While this was partly the case, the interview also revealed that he had not necessarily wished to enrol on the module, despite his great interest in Second Life and a potential link to the discipline:

I logged into Second Life, I signed up about two years ago, and I've been using it on and off to do these sorts of photographs and pictures

and stuff in that time, so I figured I could not only continue with what I was doing as a kind of hobby, but I could also get graded for it, so I figured it is the logical choice for me at this point. Really, the biggest reason I'd chose Second Life is, 'cause first year I did screen writing and I was expecting to go on to do the second year of screen writing this year, but then they just dropped the [Employability scheme] module, so 'right, I need to do something else.' [Thorsten, C12: 23]

Thorsten seemed to be pragmatic or even strategic about his choice of module, as he proposed that he could get a grade for something he was already familiar with and potentially develop further skills. Nevertheless, when I asked him later in the interview whether he was interested to enrol on the Experienced Level of the module in year three, his remark was that he would only enrol if screen writing would not be reinstated as an option [Thorsten, C12: 99]. Although Thorsten seemed to see an appeal in taking a long-time hobby to the university level, he also took on a position of a disappointed learner whose first choice Employability module had been cancelled unexpectedly. This disappointment still seemed to linger as we met for the interview in week seven of the module and besides getting a 'pass' for the module, he seemed to struggle to find any more constructive meaning and self-relevance in the module.

Besides emphasizing his disappointed learner identity, Thorsten was also one of the students with great knowledge and capabilities about Second Life prior to the module, truly not a 'beginner' but rather an 'expert' in the light of Silas as explored in the first sub-theme in this section (p. 101). At the beginning of the module, he seemed to be the only student in this beginner module who already had his own account and the avatar was set up. He knew his ways around the facilities and functions in Second Life, taking snapshots at the treasure hunt or building objects in-world seemed nothing new and offered no challenge to him. His prior engagement into Second Life enabled Thorsten from the beginning to interact with the environment and to engage other students in activities that were new to the environment. While these activities could be seen as playful and 'fun' on one side, another side to them was that they became also quite disruptive. He repeatedly threw smoke bombs which made working for other students difficult. In the first session he introduced 'the toilet' as explored in Silke's narrative (p. 211), but also a

'sex chair' which enabled avatars to get into varied positions for virtual intercourse, which got many students fascinated to try it out; here teaching became almost impossible until the tutor asked for the chair to be removed and attention to be re-established on the tutor as he was demonstrating features in-world.

Nevertheless, Thorsten had a strong helping side about him that was not recognized by everyone. In the first few weeks of project work, he offered help to students who seemed to struggle with the building functions. However, as none of the students appeared to pick up on his help, he started working on a project on his own for the assignment. Later on, Bettina, Astrid and Silke, who were on his main programme of study, 'joined' him and they became a group. Nevertheless, he basically carried out all the work on the project for the group. Thorsten was very interested in other students' work. However, while most students physically walked around in the classroom to look at others' work, he flew or teleported his avatar to 'have a look' and to interact in-world. But again, most students resisted interaction, indicating that they perceived and interpreted his interest in other students' work as intrusive and unwelcome. However, he seemed willingly to integrate another student, Lorenz and his project in the gallery group's project in the final presentation – this was in contrast to other students who focused on competing with each other by hiding knowledge and capabilities.

This narrative concludes the presentation of students' pursuits, aims, and desires that shaped and informed present self-concepts and positions as learners, as well as potential future identities. The following section summarizes the findings in this chapter.

4.3 Summary

The theme of Pursuit is defined as an opportunity to present the complexity of students' positions, approaches and ambitions towards the utilization of virtual worlds in higher education in order to better understand notions of learner identities in students' narratives. While the themes of Embodiment and Resistance focus on two rather narrower aspects of identity and virtual worlds, Pursuit aims to show how many identities in one person – as in particular illustrated in Thorsten's case study – and more so in a group of students, almost float around the use of virtual worlds in higher education, applying to each other but also challenging each other. The exploration of students' narratives revealed three main sub-themes and related pursuits: Students' positions towards virtual worlds as games, relating virtual worlds to professional identities, and exploring alternative identities within the environment and as part of respective educational exercises.

Identifying or defining the virtual world as a game environment dominated many students' narratives – potentially informed at least in the case of the students enrolled on modules of the Employability scheme by the module's description that related Second Life to MUVES and online games. However, the positions, assumptions and pursuits students derived from this definition on the involvement of virtual worlds in higher education in terms of meaning-making and self-relevance differ considerably.

One stream of findings concerns students' active involvement with virtual worlds or other mediated environments which informed students' knowledge frames and positions towards virtual worlds – and these knowledge frames were diverse. Taking all students' narratives reviewed in this study into account revealed that at the beginning of the modules a minority of students were very experienced users of Second Life, indicating identities of 'experts', while other students were absolute 'newbies' who have never experienced or even approached similar environments. Furthermore, students' narratives indicated that some students were actively involved in playing contemporary online games, in these cases 'gamer' identities

could play an active role in students' present personal identity and positions towards contemporary virtual worlds; while other students talked about 'being into games' rather in the past tense, indicating that games might have been influential when the students were younger, which nevertheless could still inform available identities and assumptions towards virtual worlds in higher education based on students' own experiences. Further students proposed that their assumptions and positions towards virtual worlds were based on 'second hand knowledge and experiences' – that is positions based on family members' and friends' experiences, as well as representations of virtual worlds in media applications, rather than previously being engaged with the environments themselves.

There was a strong trend among students' narratives that virtual worlds were viewed as environments providing pleasure and fun that encouraged engagement with learning objectives. In the cases of the students represented in this chapter, students based this assumption on first hand and second hand experiences which lead into intrinsic motivation towards using Second Life in higher education. This appeared to promote their utilization in general. Nevertheless, a word of caution seems indicated for those students who approach virtual worlds in education with a leisure-focussed and 'easy-going' attitude, as they might find themselves confronted with new and oppositional identities in which virtual worlds are connected to serious issues that they might have wanted to resist in the first place.

Another finding concerned several narratives from students in the Employability modules, in which the proposed motivational aspects of virtual worlds to engage with teaching content and activities were almost contradicted. The students who seemed to start the module with a position of 'inner resignation', as a reaction to the Employability scheme in general, seemed to remain in this position. The virtual world, even defined as an interesting environment, did not create or foster more open-mindedness towards the general module's objectives. Narratives indicated that the modules on offer in the scheme missed a 'purpose fit' for some students, which possibly explained the opposing identities that many students seemed to

propose in their interviews.²⁰ Being confronted with so many students who seemed to base their learner identity on opposing engaging in a module, that seemed to bridge from one Employability module to another, left me conflicted in the limits of my identity as a researcher (as explored in the section on researcher stance, p. 58).

Nevertheless, as the second sub-theme on disciplinary and professional identities explored, several students highlighted the advantage of utilizing virtual worlds with regard to a particular discipline, be it either the students' main degree course or in developing skills and capabilities related to the enhancement of Employability. In this instance, students also emphasized the opportunity provided by the module to break from their programme of study and to pursue further personal interests, which were usually not integrated in their main courses. Yet other students highlighted the teaching involving Second Life as a different and favoured approach to commonly experienced teaching in their disciplines. A main pursuit that students came back to frequently was to learn new knowledge and skills about their chosen disciplines or with regard to future professions. Here students' meaning-making of a module was related heavily to disciplinary identities and future professional selves. It became apparent that these disciplinary or professional identities were based on and informed by traditions and norms that students had gathered through involvement and engagement with their subjects and salient representatives, for instance their tutors. Nevertheless, it came to the fore that Second Life could not always offer immediate answers to students' expectations regarding 'disciplinary fit'.

However, as in particular Henrike's narrative illustrated, through exploration of and active engagement with the environment and the teaching and learning activities, alternative and new positions with regard to disciplines and teaching and learning methods developed. Other students, such as Holger, emphasized that it was pivotal to explore the environment to be able to develop an individual

²⁰ Another aspect of the employability scheme that was repeatedly negatively mentioned by students in the first year of engaging with the employability modules was a form of assessment that was overarching all employability modules and which all students had to undergo separated from the individual modules. This assessment was however phased out in the second year of data collection.

position towards the virtual world. Additionally, the environment enabled reflection on students' self-concepts and opportunities to experiment with new identities. The following chapter on Embodiment will further explore these opportunities.

Chapter 5 Embodiment

The theme of Embodiment discusses students' narratives with regard to notions of embodying and embodied identity in virtual worlds. It features how students envision and enact identity, revolving around the notion of the visual and visible avatar. It has emerged from students' discussions concerning both representing oneself and being represented through a customizable avatar, body and name. Here, it reflects on desires and opportunities as well as on uncertainties and limitations that inform and influence students' dealing with presenting or representing personal identity in the virtual world in an educational context.

This chapter explores and presents students' narratives about their approaches towards their self-presentation and how they deal with opportunities and issues when customizing the avatar as provided by the virtual world. It considers varied aspects of presenting and perceiving avatars, namely its appearance and 'body', but also the name of the avatar – a feature that seems overlooked in the literature in terms of identity formation and performance in virtual worlds. Furthermore it investigates students' interest in, acceptance of, and engagement with varied approaches of embodiment through diverse forms of avatar appearance, experimenting or playing with identity, as well as forms of identity swapping in appearance and behaviour. Additionally, it examines students' understanding of the role and purpose of the avatar with regard to its utilization in the virtual world as well as in a higher education context – and how this influenced the creation and development of the avatar. Finally, it explores students' reflections on the importance of individuality in the physical as well as in the virtual world as matters of standardized and unified avatars are discussed.

The chapter is structured into four sections. Section 5.1 introduces the concepts and theories informing the theme of Embodiment. Section 5.2 presents students'

narratives and observational data analysing the positioning and appearance of the avatar. The section contains five sub-themes. Section 5.3 examines students' narratives with regard to the process of naming the avatar. The section contains four approaches. Finally, section 5.4 summarizes the main findings within this theme.

5.1 Framing Embodiment

The theme of Embodiment discusses the connection of mind and body with regard to identity: Firstly, by challenging and re-thinking the Cartesian dichotomy of cognition and physicality (in the physical world) and secondly, by examining the possibilities of embodying identity in the virtual context. It draws further on the complex relations between the physical world, where notions of identity are often inscribed in the physical, organic body, and the mediated environment, where virtual identity could be inscribed in the graphical 'body' of the avatar. Besides, it explores how notions of identity are enacted in physical and virtual world names.

In terms of identity, Descartes' (2008 [1637]) dualistic approach to the understanding of self, mind, and body as a unity by stating that one can know about oneself without one's body, has led to a powerful and ongoing discourse about the mind and the body as distinct entities. However, is what makes a person a person so easy to distinguish from the body in which it is 'situated' or do we need to regard both to understand personal and social identity? In the physical world, in many ways, personal and social identity of a person are linked to and inscribed onto the body. How we construct and perform our own identity as well as how we perceive someone's identity consciously or subconsciously (using our senses) is directly connected to body appearance, features and attributes linked to the body. For instance, in everyday life a person's body shape might inform about physical sex (and social gender), the skin colour might inform about ethnicity, the clothes

and accessories that are adorned to the body as well as how a person speaks could inform about social class or cultural interests and affiliations.²¹ Without further knowledge about someone we make an impression of ‘who someone might be’ and in the process of who we might be as well.

That the body is not a neutral entity in terms of both personal and social identity, comes to the fore when considering the politics that concern identity and the body, for instance when corporeal cues and attributes become arguments for inequality and lead to judgement over people. Feminist writing, for instance Butler (1993, 2006 [1990]), disclosure of racism (Geiss 1988), as well as critical understanding of cultural identity and ethnicity (S. Hall and Du Gay 1996; Morley and K.-H. Chen 1996) have argued that the social world relies on matters of the body to inform about identity and how norms are developed. As personal and social identity are interconnected and interdependent, personal identity is informed by the social context and particular forms of identity are performed to adhere or to differentiate from what is perceived to be part of a certain identity, that is not only behaviours but also how we represent ourselves with our bodies.

This leads to discussions around notions of identity and the body as ‘a project’ (Giddens 1991:218), ‘an embodied event’ (Budgeon 2003), or what Foucault (1988; Burkitt 2002) refers to as ‘technologies of the self’. Here, identity and the body become a matter of choice and the body is increasingly subjected to customization and intervention in the physical world in contemporary times. Identity is produced and performed to be someone particular, or to suit, be part of, or belong to a certain culture, view, belief. This is achieved by projecting an image on the body and/or making changes to the body, by wearing particular clothes, hair styles, or jewellery, and by undergoing none or any of weight control, tattoos, skin colour changes, plastic surgery, and sex changes; to achieve and present a desired, and if required, new and different, identity.

²¹ The theme focuses specifically on the visual aspects of embodied identity in the physical as well as in the virtual worlds, as a possible influence of someone’s physical voice on the perception of someone within the virtual world are not relevant to this study, as the Voice-over-IP function was not utilized in either educational context. For research on voice and accent and ethnic identity, see (Rakić, Steffens, and Mummendey 2011).

Regarding virtuality, in the early days of the Internet, possibilities for a posthuman and postorganic body were discussed (Haraway 2006 [1985/1991]; A. R. Stone 2007 [1992]). Here, the dichotomy between mind and body is re-evaluated. Emancipatory potentials through strategic self-presentation, active involvement, and expressing 'who one is' beyond the restraints of the physical world on personal websites are highlighted by Cheung (2007 [2004]). But particularly in the interaction with others in the text-based predecessors of contemporary social networks, the physical body and its impact on identity seem obsolete. These spaces are described such as to provide the possibility to create and be someone else, notions of experimenting with identity, identity play and of having multiple identities, ideas that refer back to Turkle's (1996:184) work about identities in MUDs,²² which she describes as 'laboratories for the construction of identities'. Notions of 'gender swapping' (Bruckman 1993) and identity passing and 'tourism' (Nakamura 1995) through self-description are discussed. However, as Nakamura (1995) highlights, if notions and categories of identity are not mentioned, they are implicitly assumed by others. Therefore, as the writing by Stone (2007 [1992]) reminds us, the virtual world was always part of and remains intrinsically connected to the physical world. Additionally, Stone (2007:434; Van Gelder 1991 [1985]) introduces the narrative of 'Talkin' Lady' where gender swapping became obvious and left others feeling tricked and deceived.

Finally, users of virtual worlds do not exist only 'as minds' (T. L. Taylor 2002) or in the form of textual descriptions of self-presentation; contemporary virtual worlds give users a 3D graphical appearance, a form, a shape, a body, through the means of a customizable avatar. And as Stone (2007:452 [1992]) indicates: 'Even in the age of the technosocial subject, life is lived through bodies'; thus, it will be important to examine students' perspectives on embodiment, avatar bodies, and identity.

Beside our physical bodies, names are important indicators of individuality and can embody and enact our identity. As Falk (1975:655) summarizes 'The answer to

²² MUD = Multi-user dungeons or domain, a predecessors of current social networking environments.

“What’s in a name?” may be “Identity is in a name”. When being asked ‘who are you?’, commonly people will answer by giving a personal name, commonly a word or combination of words by which the person would like to be known. However, the first (legal) name is usually not self-chosen but is given to us by someone else, mostly the parents who mark us here for the first time. Piaget (1989) argues that children need to know their name to experience themselves and to be able to make references to themselves. How much a name is linked to ‘who’ someone is and therefore how important a name is for personal identity often only becomes visible when someone needs or is forced to change parts or the whole name and thus ‘loses’ part of his or her history and identity (Amir and Lev-Wiesel 2001; Falk 1975) or when biases and stereotypes based on personal names have negative impact on individuals’ lives. Thus, names as markers of identity play a pivotal role in terms of social and relational identity as others draw assumptions and conclusions about ‘who and how someone is’ from names (Buchanan and Bruning 1971). This includes expected physical appearances as well as behaviours and actions. However, it is argued that in the virtual context of Second Life, the user has a free choice of at least the first name of the avatar, while a second name must be picked from a list of available second names (Rymaszewski *et al.* 2008:85–86).

This introductory section has presented theoretical understandings of embodied identity to provide a context for the theme of Embodiment. It has highlighted potentialities of and barriers to influencing how we present ourselves and are perceived by others in the physical world as well as in virtual environments. The following section explores how students approached and enacted identity through the means of the avatar’s appearance and name.

5.2 Narratives of relationship to and appearance of the avatar

I don't want to see a dog or a rabbit in my classroom.
(Comment of a tutor regarding teaching using virtual worlds)

This section explores the different approaches that students explored in relation to how they positioned the avatar and themselves with regard to utilizing the avatar and the potentials to change its appearance. Students' narratives revealed varied understandings of the avatar that can be considered in terms of two strands, firstly positioning the avatar as a tool or object, and secondly approaching the avatar as an extension of self. These understandings were related to how students described the way they had approached customizing their avatars and how the avatar appeared on the screen. Here three main approaches were identified: firstly, not changing the default avatar appearance, secondly, making changes to the avatar in accordance and relation to the physical appearance of the student, and thirdly, appearances that were described as humanoid, but different from the default avatar and features of the physical world body, as well as animal or fantasy appearances. Five sub-themes emerged which form the following five sections. The first three sections focus on narratives in which the avatar is positioned as a tool. The fourth and the fifth section concern students describing the relationship to their avatar as an extension of self.

The avatar as a tool – utilizing the default avatar

This sub-theme explores narratives in which learners discussed notions of utilizing the default avatar as a sufficient tool to engage with the educational content in the virtual world. Changing the appearance of the default avatar was found as a pivotal part of engaging with Second Life. New users were encouraged to customize the default avatar on 'orientation island' and the 'changing appearance' functionality was introduced both by the environment as well as by the tutors in their introductory sessions. A selection of different outfits to attach to the body of the

avatar as well as entirely different appearance, for instance the form of a blue dragon, could be found in the inventory that was attached to each individual account. It seemed therefore unusual to find in students' narratives and to observe students not changing the appearance of their respective avatars. Nevertheless, this approach was chosen by Henrike and Saskia as illustrated in their narratives.

As introduced in the chapter on students' Pursuit (p. 117), **Henrike**, the female, 27 year old student from the Environmental Health course, was initially much challenged utilizing Second Life or any form of e-learning: 'I'm not a very computer-, e-person' [Henrike, S2: 26]. Nevertheless, as explored, she finally mastered the functionalities and her narrative can be read as a successful in terms of engaging with the teaching aims and content. Nevertheless, she remained distanced to the social aspects of Second Life and mentioned in the focus group that she never changed the appearance of her avatar. During the interview she gave more details:

Nicole: How was it then? I mean I know that you didn't get any uniformed avatars, so you picked them out of the default Linden avatar's, didn't you or-?

Henrike: How we looked? [...] I think, when I first went in there everyone had a kind of pink and white polka dot dress. And that's how I am now [laughs]. Just the same, as when I went in there first of all.

Nicole: So you haven't really changed the appearance?

Henrike: I haven't changed it at all, no. We didn't have much time and I only went in Second Life when we had the investigation to do [...] I tried to change my appearance in the first five minutes, couldn't work out, how to do it and thought, 'oh, can't be bothered, don't really care what I look like, it's all the same, isn't it?', as long as she can get in there, walk around and chat, then, that's fine.

Nicole: Yeah. So, it was getting used to the environment in a way of being able to move and chat, obviously.

Henrike: Making sure I could do everything that I needed to for the investigation and that was it, 'as long as,' [tutor] said, 'you just need to be able to chat and move around,' I was, 'that's OK then, I can do that, don't need to do anything else.' [Henrike, S2: 38-47]

Although the process of joining and familiarizing with Second Life in the Environmental Health module involved the opportunity to change the default appearance of avatars, Henrike analyzed and decided, after clarifying with and being reassured by the tutor, that making changes to the avatar's visual appearance was not part of the teaching objectives and not required to be successful in the task. In her view the default appearance of the avatar was sufficient enough to be able to fulfil the given task, as the appearance has no influence on being successful or unsuccessful with the task – in contrast to the necessity of being able to work other functions such as moving the avatar within the environment and using the communication tools. Therefore, as a consequence of her struggles, Henrike ensured that she could use these functions, but she invested no further time or effort in learning how to customize the appearance. Her actions seem to be in accordance with her initial stance towards e-learning as discussed above. In this light it seems, therefore, less surprising that she did not engage in changing the appearance of the avatar. For her, it was important to be able to fulfil the module task; however, she had no interest in engaging with the virtual world as such.

That a variance of appearance might bring advantage in a different context than the given learning situation was, however, later acknowledged by Henrike:

Nicole: So for you it would have been OK to use a unified avatar, everyone looking the same?

Henrike: Yeah, that would not have made any difference to me, I don't think. But then it's easier to identify different people I think, wearing different things. You know, you've got your names above your head somewhere, but, yeah, it is still funny to see what people have done with themselves. [Henrike, S2, 97-98]

Henrike, therefore, had engaged with the appearance of the avatar by observing her fellow students. She indicated being entertained through observing her fellow students. However, this has no impact on her own approach and the avatar remains in default appearance. Nevertheless, she seems to indicate that more interactive group activities could have encouraged her to individualize and distinguish her avatar further, so that it was not merely identifiable by the name

tag. Still, when I probed whether she would make changes to her avatar in hindsight, she repeated that changing the appearance had no purpose and no appeal to her:

Probably not [laughs], I'd probably just leave it as it was, but if I'd spent any more time on Second Life, I probably would change it. But yeah, I just didn't see the point; if I wasn't going to go back into Second Life again, I didn't see the point in changing how I looked. [Henrike, S2, 108]

The end of the simulation brought closure to the relationship between Henrike, her avatar, and Second Life. In Henrike's view it had no consequence what image she presented in Second Life, as she would not use the virtual world in the future. Potentially, a change of context could change Henrike's view on utilizing the default avatar as she did not in general resist customization. However, in the given educational context the default avatar presented a sufficient tool to engage with the simulation. Henrike indicated a perception that she would not be judged on her avatar's appearance, but on the content and value of her learning portfolio.

Similar to Henrike's avatar, **Saskia's** avatar remained for seven weeks in its default appearance, although customization was part of the learning objectives and activities during the first two sessions of the ten weeks Employability Second Life Beginner Level module. In week four of my classroom observations, I realized that Saskia, a female, 22 year old, media production student, was the only student in the module who had not changed the appearance of her avatar from the default appearance of the so-called avatar 'girl next door'. In conversations during session five of the module we investigated why she had not engaged in customizing the avatar, which seemed in contrast to her engaged occupation developing her team's project, a cinema, in Second Life.

In the conversations I learnt that Saskia felt older and under more pressure to be successful with her studies in comparison with other students on the module. She had chosen to enrol on the Employability module on Second Life as she could see a close link to her main studies, for instance as a medium to present videos or movies to wider audiences. Hence, her engagement in the project consisted of

building an attractive cinema environment, and also incorporating an active screen to stream movies. To her it was more important to

get on with the project [as she] had no time to fiddle with the appearance of the avatar [Saskia, observation notes 03:05].

She stated similarly that changing the appearance would be a

waste of time [and] a distraction from the group project [Saskia, observation notes 03:05].

Saskia added that she was mainly working on the project during the sessions and would not be able to use Second Life at home. She was also referring to previous experiences with computer games, stating that she was afraid that through too much engagement with the environment, for instance searching through the inventory, she could become addicted to it and would stop concentrating on the project for the assessment. If she came across something 'useful' to her avatar while being occupied with the project she would, however, change the appearance. And while searching for furniture for the cinema in a freebie shop,²³ by coincidence Saskia came across a complete 'cowgirl' outfit/costume, and changed the avatar appearance with a few clicks. However, the avatar then appeared like this until the end of the module.

The avatar was positioned as a tool or means to engage with the environment, however, it appeared that for these two students, the appearance of the avatar had no impact on their engagement with the learning content. Both students expressed that there was no need or purpose in changing the respective avatars' appearance in the given educational context. Moreover, it seemed that both students regarded making changes to the avatar as not part of the educational context and 'wasted effort or time' that could be better used to engage with the given educational tasks. However, regardless of how the avatar was positioned, tool or extension of self, all

²³ A freebie shop is a place where users of Second Life can find objects, for instance clothes, furniture, or vehicles, also textures or scripts that make objects drive or give avatars the ability to sit etc. free of charge.

other participants made changes to their avatars and not customizing one's avatar, as in the narratives above, remained an exception in this study, as becomes apparent in the following sub-themes. The next sub-theme explores narratives in which students customized their avatar towards their physical world appearance.

The avatar as a tool – despite physical resemblance

This sub-theme focuses on narratives in which students designed and customized the avatar close to their own physical appearance. However, the avatar is positioned in general as a tool.

The interview with **Katrin** was conducted in the middle of the Experienced Level Employability module. At this time she had spent fifteen weeks in Second Life, ten weeks in the Beginner Level module and five in the subsequent module in the next year. However, she had not spent any time in the virtual world in the nine months that had elapsed between the two modules. Katrin had never heard of Second Life prior to the Beginner Level module. She was motivated to join the first module because her friends, Frank and Patrick, had shown interest and although they studied together on a Physiotherapy course, with the module on Second Life as part of the Employability scheme, they could also integrate their friend Lerke, who was enrolled on a different programme of study. Nevertheless, she made a link to The Sims game series that she had played in her childhood, but she highlights that this experience was in the past. Katrin was very shy during the interview, she shared her experiences, but appeared anxious that her answers would be 'good enough'. During the interview we revisited the first module as well as current developments. Katrin indicated two strands of pursuits which had informed and motivated her to re-enrol on the Experienced Level module: she was cautiously interested in exploring Second Life more and hoped to be able to interact with other users to find out what had motivated them to use Second Life. Additionally, she looked forward to repeating the interaction with her friends in the classroom and recreating the fun they had shared in the year before.

In terms of embodiment, I asked Katrin whether she could remember what had been important to her when she set up the avatar at the beginning of the Beginner Level module in the year before:

I've changed mine so many times, I don't know really. I think, I just did my avatar similar to me [looks wise], really. And then obviously we, me and [fellow students in her group] just played around and put stupid clothes on and all that [laughs]. But no, in general, I didn't really think about it, I just sort of looked at what the options were and just sort of picked what I liked at the time. [Katrin, C28: 46]

Katrin indicated that she had initially approached the avatar with an aim to give it her physical appearance. Then, she had playfully experimented with the appearance of her avatar. She and her friends, Lerke, Frank, and Patrick, had experimented with the default change appearance engine and made their avatars for instance taller and smaller, fatter and thinner, changed the colours, big hair and no hair, as well as changed the facial features. I remember that this group showed high levels of fun, there was laughter and showing of avatars on the computer screens to each other. Katrin's open laughter in the interview suggests that she remembers the situation too. Although her avatar remained human and female, it did not resemble her physical appearance. She admitted that the avatar finally looked more like a combination of chosen features rather than an accurate resemblance, which could be informed by limited options and technical ability available to her at the time.

However, when I explored further whether in general the looks of her avatar were important to her or how the avatar 'comes across' to others, she emphasized that the avatar was rather a tool for fun.

Not really, because again I use it as just for fun purposes and not anything serious. [...] So, I don't really mind how people think how my avatar looks really. It's just sort of, it's not even me, it's just sort of, just for fun [laughs] [Katrin, C28: 56]

Katrin's answer corresponded with the aforementioned pursuits she had defined for the module, which was to have fun and to interact with her friends. Here she

seemed to project her pursuits onto the avatar and she performs a playful approach to enacting identity. Her 'it's not even me', emphasizing that the avatar was not an extension of herself, as well as her consistent use of the word 'it', neutral sex third person singular, indicated that the avatar was rather an object and tool to her.

That Katrin had not further engaged with Second Life's appearance options became obvious in the next part of the conversation:

Nicole: I mean, yes, you've said you changed the appearance quite a lot, went through all the different extremes, have you been an animal?

Katrin: No. I don't know how to become an animal. [Katrin, C28: 59-60]

I explained how to find free animal appearances in the inventory and at freebie places. Katrin repeated that she had no knowledge about these options, and added enthusiastically that she would be interested to be a cat, as she used to have cats in physical life. Thus, I introduced her to furry cultures in Second Life and she listened excitedly. From here I probed how she would react to a tutor having a furry appearance:

Nicole: I mean, will that be okay for you, if maybe a tutor would come up in a wolf costume? [...]

Katrin: Yeah, yeah! I think [course leader] did last year actually, I think he had a tail, or was it [module tutor], someone I'm sure was an animal. That would be fine, I think it would be quite funny, 'cause like I said, I just think people need to have fun on there and just not take it too seriously [...] I might try it when I get back. [Katrin, C28: 71-74]

This remark showed Katrin's openness and willingness to engage with different appearances or identity play in Second Life in general, which she also related to its use in higher education. However, there seemed to be a threshold to her seeing the avatar solely as a tool:

Nicole: Have you ever thought about being male?

Katrin: No, it didn't come into my mind really, 'cause even though I did take it as fun, I don't want to be someone completely different to what I am. And even though I might look very funny on there, if anyone spoke to me, then I would be myself really, I wouldn't change to be anyone else. [Katrin, C28: 75-76]

This statement qualified her earlier statements in which she had indicated that she did not mind what others thought or perceived from the looks of her avatar. She now delimited that a male look and therefore a change of sex and gender would not represent her correctly or might feel wrong in terms of interaction with others. While interacting with her friends and the tutor in the classroom, she positioned the avatar as a tool for fun, for being playful, and potentially to experiment with different looks. However, concerning interaction and communication in-world in general, an avatar of another sex or forms of role-play seemed a step too far. Katrin emphasized that she would be herself, in this the avatar seems to represent and become an extension of her physical world being and behaviour.

Lars, for whom Second Life was an environment to try out possibilities as presented in Pursuit (p. 117), seemed to continue this view in his approach to embodiment and the appearance of his avatar. Nevertheless, there were factors that seemed to hold him back in experimenting with his avatar beyond male, humanoid appearances.

Nicole: We maybe talk about avatars, you said, that's the one [who is] in-world. How would you describe your relationship with your Second Life avatar?

Lars: Distant.

Nicole: Yes.

Lars: I keep making changes to his appearance. Every so often there will be some little glitch, he will turn into a stick figure or something really odd, so that's really annoying. But for the most part, he's basically designed to look as close to myself [...] The fact that you can edit anything on it, is quite amazing and nice because you can go, 'What would I look like if I had a Mohawk, just have a look.' I don't think it will look very good, but it's nice to find out without doing it

on myself and realising that I look like a total prick [laughs], having to wander around for a couple of months before my hair grows back, that's nice. Relationship, I couldn't really say much about my relationship I have, unfortunately, it's just there, I suppose, yeah, a crash test dummy if you like. [Lars, C18: 71-74]

Describing the avatar as 'it' and a 'crash test dummy' indicated that Lars viewed his avatar rather as an object or tool, although the avatar's appearance was modelled on his physical world appearance. Nevertheless, for him the avatar seemed to represent a screen to project and try out possible appearances for the physical self. However, there were barriers that stopped him from experimenting with further alternative identities. For instance he described animal appearances as

fun [but also] creepy [Lars, C18: 82].

And when I investigated whether he would experiment with another sex/gender, he hesitated in his commitment to try out every possibility.

Nicole: Well, would you change sex, gender, have a female avatar?

Lars: You see, that's the thing, for the most part, if games, I always try and go for the same gender I am, because it's easier for me to relate to it. [...] But a lot of people say actually, it's really interesting to play the opposite gender, because you can see what you can figure out. Whether I'd do something like that in Second Life, it would probably be a lot easier just to stick with the same gender, before you have some strangers hit on you, which probably does happen quite a lot, that's why I'm happy to stick with my gender for the time being. [Lars, C18: 84-85]

Here Lars indicated a certain curiosity to try out another sex/gender, but it seemed that he was aware that this could set him a new challenge in terms of interacting with other users, which he was not ready to take on just now as he still needed to get more accustomed to Second Life in general.

That the avatar's appearance can be understood as corresponding to physical world features – which other users could potentially perceive almost as a default avatar as in Henrike's narrative – became apparent in **Andrea's** narrative. Andrea, the female, Environmental Health student, who had focused her engagement with

Second Life on the professional opportunities that could derive from the experiences and viewed the virtual world more in an educational and less in a social context, approached her embodiment in and with her avatar correspondingly:

Then as regard to changing our avatars and stuff like that, I don't know, I think it's because I saw other people trying on different clothes, and stuff like that, I went, 'ooh, you can do that!' So I had a little bit of a fiddle as well, but I soon got bored of that. It's not easy to change from your original character, so I just put on a black cardigan, just to show that I could do something, but it wasn't really a big deal for me, to change the look of the avatar at all. I don't know, because she was a woman and really young, quite attractive, I thought, 'oh, she'll do.' [Andrea, S1: 12]

As Andrea observed her fellow students creating or developing the appearance of their avatars, she engaged briefly with it and explored the changing options offered. However, as the avatar represented a young, attractive woman, and as she struggled technically with the changing facilities, she decided that an appearance close to that of the default avatar was sufficient for the use in the educational simulation. She reflected further on this, when I asked her how she related to the avatar.

Nicole: [...] How would you describe your relationship with your-, the avatar?

Andrea: I don't know. [She hesitated] I think when discussing about your names and identity, I purposely put in an element of my real name, within it, but I don't know whether it's because I've got a lack of creative imagination or-. [...] I kept [my avatar] quite basic and kept it similar to me in that way. I think through the discussions on the interviews, because I'm used to Facebook and MSN chat, it just felt like one of those [...] I think that my personality, wanting to keep things in a real context probably has affected my decision when it came to creating the avatar, and I wanted it similar to my name and similar to my appearance. And personalities came across then, during interviews, it was how I would chat, how I would introduce myself in that situation. [Andrea, S1: 44-45]

For Andrea the appearance of her avatar came second to communication. She compared her avatar with other students' avatars and acknowledged that they

might have used more creativity or imagination, which she proposed as a different possible avenue, rather a role-play approach in creating their avatars. However, for her this seemed negligible and she rejected playful appearances as she wanted an 'as real as possible' experience in the educational context. It seemed almost as if more imaginative avatars could take that away for her. More importantly, for her, personality was created through the direct interaction and through the textual communication in-world, which could be achieved without a graphical appearance, as she emphasized her experiences in online chat environments where no avatars are utilized. Here, the avatar was positioned as a tool to enable communication.

Her view that the appearance of the avatar was less important became apparent when I asked her about the choice of personalized avatars.

Nicole: But was it good to have a personalized avatar, or-?

Andrea: No, I don't think it made much difference, to be honest. I would've been just as happy if [tutor] had just set us a person with a name, quite happy with that. And I wouldn't have minded if it was my name, fully, it didn't bother me, everyone knew who I was, especially because I wasn't like logging on and meeting strangers [...] I don't think I related towards my avatar. I didn't really look at her that much, it was just purely to get around, and then when we were talking [in the witness interviews], it was to look at the script then, and what the witness was saying, and responding to that. But I didn't think much of the avatar, at all, when it comes to my own, like, identity, I don't think. Yeah, you forget that she's there, and, like, visible really, to one's view, it's kind of weird, yeah. [Andrea, S1: 62-63]

Reflecting on whether a personalized avatar would be of any advantage, Andrea emphasizes that for herself she would have been content with a set-up avatar, possibly even the default avatar, as she claimed not to have looked at the appearance, but repeated that she had concentrated on communication. It appeared in this situation, that she became more aware about her avatar in-world and how others might have perceived the appearance more directly than she had. Nevertheless, what becomes apparent is that the name of the avatar was a pivotal part of the personalization process – and in Andrea's case it seemed more important than the creation of any appearance. This name factor will be explored

in more detail in the second section of this chapter, following further sub-themes examining the relation between appearance and positioning of avatars in this section.

This sub-theme highlighted narratives in which students' avatars were customized (or at least perceived so by the participant) akin to the physical look of the participant. However, when probing into the relationship or the positioning of the avatar, the students indicated that they viewed their avatar as a tool or object and therefore, the appearance could change to different appearances albeit within pivotal boundaries as both students – in common with almost all students in this study – resisted appearances of another sex/gender. In the following section the avatar appeared on the screen in forms different from the default avatar and the physical appearance of the student.

The avatar as a tool – can have any, except the default, appearance

This sub-theme explores students' narratives in which the avatar is again positioned as a tool or object. Similar to the first two sub-themes, the avatar could take on any appearance. However, under this sub-theme the students emphasized a need to change from a default appearance rather than approaching the design of their avatars in any way similar to their physical world appearance.

Thorsten, the student who had been in Second Life to pursue his media production ambitions already, prior to the Employability module, introduced gaming and theatre terminology in his narrative of how he had approached embodiment in Second Life.

Nicole: When you set up your avatar, how was that? How did you do it?

Thorsten: How did I create the character? [Thorsten, C12: 40-41]

Thorsten proposed the term 'character' here instead of using avatar which led to an interpretation that the avatar might not necessarily represent him in the virtual world, but could be seen as a creation in a sense of role-playing, fictitious person. Character is a term for avatars which is often used in descriptions of game world personas (Tronstad 2008). However, Thorsten described himself as someone who had limited experiences with games. As Thorsten was a developing film maker, and film roles are often referred to as characters, it appeared possible that this was the source of the terminology. Further investigation was required.

Nicole: Yeah. You say, you have created a character?

Thorsten: It's just when you go around to the different shops and stuff and you see what people have made, like people making their own customized clothing and stuff and it's just fun to see what there is and to think, 'oh that looks really cool,' so-, I bought it and put it on the avatar and that was basically it, that's the creation of the character and like mixing and matching with various outfits to find something unique. [Thorsten, C12: 42-45]

I knew that he had several different full outfits from my observations where he had shared accessories with fellow students. Thorsten expressed that the creation of the character had rather focused on the look of the avatar, as he collected different outfits to be able to change the look of his avatar, aiming for an individual avatar, possibly to make his avatar stand out from the default avatar and other avatars in-world. He further expressed, that although he had collected several outfits, including a 'giant T-Rex' avatar, the bodily features of his avatar remained rather human and male.

Nicole: Yeah. But it seems you put a little bit into it, going to different islands or different places and then putting on what seems to be-

Thorsten: I pretty much wear the same thing everywhere now. Just like some places where they've got strict rules, like this Star Wars, where they rebuild 'Mos Eisley' from the first Star Wars film and if you turn up there wearing a Star Trek outfit, they tear you into shreds. So, it's only at times like that, where I have to worry about really what the character's wearing, 'cause otherwise you can get

banned, if you go in dressed like a hedgehog or same, they immediately think you're just some guy who has signed up the day before and just wants to go and annoy people [Thorsten, C12: 52-53]

There were two strands of thoughts in this statement. Firstly, it appeared that Thorsten did not change the appearance of this avatar anymore and had accomplished a rather stable look with which he was now content. However, secondly, he was aware that in certain areas users were asked to appear in a certain way to show role-play ability and interest. It seemed the Star Wars area that Thorsten described was one of these role-playing areas and users who were not dressed accordingly or appropriately were perceived and judged upon as grievers.²⁴ Therefore, at least in certain conditions, Thorsten expressed that users in Second Life were judged upon the appearance of their avatar as this could inform expected, in this instance negative, behaviour.

A similar position was taken by **Silas**, the very seasoned user of Second Life, as explored in the chapter Pursuit (p. 101). As he showed me around Second Life during the interview, he frequently changed the appearance of his avatar. As I reminded him of our by chance meeting in Second Life prior to the module I referred to his dragon avatar. He then introduced me to his collection of avatars, which was repeatedly interrupted by the delay of loading them in Second Life:

Silas: Oh yes, that one. That wasn't my first. [...] No, that's like the latest one, I had to save up a great deal for that, as you can imagine. But let's see, do I still have that first one of mine? Obviously, when you're first on, you have to go for the free stuff. [...] Click, come on then, let's have a look at a nostalgia. [...] It looks like a balloon animal. But, it was my first, completely free, as you can probably see why, it is not that great and somewhat hard to steer.

Nicole: But I would guess some people, if you say that is for free and everything, they will start searching for it.

²⁴ Griefing is described as deliberately annoying, disrupting or negatively interfering with other users' experiences in virtual worlds; Boellstorff (2008: 187-196) has written extensively about griefing in Second Life and other virtual environments.

Silas: It's not. It's ever so good when you are standing out. [Silas, C4: 23-25]

Silas followed on from this thought later in the interview presenting more avatars:

Silas: This one [...] as it loads, you can see the various bits and pieces that make it up. Lot more to it, lot more effort is going in textures [...]

Nicole: But why a dragon? I mean, it seems you've always been a dragon? Any special kind of fascination for dragons?

Silas: Oh, absolutely. I have always been slightly fascinated with any sort of lizard, which is why I have a dinosaur, and crocodiles too. [...] I have quite a few avatars. Most of them are free, quite a few of them very, very cheap all over the places. [...] I mean, you can get avatars and items and several other things for insane amounts of money, and don't get me wrong, it is worth every penny, because it is awesome in power. I've literally seen an avatar about the size of this whole sim and this is a bloody big sim, imagine one the entire size, kind of a death star if you will, just hovering there. Usually avatars like that cause most sims to crash when you go into them and that generally chance to happen with that big dragon because once you get to a certain number of prims, you get a lot of lag and people don't like you for it. So, the object really good avatar, with various other things, is to be showy but not lag-inducing, 'cause if you do, you upset people, you get kicked out of places [Silas, C4: 41-43]

For Silas it was important to have many different avatars, and as mentioned in the section on his pursuits (p. 101) he employed them to impress and show off his expertise in Second Life. Nevertheless, he indicated that, as he was not able to build and script an avatar to a standard of his choice, he had to save 'real' world money to be able to finally buy the impressive dragon that I had seen at our first encounter. Silas was very critical towards the default and freebie avatars, as they were clunky in use and not desirable in appearance, although new beginners would commonly employ them. He credited an unknown user in particular who must use/have an enormous avatar as an example for proving design and scripting knowledge and skills. However, he qualified this statement insofar that a user needed to find the correct balance between look and practicality, as every accessory added to make an avatar stand out, commonly also adds to the number

of prims allowed within a region.²⁵

Thorsten's and Silas' narratives brought to awareness that seasoned users can value and judge other users on their avatars' appearance for several reasons, as the visual appearance of the avatar can become a 'signal' of status and performance in matters of interaction with other users. Boellstorff (2008) stated that users of default avatars or avatars who are only customized to a limited degree, are often perceived as 'newbies' or as disengaged with the virtual world, both could lead to an exclusion from certain activities.

Gerrit, the male, 19 year old, Media Production/Film student, who in contrast to Thorsten and Silas was new to virtual worlds at the beginning of the Second Life Beginner Level Employability module, approached enacting notions of identity in a playful way and described the appearance of his avatar as an 'accident':

Nicole: Well I think you experimented a lot with your avatar and the appearance of it, didn't you?

Gerrit: Yeah, yeah.

Nicole: Is there a reason why or was it just-?

Gerrit: I don't know, I mean, the way it looks now was a complete accident, because I was a dragon at one stage and I tried to get rid of it but failed miserably, and now I'm 6 foot 11 and about as thin as a piece of paper, and jet black [laughs]. I like the fact, you don't have to be human, you can be a fox and stuff like. I just thought, if I was to get social on it, I'd want people to talk to me, not towards me, 'cause my avatar was-, like, I want people be interested in me because my avatar is different to everyone's or because what I make is different and interesting. [Gerrit, C13: 44-47]

I had observed his avatar being half human, half blue dragon from the inventory for some time in one session; then it changed to the appearance as described in his

²⁵ The maximum number of prims allowed in a region is an important issue, and became repeatedly apparent during my observations of project work, as students could not add to their projects as the maximum number of prims was reached and students needed to either relocate to build in an open sandbox in another area, or had to manipulate prims and objects in their projects, or were even forced to delete material from their projects.

statement. Gerrit's narrative, now, indicated that his current appearance was not a deliberate development, but circumstantial to his struggles with the changing facilities of Second Life. However, he emphasized championing the ability to take on, in theory, any appearance imaginable. He seemed to propose that a different looking avatar could raise attention from other users and become a starting point for social interaction. However, he later seemed to revoke this position, as for Gerrit a virtual world even without avatars was imaginable.

Nicole: Do you think it is important to have a brilliant appearance in Second Life?

Gerrit: No, I don't think so. I mean, I don't think you need an appearance. It's just another way of communicating. [Gerrit, C13: 48-49]

And he elaborated further when I asked him about his relationship to the avatar:

I think the avatar for me is just a vehicle, I don't bother with the avatar. I mean, I bother more with like the building stuff and I use it as like a vehicle to build stuff. To me it doesn't really exist, you know what I mean, if there was an avatar or no avatar, I wouldn't be bothered. Either way I'd still go round, it could be like a first person thing, I'd be fine with that, I don't know, I suppose he's like, I've said, a vehicle for my creativity maybe. [Gerrit, C13: 71]

Gerrit expressed that creativity is important, yet for the expression of this creativity, he would not need an avatar. Thus, the avatar was positioned as a tool or, as he termed it, a 'vehicle'. Nevertheless, there was another side to this, an understanding that the avatar could become the object with which to express creativity, as became apparent when I asked him about the utilization of unified avatars in an educational context.

Nicole: Do you think maybe it would have been easier to use uniformed avatars? [...]

Gerrit: [laughs] Yes, in terms of that you wouldn't start judging people on their avatar, and no, because people couldn't like vent their creativity as well if everyone was just like generic 'Avatar One', do you know what I mean. I think, I would not be as happy to use it if it was uniform avatars, because it would just be a little bit more

boring. I mean, I don't find it boring, but, if it was like that I think I'd be. I prefer it the way it is now. I can't really think of anything that I would change about it. [Gerrit, C13: 88-91]

Gerrit seemed divided in his position on the use of uniformed avatars. On the one hand he saw an advantage as this might stop judging other people on the basis of their avatar appearances – which corresponded with Silas' statements above. On the other hand, Gerrit indicated a compromise on this issue and stated that he would prefer the use of customizable avatars, so as to enable individual expression and creativity, which corresponded with his view that presentation of creativity could allow social interaction. Additionally, he indicated that utilization of a default avatar would upset his engagement with the educational content in the module.

Students in this sub-theme defined their avatars as tools or objects. The appearance of the avatar was not connected to the physical look of the participants, as none of the students approached the avatar particularly to create an accurate resemblance of their physical life features. However, the students indicated that they would disapprove of a default or uniform appearance of avatars and highlighted a need to be able to customize their own avatar. For some students this was caused by experiences in Second Life or other digital environments in which a default appearance was seen as tedious and a limitation of creativity, a potential degrading in status, as well as a potential hindrance to interaction with other users, which could even lead to exclusion from activities.

This sub-theme concludes the presentation of narratives in which the avatar is positioned in general as a tool to engage with the environment itself, but also to enable communication or interaction. As the avatar was consistently viewed as a tool and functionalities were highlighted, the appearance on the screen varied considerably from default avatar to highly customized avatars, from attempts to resemble physical world features to playful appearance approaches, and from stable appearance to frequently changing appearances. In the following two sub-themes students defined their avatars as an 'extension of self', where the avatar is positioned as a representation beyond functional aspects, emotional attachment

comes to the fore, or the avatar becomes (almost) part of oneself. But again the appearance on the screen varied: While for some students it was important that the avatar mirrored or resembled their physical world appearance, for other students the avatar could take on a different look but would still feel and represent an extension of self.

The avatar as an extension of self needs to resemble physical world appearance

In this sub-theme students' narratives describe the relationship to their avatar as an extension of self, in which it is fundamental that the avatar resembles or even accurately mirrors the physical world look of a student.

Ela's view on embodiment and the role of the avatar in the module and in Second Life in general seemed to be shaped by partly contradictory influences. In her narrative, the avatar is both an expression of self as well as a tool. However, the idea of the avatar as a form of self-representation seemed to dominate when confronted with alternative approaches.

Nicole: You just said, you need to use an avatar [in the module]. How would you describe your relationship with your avatar?

Ela: I created the body form how I'd like to be, I've always done that, I don't want to put my real body shape on, I do it how I want to be. But the hair I've done is my hair, when I have changed my hair in the past, it's been the same on my avatar. I've done the same type of clothes, I'd wear if I'd have that body shape, but related to what I wear now, so it's loosely based on me, but, you know, when you project an image of what you would like to look like [Ela, C10: 84-85]

She later added to this strand of the narrative:

[My avatar] has a leopard print bright green skirt and bright red hair, big boots that I wear, that's what makes it me. I've looked in the

room and everyone has their own style, but for me, I'm wearing that [laughs] no one else is gonna mistake [my avatar] for someone else's, that's what makes it mine. [Ela, C10: 98]

Ela described and explained the visual appearance of her avatar in comparison with her physical world appearance. She indicated that she adopted an approach where she improved the body shape slightly, however, the image in Second Life, given that everyone knew her appearance in the physical world, clearly related back to her. Ela's avatar was individual, represented through her individual style of clothing and hair that no-one else in the classroom shared with her. Her description of changing her hair colour at the same time, both in the physical world and on the avatar, showed that her avatar was viewed as an extension of herself.

In a contrary statement, however, she positioned the avatar rather in a context of both tool and object:

It's a computer simulated little thing, it's a load of pixels, it's a piece of computer programming, but I'm interfacing with it, that's where the computer bit comes from, so for me it's not like, 'oh look there is me, oh look, I want to be that,' but it's just mainly a piece of programming I interact with. I think, that's why I don't react to the game that well, 'cause I can understand the programming on it more. [Ela, C10: 89]

In this understanding the avatar was an unrelated interface element to be able 'to work' in and with the environment rather than a representation of herself in a virtual form. She proposed herself that her almost contradictory approach towards the identity of the avatar left her struggling with whether the avatar could be both tool and extension of self, or was neither.

To enlighten and understand the puzzle of Ela's embodiment in the avatar further, I wondered whether the context of the Employability module – to which she had taken an opposed position (as explored in Pursuit, p. 101) – had influenced the appearance of the avatar, so I asked her whether she would have a different avatar in a leisure context.

Nah, I probably keep the same one. [...] if I was doing it in my own time I'd probably customize it more, but she would still be the same. [Ela, C10: 102]

Ela proposed that she would possibly invest more time and effort into developing her avatar's appearance, but her approach would remain the same. There was a refrained statement of 'the avatar will do', which here corresponded with her position concerning the module as being a 'waste of time'. Through embodiment in the avatar again she seemed to demonstrate opposition: the avatar was not worth more time investment than was minimally necessary to ensure that it was not mistaken for anyone else's.

When I asked her whether she would 'have a male avatar', she became quite distinct and resistant:

No. That's how problems start. If you were doing this serious, that's how problems start and if everyone's starts doing that, well more than already do, then what's gonna happen. I am a female, I'm gonna play as a female, that's it. [Ela, C10: 106]

There was an undertone of Ela perceiving gender swapping as potentially deceitful. As she has indicated, slight alterations of her body form on her avatar seemed permitted, but an avatar that looked too different from the physical appearance of its user was proposed as causing more issues in terms of engagement and interaction.

Finally, I proposed the use of standardized avatars in the module to her:

Nicole: This is a module, do you think it is important to use individualized avatars or would you maybe say for a module we could all use uniformed avatars?

Ela: I think for the main module we could use all same avatar, then there will be ten girls with brown hair, blonde hair, black hair, so they'd all be uniformed and same, the same with guys, and you could also say 'well, do this now, do that now', but it would make the module tedious. The way how we can interact with our avatars more is that they're ours. They are not the same, we can identify someone from someone else. We could do it, but it wouldn't be as interesting,

at all. It'd just be like strict high school that are just be 'well do this, do that' wouldn't be interesting at all, I wouldn't enjoy it. [Ela, C10: 116-117]

Ela kept to her stance that avatars should be customizable and individual so as to have a purpose and meaning, and she rejected the utilization of standardized avatars. She linked it on one hand to secondary school, potentially following my proposed uniform analogy, and related the standardized avatar to compulsory forms of teaching which she denied as being motivating and engaging. This reminded of Gerrit's statement above. On the other hand, she emphasized that she would at least keep the dichotomy of two sexes, male and female avatars, potentially with the option to choose a hair colour to express or show individuality to some small extent.

Another student's narrative in which the avatar was positioned as an extension of self, and was designed to be a likeness of the physical person is found in **Lorenz'** narrative. This narrative was also an example of a 'choreographed' identity, in this case in alignment with the physical world person concerning name, appearance, and even his Employability module project. Lorenz, the male, 21 year old, drama/theatre student, created an avatar name by choosing the initials of his first and middle name as the avatar's first name and he worked repeatedly on his avatar's appearance to make it resemble his physical world body features. In his narrative it became even more apparent that he had followed through with the link to the physical world in his project for the employability module, and he finally emphasized how he pursued leaving a mark in the virtual world.

Nicole: How did you make up your avatar?

Lorenz: My avatar doesn't really look like me, it's so hard to make them look like you or resemble you. So, like the first one I made looked ridiculous, it had some dodgy hair and the clothes were just disgusting, and I'm still messing around with clothes, hair, trying to get it to an appearance that I like. But for now I am stuck with what you see him wearing, 'cause I can't be bothered to try and change them, 'cause it takes forever to make a decent avatar. [...]

Nicole: What you said, you would like to have your avatar look like you. Is there a reason for that? Do you think, it's-?

Lorenz: It's because it's me.

Nicole: Is it you?

Lorenz: Yes, it's your avatar and it should look the way you want it to look. And there is no-one better looking than me [smiles] So, that's why I would like it to look like me. [Lorenz, C22: 31-40]

I observed Lorenz constantly working on his avatar's appearance and looks. In the first few weeks, he repeatedly asked the tutor to help him to improve the appearance of his avatar and make the default avatar turn into an accurate appearance of his physical world appearance in terms of body features. His statement in the interview seemed to correspond with my line of observation, although he indicates that he is still not content with the look of his avatar. He positions the avatar in terms of a virtual doppelganger, who replaces himself in the virtual world. As this extension of self, the avatar needs to mirror his physical appearance. Lorenz follows through with this approach of making the avatar an individual expression as I confront him with the idea of utilizing unified avatars.

As long as you can personalize your avatars, so you could be different, 'cause you don't wanna have a bunch of people all looking the same, 'cause no-one does look the same, so why should you all look the same in a game. [Lorenz, C22: 103]

For Lorenz it was pivotal to be able to individualize his avatar and he outright rejected the idea of using set-up avatars. He linked his request to be able to customize his avatar to the physical world, arguing for individual appearance of humans in this context. As part of his project he stated a wish or desire of leaving a mark in the virtual world as well as in the physical world.

Lorenz: So basically, I've just been really, really vain and made the stuff replicating me. That is why I want my avatar to look like me and that's probably why I have decided to build statues to try and make them look like me and a scorpio, 'cause that is my star sign.

Nicole: Yeah and there is a little bit of your name.

Lorenz: Yeah. I think basically you just need to keep your signature in there, so when people from all-over come, say if you got your own

island, they know who made it. You just have to leave your mark like you try to leave your mark in the real world.

Nicole: How do you do that in the real world?

Lorenz: By becoming rich and famous. Or inventing something, or coming out with a clothing line, perfume, something extraordinary. Or you've got to scratch your name in a tree.

[We both laugh] [Lorenz, C22: 135-140]

Lorenz emphasized repeatedly, that appropriate looks and being publically noticeable, known, and remembered were important to him. Instead of building a tree in Second Life and scratching his name into it, Lorenz created or 'rezzed'²⁶ huge balloon-like letters of his physical world first name, which were floating above his mini-sandbox on which he was carrying out the project in the module. Through the balloons he marked his project and the area he was building on. At this time of the project work, he had designed and created huge manikin-like statues and a scorpion. Through his narrative it became apparent that his module project referred to physical world aspects, aiming to develop two statues, one that looked like the physical world Lorenz and another demonstrating his star sign Scorpio.

While the students in this sub-theme emphasized that their avatar needed to look the same as, or a slightly different, improvement to the physical world person, the narratives in the fifth sub-theme present an understanding in which the avatar can take on any appearance and still be an extension of self.

The avatar as an extension of self can have any appearance

This final sub-theme, regarding students' relationship with their avatars and ways of enacting representational appearance, emphasizes narratives in which the

²⁶ To rez is computer terminology for creating a virtual object.

avatar took on different appearances to the physical person's image and was still understood as an extension of self.

Lena, a female, 19 year old, criminology student was still on the journey of defining her embodiment in the avatar. I interviewed Lena after the fourth session of the Second Life Employability module Beginner Level. At this stage students had just started working on their projects after three weeks of working on familiarization with the functionalities of Second Life and acclimatization with the environment and their avatars. Lena indicated that her avatar looked different from her physical world, especially as the hair and facial features did not resemble her; she had also encountered difficulties in changing the clothes on her avatar. Therefore, Lena anticipated that she would further customize the appearance of her avatar:

Lena: I think she'll change her appearance over time [...]. She'll probably end up looking more like me as I progress through the course.

Nicole: Is that an aim to achieve?

Lena: I suppose it could be, yeah, because I think if you get the avatars a bit more like yourself, it means you're getting a better handle on the way you use the programme and the way it reflects you as a person, because I think that's part of the point, isn't it, sort of, having an avatar, is that it's an extension of yourself or someone you want to be.

Nicole: So, for you it wouldn't be interesting to have maybe an animal-like appearance or-?

Lena: Oh, it would be, yeah. I don't really know. To be honest, I haven't really thought that much about what she looks like. [...] what might happening is, I'll just create her in a way I know I can't be created myself and just see what happens really. Yeah, I might do it that way. I don't know. [Lena, C26: 30-36]

Lena's narrative was an example of a student, who was still coming to terms with the changing facilities, and who would need to explore more changing options, the Second Life environment and observe other users' avatars, before she might settle for a specific appearance or even enact several. When we spoke, she initially proposed to seek to achieve an accurate resemblance. However, immediately

afterwards she signalled an interest in an animal avatar that I had proposed to her; and she finally reflected on an appearance that could be either an improved look or a totally different look. It seemed that for Lena, the appearance of her avatar did not necessarily determine that she related to the avatar, in her own words, as an 'extension of self'. Any appearance could or could not support her feeling comfortable, with the avatar being a reflection of self in the virtual world.

While Lena was still very new to Second Life, **Mareike**, a female, 19 year old Business Administration student, indicated in her interview that she had downloaded Second Life prior to the Employability module and had experimented with its functions, including changes to avatar appearance:

Mareike: When I first downloaded Second Life before starting classes, I just got an account and I customized my avatar a lot.

Nicole: A lot?

Mareike: There was a lot of dressing and undressing and dressing again and changing colours and make-up and-. But then at the point I was like, 'OK, I have to stop doing that.' I just left it in one way. [Mareike, C11: 89-91]

Mareike indicated a playful interaction with the appearance of her avatar regarding clothes and accessories. She had invested time and effort to customize her avatar to a point where she felt somehow content. This was in contrast with other students, who positioned their avatars rather as a tool and resisted the assertion that making changes to the appearance was of importance to them, at least in terms of the educational context. Her narrative related, nevertheless, to other narratives of playing with features and identity. However, when I investigated further and asked her about potential, different 'body' identities, she initially hesitated:

Nicole: Well, you use a female avatar? That is something I have seen. Ever thought about you having, using a male avatar or-?

Mareike: Um-

Nicole: Or maybe, you could be an animal, a dragon, or some kind of an alien.

Mareike: At the moment I do have a human avatar. I'm not really tempted about the male avatars, I don't know, just-, no. But I have to admit I think I am going to change my avatar and just make it a dragon some day. Because, I saw so many people with dragons and they look so nice and so colourful. [She reports further about a user having a skunk avatar.] Yeah, I guess at the moment I was more into discovering Second Life and I just kept the avatar like, 'it's OK, female, it's fine.' But I was thinking about it, to be honest, I think, the next couple of lessons I'm just going to change to something else. I'm not tempted about the aliens, though [laughter] they just look weird. [Mareike, C11: 100-103]

Mareike indicated that using a human female avatar was sufficient and appropriate to investigate Second Life's environment and possibilities, which she described as one of her main interests. One of her findings was that not all users have or show a human appearance, and this seemed to have at least raised curiosity in Mareike to experiment with an animal appearance. She praised the aesthetics of the dragons and the skunk avatar that she had encountered. While these forms are described positively as 'nice and colourful', she rejected other potential appearances that she perceived negatively as 'weird'. Accordingly, in the module in the following weeks she changed her appearance to the 'little blue dragon' from the inventory and experimented with different colours and textures on its body. However, investigations into gender swapping seemed one step too far in terms of her embodiment for the time being, as she rejected the proposition in the interview.

Additionally, as Mareike indicated in the first citation that customizing became too time-consuming and distracting from other interests, I wondered how much Mareike valued her avatar's individuality. I proposed being unable to customize an avatar in the educational context, but being asked to utilize uniformed avatars. In her reply Mareike shared an episode from secondary school and related it to the situation in Second Life. In her secondary school students did not have school uniforms. As a proposal was made to introduce uniforms, Mareike helped to design them as she felt that a school uniform could represent being proud of the school and demonstrated the pupils as a collective, a group.

Mareike: But most of the people did not share my opinion, especially girls. They had a problem with dressing the same every day and having, I don't know, 800 girls dressed like me. So it's the same with Second Life. I guess that if I would be supposed to have a uniform at the moment, I would be fine with it, I would actually enjoy it. [Proposes an outfit]; but again, I don't think that many people would agree with that. Maybe if you can also make uniforms for dragons and other animals maybe that would work.

Nicole: But it should stay, in a way, individual? [...]

Mareike: Yeah, like you're having the uniform but being able to adapt it to your avatar's shape, whatever the shape it is, human, animal, alien, or anything like that. I think that could actually work pretty good, that could be a good idea. [Mareike, C11: 133-141]

Mareike indicated that she would value uniforms for avatars and she would even recommend them for an educational context. Nevertheless, she qualified her recommendation insofar as she would let students utilizing Second Life have a choice of body identity. Additionally, in her narrative from secondary school she acknowledged how cultural and political drivers shaped the opinions and positions on school uniforms and she extended this to the situation in higher education. In her view, uniforms could have a uniting effect, signalling identification with the educational institution. Nevertheless, she also acknowledged that other students might feel that uniforms limited their potential to show and enact individuality.

While Lena and Mareike were new to virtual worlds, **Kordula** drew on her comparably vast experience of creating avatars in other mediated environments: from 'one-dimensional pictures' with 'speech bubbles' on The Palace [Kordula, C27: 20-22], 'pretty much like a dolly' on IMVU, [Kordula, C27: 22], to the more customizable furry avatars on Furcadia [Kordula, C27: 24]. She highlighted several aspects which were important to her when creating avatars. One main aspect was the lack of respect for other users that seemed connected to matters of embodiment, appearances and perception:

It's a shame, because, I think the Internet started out as a place to break barriers of stereotypes and judging people on appearances, but because appearances have become so important on the Internet as well, with avatars and with signatures at the bottom of your

message boards and with all the status on that, you do start to pick up a picture of someone and you do start to think, 'oh, yeah, I know what they're all about,' [...] it's not fair to an extent, but, to a degree, you've got to listen to your experiences. [Kordula, C27: 40]

Kordula related Second Life here to developments in Internet environments or platforms in general. She indicated that in her opinion appearances and image creation had become more important compared to the earlier days of the Internet. Moreover, Kordula proposed that users in mediated environments were judged and classified by, for example, the visual appearance of their avatars, although an image would not necessarily be significant to inform about behaviours or personality within or outside of the environment. I wondered how she had approached creating the avatar in Second Life with this knowledge background:

I'm still very ignorant and a bit phobic of programming it, I am not very good at that. So I accept that obviously I'm not going to be very attractive to people, so when I do want to talk to people, I just go up to them and be myself and try to talk to them as nicely as possible, because I understand I'm probably not an attractive, you know, online- [...] I would love to learn, this is why I'd like to do this course, so I can learn how to make a really nice avatar, be a bit, you know, vain and show off what I'm about and what I've got so I'm not underestimated. [In-world] it's sort of-, it's two factors, there's two poles to it, there's, 'when in Rome', but there's also 'be yourself'. It's getting the balance between them. [Kordula, C27: 42-48]

Later during the interview, as we revisited the theme of representing oneself online, she added:

The trick is, don't make a spectacle of yourself unless it's in a professional manner, unless you're trying to sell a product. But even then, keep some integrity and don't trick people. [Kordula, C27: 240]

As Kordula reported her technical problems using scripts and meshes to create a nice and attractive looking avatar, she seconded Silas' and Thorsten's statements that the avatar can be seen as a status object and that looks can determine interaction in-world. Here she argued that creation of the avatar and interaction in the virtual world were interconnected. She had found a way of dealing with the

conflict of feeling not adequately represented in her avatar: she acclaimed recognition and appreciation of different cultures and norms and integration within a specific environment, but also appreciation of oneself by not pretending to be someone else and instead following an approach of 'authentic representation'. However, she was aware that this could be a difficult balance to find.

In her narrative the avatar was viewed as an extension of herself. This became further apparent when I probed whether she would utilize a male avatar.

Nicole: I mean, would you play a male character?

Kordula: No. You know what? No, I would rather not. Maybe, if I preferred the physical design of a male, and I did use to play World of Warcraft and the males always looked cooler in that. But no, there'd still be a sense of, 'this isn't me, I'm not male'. As much as I like guys and that, but no, I'm not male. That's a thing I'm definite about in my identity. A lot of girls I know online, their alter egos are men, they refer to themselves in a male way. But I know they're girls, but they see themselves as male when they're in their soul and that. They say, 'well, I am really more masculine'. I myself I'd say, 'well no, I'm more androgynous, so I'm either female or genderless,' but no, I wouldn't be a guy [laughs]. No, no, no. [Kordula, C27: 148]

No, not in Second Life, because as much as you would be role-playing you're still you on Second Life, it's still your passport. If it was like World of Warcraft or Fantasy World, but because it's a place where-, no, you're definitely you and it's almost like a message board, or MSN Messenger, if you like, you're you; you're you talking to other people. You may have a charade up, but you're still essentially you. [Kordula, C27: 152]

After taking a position in which she indicated feeling uncomfortable with a male avatar as not being 'correctly' representational for herself, Kordula investigated several aspects as to why she or others might utilize an avatar of another sex/gender to verify her stance. Firstly, Kordula related to the potential of embodying another sex/gender with regard to playing certain characters in gaming environments, where gender swapping could be due to the aesthetics of an avatar or the potentials and skills that a certain character only enables in a certain form. However, Kordula did not view Second Life as such a gaming environment. She, secondly, acknowledged the potential of virtual environments to give others

the opportunity to create avatars in relation to their 'soul' or felt sex/gender identity. In contrast to other students in this study this was not perceived as deceit but potentially as a form of release and opportunity to live out 'true' identity without the need for a physical world sex/gender change.

She highlighted the possibilities and emotions of empowerment in role-playing virtual gaming worlds:

Nicole: You said, 'For the three hours, I was there and I was in the avatar.' How would you describe it?

Kordula: Empowering [...] It's like putting on a costume, but your brain is in there. [Kordula, C27: 89-90]

I later wondered about her opinion on using default or unified avatars in Second Life for educational purposes as a potential resolution to the dilemma of judgement on the avatar's appearance. Her reply became a narrative about limitations and liberation in higher education in general:

Nicole: Would you mind if you have to use a default avatar, something that would have been given to you? Would it make a difference?

Kordula: I think it could be limiting. It's like wearing a uniform, but then I would express myself in different ways. People always find a way to express themselves, they always work within limitations [she mentioned pixel art as an art form developed out of limitations] Out of limitation and barriers come freedom, comes self expression. Someone is always going to express themselves in a certain way. Put them in a prison, they'll start drawing on the walls. Give them a uniform and they'll pull up the skirt. [...]

I am very thankful to have normal avatars to begin with. And then know that I can go on from there. [...] You've got to give people stuff to work with, otherwise they get really freaked out, especially with our course at the moment, because it's so liberating and free [...] our lecturer was saying, 'you guys got have to think like designers, you've just got to free your mind and do this'. And they were, like, 'well no'. I mean, they just could not handle it, because they hadn't been taught how to free their minds. They just thought, 'it's a trick', sort of thing. Yeah, it took me a while to get round that, but once you do, it's quite liberating. But you have to start with barriers and then break them down. [Kordula, C27: 277-280]

Initially Kordula indicated a rejection of the idea of standardized avatars as she qualified them as 'limiting'. However, as she made the analogy to the school uniform, similar to Mareike's narrative, she assumed that users would find different ways to individualize their avatars or themselves from others. It seemed she reassessed her initial position and took a slightly different view in which she considered unified avatars alongside default avatars as a good common ground to start with and from which to develop. It was this freedom to be able to develop oneself and self-expression that led to her reflections on the Employability module in which she found the liberty to follow her interests.

This last of the five sub-themes that emerged from students' narratives regarding embodiment in terms of understanding the relationship to their avatars and enacting representational appearance emphasize that the avatar can take on different appearances, does not need to look like the physical person, and can still feel and be understood as an extension of self.

In all five sub-themes, the narratives regarding Embodiment related to understandings of how students positioned their avatars. Two main strands were presented and discussed: Firstly, an understanding that defined the avatar in general as a tool or object, focusing on functional aspects; and secondly, an understanding in which the avatar was described and defined as an extension of self where students focused on notions of self-expression. At the same time the narratives were further examined in terms of how students enacted or realized representational aspects of identity in the form of the avatar's appearance and body. Here three possible approaches became apparent: Firstly, making no changes to and utilizing the default avatar; secondly, an approach in which the avatar was closely connected to the physical world appearance of the student, and thirdly an approach in which the avatar looked or was designed to look different to the default avatar and had no, or only limited resemblance with the physical body, as well as animal or fantasy appearances in either stable or changing enactment. This led to the five sub-themes represented.

The interviews and observational data were further examined for revelations regarding a coherent approach and stance in terms of Embodiment, or whether different possibilities could evoke new understandings from the students in contrast to initial statements. It emerged that students who defined themselves as new to virtual worlds were commonly still in a process of coming to terms with the changeability of their avatars' appearance, and some demonstrated interest in trying out further options. Most participants in this study engaged in customizing their avatars and some to a great degree. However, it also became apparent that some students resisted customizing their avatars either entirely, or the changes to the default avatar remained limited, so that other users, at least seasoned users, would perceive these avatars' appearance as default. Nevertheless, the ability to change and customize an avatar seemed often conditioned by the participants' ability to work the functions within Second Life. Exploring how students approached the process of naming their avatars before even entering the Second Life environment could give more indication about Embodiment in the virtual world, as the following section now considers.

5.3 Narratives of naming the avatar

This section explores varied approaches that students adopted towards naming their avatars. It examines in what ways notions of identity were enacted or proposed by students, while reflecting on experiences as described in their narratives. As the literature review gave surprisingly little indication towards how students named their avatars in Second Life, in comparison to the insight with regard to avatar appearance, this section gives some general findings from the classroom observations and my own experiences. Four sub-themes emerged which are presented in four sections. The first section presents narratives in which the naming process of the avatar seemed dominated by reasons of functionality. The second part explores narratives in which the avatar was named in relation to

students' physical world names. The third section highlights notions of utilizing means of popular culture. Finally, the fourth section concerns narratives in which naming becomes a form of role-play. However, before presenting these narratives, some general findings regarding the naming process are considered.

The first process concerning identity in virtual worlds is choosing a name for the avatar which is also the name for the account to join Second Life. This is a pivotal act of identity-work and decision-making insofar as the name, in opposition to the visual-graphical appearance of the avatar, cannot be changed (except by opening a new account), which makes the name a distinct feature. Under this name, users represent themselves in-world and interact with other users as well as the platform of Second Life. At the time of data collection, avatar names were composed of two elements: a first name which needed to be created and given by the user, and a second name that had to be selected from a list of vacant names. This way, combinations of first and second names were unique in Second Life. However, name choices were also restricted to availability. This had certain consequences, which will be discussed in the following parts. As a default the name is displayed above the head of each avatar, so that the user is clearly identifiable at all times. After 'befriending' another user, their name appears on the friend list. The platform, via the list, will inform users whether a friend is currently logged in. Friends can communicate synchronously via Instant Messaging even when they are at different places in Second Life (also asynchronously as the message will be stored if the user is offline and delivered once the user goes online again). Therefore, the avatar's name carries aspects of personal and social identity intertwined with functional aspects.

As students' narratives show, approaches to naming are individual and vary considerably from one student to another. Some students invested significant thought into their virtual first name, while other students seemed resigned to adopt a quicker solution; some thereby drawing on their physical life first name, others by being playful, and yet others utilizing tools from 'gamer' or other popular culture. Selecting the second name from the list provided by the platform followed

a similar pattern. However, the focus in this section will be on avatars' first names. The sense about oneself in connection to the virtual world name differed from 'expressing myself through the name' to 'random label for functional reasons'.

As aforementioned, one's avatar name in Second Life was individual and unique, no two users could have the same name. However, this uniqueness 'came at a price', choosing the name of the avatar, or one's virtual world name, was restricted by the platform in two ways, the second name needed to be chosen from a list and a first name could only be selected as long as sufficient second names were available to be combined with the chosen name. Given that the first name of choice was still 'available', participants in Second Life would not be able to use their physical world name without the addition of a 'Second Life second name'. Hence, students, as any user of Second Life, were forced to modify their virtual name in relation to the Second Life setting. Second Life's 'Terms of Service' (Second Life 2010) gave few instructions on naming account and avatar, however, some restrictions were mentioned, names that were 'misleading, offensive or infringing' were not allowed: 'You may not select as your Account Name any name that Linden Lab determines may cause deception or confusion; may violate any trademark right, copyright, or other proprietary right or mislead other users regarding your identity or affiliation; or any name that Linden Lab determines in its discretion to be vulgar, offensive, or otherwise inappropriate' (Terms of Service, 3.2). Users who did not comply with these restrictions risked deletion of their account. However, there were no further explanations as to what the developers of Second Life actually meant by 'misleading' or 'inappropriate'. Boundaries in terms of political association seemed wide, as for instance Hitler as an avatar first name was available and widely chosen (correct November 2010/correct October 2012).

At the time of data collection, popular names such as Tom, Ian, Martin, Maria, Anna, Nicole – but also for instance Wanker (as an example for a name that some people might find inappropriate) – could not be selected by students anymore. When this situation occurred, a notice appeared: 'Sorry, all the last names are taken. Please try a different first name' (last observed on 17th November 2010). Hence students were forced to create a different first name. This certainly was a restriction in the

freedom of choosing a name for one's own avatar, and some students in the modules involved in this study were faced with this issue. When students opened accounts and had to select a name during the first sessions of observation, many students tried to use their physical world names, were unable to do so, and therefore were restricted to using a different first name. Theoretically, it would have been possible for instance to combine first name and second name as one's 'first name', obviously with no guarantee that this name would be available; however, none of the students developed this strategy and it was also neither encouraged nor demanded by the tutors. Reactions to this situation were varied. Many students showed surprise, and it left some students frustrated and in conflict, while other students seemed comfortable, less concerned and immediately resigned to various different alternative solutions, as the following excerpts from interviews will show. The first sub-section explores narratives in which the naming process seemed to be dominated by thoughts of functionalities.

Avatar naming process dominated by functionality

This sub-theme explores students' narratives regarding the naming process of their avatars which seemed to be dominated by functionalities.

For **Leonie**, a female, 26 year old student in the Environmental Health course, it was initially a concern that she was unable to use her 'real' name which would have been her name of choice. However, she was able to work out an alternative solution that was based on technical and emotional aspects:

Leonie: I was quite concerned that I couldn't have my name of choice, as well and I ended up kind of adapting a name but, yeah I had a name for it [Leonie: S5, 34]

Leonie: I wanted something I could remember, but something that I liked, it was a name that I liked, so I couldn't have my name, so then I chose the name, I quite like [names a female first name], so it was called [repeats name]. And then [name] was the surname, so it was.

Nicole: Well, some thought went into it.

Leonie: Yeah, it did, it was when you look back on it because when I was doing it, I guess, you know you make all these decisions and you don't really think about why you're doing it or what you're doing and obviously more thought does go into it when you really-. But I couldn't have ['real' first name], so I was like, 'oh [avatar name], that's a nice name,' yeah. [Leonie: S5, 38-40]

Not being able to use her own first name as her avatar name was troublesome for Leonie, as she referred repeatedly to this situation. The name finally given to the avatar 'kind of adapting' appeared as being distanced by Leonie; it was rather more a 'loophole' or compromise out of the dilemma than an informed, volitional solution. Distanced has two meanings here: Firstly, distanced from her person, as no reference was made to any origins of the name, and although it resembled a female name in the physical world, it seemed unconnected to Leonie's life context. Secondly, distanced from engaging with the virtual environment or other users meant that she qualified her reflection on the name-making process in terms of 'when she would really use Second Life'. The utilization of Second Life for the module seemed to be a limiting factor in terms of 'putting more effort or thoughts', creativity or imagination, into naming the avatar.

Nevertheless, the name still appeared not to be solely guided by functionality, what seemed equally important were aspects of attractiveness or aesthetics: As well as being memorable it needed to be appealing to Leonie. Distancing herself from the name in hindsight could relate to being uncomfortable with the decision that she had made – and uncomfortable about not being able to change the name anymore. It seemed arguable, that should Leonie continue to use Second Life, she might start a new account with a different name, investing more time and thought on how the name reflected on her identity or how she liked to present herself in-world.

How pivotal and relevant the uniqueness of one's avatar name was in terms of functionality became further apparent in the interview with **Karsten**. Karsten was another student who emphasized an initial desire to use his physical world name for his avatar; however, as Second Life denied his first name choice, he had to find an alternative solution which led to a narrative of functionalities. We had discussed

the creation of the graphical appearance of his avatar and from there we turned to the appearance of the tutor's avatar,²⁷ and Karsten, potentially also drawing on his experiences while exploring Second Life's sub-cultures as described in Pursuit (p. 117), highlighted that the name tag especially would make every user identifiable no matter what graphical appearance the avatar would have.

Nicole: So maybe it is, in a way, important to have a name?

Karsten: It's important to have a name definitely, just as that initial tag, so say you identify him initially and then what they look like, might physically-, well you could say comes second. Just so long as you know you're definitely talking to the person you want or need to talk to. Say if I wanted to talk to him more about my project, I'd go on Second Life, identify him as the man in the suit, or the elephant with pink hair, or the giant gorilla with the green wig on, or something like that. So long as, like, they're identifiable, it doesn't matter what they look like, 'cause you still identify them as that.

Nicole: They could change the appearance- [...]

Karsten: Week to week, day to day, hour to hour, it could, but you still know, so long as the initial name tag's there, it's them and it will come up in the friends list anyway, so you just find it and you could verify it by that as well. [Karsten, C29: 90-95]

In the case of Karsten's tutor, the tutor's avatar would never change his graphical appearance, which was very similar to his physical appearance. This tutor thus proposed an identity that bridged from the physical into the virtual world. However, the other tutor's avatar changed appearance from one session to the other, sometimes even during the session. However, through the other tutor's constant identification with this avatar's name tag, and through the uniqueness of the name, on which users could rely, Karsten could build trust that he was communicating with the intended person, unless deception is occurring through someone else taking over the avatar without announcing this, during a teaching activity. Additionally, in Karsten's narrative we were reminded that the name not only identifies one user in direct communication and interaction, but that through the name, for instance via Instant Messaging, one can also asynchronously

²⁷ His avatar is actually pretty much a like for like replica for him [Karsten, C29: 87]

communicate with this user at any time. Here, the name became a means and tool for communication and interaction.

From there, I asked about the process behind the creation of his avatar's name.

Nicole: Did you think about your name for your avatar?

Karsten: Well originally I was going to put my own name down, but then I thought not only is everyone going to do that, this gives me a, sort of, chance to cut loose a bit. So my own name on it harks back to my A level philosophy. [...] I thought it was a clever name. Obviously people choose different names for different reasons. Some people do it because it's funny, some people do it because it means something special to them. I've just done it because I thought it sounds good. It sounds a bit more exotic and that goes to my own wish fulfilment. I can be this different character potentially within this virtual setting and then once people get to know me, they'll make up their own mind, but as an initial tag I thought, it just looked and sounded good personally. [Karsten, C29: 96-97]

Through his 'initial tag' Karsten proposed that a name can only give a first indication about a person; 'evidence' for the existence of the person in Second Life. In his view, neither name nor appearance in the end gave a holistic picture about someone's identity and personality, only through further interaction will someone be able to get to know the other person better. Nevertheless, he stated a desire to give a 'first impression' by creating an avatar name with appealing qualities: 'sounds good', 'looks good', 'exotic', and 'clever'.

Another example in which functional rationales seemed to drive the creation of the avatar's name became apparent in **Henrike's** narrative. Henrike, as discussed in the section above (p. 140), never changed the appearance of her default avatar. At the start of the interview, when I informed her that I would anonymize both physical names and avatar names, Henrike was not certain if she could remember the avatar name:

Don't know if I can remember it anyway. [Henrike, S2: 2]

However, later during the interview I referred back to the avatar and its name and she, almost surprising herself, was able to inform me about the name giving process:

Nicole: Did you think a lot about the name? Was that important?

Henrike: Not really. I picked-, oh I do remember my name, it was, [first three letters of legal first name], so, just kind of something that people call me at home. And I watched [American TV series] the TV programme and there was an avatar name [slight change to TV programme name], so I just chose that because it was kind of something that I knew, I'd remember and [laughs] for logging in next time, couldn't be something too out there, 'cause I wouldn't remember it. So no.

Nicole: So, happy with the name?

Henrike: Yeah, just-, the name doesn't really bother me. Some of them were really imaginative and quite funny, but-, no, I just wanted to pick something that I'd remember. [Henrike, S2, 34-37]

Henrike drew on a familiar name, an abbreviation of her physical world first name, which is an approach adopted by many students in this study – further explored in the next sub-section. Henrike's narrative was similar to Leonie's with regard to 'making sure to be able to remember the name'; however, in Henrike's case familiarity seemed to be the solution. Additionally, she considered other people's choice of name as being 'really imaginative and quite funny'. Here her narrative contained relational aspects as she compared her name with others and she indicated appreciation of her peers' efforts concerning the creation of their names. However, it also comprised aspects of resistance, as she almost defended her opinion that a name did not matter in terms of social relations, but that functionality regarding memorability won over other possible aspects to a name.

Emphasizing functional rationales behind the naming process in the narratives was very valid, especially given that Leonie and Henrike knew that in all likelihood they would need to access Second Life remotely and without the support of a tutor. Moreover, as observed in Julius' narrative, despite the tutor's warning that students should make sure that they remembered the avatar's name (and the

password), he was one student who needed to start a new account after forgetting the name.

While in the narratives in this sub-theme students emphasized reasons of functionality, in particular being able to remember the name as the means to identify a person, in the next section narratives in which the name was based in direct relation to the physical world name are presented.

Naming based on notions of physical world names

Reviewing all participants' narratives, this sub-theme explores the approach of name giving that the majority of students adopted. In their narratives students revealed that the name of their avatar was created in connection to or from notions of their physical world names or nicknames. Students' narratives in this context were not rich. However it seemed important to integrate the approach in the findings, as it was the approach most frequently adopted.

Silke and **Frank** were two students who opted and were able to use their first name, or as Frank declared his 'normal name' [Frank C16-17: 332]. Both were possibly unaware that many students could not use their first name. **Katrin** had chosen her middle name [Katrin C28: 48], as she could not use her first name, which seemed unknown to her group members as Patrick thought that it was a name that 'she liked' [Patrick C16-17: 329]. In this case, it became apparent that the close relatedness to the physical world name was neither obvious nor known to other users. If a group user of Second Life did not give any information about the physical world identity in the according tag in-world, obviously it needed the knowledge of someone's physical world name to observe the connection between avatar name and physical world name. **Patrick's** avatar was named after parts of

his surname which had been also a nickname in school and which he had also used in other contexts such as email addresses [Patrick C16-17: 329, 335]. **Lerke's** avatar comprised the doubling of an abbreviation of her first name, which was also a nickname used by many of her friends not only in reference to her first name, but also in reference to her positive personality, as she told me in a classroom conversation. **Julius** also used a nickname with which he had initially introduced himself to me in class and which I was invited to use during the interview, as I encountered problems pronouncing his given first name. Julius initially used an avatar that was set up by the university. However, as he could not remember its name, he decided to open his own account [Julius, observation 03: 02, C23: 5-11, 70, 181].

Bettina and Astrid used a combination of their first name and another term. **Bettina** abbreviated her first name and added a term not further explained, a name that she also used as her email address [Bettina, C19-21: 185], therefore relating her avatar to other technological forms of communication and tools. In **Astrid's** case the second part of the first name was a technical term taken from the name of her boyfriend's blog [Astrid, C19-21: 183], which could indicate both engagement with technology and closeness in the relationship with her boyfriend. This, however, would not be obvious without further knowledge about Astrid's private life.

Although these students had taken slightly different routes in creating a name with reference to their physical world names or nicknames, what these students have in common was that all were new to virtual worlds. They were confronted with the necessity to create a name, mainly before entering and experiencing Second Life's environment or interacting with other users, as the joining and name giving process happened through a rather bare window in an Internet browser. Students' approaches to avatar naming might be a reference to their uncertainty concerning what they were about to encounter. A familiar name, beside its functionality as discussed in the previous sub-section, was also to make a connection to the physical world that was familiar or 'normal', to draw on Frank's remark. Wanting to be known and approached under this name could indicate that students wanted

to relate their avatar, or at least communication mediated through their avatar, to their own self as the physical person behind the screen.

In the following sub-theme, students draw on notions of popular culture to derive a name for their avatars.

Naming based on forms of popular culture

While the previous sub-theme presented students' approaches to naming their avatar in close connection to their physical world names or nicknames, using those names directly or in parts, in this sub-theme students drew on forms of popular culture to name their avatars.

Kordula's avatar name was another example of a name based on the physical world first name, however that might only become obvious to people who have knowledge of English and Na'vi. Na'vi is a constructed language particularly created for the film *Avatar* (Cameron 2010) by linguist Paul Frommer (Zimmer 2009). During the classroom observations, I asked Kordula about her avatar name and she explained that she had used a Na'vi name generator on the Internet, for example Rum & Monkey (2010). Name generators allocate a user with a random name or a 'translation' of a given name based on a specific culture of language. As Hagström (2008:270) has demonstrated, name generators are part of gaming world culture supporting users during naming processes. During the interview we explored the situation further:

Nicole: I mean, it was quite funny, because when you said last week, about your avatar name being the Na'vi name. Of course, I just checked what my name would be.

Kordula: Really? What's your name?

Nicole: It was actually, kind of three words. Nah, Ter-, not Nah-ter-ix because that would have been more Asterix, but Nah-tur-ral. And I thought, right, actually it's a bit like natural. I quite like that. [...]

Kordula: It's a bit of fun. It's all good. I went for that. But I love all that, when it says pick your pirate name; pick your pimp name; pick your this name. And you look it up, you know how it is, you just sort of feed off new information, even if it's just trivial. It just gets the creative juices flowing. It's like, 'oh, yeah.' [Kordula, C27: 134-143]

Kordula approached naming her Second Life avatar in a fun and playful manner. Although I mentioned 'having a bit of fun' initially, she did not object to my suggestion and interpretation, and demonstrated her commitment through 'love all that' and further examples of playing with name generators. Although it might not be a serious matter overall, she had experienced it as a useful approach to get creativity going. Experimenting with her name was part of Kordula's engagement with virtual worlds and other online communities. As she expressed throughout the interview, although Second Life was new to her prior to the Employability module, she had experienced several virtual environments and social networking platforms. However, the excerpt revealed her surprise that I had engaged in her interest. It was another indicator that not everyone she knew approved of her interests, and so had challenged her for spending time in virtual worlds and similar environments (see Pursuit, p. 110).

Another influence from popular culture, here particularly engagement with gaming environments, became apparent in **Tobias'**, **Falk's**, and **Berend's**, narrative. Tobias, a male, 21 year old, Engineering student, Falk, a male, 20 year old, Geography student, and Berend, a male, 20 year old, Logistics student, who were all enrolled on the third year Employability module, proposed an approach in which names seemed to be randomly picked through the use of a name generator. However, immediately after I had introduced the topic, the three students started to chuckle and laugh meaningfully, that indicated that there was more to their narrative.

Nicole: How about names. What did your names come up, was that a long process or was it just-?

Falk: [chuckles] Ehh- [...]

Berend: Yeah, I didn't wanna use my generic online name, we went onto, what was it?, northern names?

Falk: Northern names name generator, makes it totally up, so that is where it comes from. I am afraid, got it over the Internet, so I stock my name and a lot into the character and then, yeah, I do that with a lot of games

[The students laugh]

Berend: It makes a lot of sense with yours though, mine just went crazy over the time

Tobias: You got some crazy elf name {Berend: Yeah} it doesn't make any sense [chuckles]

Berend: We didn't intend to use it like properly anyway, we really make it for one course

Tobias: We weren't really serious about it {Berend: Yeah, we were just mucking about}, there wasn't some thought, rather we need a name that we can use

Berend: Yeah, seemed to be the same last year, one of the advice was really, less, let's say less sensitive names {Tobias: [laughs, chuckles]}

Falk: Mature rating {Tobias: Yeah}

Berend: Mature rating with the names. [Berend, Tobias, Falk, C5-7: 163-178]

It seemed that resorting to a name generator and experimenting with different names echoed Leonie's narrative emphasizing a perceived necessity to create a name in a quick manner. Nevertheless, while Leonie highlighted that she created the avatar name with a view to 'like' the name, Berend, Tobias, and, Falk's proposed that they had adopted an approach that led to a 'meaningless' name. However, it seemed that the approach was less random as proposed. The narrative revealed more about their personalities. Additionally, it gave insight about how others might perceive some name choices as 'inappropriate' in the context of higher education, and censor further on the freedom of name choice than Second

Life itself. This narrative, more than any other part in the interview, revealed the students' great interest in engaging with online games and spending time and effort into name and character creation in gaming worlds. Nevertheless, again similar to Leonie, the narrative indicated a distance towards the use of Second Life in higher education, as they almost ridiculed the module through describing their avatar naming approach as 'mucking about', 'not serious', 'not used properly'. This seemed partly a reaction to the experiences of the Beginner Level module the year before. The students indicated that they or other students had tried to introduce names to the module to which the tutor had reacted, by advising on or even restricting the naming process. 'Less sensitive' and 'mature rating' pointed towards names that contain 'strong language' and possibly were perceived as a form of provocation. It seemed the view of the tutor on employability and how to be professional was that students should also create 'appropriate' names in-world. Creating 'random' names via a name generator, therefore, seemed rather a reaction to demonstrate resistance towards possible restrictions, although the tutor in this module made no official remarks towards the choice of names.

Approaching the naming process by utilizing a name generator also relates to notions of role-playing, an approach that has dominated students' narratives which are presented in the final sub-theme.

Naming the avatar as a form of role-play

This sub-theme explores narratives in which the naming process followed ideas of role-playing with the avatar.

Lars' narrative illustrates specifically how the name of the avatar could give an additional layer to the relationship with the avatar. Here, the name became a specific part of embodiment, with regard to how Lars wanted to present himself in Second Life and how others might perceive him through the name. Initially he had

described the avatar as being based on his physical appearance, but had also described the relationship to the avatar as 'distant' and positioned it as a 'crash test dummy':

Nicole: You started your own account obviously, but how did you make the name?

Lars: Um- [He hesitated for 2 seconds]

Nicole: Oh, you put some thoughts into it actually.

Lars: I did. I was just sort of sitting around thinking, 'what would be quite a hilarious name to have, and what country would I like that, you know, if I wasn't from here, where would I like to be from.' [He reflects on possible origins/nationalities] 'All right, for a laugh, I will go with Russian,' you can be really stereotypical with that, name wise, unfortunately, obviously, I wasn't going that far to walk around with the Russian accent, typing, but name wise I could go, 'all right, there is quite an obvious Russian name that everyone knows, [avatar's first name], why not,' and then the pre-sets generates the second name. And [avatar's second name] worked really well, so I sort of went with that.

Nicole: Do you now expect that people think you are from Russia, like the real person behind the avatar?

Lars: I have no idea, I'm certain that someone somewhere would have seen like, 'hey look, it's a Russian,' but for the most parts I don't know, they're probably going, 'ah, I don't know where he's from, he may be Russian, he may just be having a laugh.' It's kind of quite difficult unless you actually talk to him in the game, just dissuade them from the idea that I'm not actually Russian or 'yes, I am Russian, look at my crazy Russian accent.' [Lars, C18: 112-118]

While his avatar's graphical appearance was supposed to give a projection of his physical appearance – which would become only obvious to someone who would know the physical person – Lars' narrative about his avatar's name was rather indicative of a role-play approach that initially seemed to correspond with his earlier statement that the avatar was 'distant' to him. However, the way he engaged in telling the story showed how much he had, at least at the start of using Second Life, connected with notions of embodiment, presentation, and self-presentation, and how he had considered that others, through interacting with his avatar, might perceive and receive him. He had resolved on a name that was un-

English, and might suggest a different national heritage, here namely Russian. However, he was conscious that in a situation of interaction other users might become quickly aware by the use of his language that he was not physically Russian and he had decided not to pretend in his communication to be Russian.

Lars: Well, the first thing, as long as you've got an idea behind it, you're not just banging out random things.

Nicole: No, I had actually, more thought in the name than in the appearance.

Lars: Fair enough. I mean, a lot of people, when they're presented with, 'what's your name going to be?', they either panic, or just go, 'I've got to think of this', get up and walk away from the screen for 20 minutes while they are scribbling out name ideas, or there's the other end, they just go, 'right, close my eyes and jab two letters and add a vowel in-between them and hope that it comes out with something that makes sense.' [...] It's better to have some thought behind your name and have a name that you can relate to, so you won't get bored after five minutes and then you are all going, 'oh it's just chaff', why did I ever do that?' [Lars, C18: 123-124]

There were two approaches to naming in his view: thoughtful or random. For Lars a thoughtful approach to naming an avatar seemed a pivotal step towards connecting in any way to the avatar. He disqualified random and panic approaches, which might look playful, as a hindrance in developing a relationship with the avatar. Possibly, after all, his relationship to his avatar was not so 'distant' at all.

The final narrative presented under Embodiment is **Holger's** narrative. Holger followed a holistic and 'choreographed' approach that kept the physical world person as private as possible, since he invented and crafted a character around the second name of his avatar chosen from the Second Life list. Holger was the male, 44 year old, Environmental Health student who had engaged to a greater extent with Second Life beside the educational scenario of the accident investigation. This engagement showed again in his narrative about the creation of his avatar.

Nicole: How was it, putting up the avatar?

Holger: It took a bit of time to do. But once you understand, it's quite

intuitive, so, you know, you decide what you want your avatar to look like and then you just try and make it as real to your image of it as it can be.

Nicole: Was this your aim?

Holger: Yeah, I suppose, I knew what I wanted it to look like. But [he hesitates for 5 seconds] yeah, it looked as I thought it would look like within reason, but it also helps when you get given clothes and skin and hair, it makes things much easier to change then or it's more realistic, whereas the initial toolkit isn't very imaginative. From what I remember everybody looks the same when they come out, when they are first born [motions quote marks and laughs] and then everybody is a variation of the same sort of thing for a while. I think, with Second Life, you are either into it or you are not, people will sort of spend time and look after their appearance or change their appearance to suit their aims at that point in time. So, but I thought that it was relatively easy to put together, create an identity then. [Holger, S4: 34-37]

Holger had a specific image of how his avatar should look, which he finally called a 'creation', indicating he considered his avatar to possess a deliberate identity. Holger further indicated that he had spent time and effort creating an appearance for his avatar with which he was then content. While some students have reported their frustration and struggles with the changing facilities, Holger proposed that with a bit of effort and interest into Second Life, one can achieve an appearance that was more realistic, and stood out from the default avatar and its variations. Here his assertion related to other students' statements, indicating that the appearance of an avatar might allow conclusions about the engagement of a user with the virtual world. Accordingly, it seemed that Holger must have had interaction with other users, who had given him customized skin, hair, and clothes that supported him in achieving his creation.

Nicole: How have you created this identity?

Holger: Well, my avatar name is [first and second name] and I thought to myself [...] 'right, you can choose the first part of the avatar name, but not the second,' so I thought, 'right, I wanna make something match up here.' I could see this [avatar's second name] coming up, so I thought '[first name a male figure from legendary history]' that makes it, it's a created type. I got a name and then I thought 'well, I try to create a sort of an avatar which might be

someone's image of [that figure]', so he looks like a big Roman, sort of hair style and like a warrior. So, my avatar is not like me, he's big, tall and for no particular reason other than I wanted him to be like a formed warrior, dominant sort of character, and size is dominant, you know. But people have commented on that I might come across as if-, but I'm not-. When I interacted in Second Life than I'm acting out as [figure]; I think, I might be more arrogant, you know, I don't have to be polite when I don't want to be. But people are very polite in Second Life, there doesn't seem to be very much animosity. If there are any problems, people are trying to sort it out. There is this particular place [where they do vampire things and there is a warrior part] and they wanted me to get involved with that [...] but I don't really wanna participate, because I don't wanna get involved in playing games, it's not what I'm interested in, I'm only interested in talking to the individuals and finding out about them. [Holger, S4: 38-39]

Holger's narrative described a holistic approach to the creation of his avatar, role-play as well as identity invention: the chosen first name, appearance, and behaviour are all choreographed around the second name of his avatar, which was suggested by Second Life. He had designed a kind of legendary warrior avatar, that was indicated already by the first name which he supposed would raise an image of what someone with that name should look like. According to this (stereo)typical image he customized the avatar to be tall and muscular, different from his own physical world appearance. Nevertheless, he demonstrated awareness that in the physical world height can be used to perform, and be perceived by others as dominating, as he related the comments by others. Additionally, he described his behaviour when in-world as role-play and different, more arrogant, less polite, compared to his usual physical world behaviour. Nevertheless, he admitted that his behaviour seemed partly out of place as he usually perceived other users' behaviours in Second Life as polite, albeit playful. His avatar had caused reactions in the virtual world from what seemed to be a role-playing community, whose members had invited him to join it. However, he resisted as he was not particularly interested in role-playing as a form of gaming interaction. Here his role-playing approach to embodiment and identity did not carry through to his leisure activities.

It was also not followed through in the educational context and the interviews with the witnesses as part of the accident investigation scenario:

Nicole: Well, was it important for you to have a personalized avatar doing the interviews, or has there been something changed when you did the interviews?

Holger: No, I was me, because during the interview, I knew that the person on the other end of the keyboard knew exactly who I was, so it didn't matter, what form I was, it was irrelevant, because, they're not looking at the avatar, they're looking at the question and that's what they concentrate on [...] so it's irrelevant, the identity of it is not important. [Holger, S4: 87-88]

Holger suspected that everyone involved in the educational scenario was informed about his physical identity and was briefed to concentrate on the task at hand; the appearance of the avatar became meaningless in this context. Although Holger indicated above to act as he perceived a warrior to act, for the educational context, he performed as Holger, the environmental health student.

Earlier in the interview, however, he had qualified how he related to his avatar which looked and acted sometimes completely different to him. This was in reaction to a discussion in the focus group, regarding whether a different appearance of an avatar was a form of hiding.

Holger: [...] I didn't wanna show [give an image] how I perceive myself [...]. It wasn't to hide behind, and I'm not particularly worried about people knowing my identity, 'cause everybody does on the course. I wouldn't want general people knowing, [on] the Internet. I wouldn't want people linking me with that avatar, because that would be, well not necessarily an intrusion, but it's something which I wouldn't be happy about people knowing, I'm quite private really and I keep my own, sort of, information to myself unless I choose to talk to somebody about it. [Holger, S4: 41]

I'm not hiding per se, certainly from the people in our group, 'cause they all know who I am, all they have to do is look up on Blackboard and they can see who I am [...] What I'm trying to say is, I'm not allowing the scenario, the situation to draw me into expressing something about myself, that I don't wanna portray. It's like, people don't like looking at pictures themselves, they are like 'uh I don't like the picture, I don't want to look at it'. [Holger, S4: 45]

Holger proposed that the different appearance was meant to be a protection of his privacy towards general users of Second Life, who would not know him privately. For him it was obvious that fellow students and the tutor on the course would know the physical person behind the avatar, body and name, since they only needed to refer to a list on the module's digital management software, which connected avatar names to physical world student names. Nevertheless, he was prepared to reveal any information when it was his decision to share data. As is further explored in the following chapter on Resistance, Holger wanted to stay in control over his private data.

His approach to role- or identity play and his protection of his private life as well as decision-making about sharing information – also in the interview with someone who was not part of the education group – took another turn when Holger again qualified his initial narrative about his avatar and introduced another of his avatars. Here he described the first avatar that he designed out during the Second Life introduction in the classroom.

The first avatar [that I made in the classroom] was female and this is quite interesting actually. I thought, 'right, I'm gonna be a female, just to see what it's like to be a female'. And it's amazing how differently people treat you as being a female to a male [He describes his female avatar as customized attractively. Then he indicates that the female avatar was faster and more often approached by other users in-world than his male, supposedly 'intimidating' avatar]. But I don't use the female avatar, if I ever go on now, I use the male avatar, because I felt uncomfortable, even-, being male be it in a different form is easier than being a female. Being a male being a female is difficult, is hard, because you almost feel as so you can't act, you've got to be very careful, because you can almost test-, the person on the computer comes through the avatar by the way of what they do and what they say and if you got a female acting like a male, you know for certain it's a fraud, don't you? [Here he gives reasons why someone male in the physical world would enact a female persona in the virtual world, namely access to information or places which are not open to male avatars]. [Holger, S04: 49]

Holger stated that he had initially designed a female avatar, through which he had received interesting and enlightening experiences, before resolving to create his male warrior avatar. Here, his narrative became an example of identity

exploration. However, he realized that not only appearance, but also communication and behaviour were indicative of someone's 'real' identity, and he struggled with the challenge of identity play in a serious manner. He declared gender swapping as deceitful, although he could imagine situations where portraying the other gender could be of advantage. In the end, the female avatar was not utilized in the educational context.

The two examples of Lars and Holger approaching the naming process, and in Holger's narrative also aligning the appearance and behaviour of his avatar to notions of role-play, closes the exploration of how students named their avatars. From students' narratives four sub-themes emerged: naming the avatar dominated by reasons of functionality, in relation to notions of physical world names, by utilizing means of popular culture, and finally, as a form of role-play. The following section summarizes the findings in this chapter.

5.4 Summary

As was discussed in the previous chapter Pursuit, some students (but by no means all) explored virtual worlds as places in their own right, outside what was considered learning content and objectives. Exploring functionalities rather than socio-cultural aspects of the virtual world dominated most students' narratives. However, other students explored Second Life and their stance towards the virtual environment beyond affordances and technicalities.

A similar tendency seemed to occur when analysing students' narratives regarding notions of embodiment, which concerned the appearance and name of the avatar as potential avenues to creating identity and (re)presentation in the virtual world. Although approaches differed from one student to the other, two general positions

towards the purpose of the avatar were indicated by the students. On one hand, many students distanced themselves from their avatars and described and positioned them in terms of functionalities or tools. On the other hand, for some students, the avatar represented more an extension of self. However, it was not possible to deduce the position of the students from the appearance of the avatar, as students in both strands reported similar approaches to the appearance of the avatar.

For the majority of students in this study, it was pivotal to customize and individualize the appearance of their own avatar, albeit to very differing visual outcomes, in comparison to the default avatar. Many students approached the appearance of their avatar in terms of utilizing an avatar that was modelled on their physical world body appearance, either aiming for an accurate likeness or for what they perceived as an improved likeness. Other students immediately opted for an appearance that was not supposed to be based on their physical bodies. Some students developed a stable appearance over time, while other students opted for ever changing looks for their avatars. When confronted with the idea of utilizing unified avatars in the given educational context, most students rejected and emphasized that individualizing their avatars was part of relating to their avatars, others highlighted that uniformation was a form of suppressing individuality. Nevertheless, the fact that various deductions concerning the physical person behind any avatar could be based on its appearance was highlighted by several students. It seemed that most students were accepting of this issue as a matter of 'normal' life in general but also in education.

However, in the first few weeks it was possible to observe how numerous students struggled with the technology, and that not all students seemed able to achieve an avatar appearance of choice. As the narratives revealed, most students seemed to compromise the appearance of their avatar at some point, due to struggling with the changing and customizing facilities. Moreover, it became obvious that customizing an avatar to a great extent was subject to and ruled by the access to knowledge about the options available, besides the default changing engine, as well as the ability and willingness to develop the skills needed or to invest the

necessary time or financial means to customize an avatar to choice. Sharing information, material, and instructions from inside the virtual world community or from the module tutor can support students. However, both students and tutors need to be aware of the time investment that could be involved.

Three narratives, Henrike's, Saskia's, and Andrea's, revealed that students had very limited engagement with the changing facilities. Consequently, their respective avatars appeared to them, as to others, as more or less the default avatar. Although these students revealed engagement with the educational task, customizing the appearance of their avatars seemed unnecessary and arbitrary, and even distracting from the educational task. Nevertheless, what these three narratives revealed was that the look of the individual's avatar must not reveal anything about how much the student engaged with the educational task. However, the narratives of seasoned users of virtual worlds showed that the use of a default avatar was to them either indicative of a new user, or sends a clear signal of limited engagement, or can even give the impression of only joining to upset other users' engagement.

In terms of openness to experimenting with appearances or identity play, most students kept their avatars close to their physical world identity in terms of the greater categories of embodied identity. Most students' avatars remained human, although animal and fantasy appearances were observed, being described in the narratives as experimenting with appearances. Additionally, although experimenting with another gender was reported, none of the students interviewed in the focus groups or observed, utilized an avatar of another human gender in the educational context.

Besides the appearance of the avatar, students emphasized that the name of the avatar was a pivotal aspect both for identity formation and in order to relate to their avatars. In many cases, the name was considered more important than the appearance of the avatar. Many students seemed to approach the naming process rather in terms of its function and identification, and less so with regard to social notions of identity and the 'image' it might present to others. Functionalities,

making sure to be able to perform in the given situation, drove the name making process for these students. Although the name giving process brought its own obstacles, as students needed to choose or create a first name that was available and choose a second name from a drop-down list, which left some students initially confused, the narratives suggested that students went for familiar solutions. The majority of participants created a name based on or related to their physical world names, proposing a view that the avatar was part of identification to others, 'call me by that name'. However, other students seemed to remain distanced from their avatar and did not identify with the avatar beyond that initial identification.

Finally, several students' narratives revealed an understanding that, mainly through interaction and in particular communication through the chat channel further notions of self, identity and personality would be enacted. Nevertheless, as issues of deception and deceit were also specified with regard to gender swapping or role-play, it seemed that students became cautious with regard to physical identity, as it could complicate further the understanding of 'who' one is in virtual worlds. Aspects of deceit and the lack of feeling of security is one of the notions explored in the final findings chapter on Resistance.

Chapter 6 Resistance

To create something new means to resist.
To resist means to create something new.
(Stéphane Hessel, Time for Outrage!)

The theme of Resistance focuses on students' narratives with regard to opposing, rejecting, or resisting the utilization of virtual worlds in higher education. The theme emerged from students' narratives discussing the utilization of Second Life in negative or opposing terms, as well as from the observations of modules when students showed behaviours and actions of resistance. The chapter encompasses four sub-themes that emerged from the narratives regarding notions of, firstly, critiquing the utilization of virtual worlds in higher education, secondly, discussing the lack of realism in virtual worlds, thirdly, troublesome communication and interaction with others, and, fourthly, the challenges and conflicts that emerged through anonymity and identity confusion. This chapter additionally links to issues which have been highlighted in the chapter on Pursuit, particularly in the section on 'Alternative Identities' (p. 117), in which two students were portrayed who had overcome initial challenges and barriers. Moreover, it links to narratives regarding students who opposed the Employability scheme, as in some of these narratives the boundaries which indicate resisting the scheme or resisting the virtual world were blurred. As in the two other findings chapters, it was necessary to select sub-themes over other possible notions, some of which are presented at the beginning of the second section.

The chapter is structured in three sections. Section 6.1 introduces the concepts which framed the theme of Resistance. Section 6.2 presents the four sub-themes that emerged from students' narratives, where they discussed or showed opposition and resistance to the utilization of virtual worlds. Finally, section 6.3 summarizes the main findings from the students' narratives concerning resistance.

6.1 Framing Resistance

This section introduces the main concepts and theories that informed the theme of Resistance.

The chapter is entitled resistance, and not for instance challenge, as I argue that students' narratives encompass more than simply looking at difficulties or challenges. Resistance in this chapter is defined both in a personal and socio-political sense. Resistance is often considered with two perspectives of understanding, a negative and a positive. On one hand resistance in everyday teaching is often perceived negatively as a hindrance, for instance in terms of making teaching 'difficult' (McFarland 2001). However, within a positive understanding, resistance can also be seen as something positive, active, and is perceived as evoking change, emancipation, and agency (Freire 1970; Giroux 2001; Illeris 2007). Moreover, it is through resistance to and questioning 'the given and granted' in research and education, that new ideas and epistemologies occur.

The theme encompasses Cohn's (2004:122) work that acknowledges that disturbances as a form of resistance should 'take precedence':

The postulate that disturbances and passionate feelings take precedence means that we recognize the reality of humans; and this includes the fact that our living, emotionally moved bodies and souls are carriers of our thoughts and actions. If these carriers waver, our actions and thoughts are as uncertain as their basis [translation by the author].²⁸

In Cohn's understanding, disturbances and resistance indicate uncertainties, lack of notions of self-relevance, and conflicts. Acknowledging these conflicts can lead to a reflection on possible causes or underlying problems, such as ambiguities, and anxieties, as well as miscommunications or lack of communication.

²⁸ Das Postulat, daß Störungen und leidenschaftliche Gefühle den Vorrang haben, bedeutet, daß wir die Wirklichkeit des Menschen anerkennen; und diese enthält die Tatsache, daß unsere lebendigen, gefühlbewegten Körper und Seelen Träger unserer Gedanken und Handlungen sind. Wenn diese Träger wanken, sind unsere Handlungen und Gedanken so unsicher wie ihre Grundlage.

This stance also corresponds with a teaching approach that understands learning from the identity and position of the student. Holzkamp (1993, 1987), for instance, distinguishes between 'resistant learning' (also defensive learning) and 'expansive learning'.²⁹ He proposes that through alienation of learning and teaching from 'real' life in institutionalized education – defined through examinations and the controlling of learning – the identity as well as needs and interests of students are widely ignored. This leads to forms of resistant learning which is indicated through engaging with the educational content merely with a view to 'pass the exams'. This is often combined with forms of 'effort avoidance' (Rollett 1987), activities to avoid engagement with specific given teaching activities, namely extreme short efforts to 'get work done' as well as slow and apathetic working. Additionally, resistant learning can lead to offering opinions contrary to one's own opinions but performed towards 'what the teacher wants to hear' which in the end reproduces power relations (Foucault 1995 [1975]) in the educational context.

Additionally, the theme draws on Illeris' learning theory and work on non-learning (2003, 2007). While Holzkamp (1993, 1987) uses the terms of 'resistant learning' or 'defensive learning' interchangeably, Illeris differentiates between situations of 'defence' and 'resistance'. However, as Illeris admits, in everyday teaching both defence and resistance might be difficult to distinguish. Thus, both forms are considered within this theme of Resistance. In Illeris' view, reasons for 'defence' are to be found prior to the teaching situation and work reactively, while 'resistance' is caused by the learning situation itself as an active response. Thus, resistance contains a very strong learning potential, especially for accommodative and even transformative learning' (Illeris 2003:404). Defence is seen as a function to defend one's knowledge and stances. Illeris introduces Leithäuser (1976) and his concept of 'everyday consciousness', a mechanism to activate existing understandings and defend them from the impact of new, potentially oppositional understandings. Illeris states (2003:403) that 'through everyday consciousness we control our own learning and non-learning in a manner that seldom involves any direct positioning while simultaneously involving a massive defence of the already acquired understandings and, in the final analysis, our very identity'.

²⁹ Widerständiges und defensives Lernen gegenüber expansivem Lernen.

Finally, reviewing the literature on utilizing virtual worlds in higher education brought potential barriers and issues with regard to learning in virtual worlds to the fore: both the perception of virtual worlds as environments for leisure and entertainment (Rice 2007; Warburton 2009), and an understanding of learning which is based on seriousness and in conflict with playing and 'having fun' (Zyda 2005) seemed to induce resistance. Additionally, frustration about technical issues regarding lack of graphical quality or the ability of institutional computers to deal with virtual environments (Rice 2007; Warburton 2009) was proposed as a potential issue. In discussions of the Technology Acceptance Model (Davis 1989; Edmunds *et al.* 2012) potential reasons to reject virtual worlds due to a lack of 'perceived ease of use' and 'perceived usefulness' became apparent. Moreover, as Bayne (2008) explored, resistance could arise from a feeling of loneliness and strangeness in virtual worlds.

6.2 Narratives of resistance

This section presents students' narratives concerning notions of resistance to the utilization of virtual worlds in higher education.

Reviewing all students' narratives, problems and issues as discussed in the existing literature could be found repeatedly. This encompassed in particular frustration regarding the lack of institutional computers to deal with the virtual world, as Second Life crashed consistently during module sessions. Another issue regarded gaining access to the virtual world as Second Life seemed to restrict multiple registrations of new users from the same IP address. When access was granted and students entered the world, they encountered problems in navigating the virtual world and often lost orientation. Other students commentated negatively on Second Life graphics in general. Moreover, many students referred to struggles and challenges caused by a lack of knowledge, ability, and skills towards customizing

their avatar sufficiently or to a preferred appearance as explored in the previous chapter on Embodiment.

Beside these challenges to the utilization of virtual worlds, four sub-themes emerged from students' narratives and are explored in greater detail. The first section presents narratives in which the value of utilizing virtual worlds in higher education was resisted. The second section concerns narratives with regard to managing 'unrealistic' elements and perceived lack of reality in virtual worlds. The third presents narratives in which students reported challenges in communication and interaction with other users. Finally, the fourth section explores narratives, in which notions of anonymity and a lack of information and sense for virtual world norms led to challenges and conflicts.

Resisting the value of virtual worlds

This sub-theme examines narratives in which notions of resistance emerged as a considerable critique of and challenge to the utilization of virtual worlds. Students' resistance related to a perceived lack of effectiveness regarding learning and teaching in respective disciplines, as well as missing compliance with specific expectations.

Stephan was a male, 26 year old, student in the Environmental Health programme in which Second Life was utilized within a module on Risk Assessment. In his narrative he openly voiced critique and resistance to the utilization of virtual worlds in the educational context. He specifically focused on the limitations of Second Life in comparison to situations and alternative teaching methods in the physical world. Stephan's narrative was an example of a student who actively reflected on how knowledge and skills are conveyed in higher education. While he seemed to profess being positive about technology in education in general, Second Life seemed to be one step too far and during the interview he repeatedly challenged the developer's/tutor's decision to introduce Second Life to the module.

Two references seemed to inform his learner identity in the Environmental Health context, firstly his father being an Environmental Health Officer and, secondly, his experiences during his undergraduate degree in biochemistry.

The following excerpt summarizes Stephan's reflections on using a virtual scenario for learning in comparison with three alternative approaches: firstly placement of the entire course in a 'real' accident investigation or, secondly, using role-play as previously discussed in the focus group with the tutor. Additionally, Stephan proposed an alternative approach regarding the role of teaching in the module:

You couldn't send us to a real accident investigation because we'd get in the way, it could be traumatic for the people involved and they wouldn't want 20 people sitting there looking at them going, 'clipboard, right'. So, you can either do it with some people lying down on the floor with ketchup on their heads and go, 'ah,' or you pretend between the group which is a bit pantomime; or something like this where you've got that barrier, you have the limitations of you can't touch things, feel things, and you have to type everything, you don't get the sort of body language or the sort of voice intonation. But, you don't know who the people were and you don't know things and there's that more real tension perhaps that was quite useful. So it was an interesting idea. [...]

If I ran the module I would make a little bit of each section e-learning and have more time with [tutor]. [...] if we could sit down and actually discuss it, I think that would have been very-, it would make people feel a lot more confident, [...] if we had a little bit of each area in the module as e-learning and then some more talk time. [Stephan, S3: 4]

The excerpt illustrated Stephan's reflection and acknowledgement that all possible methods come with barriers and limitations. On the one hand, based in the physical context, a placement seemed impossible because of ethical considerations, role-play with strangers might feel pretentious, and with the students taking on the roles it could feel similar to 'pantomime'. On the other hand, in the virtual world, one missed out on corporeal senses, namely tactile senses as well as forms of non-verbal communication or expressing emotions which was very limited and difficult to steer without advanced knowledge in virtual worlds. These notions are further explored in the following sub-theme. Nevertheless, taking on values mentioned by the tutor, Stephan valued 'the unknown', not knowing who was

impersonating the witnesses and the manager, which made the virtual scenario realistic in terms of tension and uncertainty, which he considered similar to going into a 'real' accident investigation. Finally, he referred to what he perceived as a lack of discussion in the module and emphasized the possibility that through exchange with the tutor and fellow students, confidence in one's abilities could grow.

Stephan qualified his position on technology with regard to its utilization in learning and teaching further. Here, he questioned whether the reasons for embedding virtual worlds were entirely driven by pedagogy.

I would expect more and more use of such electronic teaching, but I think, there's also got to be that care of-. Traditional methods are still useful and not to just ignore them, because they can do it all online. Because there are some things that you can't, you shouldn't do, and you shouldn't just use it because it's a way of getting funding or a way of saving money [...] I mean, I've seen that in science, because especially things like chemistry and biology are so expensive, because you have to buy all the materials, and it's easier to do it as something on a computer or something sort of virtual and that's just not-, you don't get the feel for it. In some cases, you actually have to touch something. [Stephan, S3: 81]

Stephan seemed to suspect that the 'shiny new technology' and money making and saving opportunities (even if only in form of funding for the trial) were behind the application of Second Life in the module. He seemed to suggest that traditional methods were not so easily replaceable, and that technology in education would not enhance learning and teaching by itself in pedagogical terms, but would need to be integrated in educational methods that had demonstrated effectiveness and necessity in the past. Here he again referred to sensations and experiences that would be absent in virtual or online education, but which one would need to gain in education relating to the 'real' world.

To further understand Stephan's resistance to virtual world simulation because of its limitations in resembling the physical world, and his desire to discuss alternate forms of teaching, it was useful to draw on his background. Stephan's anticipation of how Environmental Health could be taught and how a professional

Environmental Health Officer identity should be developed seemed informed over years of gaining private information. His narrative was infused through with his father's experiences as an Environmental Health Officer and consultant. Stephan referred repeatedly to what his father had reported at home about what encompassed the professional role in everyday work and how he was trained in the past.

It's definitely, there's a sort of change in the way that the career used to be very much-, or previously like my father did it, you trained on the job, you got the job first with a council 'cause all the jobs were in like government. You then went to college two days a week and it took three years, whereas now you do the degree, you do the experience and you do the professional qualification and then you can work in-, lots and lots of people work in the private sector, so it's changing [Stephan, S3: 47]

I mean that's the odd thing about this course really is, [...] a lot of the things they teach us, aren't exactly about what we're going do in professional life and often we sit there and 'why have we done that?' We can't see why we're done that, but they have to do it, because it's still a degree. [Stephan, S3: 41]

Stephan recognized that the concept and seemingly the education of the profession had changed since his father was trained, widening the ability to find occupation in varied contexts. However, he proposed an uncertainty about the relation between the educational content and context and the everyday work in the profession as his father experienced it. It seemed that his anticipations and expectations of what content should be taught and how it should be taught remained conflicted, as important aspects were perceived as missing while others seemed superfluous. Stephan seemed to struggle with the scaffolded teaching approach, in which students were initially introduced to the background with limited and protected active experiences. Additionally, he indicated that other students experienced similar issues. Here he opposed tutors with the students as 'they and us', indicating that the agenda of the tutors might not always be in agreement with or in relation to that of the students. This part of his narrative corresponded to the narratives of many students in the Employability modules, as opposing the scheme rather than Second Life itself.

Akin to Stephan, his fellow student **Holger**, the 44 year old chartered surveyor, also openly challenged the tutor's/developer's decision to introduce Second Life to the module during the focus group and brought to notice that he was not convinced about the value of the teaching method.

It is an interesting way of teaching, but has very much limitations, I think, it's good to make a point maybe, but that's it. I don't see it having any longevity, you know, personally, it's a flash in a pan and unless you can make the animation really life-like, really human and really interact as you wanted to interact, [5 secs pause] that will help as a whole new ball game. [Holger, S4: 70]

And later he added:

To me [the simulation and role-play online] was a way of demonstrating what technology can do rather than technology actually improving the efficiency of the teaching. [Holger, S4: 80]

Although Holger had greatly engaged in the virtual world regarding role-play opportunities as explored in Embodiment (p. 186), Holger here proposed being unconvinced that learning outcomes and effects were enhanced through utilizing virtual worlds. He mentioned a suspicion that the virtual world was only introduced to promote technology, but not for pedagogical reasons.

Similar to Stephan, Holger highlighted the advantage of an alternative, more traditional physical world role-play approach:

Tutor: So, from my point of view, in a way it made the witness' interviews more realistic, because you interview three different people and you got three different responses. And you will.

Holger: I think, if face-to-face role play is being done properly, then people will get into it, it's more effective than through a computer. [Holger, FG01: 59-60]

While the tutor explained some of the advantages of using Second Life from her viewpoint and highlighted the opportunity to get different opinions and perspectives on the simulated accident in the same environment, Holger voiced his

opinion that given the context of the interview process, a return to the physical classroom in the form of a role-play would have been more successful and efficient. To Holger it was a waste of time and effort for both staff and students to engage and interact with each other via the virtual world in order to achieve these learning outcomes. In his view it would have been more efficient to facilitate discussion groups or role-play in a physical setting with the additional tutors in the classroom, as they were seemingly involved as witnesses in the online simulation. Although Holger had probably the longest commute to the university of all students involved in this study, over two hours each direction, which could have easily motivated him to prefer distance learning approaches, he favoured teaching methods in the physical world over utilizing virtual worlds. Other students in the course also remarked their surprise at blended teaching being part of the module, as they had chosen the course at Seaview University particularly as it was rather campus-based. Nevertheless, as it was presented in Andrea's narrative in Pursuit (p. 110), not all students followed Holger's opinion; as Andrea mentioned that she felt less pressured during the virtual witness interviews compared to a possible physical classroom role-play situation.

This section has illustrated narratives which questioned and resisted the value and effectiveness of teaching in and with virtual worlds. Whilst this sub-theme referred in particular to limitations in comparison with established teaching and learning methods, the following sub-section explores narratives concerning perceptions of 'unreal' elements in virtual worlds and lack of pivotal factors that could make virtual world learning more 'real'.

Managing reality in virtual worlds

This sub-theme represents students' narratives regarding elements that were perceived as missing, which could otherwise make communication and interaction

in-world more 'real', as well as the introduction of supra-physical, 'unreal' elements in Second Life.

Many narratives featured discussions regarding missing abilities to enact or control body language and gesticulation through the avatar. Additionally the lack of other human senses was repeatedly emphasized to challenge the ability to learn in a 'real' sense within Second Life.

Leonie, who had initially positively looked back at her learning in the module, nevertheless highlighted the lack of non-verbal and bodily expressions in Second Life:

I mean, it was just a really useful tool, [...] because it was a realistic kind of scenario and we could ask questions that you would ask in real life, and you could use your knowledge and see how they interacted with you. The thing that limits it, I think, is because you can't do those things you'd do in real life where you'd get people's facial expressions or you get body language and all kinds of things, because you can't-, I mean maybe wrongly or rightly you make assumptions on how people talk to you and things so-, that was maybe a limitation of it. [Leonie, S5: 89]

Stephan further based his critique of learning within Second Life on the limitations of abilities conducted through the avatar. He initially dismissed any notions that the avatar could feel anything like him:

It's gonna be a tool, or a way of doing things, that appears like a person, 'cause it's missing some fundamentals of me, the sort of the tactile, the other senses that it misses out. [Stephan, FG01: 29]

And Stephan later added:

It was good, but I wish it could have been voice, I am a vocal person. [Stephan, FG01: 38]

It became apparent that the avatar's body did not represent the whole body Stephan embodied in the physical world. As important senses were missing, the avatar remained a limited and limiting tool to Stephan. The later remark

emphasized again that it was not only the tactile sensations that he felt were missing, but also oral experiences and the ability to use his physical world voice, an element that he reintroduced in the interview:

For me, the lack of voice or-. It's something I can use into the Messenger clients, for a certain amount of time and then I get annoyed and sort of go, 'well let's use Skype.' I can't be bothered typing this all out or describing things, writing them down. You often get completely misunderstood, I find. I think half the Internet is people saying, 'you're wrong, 'cause I say,' because they misunderstood what someone's actually said, whereas if you actually talk about it you go, 'okay, I can see where you're coming from now,' or you can ask someone to say it again more clearly, whereas the written word is-, you can't see the grey. [Stephan, S3: 7]

Although the technical feature of Voice-over-IP existed in Second Life, the tutor had chosen not to introduce it as part of the simulation. Stephan was appreciating that through using voice, it would have become obvious that the tutor was role-playing the manager interviewee – a fact that the tutor had very consciously tried to avoid. Nevertheless, during our conversation Stephan repeatedly described himself as an 'oral person' and mentioned 'missing voice' and feelings of being stripped of the ability to use oral communication, a skill with which he seemed more comfortable, than needing to use precise words in writing. Here, he expressed concerns that the written word in conversations without the 'grey' of extra-verbal aspects, as available in face-to-face communication, could lead to misunderstandings. The student seemed sceptical regarding the ability to refer to the learning experiences from the virtual world once confronted with a 'real' interview, as too many layers of communication seemed to be missing in the virtual context.

Beside the limitations in communication, interaction, and sensual experiences, supra-physical functions were cited to indicate ambiguities with regard to the 'realness' of the virtual world. In particular the ability of the avatar to fly was discussed in opposing terms in students' narratives. As mentioned in Lars' narrative in Pursuit (p. 117), many participants referred to the ability of the avatar

to fly in positive terms, making the learning experience within virtual worlds enjoyable and empowering. However, other students' narratives proposed that the unreal ability to fly contributed to their struggle to accept Second Life as a supportive environment or tool for 'real' learning.

For instance **Stephan** proposed in his narrative that the avatar's ability to fly confused the perception of the virtual world as a simulation of reality.

The flying thing's quite convenient. [...] It's building something that's very realistic, [but] break one of the fundamental laws of physics in it. That's the one thing I love is, they're like, 'oh we'll make it as realistic as possible except for that, because it's cool.' [Stephan, S3: 32]

Stephan acknowledged that the ability to fly was convenient to gain access to varied places. However, the later part of the statement, 'the thing I love', was presented in a satirical or sarcastic way. He indeed resisted the realism as proposed by the environment and questioned the necessity of 'coolness' in an educational simulation. Here the ability of the avatar to fly became rather an argument to demonstrate the limitations of the environment of not being realistic in physical world terms.

Although **Andrea** could in general link the virtual world simulation to the vocation of an Environmental Health Officer in the physical world, as presented in Pursuit (p. 110), she also indicated some ambiguity concerning the avatar's ability to fly:

It was weird that you could fly and stuff, and I didn't think that was needed, just because Environmental Health Officers can't fly apparently, in real life. So, I thought it's a bit fancy that, yeah. [Andrea, S1: 67]

Andrea seemed to follow a 'no nonsense approach' when it came to her learning. Her term 'fancy' could possibly mean both unnecessary as well as extravagant, since Environmental Health Officers as human beings just cannot fly (without technical aid). In terms of embodied identity, she here distinguished between the physical world body and the body of the avatar. The avatar had abilities which

were not available to the physical body. Here, it seemed that the idea that the simulation was supposed to resemble the physical world of an Environmental Health situation did not align convincingly with the supra-physical abilities offered by the platform facilities of the virtual world. Terms such as 'fancy' and 'because it is cool' indicated that students strived to find a rationalisation for the integration of unrealistic elements in the simulation and doubted the seriousness of purpose and value of the simulation embedded in the virtual world.

Besides contesting the supra-physical ability of the avatar to fly as outside the physical world realm, the perception of the virtual world as an environment for leisure and escapism outside 'real' learning experiences, caused resistance to engage further with the environment as they were perceived lacking in seriousness and a 'waste of time'.

Julius, the male, 20 year old, Civil Engineering student in the Beginner Level Employability module was a student who initially positioned himself in his narrative in opposition to the Employability scheme as presented in Pursuit (p. 101). However, the narrative of opposing the scheme developed further and he indicated that he struggled to find meaning and purpose in the use of Second Life as part of his education:

I feel that I prefer to do things in the real world than in the virtual world. [...] When I see something like a game, a virtual world, I wanna play a game, I wanna shoot people, I wanna escape. But it's not that way. It's different. I suppose it takes a bit getting used to.
[Julius, C23: 48]

Julius originally positioned virtual worlds as leisure environments to be able to escape the seriousness of the physical world. However, the initial contact with Second Life in the educational module seemed to have challenged his previous experiences. Nevertheless, when I probed further, he hesitated to link virtual worlds and 'serious' education:

Nicole: So, what is serious about Second Life? You've said it's not only a game? [...] What would you say, if someone says, well, 'you're wasting your time-'

Julius: [11 seconds until reply] It's a tough one, 'cause I feel that there is nothing that much serious about Second Life, it's me messing around, [...] I'm thinking maybe I could have done it that way or I should have tried it that way. And it's these little things that kind of make me think, 'maybe I'm getting something out of it, maybe it's something serious that I'm not wasting my time.' But I would find it difficult to argue back with someone who says, 'you're wasting your time.' I find it difficult to explain to them that I'm not. Probably lose the argument. [Julius, C23: 54-57]

Julius took his time to answer my probing question regarding the seriousness of Second Life. It seemed as if he was internally arguing, and struggling to identify what factors could be viewed as positive in utilizing a virtual world for his education. However, his conclusion remained in a position that the virtual world offered nothing more serious than 'messing around' and he resisted further engagement with Second Life in the module.

This section has highlighted elements of virtual worlds that made learning in them 'unreal', namely the lack of abilities to express non-verbal elements of communication and interaction, supra-physical elements, and a perception of virtual worlds as lacking in seriousness for utilization in higher education. The following section focuses on narratives with regard to challenges in meeting and communicating with other users of Second Life.

Troublesome communication and interaction

This sub-theme presents narratives in which communication and interaction with other users is perceived as troublesome and difficult to achieve. Additionally, further narratives disclosed positions in which interaction was experienced as intimidating and strange.

Silke, Bettina, and Astrid, three female, 19 year old, friends and Media Production students discussed the utilization of virtual worlds in negative terms throughout their joint interview. Initially they indicated that they perceived Second Life as a game. While Astrid could find some motivation - as explored in Pursuit (p. 101), in particular Silke dismissed the environment as a 'waste of time' [C19-21: 33] and also dismissed the avatar's ability to fly as 'unreal' [C19-21: 108]. However, the greatest conflict with regard to experiencing the virtual world as akin to 'real life' and enriching their learning experiences seemed to lie in their desire to interact with other Second Life users or with the students of the module in Second Life.

Astrid: It was, yes, well I kind of expected more people to be on it, kind of thing, but then if you think about it not many people are going to visit [this] University on Second Life so. But yes, I was expecting a lot more people on it, because you hear of like stories of people who like met their love on Second Life and stuff like that and I was just expecting more people to be there, but there wasn't.

[...]

Silke: I thought it would be- [hesitates for 2 seconds] I don't know, I thought we'd have more involvement in-, with each other, but we kind of just run around, we don't-, we sit on the toilet [laughter] So.

Bettina: I thought you'd meet more strangers. I thought people would talk to you and be like, 'hey, who are you?' {Astrid: It's not like that everyone talks} and ask you questions, but no-one speaks to you at all or anything like that. I don't really like that. [Astrid, Silke, Bettina, C19-21: 48-53]

It seemed essentially that the lack of social interaction in Second Life had caused all three students to disengage further and further. It seemed that the students had assumed there to be a greater popularity of and in the virtual worlds, referring to media documentation that they had experienced. However, it was telling that Silke mentioned the 'sitting on the toilet' situation. 'The toilet' was a scripted object resembling a physical world toilet, with the ability to spin, which was placed on the university island by one of their fellow students, Thorsten, during the first session. At one point during this session several students tried to place their avatars on top of each other and everyone rotated and had some fun spinning off the toilet. However, as this interview was conducted after the seventh session of a ten week

module, it seemed the students were stuck 'sitting on the toilet' and had not made much progress in terms of using the facilities of Second Life, which also became apparent since most of the work on their project was carried out by Thorsten, their team member. Additionally, Astrid and Bettina mentioned their disappointment of not meeting and socializing with other people in Second Life. Other students mentioned that it was difficult to meet and interact with Second Life users from outside the university module, when the sessions were conducted in the morning in the UK. However, these three students were in sessions at an early evening hour and other students on the module were able, with small effort, to gain contact with other users of Second Life.

Silke qualified later, that the three students remained basically around the university island:

I thought it would hold my attention more and I'd want to be on it, it would have been more addictive than it is. I don't know, maybe just because we have only been round [Churchtown] University on it and not been anywhere else. [Silke, C19-21: 84]

Unfortunately for these three students their inexperience in Second Life and/or reluctance to engage with the environment as a whole, and for instance leave the university island in a greater effort to interact with other users, resulted in feelings of being left behind, boredom, and disappointment. Additionally, it seemed that the three friends fuelled each other in their negative views. Possibly unsurprisingly, instead of pro-actively approaching others in a friendly manner, they started to blame other students and users of Second Life for not engaging with them, as well as maintaining their initial negative concept of Second Life as being 'rubbish' and a 'waste of time'.

However, communication and interaction with other users was not always wanted, and could lead to experiences of shyness and being overwhelmed in those situations. Here, **Leonie** reports uncomfortable experiences interacting with strangers within Second Life.

I did use it afterwards [after the use in the course], just to have a little look round. But it's a quite intimidating place, because there are always people there and to start conversations with them and it's kind of weird because you feel kind of nervous, about approaching them. So and even though, they'll never know who you are, they'll never know anything about you, but you still kind of feel like meeting someone for real and it's like, 'what do you say?' So I never really engaged in much conversations with anyone because the nervousness. [Leonie, S5: 42]

And she later followed up in her reflections:

In a situation like that, I thought I'd be more open, kind of, because no one would know it was me so you could be anyone, you could do anything, but yet you still kind of feel restricted and shy and maybe awkward and things, yeah not knowing what to say. [...] It just all seems like strange because you really just don't have a clue who you're talking to, really, but you do just see them as an avatar maybe, I don't know, it's quite confusing. [Leonie, S5: 65-67]

Leonie seemed to propose, that to her own surprise, she had experienced meeting and interacting with other users of Second Life as daunting. Moreover, instead of gaining confidence due to her anonymity, she experienced being uneasy and almost anxious to communicate with strangers. In Leonie's case, it seemed possible that the feelings of unexpected shyness in situations of interaction were due to inexperience in virtual environments. However, even seasoned users of digital environments, such as **Kordula**, reported issues about containment when interacting in-world:

That's the only problem with places like that, if you don't know anyone and you are not very talkative online-, like, I'm very talkative as a person, but on the Internet I'm really shy – go figure! Yeah, I don't understand, it's meant to be where you're most confident, but it's not, because it's like, 'these people don't know me, why would they want to talk to me,' sort of thing. [Kordula, C27: 26]

Here, similar to Leonie, Kordula positioned herself as being shy in the virtual world in contrast to being talkative, engaged, and extrovert in the physical world – and that was also how I had experienced both as interview partners. It seemed that changing from the physical environment into the virtual contained their

engagement with others in comparison to their experiences and behaviours in the physical world. However, it appeared that particularly the combination of knowing that they were strangers and unknown to others, and being also visually hidden through the avatar, impacted on each other and made communication and interaction troublesome.

The feeling of not knowing 'who' was on the other side of the keyboard, of the screen in the physical world was a re-occurring theme, which is further discussed in the next sub-theme. This comprises narratives concerning notions of uncertainties and conflicts due to anonymity and identity confusion, as well as a lack of information about norms in virtual worlds.

Anonymity, norms, and identity confusion

This final sub-theme presents narratives which concern notions of anonymity with regard to perceptions of (lack of) security and identity confusions. It explores how students deal with conflicts in situations where matters of identity are hidden or in conflict with their own identity.

In Karsten's narrative in Pursuit (p. 117) as well as in Holger's narrative in Embodiment (p. 186), issues around the security of one's identity as well as aligning virtual identity data with the physical world person came to the fore. Karsten indicated that he was interested to explore how identity and data were protected in Second Life [C29: 12, 22, 53, 71], while Holger indicated that he had developed his avatar's appearance so that it would not in any way resemble his physical world appearance [S4: 41, 45]. Holger's approach to constructing his avatar gained an additional layer of interpretation when read in reference to Internet identity and data security, which could become an issue that leads into resistance of utilizing the virtual world in general, as the next excerpt from Holger's interview exemplified.

Holger initially mentioned that he was interested in exploring Second Life prior to its utilization in the Environmental Health course. However, initially he had dismissed joining:

Basically they wanted my email address, and I think my postcode and stuff like that, I didn't really wanna give that out, so that's as far as it went. [Holger, S4: 32]

Holger indicated that he was not prepared to share private information with the private business that runs Second Life at that time. However, he finally joined Second Life and opened his own account for the Environmental Health course module, as the basic account for Second Life now only required providing an email address which could be (basically) anonymous.

There were options so that students who felt uncertain about identity protection could still engage in the virtual world. In the Employability module at Churchtown University, students were able to use an account and password that was provided by the university. Several students made use of this option in the first week of the beginner modules, as many students could not gain an account of their own. The compromise here was that several students in different modules used the same avatar, which could lead to confusion and conflicts as students changed the appearance of the avatar and material and objects that students collected or produced could get mixed-up in the inventory. Therefore, by week three of the modules, every student had their own account and avatar.

However, confusion with regard to physical world identity and notions of perceived anonymity upset several students and they became more diffident rather than confident in the use of Second Life in the context of their modules.

Lerke, the female, 24 year old, Forensic Investigation student, was uncertain how to deal with the possibilities that were offered in the virtual world and how to position herself with regard to other users' utilization of the environment.

Lerke: Second Life isn't something-, I don't think I'd use it as like something I'd go home and just sit on it, because I think it's a bit strange to create a whole different life for yourself [...] you can make yourself anyone you want to be, and that's- I don't know, I'd rather stick to just being my own.

Nicole: How was that making up-, is there an adjective you would use with that, weird or scary or-?

Lerke: I don't know; I think it could be like dangerous for people. If you're making up a fake-, a whole new life and if you use it every day and proper-. [...] There are different aspects, like our lecturer, [...] he has a business from that and that's brilliant. But then when you've got the people, who just use it for the escapism and they make a fantasy life. [Lerke, C33: 10-12]

Lerke's narrative indicated a conflict in understanding and making sense of other potential uses for virtual worlds outside the educational and business contexts. Lerke regarded creating and constructing different identities in contrast to physical world identities beyond playful engagement as not only strange, but also unhealthy and almost dangerous. Constructing a different life was seen as a way of escaping the physical world, which seemed to have a positive side, possibly regarding release. However, this was contrasted immediately with negativity in terms of overdoing it and confusion between virtuality and reality. Lerke proposed that she would keep the virtual and the physical apart, as two different entities.

Lerke further qualified her scepticism regarding differences between virtual and physical world identity. She declared that she would not customize her avatar's appearance to that of a 60 year old man, although she recognised that Second Life gave her the opportunity to do so. Instead she would try to model the avatar in close reference to her own physical world identity and appearance. Lerke continued discussing changes to cues to identity in general:

The thing is, I think it's hiding and dishonesty [...] people do these for different reasons, but that's why I don't like it. That's the whole thing with the Internet anyway, isn't it?, there are a lot of ways you can pretend to be something different, but Second Life does allow an avenue for that, to pretend you're something completely different to what you are. [Lerke, C33: 74]

Lerke's narrative here concerned anxieties regarding the possibility of changing identity and appearance in varied ways and viewing this as partly a disadvantage of virtual worlds. Lerke seemed uncomfortable with not knowing a user's physical appearance, which she perceived as giving more information about who someone might be – which in turn might give greater feelings of security. Lerke indicated that anonymity did not only offer protection for someone, but that there were also potentials for fraud. Her remarks brought to awareness that the boundaries of perceptions of role-play, release, and deception can be blurred, and that opinions about this diverge considerably. It seemed crucial to probe how this also applied to the educational setting:

Nicole: Do you think it applies to what we have done now for education or within the classroom?

Lerke: No, but I think you can be encouraged to design, you can have the avatars whatever you want it to be and things. I just-, because not everybody is going to want to like pretend they're somebody different. [Lerke, C33: 75-76]

It seemed almost that Lerke felt coerced in constructing differences to her identity through the appearance of the avatar within the virtual setting, which she resisted and rejected as not being self-relevant.

From here, I turned to my observation of an instance in Second Life, in the classroom a week before the interview, in which an avatar in Second Life had approached the 'night club' project her team was building on. In this situation, the avatar had set virtual fire to several objects that the team had installed. The team members, particularly Frank and Patrick whose avatars were in close proximity, had reacted with great confusion and anger, and were trying to identify whether it was a fellow student or a random user of Second Life who was interfering with their work.

Nicole: In the last week when one of the avatars was coming into the club and you were kind of wondering who that is, I guess there was this kind of idea, 'who is that?' Did it worry you that although the club is hidden in a way [...] it was in the end in a public space. Would you have preferred it to be kind of enclosed?

Lerke: I would, yeah. [...] We're building on it and you get some person walk into it and you think, 'well, who are you?' And they're trying to set fire to everything and then it's just a bit like [...] protectiveness you've got over your things. [I only want friends in Second Life to have access] You might not know who exactly they are, but you might have spent some time with them on Saturday night, they might seem fine enough and then you would accept them to be your friend. But if they're just any stranger, I don't like them to have a wander around what you've just made and on your property sort of thing. Yeah. But I'm quite private. I think the same applies on Second Life to what is in my real life because Second Life is kind of the same. [Lerke, C33: 77-78]

Lerke identified the situation as an intrusion, and her potential trust in other users of Second Life seemed unsettled. The avatar was unfamiliar to them, as it was not a user of Second Life that they had befriended during the weeks of engagement. Additionally, as the students could not verify that it was another student from the module in the classroom, they were forced to abrasively ask the avatar to leave the project area. Similar situations in which certain behaviours may have been perceived as play and fun by one group of students, but upsetting and annoying by other students, occurred repeatedly throughout the module sessions. In another example concerning different students, one week before the presentation session in a Beginner Level module, a group of three students started to 'build' hundreds of prims on another two students' project area. When becoming aware of this situation, the two students reacted by trying to push the avatars off their project area. As the students were not successful in-world, they started to throw physical paper balls through the classroom at the three aggressors. It was through transferring the conflict into the physical classroom that the tutor became aware of the situation. The tutor ordered the group of three to stop building on the other's area and to delete all their prims, in order to allow the two students to finish their project.

In both examples, students had no control over who was entering their project space, as it was not the students but the university who owned the region, and there was no restriction in terms of public access. Moreover, what became obvious in Lerke's narrative was that the students did not know how to ascertain who was a member of at least the same university via the university 'friend list'. It was

indeed a student from the current module who had interrupted their work, who was not in the physical classroom at the time, but was joining remotely. Other students also indicated that not knowing 'who is who', either in the classroom or particularly in combination with their avatars, was confusing and counterproductive in terms of interaction and teamwork in the module.

Lerke later asked for more introductions into social norms in the virtual world in general, and in reference to the intrusion of a fellow student she asked for an introduction of rules for the education utilization.

I think more basic training of the whole social part of Second Life in the course, because when we first started, we just get thrown in, you make your avatars, you start doing things, you get like a little brief background about Second Life, it's nothing in-depth. Like we didn't get told we could stumble upon some sex club thing, and like to me it was funny, but to someone else it could be offensive, those kinds of things. We weren't warned about [the norms of making friends, we were thrown out of places and people were swearing at us when trying to advertise our project], we've never been on it before. So it would be better to be a bit more forewarned just about the different things that are on Second Life and what you could stumble upon and things like that. [Lerke, C33: 86]

Lerke indicated that she felt partly left to her own devices to deal with Second Life. This brought potential anxieties to the fore concerning how future experiences might develop, of which she felt not forewarned by the tutor. Her request for more background information echoed Henrike's enquiry after an introduction of the environment in general, as presented in Pursuit (p. 117). Lerke proposed that a module on Second Life should encompass more introduction on the content of Second Life and potential risks regarding sexual content, as well as reflections on inherent social norms and rules. She indicated that some negative experiences were due to a lack of information about what might be acceptable and what was not, in an environment that initially appeared without any boundaries. I turned again to the educational set-up:

Nicole You just said you didn't like when one of your fellows put fire on stuff last week. Do you think it's part of the tutor to interrupt something like that or-?

Yeah, I think so. [...] It's just the same in real life, you respect other people's things and that should be the same in Second Life. I know there's a lot of freedom and you can do whatever you want to do, but then I think it should be like respect for at least your fellow students.

[...]

When you're doing it as part of a course, I think then you adhere to certain rules. But it's just like you're in a classroom anyway, you can't sit and smoke or whatever, it should be like just general rules to ensure everyone has a decent time and nobody is destructive, because you wouldn't have it in a normal class. When someone is destructive they get stopped, so it should be the same on Second Life. When you're in like a learning environment I think it should be.

[Lerke, C33: 86-97]

Lerke proposed that with freedom came responsibility, and that some students lacked respect for their fellow students and their work. She indicated that the anonymity of the student and the absence from the physical classroom had given the student the potential of annoying her group members and interrupting their project, and as the tutor was not intervening they felt partly helpless in dealing with the conflict. Lerke recommended that a set of rules would help to give some boundaries of how to behave or not to behave in the virtual environment, which would enhance everybody's learning enablement.

The possibility of introducing rules and norms to the utilization of virtual worlds and the behaviour within them was, however, opposed by **Ela**, regardless that she felt annoyed by what seemed entertainment for her fellow students.

Ela: Everyone was flying around with these big motorbikes and [my avatar] was just standing there and I was just thinking, 'it's all very well that entertains you, but it doesn't entertain me,' when they were like dropping bombs everywhere. [...] Yeah, it's getting a bit annoying at times.

Nicole: Should the tutor more stop it, more interfere from your point of view? or?

Ela: I don't think he should, because it's a freedom thing. He's getting us let to know our characters and if we want to learn how to fly around a room, we'll flying around a room, and if you did stop it, then people are more likely to do it. [...] It's work and it's a game, so- [Ela, C10: 126-133]

Ela, in all her negativity towards the Employability scheme as explored in Pursuit (p. 101), indicated that she was motivated to take the module seriously, and she was clearly annoyed by the interruptions caused by other students in the virtual world. Although she accepted that playing and experimenting were part of becoming familiar with the avatar and the environment, she indicated that the activities after some weeks into the module bordered on immature behaviours that were prompted by the virtual environment, while the serious 'work' objectives of the module were potentially eclipsed. Nevertheless, Ela resisted possible intervention from the tutor, not wanting to risk the openness of the module and restrictions being brought in by the tutor through rules of conduct.

The students' narratives in this section presented several approaches of dealing with anonymity. Initially, uncertainties about Internet security and the way a private business might deal with private data seemed to prohibit joining Second Life on the part of one student. In other narratives the ability to be(come) partly or entirely someone else was not seen as an opportunity but rather as a risk for oneself, confusing physical identity and reality through a different virtual identity and life. Additionally, when regarding interacting with others, greater differences between main aspects of physical and virtual identity were perceived as hiding or even dishonesty and deceit. Students experienced social norms in virtual worlds as different to experiences in the physical world, and in particular in a physical classroom, and they became partly diffident and resistant to further engagement. Whilst some students sought greater intervention through the tutor, other students resisted this notion and placed emphasis on students' own sense of maturity.

The chapter closes with a summary of the findings presented in four sub-themes.

6.3 Summary

This chapter explored and presented notions of resistance to learning and teaching in and with virtual worlds. In the theme, resistance was understood as an indicator for when students' identity, positions, needs, and interests are unsettled, confused, or remain unfulfilled. Exploring notions of resistance could help to improve future utilization of virtual worlds in an educational context. Within this chapter, four sub-themes emerged from students' narratives, which were explored in more detail. Resistance emerged as forms of questioning the effectiveness and value of education in and with virtual worlds, and these were linked with unfulfilled expectations of how teaching and learning should be organized and facilitated when virtual worlds are utilized in higher education.

A perceived lack of realism in virtual worlds run through some narratives, emerging from a combination of missing pivotal elements from the physical world, and contesting the purpose of supra-physical abilities available in the virtual world. This led to a discussion of alternative teaching approaches situated in the physical world, such as classroom role-play or at least over-coming limitations through technologies that involve the physical body; for instance in the form of using one's voice. Additionally, students critiqued that time for exchange and discussion with tutors and among students seemed to be replaced through technology, which neither fulfilled the same purpose nor the same effect, and was therefore perceived as insufficient.

Participants voiced concerns with regard both to the absence of voice, and the lack of ability to use and react to non-verbal elements of communication, such as facial expressions, gesticulations, and body-language, when using chat channels in communication with other users. Additionally, the lack of tactile sensation confirmed the notion that the virtual world would be unfit for preparation for the 'real world'. This was mixed with perceptions of and ambiguities towards virtual worlds lacking a necessary seriousness, through the introduction of elements like the ability of the avatar to fly or teleport, or when the environment was perceived

as a medium for entertainment and leisure due to play and game activities, therefore partly disturbing learning activities.

Additionally, a general lack of opportunity or ability to engage and interact with other users evoked resistance, as students' anticipation and expectation to be able to communicate or to be aligned with other users as a specific factor of virtual worlds remained unfulfilled. However, for other students a perception of being coerced to communicate actively within the virtual world and being unable to hide led to feelings of shyness and strangeness or being partly overwhelmed in the situation – which is partly mentioned as contrary to physical world behaviour.

This led to notions of anonymity and feelings of strangeness in virtual worlds. Here, anxieties and conflicts emerged due to not knowing or being unsure about the physical person, and lack of access to information about the physical world person behind an avatar. Additionally, perceptions of possible deceit were contrasted with opportunities for greater freedom. As social norms in the virtual world were experienced as different to physical world learning experiences, students voiced uncertainty and being discontent about the preparation before entering the environment. This involved unfulfilled expectations towards the role of the tutor managing some of the risk taken when facilitating teaching and learning in virtual worlds.

This chapter completes the presentation of narratives under the three themes of Pursuit, Embodiment, and Resistance. Main findings, thoughts, and issues will be further explored in the following Discussion chapter.

Chapter 7 Discussion

The previous three chapters focused on the thematic analysis of how learners understand, construct, and express identity when virtual worlds are utilized in higher education. They portrayed the findings of this study structured around three main themes that had emerged from students' narratives of learner identity in virtual worlds: Pursuit, Embodiment, and Resistance. The theme of Pursuit illustrated students' positions and attitudes towards virtual worlds as based on their learner or personal identity. Additionally, it examined aims, quests, and interests that they pursued in the virtual world when utilized in higher education. Findings revealed that students approached virtual worlds utilized in higher education with varied perceptions and objectives, which were described as positional, professional, and alternative identities. Embodiment focused on students' relationships surrounding appearance, regarding the form/body and name of the avatar and its positioning. Findings revealed that students positioned the avatar as a tool or extension of self. Both with respect to bodily appearance and name, the findings discovered that for many students individualizing and customizing their avatar was important, either in relation to the physical world or in playful terms, while a few simply used a default avatar. The final theme, Resistance, explored how students critiqued, resisted, and rejected the utilization of virtual worlds. Findings revealed that students dismissed the pedagogical value of virtual worlds, emphasized their limitations, and expressed ambivalence regarding anonymity and virtual world norms.

Based on these findings and by drawing on existing scholarly works, this chapter discusses learner identity in virtual worlds through a focus on, first, the physical world LEARNER identity and, second, learner identity IN virtual worlds as 'translation' of physical identity markers onto the avatar. The first section establishes virtual worlds as a 'threshold concept', arguing that students need to be

able to align and associate virtual worlds with present positions and identities, which define them as learners and individuals, in order then to be able to utilize virtual worlds successfully in learning. This may need to encompass overcoming or shifting previous perceptions and viewpoints, in order to allow an integration of virtual worlds within their positions as students. To illustrate how students can transition from initial resistance against the utilization of virtual worlds to being able to align virtual worlds with the objectives that he pursued in higher education, the section introduces the narrative of Rasmus. The second section develops a typology of learner identities in virtual worlds through the avatar, arguing that students engage with the avatar in virtual worlds to construct, manage, and express identity in five dimensions, namely dislocated avatars, representative avatars, avatars as toys and tools, avatars as extension of self, and avatars as identity extensions. Here, Rasmus's narrative is used to explore and emphasize the complex relationship students can have with their avatars, and how this relates to learner identity in virtual worlds.

7.1 Learning in virtual worlds: a threshold concept

This section discusses and uncovers virtual worlds in higher education as a 'threshold concept' through focussing on the narrated learner identities as presented in the Findings chapters. Originally developed by Meyer and Land (2003), the notion of 'threshold concepts' captures points at which students' understanding develops and enhances beyond building blocks for educational achievement, but also in terms of learning experiences that 'resemble passing through a portal, from which a new perspective opens up, allowing things formerly not perceived to come into view' (R. Land, Meyer, and Baillie 2010:ix; similarly Meyer and R. Land 2006:3).

Such threshold concepts can be identified via five key characteristics. As discussed by Land, Meyer, and Baillie (2010:ix-x) and Meyer and Land (2006:7-9) in contrast to educational core concepts, a threshold concept is, firstly, always 'transformative' as it prompts a significant change in how a subject is perceived. Secondly, it is probably 'irreversible', which means that it cannot be easily forgotten or 'unlearned'. Thirdly, a threshold concept is generally 'troublesome' as it often entails alien, unfamiliar, counter-intuitive, disjointed, implicit, and/or conceptual difficult elements. Fourthly, it is often 'integrative' in the sense that it reveals an unexpected or concealed inter-relatedness, for instance of different aspects of a subject or several challenging concepts of a discipline, helping the learner to make connections which were previously inaccessible. Finally, a threshold concept is frequently 'bounded', demarcating a specific conceptual space with 'terminal frontiers, bordering with thresholds into new conceptual areas' (Meyer and R. Land 2006:8-9).

Crossing of a threshold requires engagement with three further, process-oriented characteristics: Land, Meyer, and Baillie (2010:ix-x) suggest the threshold concept is first seen as 'liminal' in the sense that - triggered by troublesome knowledge that tends to be intrinsic to the concept - the learner is in a traversing state between/of dissolving pre-existing conceptions, positions, and expectations and at the onset of reconfiguration of prior knowledge, schemata, and understandings. Secondly, it is considered to be 'reconstitutive', which refers to the potential ontological and epistemic shift(s) the learner experiences after the liminal stage, which leads to the reconfiguration of pre-existing conceptual schemata and the integration of new knowledge to lastingly transform how a subject is perceived. Finally, it is 'discursive' as the transformation tends to incorporate a change in the learner's fluency and proficiency in subject language and beyond. As Meyer and Land (2005:374) point out, a 'shift in perspective [is usually] accompanied by (or occasioned through) an extension of the student's use of language. Through this elaboration of discourse new thinking is brought into being, expressed, reflected upon and communicated.' Overall, as Land, Meyer, and Baillie (2010:ix) suggest, a threshold concept 'permits a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or

interpreting, or viewing something [...] and results in a reformulation of the learners' frame of meaning'.

Since their emergence in educational research ten years ago, threshold concepts have been predominately applied as a conceptual lens through which pedagogy in higher education can be understood in a novel way (R. Land *et al.* 2010:x). Lucas and Mladenovic (2007:238) have argued that the concept is also a 'valuable emerging theoretical framework for a 're-view' of educational practice and research' in higher education, which both demands and promotes dialogue between educators and students, among educators, and between educators and educational developers at the university level and beyond.

This section of the discussion chapter seeks to highlight two important contributions of this study to existing scholarly works on threshold concepts. Firstly, it exposes virtual worlds in higher education as a threshold concept, and secondly, it does so from the perspective and experience of the learner through a detailed empirical investigation of student identity narratives. Existing investigations of threshold concepts seem to tend to uncover these predominantly through a 'top-down' analysis, centred on the learner engagement with a troublesome learning content, observing the specific difficulties encountered and dealt with by students over the course of the module, and relating these back to the expectations of the educators. In contrast, and consistent with Holzkamp (1993), this study's argument that virtual worlds in higher education are indeed a threshold concept is based on an inductive 'bottom-up' investigation of learner identity, through a focus on students' ways of knowing (Kegan 2009), which will be discussed in more detail below.

Virtual Worlds are troublesome

The findings presented in the previous chapters suggest that in order to utilize virtual worlds successfully in their learning, students need to be able to align and

associate virtual worlds with present positions and identities, which are based on their former experiences that have shaped them as learners and individuals. If an immediate alignment of virtual world and learner identity was not present, as seemed frequently the case, students needed to overcome or shift previous perceptions, as well as partially their subjectivity, to allow an integration of virtual worlds within their positions – either on their own or with help from others. As I will argue, on the one hand this included shifting perceptions of virtual worlds to allow the alignment of virtual worlds with learning and teaching objectives specific to particular modules or described to higher education in general. On the other hand, it involved shifting perspectives of how disciplines view learning and teaching specific content and methods, or learning and teaching in general. Thus, these findings suggest that analyzing students' narratives about their perspectives and epistemologies regarding virtual worlds helps to indicate what informed and shaped their identities as individual learners and persons (Farrell 2000; Hacking 2007; S. Hall 1996) in virtual worlds.

Most of the students' narratives documented in this study indicate initial struggles when the virtual world was introduced into university modules. Some even displayed continued rejection, as students resisted learning with or in virtual worlds because it was perceived as 'not self-relevant'. Indeed, self-relevance regarding virtual worlds in higher education emerged as a key troublesome theme in the students' narratives. It is here understood as a form of sense-making, as 'a search for contexts within which small details fit together and make sense' (Weick 1995:133) for the individual learner. This comprises self-efficacy regarding the value that is ascribed to the learning effort (Brophy 1999), intrinsic motivation (Ryan and Deci 2000), curiosity, or personal interest in the educational content or self-developed learning pursuits, and takes aspects of self-regulated learning (McCombs and Marzano 1990) into account.

The perceived lack of self-relevance emerged in particular with regard to how students thought that virtual worlds were not 'fit for purpose' or 'real learning', which appears to have played an important role in fostering students' perception of virtual worlds as disjointed from their learner identity. For instance, many

narratives discussed the utilization of Second Life with regard to providing an opportunity to gain knowledge or to learn skills for the 'real' world and future occupation. This was not surprising as the modules involving the virtual world were specifically concerned with preparing students for work life after university – in one case regarding more general employability skills and in the other case with regard to one particular occupation. However, while some students could make sense of utilizing virtual worlds in this way, other students emphasized that this type of learning was not 'fit for purpose', noting in particular that it was challenging to relate and apply learning in the virtual world adequately to the official learning and teaching objectives.

Many narratives also illustrated how students initially questioned, and continued to question, self-relevance through a lack of alignment of the virtual world with what they referred to as 'real' learning. For example, as explored in greater depth in the narratives resisting the pedagogical value of virtual worlds in higher education (p. 201), the students assumed and indicated that in their opinion the virtual world was merely introduced to higher education 'for the sake of it' or to save money. Some students even appeared to feel deceived by educators with regard to 'promises' of authentic learning opportunities. Such narratives are in stark contrast to publications that advocate 'authenticity' as an important pedagogical value of learning in virtual worlds (Lombardi 2007).

Learning in virtual worlds also lacked self-relevance when it was perceived as not living up to what some of the students described as their own motivations towards engaging in higher education. By this I also mean that the virtual world in its own right did not seem to evoke greater interest or motivation to engage with the educational content. For example, students in the Employability scheme had 'voluntarily' chosen the modules on Second Life out of other possible modules in the mandatory scheme. However, the findings from some narratives, in particular explored in the section on Positional identities (p. 101), show that the module on the virtual world was often described in terms of being the 'least evil'. Likewise, other students stated that they had chosen the Second Life module because they perceived it as providing the lowest obstacle to achieving a 'pass' in the

assignments. While such statements seem to refer to forms of 'surface learning' (Biggs 1999; Biggs and Tang 2007), the findings discussed in this study show that they should rather be understood as forms of resistance or disturbance to learning (Cohn 2004), which deserve and need attention in pedagogy and research.

The above discussion already points towards the argument that virtual worlds are a threshold concept. Students did not necessarily immediately align virtual worlds with their learner identity. Rather, they needed to re-align, shift, or entirely transform their perceptions. To these students, the utilization of virtual worlds in higher education appeared as 'troublesome' and 'counter-intuitive' (Perkins 2006).

Rasmus: A transformational journey

In their encounter of virtual worlds as a threshold concept in higher education, learners embarked upon a transformational journey in order to move from a position of initial resistance against the utilization of virtual worlds, into having aligned virtual worlds with their identity. The narrative of Rasmus introduced below illustrates this transformation from the perspective of a single student. It shows how he overcame both initial challenges and resistance, and eventually appreciated the virtual world of Second Life as part of his understanding of what defines his profession and learning in his discipline.

Rasmus was a male, 20 year old student of Theatre/Dance, who was introduced to Second Life prior to enrolling on the Employability module. At the time, Rasmus was seeking more practical experiences in his programme of study and approached his tutor enquiring about possibilities. To his surprise the tutor introduced him to a project in Second Life. Rasmus indicated that this initially led to bewilderment and disappointment regarding his position and anticipation of what 'practice in theatre' should involve and mean:

The project [introduced] was Second Life; and a few of us were a bit like, 'that's not theatre.' But then, I was left working with it for a

while and that was it. It is [theatre] in its own little way. It can be used as a performance tool as well as a lot of other things. So I think that's what got me interested, how I could use it in the performance space, and to help my course. [Rasmus: C25: 5]

For Rasmus the virtual world was troublesome as it appeared to be disjointed from his expectations and experiences and he needed to overcome and shift previous perceptions, both to be able to successfully engage with the virtual worlds and to develop new and self-relevant perspectives. The first sentence of this narrative indicates that initially, Rasmus' established concept and his expectations of what 'theatre' is or should be, where and how it should be experienced, and how it should be approached and taught in higher education, were disappointed. Rasmus also called on other students as a reference to support his position, referring to a shared view held among his peers that the virtual world initially was not theatre. Second Life was rejected because it was not understood as a valid environment of, or for, theatre. Utilizing the virtual world did not provide an immediate 'fit' within Rasmus' concept of his discipline as he had experienced it in other university teaching, on a physical stage, or in other theatre productions.

The narrative also indicates that Rasmus went through a liminal phase, in which he needed to overcome and shift previous perceptions. It shows that through exploring, engaging, and experimenting with Second Life, Rasmus was able to reflect on and shift his pre-existing concepts of theatre and his discipline, starting to realize the potential of Second Life as an alternative performance space. He was able to connect, interrelate, and integrate the utilization of virtual worlds with his own discipline, which he previously thought unconnected. He experienced the virtual world as an additional performance space, which enabled the creation of new and intrinsic interests. What distinguishes Rasmus' narrative from many other students' narratives is that Rasmus had a practically informed perception of Second Life through his own experiences prior to enrolling for the Employability scheme module. He came with a clear idea to the university module, had developed his own objectives to engage in the module, and was able to carry them out immediately. Other students in this study struggled in their respective modules, as

a majority of the students in the study had never practically engaged with a virtual world, let alone in higher education, before.

Nevertheless, Rasmus' narrative stands as a proxy for many other narratives documented in this study, which demonstrate that Second Life did not always offer immediate answers to students' expectations regarding 'disciplinary fit'. When students entered the virtual world and allocated areas, they did not recognise straightaway any disciplinary shape to them. Being involved in a discipline or subject in higher education shapes intellectual and professional development regarding knowledge and skills as well as identity (Becher and Trowler 2001), but also how the discipline is perceived in terms of how it is or should be taught (R. Neumann, Parry, and Becher 2002; Fanghanel 2009). It appeared that students did not realize initially the cohesion between Second Life and disciplinary approaches, as the typical ways of teaching and learning or 'signature pedagogies' (Shulman 2005) were missing.

Rasmus' narrative also exemplifies that through engagement with the virtual world and the teaching content as outlined or introduced by the tutor over time, many students could align their disciplines and disciplinary identities with the virtual world and considered learning with and in Second Life similarly to learning through other activities. As the Findings chapters revealed, while some students remained 'stuck' or defended their established positions (Land et al. 2010) without allowing alternative viewpoints, in many cases an (irreversible) transformation occurred.

The boundaries of 'real' education

A key boundary that students needed to re-establish in order to transform how they perceived the utilization of virtual worlds in higher education was that of perceiving the virtual world as 'unreal' or inauthentic, and with limited credibility. As illustrated, students' perceptions of the utilization of virtual worlds in their

modules did not always provide immediate 'fit' with positions, expectations, and 'frames of reference' (Mezirow 1997). The findings presented in the previous chapters highlight that it was particularly crucial to overcome stances and related identities, which seemed to be contrary to, or incompatible with, learning with or in virtual worlds. This seemed in particular the case, when students remained sceptical about the integration of virtual worlds in higher education and argued that only traditional teaching methods in a physical classroom would provide 'real' learning.

Most learning and teaching in higher education is still facilitated in physical world classrooms, since experiential and situated learning activities 'in situ' are not always available or accessible, which was generally accepted by the students. Yet some of the students, who argued strongly against utilizing Second Life in their module as it contrasted with their understanding of what constituted 'real' learning, argued keenly for role-play in the physical classroom. This is interesting because physical world role-play can be seen as similarly 'unreal', as any simulation, whether in the physical or the virtual world, is not identical to but an approximation or representation of 'reality' or 'real' activities (Barab and Dede 2007; de Freitas 2006; Garris, Ahlers, and Driskell 2002).

This study revealed that what fuelled many students' rejection of utilizing virtual worlds in higher education, on the basis of perceiving it as 'unreal' learning, was the lack of 'authentic' interpersonal communication. The limitations of the avatar to express emotions, in addition to being confined to communicate solely via the text-communication tool, did not match with perceptions and previous experiences of interactive learning and teaching activities. This indicates that students perceived the utilization of virtual worlds in higher education as alien and unrelated to 'real' situations, because of the way interaction took place. This ties students' narratives on learner identity in virtual worlds to broader arguments in communication theory, which propose that communication and interaction is informed through several layers. In Schulz von Thun's (1981) model of interpersonal communication, for example, communication is understood as four-sided: factual content or information, self-revelation, relationship, and appeal.

When messages are sent, consciously and unconsciously, they bear information on these four sides. Subsequently, the messages are received regarding the four sides that shape the interpretation of the message.

As the Findings chapters document, many students dismissed the text-based communication as neither effective nor sufficient enough to simulate 'real' communication, while others highlighted that they had communicated in the physical classroom and not in the virtual environment to engage with the educational tasks. These participants emphasized that 'real' communication would entail more than just written words, as both the tone of voice and more non-verbal aspects of communication would always further qualify the words spoken. In the physical world the content of a message can thus be further qualified, while in the virtual communication, students felt restricted, in particular as they did not know the person behind the avatar any further. Incidentally, similar anticipations had influenced my thoughts to privilege face-to-face interviews over avatar-avatar communication when conducting data collection interviews (albeit that students were given a choice).

It is important to highlight that not all students were critical of the notion of transferring communication and interaction from the physical to the virtual. Some experienced limiting the layers of communication as liberating and depressurizing, compared to alternative interactive activities in physical classrooms. This highlights that not every student engages easily in interactive learning exercises, and that some students prefer to avoid exposure in the physical classroom (Van Ments 1999; Rabenstein, Reichel, and Thanhoffer 1985a, 1985b).

Integrating play and learning

The previous section in this discussion illustrated notions of questioning the 'fit' and 'authenticity' of virtual worlds and rejecting their utilization in higher education. A third pivotal barrier, which seemed to hinder students'

acknowledgement and acceptance of virtual worlds as useful and meaningful, was their perception as gaming environments. As the Findings chapters revealed, virtual worlds were repeatedly defined as a game or playful environment and positioning oneself in relation to this understanding was a repeated notion. Through the students' narratives it emerged that Second Life and its functions easily triggered experimenting and playful engagement. However, this was not always perceived as purposeful in an educational context and did not always translate into learning and critical engagement.

On a positive note, many students described the utilization of virtual worlds as positive, motivational, and in terms of enhancing their learning experiences. Nevertheless, this depended on students' ability and willingness to relate the virtual world to teaching objectives or the intended purposes of their modules, and positive experiences of utilizing virtual worlds as contributing towards official assignments or personal development. Here, virtual worlds and education aligned, and play and work were seen as the same or contributing sides of the same activity. This came to the fore in narratives where students could make direct links to their disciplines or their future professions as examined in the theme of Pursuit (p. 110).

However, as narratives dismissing the value of utilizing virtual worlds illustrate, not all students were accepting of or sympathetic to notions of play in higher education. These students took a stance that playing or experimenting with the avatar and the facilities in the virtual world was a 'waste of time', 'messaging about', not related to the objectives of their modules, or what they saw as the purpose of higher education in general. These narratives also showed that students perceived the notion of playing solely as leisure and as a recreational activity and thus as disjointed from the process and purpose of learning. Some students questioned the sincerity and the pedagogical value of the environment, emphasizing that leisure activities should have no place in adult learning. These findings are congruent with other literature on the challenges to utilizing virtual environments in education posed by a rejection of playing and entertainment in an educational context (de Freitas 2006; Rice 2007; Warburton 2009; Zyda 2005). The study thus lends

credibility to Gee's (2009:3) warning that students could resist the enjoyment of playing when he concludes: 'Unfortunately, we have come to take it for granted that adulthood will kill play and schools will kill learning as a human pleasure'.³⁰

This is important, as in relation to virtual worlds in education, the student narratives thereby contradict assessments of the importance and relation between playing, learning, and identity. In 1794 the philosopher Schiller, for example, takes a holistic view proposing that 'the human only plays, where he [sic] is in the full meaning of the word a human, and he is only completely a human, where he plays' (Schiller 2013 [translation by the author]).³¹ Mead (1969 [1934]) emphasizes that children need to play for the constitution of an identity and sense of self. At the same time, Huizinga (1949 [1938]) argues similarly, accentuating that play is essential for the development of skills and culture. Moreover, Sutton-Smith (1997) argues that play is not merely enjoyed by or essential for children, but can also be supportive for adult learners. However, this literature seems to refer to play stemming from the individual's own desire – rather than imposed periods of play as demanded by virtual world module timetables, which might be in contrast to other experiences of teaching and learning activities in higher education in relation to official learning objectives and examinations.

The student narratives presented in the Findings highlight that students who positioned themselves in positive terms regarding virtual worlds as environments for playful learning, were challenged 'the other way around'. Here, students needed to align the 'seriousness' of modules in higher education with perceptions that fun and pleasure would be offered in virtual worlds (Verhagen *et al.* 2011). However, some students seemed to struggle to find expected experiences of

³⁰ In my experience, a perception that playing and learning seem contradictory is not limited to adulthood. Even learners of nine or ten years of age expressed that they would not take part in the educational context 'to play' but 'to learn'.

³¹ Der Mensch spielt nur, wo er in voller Bedeutung des Wortes Mensch ist, und er ist nur da ganz Mensch, wo er spielt. [An English version derived from Project Gutenberg online (Schiller 2013) translates it differently: 'man only plays when in the full meaning of the word he is a man, and he is only completely a man when he plays'. However, in my view, at least the word *Mensch* is better translated with human, as *Mensch* means both men and women. Therefore I offer my own translation that also gives an adverbial clause of place instead of time which seems closer to the original (wo = where, not when) as in this translation. This translation seems obsolete and potentially a product of its time.]

'having fun'. Here, it seemed that students needed to overcome perceptions that the environment itself would provide structured entertainment and potentially escape from 'work' in a module. The students needed to realize that Second Life had no 'quest', no definite internal plot to follow indicating what to do to be 'successful', in contrast to related gaming environments with which they claimed to be familiar. Hence, students needed to invest time and effort to engage with the environment and/or other users, for instance by exploring areas outside their respective university region, in order to be able to find activities that fulfilled their interests or desires.

Moreover, as students had to orientate their activities towards the modules' objectives, which they had not necessarily associated with a pleasurable exercise, students became unsettled in their perceptions of virtual worlds, and many students indicated notions of resistance to the utilization of virtual worlds in their modules. This finding concerned several narratives from students in the Employability modules. The students, who indicated at the start of the modules their position of rejection and resistance to the Employability scheme in general, seemed to remain in the position that the scheme and the particular module missed a 'purpose and relevance fit'. The virtual world in its own right, even defined as an interesting environment, did not seem to foster open-mindedness towards the general module's objectives. Additionally, the findings proposed that the virtual world did not evoke greater interest or motivation to engage with the educational content. It therefore seems that these students never crossed the threshold of integrating virtual worlds, for instance as a valuable opportunity to experiment or explore, but rather persisted on their previous opposing identities that students verbalized in their interviews. These opposing identities can be read in terms of alienated learner identities, and struggling with coming to terms of what the Employability scheme, including the module utilizing virtual worlds, was meant to achieve for them, which supports the works by Holzkamp (1987, 1993), Mann (2001) and Wimpenny and Savin-Baden (2012).

Being able to find purpose in the utilization of virtual worlds, which is in contrast to documented opinions questioning their value in higher education, leads back to

research regarding the Technology Acceptance Model (Davis (1989), which suggests that technologies only find acceptance by new users when they appear easy to utilize, and additionally useful in reaching the objectives of their utilization. Translated into the utilization of virtual worlds, students who could manage the functions quickly and almost intuitively, and leading from this could see potential that they could enhance their learning experiences and personal development, accepted and engaged with the environment. This supports Davis's (1989) argument for a consecutive pattern and causality, in which 'perceived ease of use' causes 'perceived usefulness' which then leads into 'acceptance and use'. The students who found no 'perceived ease of use' when confronted with virtual worlds, and who instead found them troublesome and difficult to master, did not engage with the environment in a positive manner. As the above discussion highlights, the findings in this study suggest that students needed to acknowledge the usefulness of the virtual world, before they even encountered any difficulties with it.

Overcoming barriers through transformational learning

Zielinski (1998:19–70) drawing on Haertel, Walberg, and Weinstein (1983) has demonstrated that difficulties and barriers to learning or to achieve particular learning outcomes are caused through a combination of internal, external, and moderating factors. Internal barriers are, for instance, a lack of ability to cognitively engage with given educational content and instructions (which includes forms of dyslexia and dyscalculia), a lack of pre-knowledge and skills, and missing intrinsic motivation towards engaging with the educational content or context. Among the external factors are the lack of time to engage purposefully with the teaching content and poor quality teaching abilities of educators. Moderating factors are to be found, for instance, in the social context of teaching in terms of relationship with peers and tutors, or conditions in the classroom. While not all internal or external barriers can be influenced by educators, this nevertheless draws attention to the importance of the teaching process and to the

ways in which thoughtful pedagogies and didactics can overcome such barriers. Clouder (2005) emphasizes that educators should be prepared to acknowledge both students' academic but also emotional needs to develop personally and professionally.

Building on concepts of transformational learning (Mezirow 1997, 2009, 2000b; Kegan 2009), I realized that the tutor can play a central role in supporting students in overcoming barriers, and thus in their transformational journey to align old with new and contrasting perspectives. With regard to virtual worlds as a threshold concept in higher education, the notion of transformational learning thus helps to draw attention to the relationship between the educator and the learner. Transformational learning is introduced here as a way to understand why students experience and show notions of struggle, challenge, and resistance to integrate virtual worlds in their learning activities or concept of learning. The central argument of transformational learning in Mezirow's (1997, 2009, 2000b) tradition is that education should take account of students' identities and stances, termed as 'frames of reference', based on positive and negative life and learning experiences. Mezirow (1996:162) defines learning as 'the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience in order to guide future action'. In this context, Kegan (2009:41) proposes that educators should seek to understand students' existing ways of knowing.

In addition to taking students' positions into account as an educator, a central element of the teaching process is also to make learners aware of their positions, by allowing critical engagement with their assumptions and beliefs as they are consciously contrasted with different and alternative ways of thinking. While Mezirow originally emphasized that the process is fundamentally rational and analytical, other interpretations of transformational learning highlight that emotional aspects in learning should not be ignored (E. W. Taylor 1998, 2001). More recently, therefore, Mezirow (2000a:19) defines the transformation process as a development that results in 'a more dependable frame of reference [...] one that is more inclusive, differentiating, permeable (open to other viewpoints),

critically reflective of assumptions, emotionally capable of change and integrative of experience’.

This section discussed virtual worlds as a ‘threshold concept’. It argued that students need to be able to align conceptions of themselves as learners and persons with utilizing virtual worlds to integrate them successfully into their learning. Varied barriers mentioned by students, which could hinder the integration of virtual worlds, were perceived as helpful indicators towards a greater understanding of what support students could need in educational contexts that integrate virtual worlds. Educators will need to find avenues to deal with resistance constructively, and see it as an opportunity, rather than just a (negative) challenge. This, in turn, could give greater agency and responsibility to students and could enrich experiences and widen horizons for both students and tutors. Developing open and constructive resistance as part of an education that takes different identities into consideration can become an aim of education. The next section discusses how students managed identity expression in virtual worlds through avatars.

7.2 Managing and managed identities through the avatar

Based on the student narratives presented in the Findings chapters, this section develops a typology of learner identity in virtual worlds through showing how students seek to manage identity through the avatar. This typology makes two important general contributions to existing scholarly work, as it provides the first systematic understanding of both what learner identity entails and how learners create and express identity through the avatar in virtual worlds.

The typology portrays learner identity across five dimensions. As discussed in detail below, the student narratives of the Findings chapters illustrate that learner identity in virtual worlds can take the form of dislocated avatars, representative avatars, avatars as toys and tools, avatars as extensions of self, and avatars as identity extensions. Through a focus on different narrative elements of how students understand and employ the avatar, these five dimensions serve to highlight the ways in which learners construct and express identity directly in the virtual world.

The avatar is necessarily central to engaging with and existing in the virtual world. In the sense of Watzlawick's (1967) axiom 'one cannot not communicate', the avatar endows and provides the user quasi-automatically with identity. Even if a user never brings the avatar into sight of others, first steps into the virtual world involve at a minimum the creation of an avatar. This comprises choosing a name for the avatar and account (first name of free choice, second name to be chosen from a list) and to choose a default appearance for the avatar from a list of eight possible humanoid appearances. In the interviews conducted, the students identified their avatars as the most important part of engaging and expressing notions of identity. Although it is possible that several physical world users share one avatar (Boellstorff 2008; Guest 2008), in this study all participants used their respective avatars individually.

The findings as derived from students' narratives and presented in the previous chapters have likewise suggested the importance of the avatar. Overall, the findings indicate that managing identity with and through the avatar is a process of organizing and reorganizing how students relate to the virtual world and feel represented through their avatar. In particular, the findings illustrated several ways in which learners understood, positioned, and related to their avatar and suggested that two approaches prevailed: either positioning the avatar as a tool, or contrastingly, understanding and enacting avatars as an extension of self. Regarding the corporeal appearance of the avatar, either achieved or desired, the findings also uncovered variations of both understanding the avatar and expressing notions of identity through the avatar.

For example, as emerged from the narratives, some students seemed to have created and customized their avatars with close links or in resemblance to their physical world body (p. 145 and p. 159). In contrast, other students explored appearances beyond resembling their physical world bodies, for instance by trying out numerous and diverse appearances or by engaging in animal or fantasy appearances (p. 152 and p. 164). A third group of students considered the appearance of the avatar merely in functional terms, for instance by deploying the default avatar (p. 140). These different approaches were affirmed, continued, and extended in students' creation of avatar names. Here, some narratives indicated that naming the avatar was related to functional thoughts and considerations (p. 176). Other narratives emphasized that the creation of avatar names was often closely linked to users' physical world names (p. 181). Further students explored names seemingly connected to notions of anonymity or role-play (p. 186). The greatest difference between the avatar's body and avatar's name was that while the former was transformable and potentially 'unstable', the later was 'stable' and not changeable.

At the same time, it also emerged in the findings that the appearance of the avatar was not necessarily connected to the understanding of the avatar. Defining and relating to the avatar predominantly as a tool included, for instance, that specific aspects of representational identity could directly connect to the physical world user. As another example, when students related to their avatar as an extension of self, students still often described the appearance as different to their physical body – and it was not always possible to give the avatar one's physical world name even if desired.

Combining such understandings and declarations of relationship with notions of customizing the appearance and creating the name of the avatar leads to the five dimensions of managing identity through and with the avatar, which will be discussed in greater detail below. However, it is important to underscore that these dimensions are not seen as unchangeable. Rather, they are understood as a declaration that seemed to dominate the understanding and employment of an avatar at a given time. In short, understanding, creating, and employing the avatar

tends to consist of many interwoven layers, and the avatar can therefore take on differing attributed identities simultaneously.

Dimension one: dislocated avatars

The first dimension concerns the utilization of default avatars. In this dimension the avatar was positioned as merely functional. No emotional attachment to the avatar was indicated, participants basically ignored the appearance of the avatar, and the name giving process was solely approached in terms of students being able to remember the name and account password. Notions of aesthetics of corporeal appearance or of the name, and individualization of the avatar pivotal in the other dimensions were ignored or resisted. Additionally, this dimension contained learners, who could imagine the virtual world without avatars, and approached it with no intention to interact with other users, and, hence, did not perceive any avatar as being important. The concentration of these students was strictly riveted towards being able to work with and in the environment, in order to fulfil the educational tasks.

The students approaching the avatar with this view indicated that they possessed no desire to further engage with the environment or other users outside or after the utilization in the educational context. However, the narratives indicated that the students who employed default avatars were highly engaged with the educational content, even though they ignored other components of engaging with virtual worlds. This finding contradicts Childs' research (Childs and Kuksa 2009; Childs 2010), which indicated that embodiment in the virtual environment as well as familiarity with the culture of the environment are crucial to engage with the educational objectives. Nevertheless, utilizing default avatars could lead to potentially problematic situations or conflicts when these students would need to interact with other users in-world, who might draw unhelpful conclusions from the avatar's appearance. As the narratives from students who seemed seasoned users of virtual worlds or similar environments indicated, default avatars were often

perceived as 'boring', unengaged, or even as an indicator for negative behaviours or griefing activities by their users. These findings confirm Boellstorff's (2008) observations in his ethnographic research study on Second Life.

Additionally, as the avatar's corporeal appearance might only give limited information about the user in the physical world, the avatar name created by the student and as visible as the corporeal form of the avatar (as the platform inscribed the name in a tag above each avatar) deserves further attention. While both creating identity as well as drawing assumptions from names is also important in the four following dimensions, it seemed particularly important in this dimension. With a click on the name tag further information about the account and the user could be obtained, depending on the willingness of the user to provide information about their physical world person. However, even without indicating any 'real world' information, and while acknowledging that Second Life only provided the opportunity to create or choose the first name of the avatar, it is arguable that the name of the avatar could provide further information and influence how the user is perceived in the virtual world. For example, both Hagström (2008) on avatar names in gaming environments and Bechar-Israeli (2006) on nicknames in chat rooms, have already noted that perceptions of or needing to be 'playful' to render users as fitting in the culture and environment gain new importance. Interestingly, however, and in contrast to this study, the literature on identity in virtual worlds tends to sideline 'stable' identity markers, such as avatar names, and focuses instead on 'unstable' aspects, such as the corporeal appearance of the avatar.

In the physical world, names as markers of identity play a pivotal role in terms of social and relational identity as others draw assumptions and conclusions about 'how someone is' from names (Buchanan and Bruning 1971). This can include expected physical appearances with regard to perceived attractiveness (Erwin 1993; Garwood *et al.* 1980), behaviours and actions (Strauss 1959), and about the social context people live in (Keats-Rohan 2007). Names are often associated with a certain sex/gender, indicate a certain language and ethnicity or nationality, may point towards religious affiliations, as well as hint towards the age or social class of

the bearer, and they can inform about status and position in a family or in society. Hence, akin to appearances, personal names can be culturally and socially determined and loaded, and are often influenced by norms and fashions in a certain context. What seems appropriate in one local and timely context as well as social and societal context must not be regarded appropriate in another. This shows that names have an important signalling function and shows the continued relevance of Bourdieu's work (1984 [1979]) on taste and distinction based on the influences of social class and power.

Teaching staff are not immune to deriving assumptions about characteristics and personalities from personal names. In Germany a recent MA study by Kube (Kaiser 2010; 2009) examining stereotypes and biases of primary school teachers based on certain first names came to prominence, as it forced teachers and practitioners to reflect on their behaviours towards pupils with particular first names. The survey study found that specifically the first name 'Kevin' worked as a stigma and was branding the pupil as being a troublemaker, without much action by the individual person. In the UK, similarly, certain names seem to evoke school teachers to make predictions about characteristics of pupils as being disruptive or 'bright' in the classroom (BBC News Online 2009). This goes alongside research studies in the past which examined and found stereotyping by teachers based on pupils' first names (Harari and McDavid 1973). Additionally, ethnic discrimination towards job applicants based on personal names is another reoccurring phenomenon (Kaas and Manger 2010 for findings in Germany; M. Wood *et al.* 2009 for findings in the UK; Bertrand and Mullainathan 2004 for findings in the USA).

Dimension two: representative avatars

The second dimension considers an understanding of the avatar as a representation of oneself in functional terms. Regarding the appearance of the avatar, this dimension comprises what Neustaedter and Fedorovskaya (2009) have defined as 'Realistics' and 'Ideals', that is the avatar is created and customized to

mirror or resemble the physical world appearance, or what is considered an improvement of the physical world appearance, respectively. However, although the avatar's appearance seemed closely connected to (or at least an approximation) of the physical world appearance of the user, the students described the relationship to the avatar in terms of functional representation and rendered the avatar as an object or tool. It remained almost neutral in terms of a possible emotional connection, as students did not describe any close attachment in psychological terms. It seemed that mirroring or projecting the physical world appearance onto the avatar was chosen so as to make the avatar visually identifiable to themselves – and potentially to other users who would know the physical person. This notion was also indicated in the narratives concerning the choice of the avatar's name, when the avatar name was chosen to closely resemble the physical world name, in order to be able to remember the avatar name (or rather the account name), and to be able to fulfil the given educational tasks. Nevertheless, the avatar name was also perceived as an indicator for others to identify the physical world person 'behind the image on the screen'. If the avatar was positioned as a tool or object but took on the physical appearance of the user, the identity expressed in the appearance of the avatar could be seen as embodied reification of physical world cues to identity.

Representing the physical world corporeal appearance or the physical world name of the person moved the avatar towards what Stone (2007:451 [1992], 1994; Garoian and Gaudelius 2001) discusses as the 'legible body', drawing on Butler's concept of the 'culturally intelligible body' (Butler 2006 [1990]). Stone (1994:182) defines that the '[l]egible body displays the social meaning of "body" inscribed on its surface, presenting a set of cultural codes that organize the ways the body is understood and that determine a range of socially appropriate responses'. The body of the avatar was not textual as in Stone's discussion, but was graphical and three-dimensional, and in a humanoid appearance potentially much closer to the body in the physical world (or differing or even disappearing when changed and customized to alternative appearances as described in further dimensions). In the case of the second dimension, the avatar is acknowledged and individually rendered to be legible as an indicator of the authenticity of the avatar.

Dimension three: avatars as toys and tools

The third dimension portrays an understanding of the avatar as a tool and object for playful engagement, as well as a status object. Additionally, for some students it offered an opportunity for anonymous representation. Again the narratives indicated a rather distanced emotional connection to the avatar. The avatar was here positioned as an object that could be customized and played with to take on varied appearances. Here the dimension is linked to a playful learner identity, which is considered as joyfully engaging with the playful options offered by the application, and wanting to be represented in a playful and clearly different way to the default appearance. The narratives often emphasized that the customizable avatar enabled individual expression and creativity. This was also connected to notions of the avatar being a 'status object', in particular in terms of its legibility. In the narratives of seasoned users of virtual worlds or similar environments, having many different avatar appearances or a particular elaborated appearance was perceived as a must, in order to demonstrate one's status and expertise in contrast to new users. Many students perceived and experienced the virtual world as liberating and as an environment that allowed and accepted playful and fantastical representation. However, some students seemed to react in a disturbed way to notions of playful identity enactment, and some even mentioned that they felt almost coerced to create a specific avatar identity as a form of virtual world etiquette, in order to find acceptance in interaction with other users. Additionally, as discussed in the first section in this chapter, not every student was entirely accepting of integrating playful engagement in their understanding of higher education, and critiqued customization and engagement with the avatar as a 'waste of time'.

Being able to customize the avatar in manifold different ways was additionally considered as providing an option to consciously conceal notions of physical world identities and render the avatar's name and appearance illegible and anonymous in relation to the physical world. This comprised notions of consciously not wanting to express aspects of physical world identity publically in terms of identity protection, as well as aspects of role-play in which the appearance of the avatar

needed to be in accordance with common practices, norms, or even regulations of virtual world culture and communities (Warburton 2008). However, it seems crucial to emphasize that this playing with the avatar and identity is considerably different to notions of identity play in terms of creating oneself differently or experimenting with the formation of new and different identities for oneself (Turkle 1996, 1999). Thus, the avatar was rendered in terms of representing the physical world learner/person, and in the educational context participants were prepared to make notions of their physical world identity public at any time, if the relation of individual avatar to student was not public or accessible to other people involved in the module throughout anyway.

Dimension four: avatars as extensions of self

The fourth dimension regards students who declared their respective avatars as an extension of themselves, both visually as well as emotionally. In their narratives the avatar was described as closely related to the user not only in corporeal appearance and, so possible, by name, but the students also mentioned being emotionally and psychologically attached to their avatars. It seemed that the students had 'bonded' with their avatars. In contrast to the first three dimensions, the avatar gained subjectivity and existence beyond the representational notions discussed in the former dimensions. Here, the avatar embodied both representational and personal aspects of identity. While the avatar in the first three dimensions seemed more perceived as a machine than human-like, in the fourth and fifth dimension this was almost reversed and the avatar was rather rendered as a cyborg, which Haraway (2006:117 [1985/1991]) defines as 'a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction'. In understanding the avatar as an extension of self, the avatar enabled and was perceived to embody subjectivity. In this dimension the avatar was directly tied to the physical world identity of the user and customizing the avatar in reference to the physical world appearance was connected to a desire to show who one was in the physical world.

Importantly, it was mostly in narratives which constituted this dimension, that students described the appearance of their avatars as a compromise between 'managing identity' and the affordances of the educational context. It seemed that students were conflicted between their desire to improve the appearance of the avatar and the need to concentrate on the tasks of their respective modules. The narratives indicated that students desired improvement of the appearance of their avatar as a way of engaging psychologically with the environment. In contrast to students who rejected customizing their avatar, thinking it as a 'waste of time', these students declared that their engagement with their avatar was an important part of managing their identity in the virtual context, since it had impact on their physical world person, as engagement with their avatar felt 'real'. The identity work with the avatar became relational and social.

Dimension five: avatars as identity extensions

The fifth dimension discusses narratives in which the avatar was considered as an extension of self as in the fourth dimension, as participants declared emotional connections to the avatar and engaged with the relationship in psychological terms. Again in the narratives regarding the avatar's understanding, the avatar gained subjectivity and personality. However, the appearance of the avatar as visual to other users would not necessarily give any hints towards the physical world body of a user, as the avatar was often customized with limited or no reference to the physical world. In this dimension, the appearance of the avatar was similar to those in the third dimension, as users engaged in playful appearances or role-play appearances. It seemed that students in this dimension took into account that their physical world person would be unknown to most users of the virtual world, and the appearance of the avatar was perceived as irrelevant, as other factors such as ways of communication and behaviour would potentially communicate more about the physical world person than merely their avatar appearance on the screen. Nevertheless, students' narratives acknowledged that cues would be taken from the appearance or the name of the avatar to infer

towards being and behaviours of the physical world person and user. However, through experiencing and interacting with other users, these students seemed to have realised that any appearance was potentially open to interpretation.

Moreover – and in contrast to the third dimension – in this dimension, students engaged with their avatars and the virtual world in terms of ‘laboratories for the construction of identities’ (Turkle 1996:184, 1999). Thus, the avatar in this dimension ventured into dimensions of exploring notions of potential, new, or alternative identities for oneself both in the context of the virtual world or as a testing ground for the physical world, as well as exploring possibilities beyond its boundaries. For instance, some students explored utilizing an avatar with a different sex/gender. However, these explorations did not necessarily happen within the educational context, or were not experienced as part of the official tasks and objectives of the modules – potentially because they were not part of the assignments and examinations, the implication of which will be further discussed in the Conclusion chapter (p. 258). Nevertheless, students’ acknowledged an interest in exploring and deepening an understanding of what the avatar could be or become, beyond being understood as an extension of self in the virtual world. This is a notion now further explored in Rasmus’ narrative.

Rasmus – a transformational journey

Rasmus’ narrative illustrates the varied dimensions of understanding the avatar and a possible transformation process, including several stages within this process. In his narrative, a direct impact of the avatar on identity and the potential complexity of development and transformation of the relationship with the avatar came to the fore. Rasmus indicated that the transformation of his position on Second Life as a potential performance space as well as his own identity as a performer coincided, and was interconnected with his understanding of the avatar and his approach to embodiment.

Nicole: How was that then with the avatar? How was that journey?

Rasmus: I don't know, I think at first, when you get your avatar, there was almost a sense of, that it needs to be a representation of you, so first this sense of, 'I'm gonna dress it in this way, it's gonna have this colour hair and these colour eyes, and it's gonna basically be a little me.' But then, as it went along, I was like, 'oh, it doesn't need to be a mini-me,' 'cause I am here, but I can do things that I couldn't necessarily do here, you know-

Nicole: In the physical world?

Rasmus: Yeah. I think, I was slowly just having a bit more fun with it and being able to just go, 'I can do whatever,' people pass me [in-world] and go, 'oh that's weird.' I think after a while it took more of a spin off-, I mean, I'm controlling it, but it doesn't have to be me in the world, you know, it can just be this little person, just being dressed however, doing whatever. [...] Because I'm still controlling it, it's almost still my personality, I wouldn't go on there and talk to people in a way that I wouldn't in real life, I still have that, sort of, sense of me as a person, but not necessarily a physical representation way. I think, that my relationship with the avatar changed, how it was, how I started when I first had it, yes, it has changed a lot. [Rasmus, 25: 28-33]

Rasmus' first approach at embodiment was to create a 'mini-me' avatar, almost a mirror representation of his physical world body or an 'accurate representation', as Vasalou and Joinson (2009) have described it. However, as he encountered new possibilities to utilize Second Life, he changed his view on his avatar and opened up to experimentation with embodiment and the purpose and meaning of his avatar. Nevertheless, Rasmus remained very close and attached to his avatar and the avatar remained authentic to him. Rasmus described that, although the avatar might look different to his physical body, (he in particular struggled with the customization of his avatar's hair colour to achieve the perfect ginger-red, an observation reported by all ginger/red-haired participants), he would not interact differently through his avatar with others compared to how he would interact in the physical world.

When I investigated further into the different variations of relationships, we discussed the potential of trying out a female avatar as a further step of

experimenting with embodiment and identity; he wondered openly how that might change his behaviour in interaction:

I think stuff could change, but I don't know whether it would, I don't know whether I'd still talk as me, or whether I'd be like, 'oh dirty old fart,' I don't know, how I would react, in a way. So I don't know, it would be interesting to do. [Rasmus, C25: 37]

It is through my outlining of how others have reported about playful ways of experimenting with other sex identities on a physical stage as well as my own experiences and observations in regards to other identities in the virtual world, that Rasmus shared another of his own experiences:

I went through the animal thing, I did. I was like, 'let's see what's gonna happen.' I loved it, but eventually I did just go back to human, I suppose. I think it is something that everyone, well, maybe not everyone, goes through, but I think a lot of people will do that, it will be very playful, and it could have deeper meaning for some people, so- [Rasmus, C25: 40]

Here, the relationship with his avatar took a further turn as he described a phase of having been playful with his avatar's embodiment. It seemed that he was not thinking about this experience as something specific, as he assumed that almost every new user would have a playful phase.

How attached Rasmus is to his avatar becomes fully evident when we discuss his assignment project 'Me and my shadow'. His idea was a presentation in which he performed live in the physical world, while his avatar performed live in the virtual world, accomplished through collaborating with a friend of his whom would carry out the movements of the avatar. In the performance the avatar would initially repeat, shadow, Rasmus' movements. However, at some stage the avatar would take over the lead and would finally perform movements that the physical Rasmus would not be able to execute. In the following segment, Rasmus' relationship and vulnerability in regards to his avatar became apparent:

I think it does change. At first, I had the whole physical representation of me, then it was like, 'it's not, move on,' but then-, I

think on some level, I almost feel like [laughs] depending on what happens to the avatar, it could affect me [...]. I don't necessarily think there's an emotional connection to an extreme, as I would have an emotional connection with another person, but I still want the best for it in a way, I wouldn't purposely do anything that could look like it would harm the avatar, I still almost treat it like it could feel pain or it could feel happiness or anything like that, I still want it to be happy, in a way, I think I can get quite attached [...]. Well to be honest, it will probably be a bit of an issue of this project at the moment [...], the idea of having to hand over my avatar to someone else, it's not something that I want to do, because that's my avatar and I'm the only person who uses it [...] almost a little bit protective, in a way; weird. I think that's something I've never really thought about before, but I think that is just how weird I am, I think I am quite like that. [Rasmus, C25: 75]

In this, the complexity of embodiment through the avatar itself and the relationships between user and avatar became apparent. Rasmus represented himself through and with the avatar. Initially he sought a representation that mirrored his physical body and appearance. Through playful interaction with the avatar and through artistic interaction while developing the performance the relationship changed and expanded. Rasmus indicated that he realized that although the avatar might look different, it was still an extension of self, as his personality and behaviours (as part of his identity) would still be represented through the avatar in a conscious way. Potentially Rasmus could experience 'being' someone else, new aspects of identity, through the avatar and through further investigation of notions of role-play and psychological engagement with different identities in the virtual world.

However, the avatar was also something that Rasmus controlled and in this context rather as a tool or an object. Through this it enabled Rasmus to explore new possibilities regarding his performance work, as Rasmus experimented with the avatar's possibilities beyond those available in the physical world. In this context of supra-physical world abilities, Rasmus described the avatar as an artist in its own right, expanding the dimensions of representational tool and extension of self. Moreover, Rasmus described a relationship and an emotional involvement with the avatar in its own right. He was not only controlling it, but he took on the identity of a carer, who would protect the avatar from harm.

However, to find this multi-layered and complex relationship with the avatar in one narrative was an exception and possibly founded in Rasmus' pursuit and special interest in employing the avatar in multiple ways. His project as an artist illustrated his journey with the avatar, and the multiple identities that he had observed and ascribed to the avatar in both the physical and the virtual world. While most students remained with their view in either the physical world in contrast to the virtual world, Rasmus seemed to have become a border crosser between the physical and the virtual, as he made the physical virtual and the virtual physical. Moreover, he engaged psychologically with his avatar, reflecting and exploring opportunities and possibilities regarding virtual worlds as an environment for theatre and performance, but also how these opportunities related to his identity as a (becoming) artist. While other narratives indicated that students struggled to come to terms and make sense of the avatar, when the avatar could not clearly be positioned as either tool or extension of self, Rasmus' narratives seems to express that both views can be aligned. This alignment seemed to allow him to expand on the boundaries of his relationship with his avatar.

Taking all narratives of this study into account, the findings confirm those of Neustaedter and Fedorovskaya's (2009) study, that the appearance of the avatar on the screen must not give any information about the relationship or understanding of the avatar, and that almost oppositional understandings may lead to very similar appearances of avatars, aside from technical difficulties that may condition the appearance in the first place. As in this study, only individual knowledge of users' physical world identity and their thoughts and considerations led to Neustaedter and Fedorovskaya's (2009:n.p.) identification of four types of users in Second Life: 'Realistics', 'Ideals', 'Fantasies', and 'Roleplayers'. Yet while these types shone through in this study, Neustaedter and Fedorovskaya's typology focussed on general users of Second Life and did not single out the peculiarities of learner users.

Additionally, Neustaedter and Fedorovskaya's (2009) research, alongside other research for instance regarding the Proteus Effect (Yee and J. Bailenson 2007; Yee

et al. 2009) seemed too narrowly based on the appearance of the avatar. Notions of understanding and development of a relationship with the avatar as discussed by Warburton (2008) needed to be taken into consideration. Moreover, much of previous research seemed based on a view that the use of an avatar and the utilization of virtual worlds were predominantly self-chosen, which, with the findings discussed in the previous section in mind, was not the case for all participants in this study. Therefore, and as the narratives revealed, more attention must be given to the reasons for the use of avatars and the potential influence of the aim of utilization of avatars in an educational context. This raised the question as to what kind of identity and how much identity is needed and expressed, when learners are brought into contact with virtual worlds in the context of higher education.

The notions and approaches to create their avatars and form identity in virtual worlds that students discussed in their narratives moved the findings rather towards D. S. White and Le Cornu's (2011) typology or continuum of 'visitor' and 'resident' user identities. On the one hand the varied understandings of the avatar as a tool in the first three dimensions seemed to fit with White and Le Cornu's definition of 'visitors'. These were the significant number of students who did not want to be or become users of virtual worlds outside the educational context, as they would not have any interest in participating beside their given tasks. This notion was often mirrored in their described relationship with their avatar. On the other hand there were 'resident' learners who indicated having particular interests in exploring and engaging with and in the virtual environment, and making use of potential opportunities to experiment with notions of identity. In these narratives the avatar was often perceived as an extension of self as discussed in the fourth and fifth dimension.

This chapter systematically discussed the study's key discoveries of how higher education learners understand, construct, and express identity in virtual worlds, and it also put these into a broader perspective. In particular, the Discussion tied the findings presented in the previous chapters to existing scholarly works and

established the main contributions of the study. These include, for instance, demonstrating the importance of stable identity markers, such as names, in understanding identity in virtual worlds and introducing the learner rather than the general user as an important research subject in virtual worlds scholarship. Importantly, however, the study introduced virtual worlds as a threshold concept and developed the first multi-dimensional typology of what learner identity entails and how learners create and express identity through their avatar in virtual worlds. The following Conclusion chapter will draw upon these contributions to consider the study's implications and recommendations for the future utilization of virtual worlds in higher education.

Chapter 8 Conclusion

The UK higher education system is currently undergoing a series of dramatic changes, which are altering how university learning is both understood and practiced. While many universities already struggle to cope with the pressures generated by the new fees regime, the rapid growth and expansion of commercialized distance learning programmes and Massive Open Online Courses (MOOCs) have now invoked proclamations of a coming 'avalanche' in higher education (Barber, Donnelly, and Rizvi 2013). Yet how students themselves perceive learning in this environment, and how the shift away from the physical world university classroom to virtual environments relates to their identity as learners, has thus far received little attention.

This study contributes to reorienting the focus towards the student and has aimed at understanding learner identity in virtual worlds. In particular, the thesis investigated how learners interpret, construct, express, and manage identity when virtual worlds are utilized in higher education – and how the virtual world itself might impact on concepts of identity. The study demonstrated that virtual worlds, when they are utilized in the context of higher education, offer diverse opportunities to (re)present oneself in varied forms and enable experimentation with different notions of virtual identity. Importantly, it illustrated that students perceived virtual worlds as environments in which to engage with matters of identity.

At the same time, as the students' narratives of pursuit, embodiment, and resistance presented in this study highlighted, learners may need to overcome significant limitations and barriers to successfully utilize virtual worlds in their learning. Moreover, students voiced strong criticism against what they perceived as the substitution of technology in place of time for exchange and discussion with

tutors and fellow students. This suggests that the professed benefits of virtual learning may be overblown, especially if students perceive that the learning outcomes they gain do not deliver what they expect, because of a lack of face-to-face and direct interaction with teachers and other students. While scholars such as Barber, Donnelly, and Rizvi (2013:30, 2013:39) maintain that the rise in 'new technologies such as virtual and augmented reality [...] is making it easier and easier to simulate in-person experiences [and] will be able to deliver the experience of rich interactions in a classroom', in reality learning in virtual environments is not that straightforward – in particular because learner identity matters.

Summary

This thesis employed a narrative research approach, outlined in detail in Chapter 3, to thematically generate and analyze rich datasets generated through interviews, focus groups, and participant observation, collected in two educational contexts at two British universities. The three key themes that emerged from the evaluation and interpretation of these data were presented through students' narratives in the Findings chapters:

Chapter 4, which centred on the theme of Pursuit, uncovered that students held different positions towards utilizing virtual worlds in higher education (ranging from exploring the virtual world in its own right to actively seeking to link it with their respective disciplines) as well as particular aims, interests, and objectives as learners in relation to the virtual world (such as carrying out serious learning or engaging in leisure-oriented activities), and they also had varying anticipations in relation to their conceptualization of both learning and identity. The theme of Embodiment narrated in Chapter 5 focused on students' creation and expression of identity through employment of avatars in the virtual world. Findings revealed that students positioned their avatar as a tool or extension of self. While none of the students had created a humanoid avatar in stark difference to their physical

world appearance, most learners indicated that being able to individualize and customize their avatars was pivotal to creating, expressing, and managing their identity in-world. The final theme of Resistance explored in Chapter 6 showed how students critiqued, resisted, and rejected the utilization of virtual worlds and emphasised that virtual worlds are not necessarily easily accepted as pathways to university learning. Indeed, some students questioned and even dismissed the pedagogical value of virtual worlds in higher education.

Through a focus on, first, the physical world LEARNER identity and, second, learner identity IN virtual worlds as ‘translation’ of physical identity markers onto the avatar, the Discussion chapter outlined the key contributions of this study to existing knowledge on learning in virtual environments on two main levels: firstly, the study shows that virtual worlds are ‘threshold concepts’, in which students need to be able to align their learner identities with the utilization of virtual worlds to integrate them successfully in their learning. Secondly, it reveals the way in which students engage and manage identity directly in the virtual world through their avatars, which is presented in a five-dimensional typology.

Limitations to learner identity in virtual worlds

One of the main arguments put forward in this thesis, which also underlies the study’s conception of virtual worlds as a threshold concept, was that students need to be able to align conceptions of themselves as learners and persons with the utilization of virtual worlds in the university context, in order to successfully integrate them in their learning. Importantly, students here described significant barriers that negatively impact on a successful integration of virtual worlds in higher education. This highlights the need to develop a greater understanding of students’ support requirements in educational contexts that can help foster such integration. In particular, educators will need to find avenues to deal with resistance towards utilizing virtual worlds in higher education constructively, and value this as an opportunity rather than as a challenge in a negative sense. This is

important, as it can open up pathways towards constructive engagement with resistance as part and aim of an education that allows for and considers different identities.

However, as understanding identity related issues of utilizing virtual worlds in higher education was not part of the course design, neither opportunities nor limitations, nor students' engagement with identity in the virtual world were an explicit component of the modules analyzed in this study. As a consequence, students had limited opportunities at best to reflect on and engage in sharing identity issues, which emerged through learning in virtual worlds, with tutors and peers within the modules. This inhibits students' abilities to form necessary linkages and integrate learning in virtual worlds with their existing conception of the university context. As illustrated under the theme of Resistance in Chapter 6, this clearly limits the opportunities for effective learning through virtual worlds in higher education.

One limitation of the virtual world platform itself became apparent before students had even entered the virtual world, at the time of choosing or creating a name for their avatars and accounts. Several students approached the virtual world with a view to using their physical world names for the educational context. However, the platform would prevent them from choosing particular names when they were no longer an available option and students had to refer to an alternative approach. Thus, rather than providing a 'real' free choice to be 'who they wanted to be' regarding the rhetoric that underpins Second Life (Rymaszewski *et al.* 2008), in this case the virtual world forced them to become creative and to manage their identities. Interestingly, interviews conducted later in this study did not reveal the level of bewilderment and frustration that I had initially observed in the classroom. This indicates that students can deal pragmatically with such initial conflicts and are later able to identify with their created avatar name.

The second considerable barrier to being able to create and express identity is related to the bodily appearance of the avatar. This was caused by the technical challenges involved in mastering Second Life's facilities to change what the avatar

looks like (see also Warburton 2008). While undertaking initial changes to the default avatar's corporeal form seemed relatively straightforward, most students wanting to engage further in altering the appearance of their avatars experienced difficulties, and were faced with a substantial need to invest time and effort to make the changes they desired. Moreover, some students were – and remained – sceptical about whether changing the avatar's appearance was necessary and useful in the educational context. In particular, these students argued that valuable time was lost or wasted, which should instead have been used to focus on other, perhaps more important, aspects of their modules. However, such positions of rejecting any value in individualizing their avatar were in stark contrast to the many other students, who saw developing the ability to customize their avatars as an important part of familiarizing with and becoming acquainted to their avatar and the virtual world. Through their avatars, students were given the opportunity to express individuality in the virtual environment and all students, even those who seemed open to ideas of uniformed avatars, highlighted that being restricted to using prepared avatars would feel homogenizing and limiting. Therefore, not being given the option to individualize their avatars (beyond the name) was perceived by students as a threat to their individuality and identity.

Students desire the ability to be as different as in the physical world. Hence, avatar creation should not be considered as a time-consuming activity without any further purpose, perhaps in order to seek to introduce 'prepared' avatars to save time. Rather, this process should be welcomed as an opportunity to integrate identity construction, expression, and perception in module designs, making it a key content for discussion and analysis in the educational context. As Barnett and Di Napoli state (2008:197) '[p]lurality is a sign of the university doing its job as a site of universal academic freedom. [...] plurality of identity is to be welcomed and not mistrusted'.

A third and final aspect, which at least initially hindered and confused students in realizing the potential of utilizing virtual worlds in higher education, is related more closely to content and objectives in university modules. As discussed in the first section of the Discussion chapter (p. 226), the virtual world is a 'threshold

concept' (Meyer and R. Land 2003), and students need to be able to cross the barriers that prevent them from aligning and integrating the virtual environment successfully with their learner identity. Yet many students in this study remained alienated and expressed feelings of being left to their own devices when trying to make the necessary connections. Here, some students narrated their position in a 'matter of fact' way. Other students, however, became rather emotional when they described and criticized the levels of their 'stuckness' and alienation. Perhaps unsurprisingly, students sought support in their efforts to make sense of the utilization of the virtual world, or even of learning objectives in general, during the interviews. This was particularly the case in the context of the Employability scheme, which, in its own words, aimed to develop the individual student. For a module integrated in such a scheme, it seems essential to ensure that it offers the opportunities and support necessary to meet these objectives.

Changes to the avatar creation process in Second Life

Since the time of data collection, Second Life has made important changes, removing some aspects of the limitations to students' ability to express their learner identity. For example, Second Life changed the process of joining, has introduced some options to change one's avatar name, and widened the options on default avatar appearances. Turning around previous proceedings, now new users have to choose an appearance for the avatar before choosing a name for the account. The offer of default avatars has expanded beyond humanoid appearances and comprises 55 default avatars in five categories: 'people': humanoid appearances for women and men; 'vampires': humanoid and werewolves; 'animals' including furies; 'robots'; and 'vehicles' including planes and tanks.³²

The greatest change concerns the creation of an avatar name. After choosing the initial appearance, now the user needs to choose one account name, which is one word consisting of one contiguous combination of a maximum of 31 letters and

³² These changes to joining, account, and name proceedings were correct October 2012.

numbers. In contrast to previous proceedings, there is no 'second name' to choose from a list anymore. The account name itself is still limited to availability, as account names need to be unique on the Second Life server. In the next step, a new user is asked to give an email address, date of birth, create a password, choose a security question from a drop-down box, and to create a security answer. The account name is still the default avatar name, which appears in the name tag above the avatar. However, users are now able to change the name that appears in the tag on the screen. Thus, username and display name need not necessarily be the same any more, and avatar names as displayed are not necessarily unique any more. This potentially enhances the freedom to choose one's name, although some restrictions remain; a change of avatar display name does not become apparent immediately, and name changes are restricted to once every seven days. However, users are now able to use their physical world name as their avatar name – if they so wish. Despite those changes regarding the visible appearance of the avatar, users are still not being asked at any point when joining Second Life with a basic account to provide any information that could reveal their 'real' world identity (neither does an email address have to consist of a 'real' name nor does the security answer have to be related to any 'real' information).

This rather high level of anonymity in Second Life, combined with the possibility of using pseudonyms, and thus privileging users with a greater freedom of choice concerning their representative name, is in stark contrast to new developments concerning contemporary social networking services. Facebook and Google Plus, for instance, follow a 'real name' policy and officially disallow nicknames or pseudonyms, although many users still admit to using them. These developments have started both increasing discussion and the so-called 'nymwars' about the use and restriction of pseudonyms in virtual environments (Boyd 2012; Kuhn 2011; Madrigal 2011), as well as the advantages and abuse of anonymity in general (Boyd 2011; Fake 2011). However, in the examined contexts in this study, others, namely fellow students and tutors, knew or could get to know the 'real' name behind the avatar name (even if the student did not reveal further information in-world). Anonymity in terms of the combination of avatar name and physical world name seemed therefore almost unachievable. Nevertheless, in particular students

who had no 'official' access to knowing 'who was who' in the module and in the virtual world, showed confusion and began to resist interaction with fellow students. Hence, notions of anonymity should be discussed in the educational context, and students asked for consent to share information regarding the relation of physical world student and avatar name (if this is not done in the first place).

These changes in the creation of avatars' names and corporal appearances in Second Life mean that students (and general users) are now able to better individualize their avatars as expressions of their conceptualization of identity. At the same time, and in contrast to other virtual environments, it is still possible for the user to preserve a degree of anonymity.

The importance of enabling identity in virtual world education

In the current 'pressurized' university context, thinking about learner identity in virtual worlds may not appear as a priority in adjusting educational practices and structures. Indeed, one of the challenges associated with the current drive within the UK university sector to enhance the 'student experience' is that students' identities as *learners* might be ignored, with the greater emphasis on retooling university practices and processes, in order to improve aggregate student rankings of cohort experiences and graduates' short-term labour market opportunities. In the rush to 'add value' to university studies through teaching innovations, which focus on how the content of learning is delivered and received, the key component of education, the learner – and how new methods of teaching impact on learner identity – risks being sidelined. As this study shows, if virtual worlds are to be successfully utilized in higher education, it is important to address these limitations and barriers positively and through a focus on students and learning. Improving how students learn through virtual worlds is important not only to enhance the quality and outcomes of university teaching, but also because current

graduates' future careers will increasingly include engaging with virtual environments in many professions.

Enabled by institutional structures, module design and the educator will play a vital role in this process. For example, collective reflection on positioning and knowledge about virtual worlds, for instance as part of an introductory session, can give indications about ability, anticipations and expectations, and can bring students' uncertainties and anxieties to the fore. Exploring and analyzing what students and tutors wish to achieve in modules in relation to official objectives, can inform about different approaches to virtual worlds, students' needs and personalities, tutors' positions and abilities, as well as potential conflicts and barriers that need to be overcome to enable successful utilization and learning. Tutors should encourage engagement with the teaching content and the virtual world, in order to allow student to overcome initial barriers, as these challenges could enable additional layers of learning, besides an engagement with the teaching material with regard to learners' identity.

Tutors should be able and willing to offer assistance and support at any stage of the engagement, not only to assist with the facilities and functions of Second Life, but also so that students can understand how the virtual world aligns to the teaching objectives and content, and how it could relate to them as an individual student. This includes the acceptance by tutors and fellow students alike that some students will have no further interest engaging with virtual worlds outside the given educational context. However, detailed indications should be given regarding cultural norms in virtual worlds, for instance possible consequences that could arise through utilizing default avatars. Tutors should be prepared to help students to express viewpoints. This includes allowing and inviting oppositional positions to a tutor's own stances, of which the tutor should be aware and willing to discuss. With this view, integrating virtual worlds into higher education could, drawing on Adorno's notion, help to develop education as an environment 'in which one can be different without fear' (2003b:116 [1951], translation by the author).³³

³³ [...]den besseren Zustand aber denken als den, in dem man ohne Angst verschieden sein kann.

In addition to uncovering virtual worlds as a threshold concept and developing a five-dimensional typology of learner identity in virtual worlds, which helps to highlight the importance of focusing on the supporting role the tutor can play in overcoming limitations, the thesis also revealed that students observed the appearance, behaviours, and interactions in-world of the avatars of their peers, tutors, and general Second Life users to 'fit in'. This indicates that learner identity in virtual worlds overlaps with how identity in the physical world is shaped by how we perceive ourselves and others, and how we interact with others in the physical world (Andersen and S. Chen 2002). Even when learning activities are partly or primarily located in virtual worlds, reality bites. In order to better integrate learner identity in effectively operationalizing the use of virtual worlds in higher education, this relationship should be analysed in more depth in the future.

Overall, engagement with avatars in the educational context is a great opportunity to foster critical thinking, and if supported by educators and institutional structures, virtual world learning can also enable students and tutors to reflect critically on what shapes, influences, and constrains identity in virtual worlds, in the physical world, in higher education, and beyond. As Albert Einstein once quipped, 'The only thing that interferes with my learning is my education'. Learning through virtual worlds or similar environments continues to develop and its use as a teaching tool in universities – based on current trends – is expanding. In the process it is important that learning in virtual worlds does not lead haphazardly to the introduction of new restrictions on how students learn, and how their learner identities develop, so that the virtual dimension of university education can continue to contribute to the 'core business' of student learning.

References

- Adorno, Theodor W. 1971. *Erziehung zur Mündigkeit. Vorträge und Gespräche mit Hellmut Becker 1959-1969* [Education towards/for majority/autonomy. Lectures and discussions with Hellmut Becker 1959-1969]. edited by Gerd Kadelbach. Frankfurt am Main: Suhrkamp.
- Adorno, Theodor W. 2003a. "Kritik [Critique]." in *Theodor W. Adorno, Gesammelte Schriften* [Collected Publications] [DVD], edited by Rolf Tiedemann, Gretel Adorno, Susan Buck-Morss, and Klaus Schultz. Berlin: Suhrkamp/Directmedia.
- Adorno, Theodor W. 2003b. "Minima Moralia: Reflexionen aus dem beschädigten Leben [Minima Moralia: Reflections out of the damaged/corrupted life]." in *Theodor W. Adorno, Gesammelte Schriften* [Collected Publications] [DVD], edited by Rolf Tiedemann, Gretel Adorno, Susan Buck-Morss, and Klaus Schultz. Berlin: Suhrkamp/Directmedia.
- Alford, C. Fred. 1987. "Habermas, Post-Freudian Psychoanalysis, and the End of the Individual." *Theory, Culture & Society* 4 (1): 3–29.
- Amir, Marianne, and Rachel Lev-Wiesel. 2001. "Does everyone have a name? Psychological distress and quality of life among child Holocaust survivors with lost identity." *Journal of Traumatic Stress* 14 (4): 859–869.
- Andersen, Susan M., and Serena Chen. 2002. "The relational self: An interpersonal social-cognitive theory." *Psychological Review* 109 (4): 619–645.
- Andrews, Molly. 2002. "Introduction: Counter-narratives and the power to oppose." *Narrative Inquiry* 12 (1): 1–6.
- Andrews, Molly, Shelley Day Sclater, Corinne Squire, and Maria Tamboukou. 2007. "Narrative research." Pp. 97–112 in *Qualitative Research Practice*, edited by Clive Seale, Giampietro Gobo, Jaber F. Gubrium, and David Silverman. London: Sage.
- Angrosino, Michael V. 2005. "Recontextualizing Observation: Ethnography, Pedagogy, and the Prospects for a Progressive Political Agenda." Pp. 729–745 in *The SAGE handbook of qualitative research*, edited by Norman K. Denzin and Yvonna S. Lincoln. Thousand Oaks: Sage.
- Antonacci, Dave M., and N. Modress. 2008. "Envisioning the Educational Possibilities of User-Created Virtual Worlds." *Association for the Advancement of Computing In Education (AACE) Journal* 16 (2): 115–126.
- Argyris, Chris, and Donald A. Schön. 1989. "Participatory Action Research and Action Science Compared: A Commentary." *American Behavioral Scientist* 32 (5): 612–623.

- Atkinson, Paul, and Sara Delamont. 2006. "Rescuing narrative from qualitative research." *Narrative Inquiry* 16 (1): 164–172.
- Axelsson, A.-S., and T. Regan. 2006. "Playing Online." Pp. 291–306 in *Playing Video Games: Motives, Responses, Consequences*, edited by P. Vorderer and J. Bryant. Mahwah, NJ: Lawrence Erlbaum.
- Bailenson, Jeremy, and J. Blascovich. 2004. "Avatars." Pp. 64–68 in *Encyclopedia of human-computer interaction*, edited by W. S. Bainbridge. Great Barrington, MA: Berkshire.
- Bamberg, Michael. 2006. "Stories: Big or small: Why do we care?" *Narrative Inquiry* 16 (1): 139–147.
- Barab, Sasha, and Chris Dede. 2007. "Games and Immersive Participatory Simulations for Science Education: An Emerging Type of Curricula." *Journal of Science Education and Technology* 16 (1): 1–3.
- Barber, Michael, Katelyn Donnelly, and Saad Rizvi. 2013. "An avalanche is coming: higher education and the revolution ahead." Retrieved March 13, 2013 (http://www.ippr.org/images/media/files/publication/2013/03/avalanche-is-coming_Mar2013_10432.pdf).
- Bardzell, Shaowen and William Odom. 2008. "The Experience of Embodied Space in Virtual Worlds: An Ethnography of a Second Life Community" *Space and Culture* 11 (3): 239–259.
- Barnes, Kassandra, Raymond C. Marateo, and Sharmila Pixy Ferris. 2007. "Teaching and learning with the net generation." *Innovate* 3 (4): no pages. Retrieved (http://www.innovateonline.info/pdf/vol3_issue4/Teaching_and_Learning_with_the_Net_Generation.pdf).
- Barnett, Ronald. 2000. *Realising the University in an Age of Supercomplexity*. Buckingham: Open University Press.
- Barnett, Ronald. 2007. *A Will to Learn: Being a Student in an Age of Uncertainty*. Maidenhead: Open University Press.
- Barnett, Ronald. 2011. *Being a University*. London: Routledge.
- Barnett, Ronald, and Roberto Di Napoli. 2008. "Identity and voice in higher education." Pp. 197–204 in *Changing Identities in Higher Education. Voicing Perspectives*, edited by Ronald Barnett and Roberto Di Napoli. Abingdon: Routledge.
- Barthes, Roland. 1975. "An Introduction to the Structural Analysis of Narrative." *New Literary History* 6 (2): 237.
- Bartle, Richard. 1996. "Hearts, clubs, diamonds, spades: Players who suit MUDs." *Journal of MUD Research* 1 (1): no pages. Retrieved (<http://www.mud.co.uk/richard/hcds.htm>).

- Bartle, Richard. 2003. *Designing virtual worlds*. Indianapolis: New Riders.
- Baumeister, Roy F., and Mark Muraven. 1996. "Identity as adaptation to social, cultural, and historical context." *Journal of Adolescence* 19 (5): 405–416.
- Baxter Magolda, Marcia B. 2000. "Teaching to Promote Holistic Learning and Development." Pp. 88–98 in *Teaching to Promote Intellectual and Personal Maturity: Incorporating Students' Worldviews and Identities into the Learning Process*, edited by Marcia B Baxter Magolda. San Francisco, CA: Jossey-Bass.
- Bayne, Siân. 2005. "Deceit, desire and control. The identities of learners and teachers in cyberspace." Pp. 26–41 in *Education in Cyberspace*, edited by Ray Land and Siân Bayne. London: RoutledgeFalmer.
- Bayne, Siân. 2008. "Uncanny spaces for higher education: teaching and learning in virtual worlds." *Association for Learning Technology-Journal (ALT-J)* 16 (3): 197–205.
- Bayne, Siân, and Jen Ross. 2007. "The 'digital native' and 'digital immigrant': a dangerous opposition." *Annual Conference of the Society for Research into Higher Education (SRHE)*, 11-13 December in Brighton/UK. Retrieved December 15, 2010 (http://www.malts.ed.ac.uk/staff/sian/natives_final.pdf).
- Bayne, Siân, and Jen Ross. 2011. "'Digital native' and 'digital immigrant' discourses: a critique." Pp. 159–169 in *Digital Difference: Perspectives on Online Learning*, edited by Ray Land and Siân Bayne. Rotterdam: Sense Publishers.
- BBC News Online. 2009. "Teachers spot trouble in a name." *BBC News Online*, September 8. Retrieved October 3, 2012 (<http://news.bbc.co.uk/1/hi/education/8243684.stm>).
- Bechar-Israeli, Haya. 2006. "FROM <Bonehead> TO <cLoNehEAd>: NICKNAMES, PLAY, AND IDENTITY ON INTERNET RELAY CHAT." *Journal of Computer-Mediated Communication* 1 (2): no pages. Retrieved November 21, 2011 (<http://jcmc.indiana.edu/vol1/issue2/bechar.html>).
- Becher, Tony, and Paul Trowler. 2001. *Academic Tribes and Territories: Intellectual enquiry and the culture of disciplines*. 2nd ed. Philadelphia, PA: Open University Press.
- Bell, Frances, Maggi Savin-Baden, and Robert Ward. 2008. "Editorial." *Association for Learning Technology Journal (ALT-J)* 16 (3): 137–138.
- Bell, Mark W. 2008. "Toward a Definition of 'Virtual Worlds'." *Journal of Virtual Worlds Research* 1 (1): 1–5.
- Bennett, Sue, Karl Maton, and Lisa Kervin. 2008. "The 'digital natives' debate: A critical review of the evidence." *British Journal of Educational Technology* 39 (5): 775–786.

- Bentley, T. 1998. *Learning beyond the classroom: education for a changing world*. London: Routledge.
- Berger, Peter L., and Thomas Luckmann. 1990. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Anchor Books.
- Bertaux, Daniel, and Martin Kohli. 1984. "The Life Story Approach: A Continental View." *Annual Review of Sociology* 10 (1): 215–237.
- Bertrand, M., and S. Mullainathan. 2004. "Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review* 94 (4): 991–1013.
- Bhabha, Homi K. 1994. *The Location of Culture*. London: Routledge.
- Biggs, John. 1999. *Teaching for quality learning at university*. Buckingham: Open University Press.
- Biggs, John, and Catherine Tang. 2007. *Teaching for Quality Learning at University: What the Student Does*. 3rd ed. Maidenhead: Open University Press.
- Boellstorff, Tom. 2008. *Coming of age in second life: an anthropologist explores the virtually human*. Princeton, N.J.: Princeton University Press.
- Du Bois, W. E. B, and Donald B Gibson. 1996. *The souls of Black folk*. New York: Penguin Books.
- Bok, Derek Curtis. 2003. *Universities in the Marketplace: The Commercialization of Higher Education*. Princeton, N.J.: Princeton University Press.
- Boulos, Maged N. Kamel, Lee Hetherington, and Steve Wheeler. 2007. "Second Life: an overview of the potential of 3-D virtual worlds in medical and health education." *Health Information and Libraries Journal* 24 (4): 233–245.
- Bourdieu, Pierre. 1984. *Distinction: a social critique of the judgement of taste*. London: Routledge & Kegan Paul.
- Bowl, Marion. 2001. "Experiencing the barriers: non-traditional students entering higher education." *Research Papers in Education* 16 (2): 141–160.
- Boyd, Danah. 2011. "Real Names' Policies Are an Abuse of Power." *danah boyd / apophenia*. Retrieved August 7, 2011 (<http://www.zephoria.org/thoughts/archives/2011/08/04/real-names.html>).
- Boyd, Danah. 2012. "The politics of 'real names'." *Communications of the ACM* 55 (8): 29–31.
- Bracher, Mark. 2002. "Identity and Desire in the Classroom." Pp. 93–122 in *Pedagogical desire: authority, seduction, transference, and the question of ethics*, edited by Jan Jagodzinski. Charlotte, NC: Information Age Publishing.

- Brewer, Marilyn B. 1993. "Social Identity, Distinctiveness, and In-Group Homogeneity." *Social Cognition* 11 (1): 150–164.
- Brophy, Jere. 1999. "Toward a Model of the Value Aspects of Motivation in Education: Developing Appreciation for Particular Learning Domains and Activities." *Educational Psychologist* 34 (2): 75–85.
- Brownlow, Charlotte, and Lindsay O'Dell. 2002. "Ethical Issues for Qualitative Research in On-line Communities." *Disability & Society* 17 (6): 685–694.
- Brubaker, Rogers, and Frederick Cooper. 2000. "Beyond 'identity'." *Theory and Society* 29 (1): 1–47.
- Bruckman, Amy S. 1993. "Gender Swapping on the Internet." in *Proceedings of INET 1993: The Internet Society*. Reston, VA. Retrieved September 29, 2011 (<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.31.9669&rep=rep1&type=pdf>).
- Bruner, Jerome Seymore. 1990. *Acts of Meaning*. Cambridge, MA: MIT Press.
- Buchanan, Barbara A., and James L. Bruning. 1971. "Connotative Meanings of First Names and Nicknames on Three Dimensions." *The Journal of Social Psychology* 85 (1): 143–144.
- Budgeon, S. 2003. "Identity as an Embodied Event." *Body & Society* 9 (1): 35–55.
- Burkitt, Ian. 2002. "Technologies of the Self: Habitus and Capacities." *Journal for the Theory of Social Behaviour* 32 (2): 219–237.
- Butler, Judith. 1993. *Bodies That Matter: On the Discursive Limits of "Sex"*. London: Routledge
- Butler, Judith. 2006. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Cameron, James. 2010. *Avatar*. United States of America: 20th Century Fox Home Entertainment.
- Carr, Diane, and Martin Oliver. 2010. "Second Life, Immersion, and Learning." Pp. 205–221 in *Social Computing and Virtual Communities*, edited by Panayiotis Zaphiris and Chee Siang Ang. Boca Raton, FL: Chapman & Hall/CRC.
- Caruso, J. B., and R. Kvavik. 2005. "ECAR study of students and information technology 2005: Convenience, connection, control, and learning. EDUCAUSE Vol. 6." Retrieved June 7, 2010 (<http://connect.educause.edu/Library/ECAR/ECARStudyofStudentsandInf/41159>).
- Casey, Kathleen. 1995. "Chapter 5: The New Narrative Research in Education." *Review of Research in Education* 21 (1): 211–253.

- Cheung, Charles. 2007. "Identity Construction and Self-Presentation on Personal Homepages. Emancipatory potentials and reality constraints." Pp. 273–285 in *The Cybercultures Reader*, edited by David Bell and Barbara M. Kennedy. London: Routledge.
- Childs, Mark. 2010. "Learners' Experience of Presence in Virtual Worlds." Phd Thesis, Coventry, UK: University of Warwick, Institute of Education.
- Childs, Mark, and Iryna Kuksa. 2009. "'Why are we in the floor?' Learning about theatre design in Second Life." Pp. 1134–1145 in *Proceedings of the Edulearn 09 International Conference on Education and New Learning Technologies*. Barcelona, Spain.
- Chou, Ting-Jui, and Chih-Chen Ting. 2003. "The Role of Flow Experience in Cyber-Game Addiction." *CyberPsychology & Behavior* 6 (6): 663–675.
- Clandinin, D. Jean, and F. Michael Connelly. 2000. *Narrative inquiry: Experience and story in qualitative research*. San Francisco: Jossey-Bass Publishers.
- Clouder, Lynn. 2005. "Caring as a 'threshold concept': transforming students in higher education into health(care) professionals." *Teaching in Higher Education* 10 (4): 505–517.
- CmdrTaco. 2005. "Blizzard Made Me Change My Name." *slashdot.org*. Retrieved October 21, 2012 (<http://games.slashdot.org/story/05/10/26/142243/blizzard-made-me-change-my-name>).
- Cohen, Louis, Lawrence Manion, and Keith Morrison. 2007. *Research methods in education*. 6th ed. London: Routledge.
- Cohn, Ruth C. 2004. *Von der Psychoanalyse zur themenzentrierten Interaktion: Von der Behandlung einzelner zu einer Pädagogik für alle [From the psychoanalysis to the theme-centred Inter-action: From a treatment of individuals to a pedagogy for all]*. 15th ed. Stuttgart: Klett-Cotta.
- Conrad, Marc, Alec Charles, and Jo Neale. 2011. "What Is My Avatar? Who Is My Avatar? The Avatar as a Device to Achieve a Goal: Perceptions and Implications." Pp. 253–273 in *Reinventing Ourselves: Contemporary Concepts of Identity in Virtual Worlds*, edited by Anna Peachey and Mark Childs. London: Springer.
- Conrad, Marc, Jo Neale, and Alec Charles. 2010. "Of mice or men? — The avatar in the virtualscape." Pp. 242 – 247 in *Proceedings of the International Conference on Information Society (i-Society)*. London: Institute of Electrical and Electronics Engineers, Inc.
- Cook, Desmond L. 1962. "The Hawthorne Effect in Educational Research." *The Phi Delta Kappan* 44 (3): 116–122.

- Cooper, Robbie, Julian Dibbell, and Tracy Spaight. 2007. *Alter Ego: Avatars and their creators*. London: Chris Boot.
- Cortazzi, Martin. 1993. *Narrative Analysis*. London: Falmer Press.
- Côté, James E., and Charles Levine. 1988. "A Critical Examination of Ego Identity Status Paradigm." *Developmental Review* 8: 147–184.
- Cousin, Glynis. 2009. *Researching Learning in Higher Education. An Introduction to Contemporary Methods and Approaches*. New York: Routledge.
- Cronon, William. 1992. "A Place for Stories: Nature, History, and Narrative." *The Journal of American History* 78 (4): 1347–1376.
- Crotty, Michael. 2003. *The Foundations of Social Research: Meaning and perspective in the research process*. London: Sage.
- Csikszentmihályi, Mihály. 1988. "The flow experience and its significance for human psychology." Pp. 15–35 in *Optimal experience: psychological studies of flow in consciousness*, edited by Mihály Csikszentmihályi and Isabella Selega Csikszentmihályi. Cambridge, MA: Cambridge University Press.
- Dalgarno, Barney, and Mark J. W. Lee. 2010. "What are the learning affordances of 3-D virtual environments?" *British Journal of Educational Technology* 41 (1): 10–32.
- Damer, Bruce. 2008. "Meeting in the Ether. A brief history of virtual worlds as a medium for user-created events." *Journal of Virtual Worlds Research* 1 (1): 1-17.
- Davis, Fred D. 1989. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." *MIS Quarterly* 13 (3): 319–339.
- Deaux, K. 1993. "Reconstructing Social Identity." *Personality and Social Psychology Bulletin* 19 (1): 4–12.
- Denzin, Norman K. 2001. *Interpretive interactionism*. 2nd ed. Thousand Oaks: Sage Publications.
- Descartes, René. 2008. *Discourse on Method and the Meditations*. New York: Cosimo.
- Dickey, Michele D. 2003. "Teaching in 3D: Pedagogical Affordances and Constraints of 3D Virtual Worlds for Synchronous Distance Learning." *Distance Education* 24 (1): 105–121.
- Douglas, Mary. 1992. "Rightness of Categories." Pp. 239–271 in *How classification works: Nelson Goodman among the social sciences*, edited by Mary Douglas and D. Hull. Edinburgh: Edinburgh University Press.

- Douglass, Frederick. 2009. *Narrative of the Life of Frederick Douglass: an American slave*. Oxford ; New York: Oxford University Press.
- Ducheneaut, Nicolas, Ming-Hui "Don" Wen, Nick Yee, and Greg Wadley. 2009. "Body and Mind: A Study of Avatar Personalization in Three Virtual Worlds." Pp. 1151–1160 [online] in *Proceedings of 27th international conference on Human factors in computing systems, CHI 2009*. Boston, MA. Retrieved June 30, 2010 (http://fleep.net/docs/bodyandmind_ducheneaut.pdf).
- Duncan, Ishbel, Alan Miller, and Shangyi Jiang. 2012. "A taxonomy of virtual worlds usage in education." *British Journal of Educational Technology* 43 (6): 949–964.
- Eakin, Paul John. 1999. *How Our Lives Become Stories: Making Selves*. Ithaca: Cornell University Press.
- Edirisingha, Palitha, Ming Nie, Mark Pluciennik, and Ruth Young. 2009. "Socialisation for learning at a distance in a 3-D multi-user virtual environment." *British Journal of Educational Technology* 40 (3): 458–479.
- Edmunds, Rob, Mary Thorpe, and Grainne Conole. 2012. "Student attitudes towards and use of ICT in course study, work and social activity: A technology acceptance model approach." *British Journal of Educational Technology* 43 (1): 71–84.
- Erikson, Erik Homburger. 1968. *Identity: Youth and Crisis*. New York: W. W. Norton & Company, Inc.
- Erikson, Erik Homburger. 1980. *Identity and the Life Cycle*. New York: W. W. Norton & Company, Inc.
- Erwin, Philip G. 1993. "First Names and Perceptions of Physical Attractiveness." *The Journal of Psychology* 127 (6): 625–631.
- Ess, Charles, and AoIR ethics working committee. 2002. "Ethical decision-making and Internet research: Recommendations from the aoir ethics working committee." Retrieved August 28, 2009 (www.aoir.org/reports/ethics.pdf).
- Fake, Caterina. 2011. "Anonymity and Pseudonyms in Social Software." *Caterina.net*. Retrieved October 22, 2012 (<http://caterina.net/2011/07/26/anonymity-and-the-use-of-pseudonyms-in-social-software>).
- Falk, Avner. 1975. "Identity and Name Changes." *Psychoanalytic Review* 62 (4): 647–657.
- Fals-Borda, Orlando. 1991. "Some basic ingredients." Pp. 3–12 in *Action and knowledge: Breaking the monopoly with participatory action research*, edited by Orlando Fals-Borda and Mohammad Anisur Rahman. New York: Apex Press.

- Fanghanel, Joëlle. 2009. "The role of ideology in shaping academics' conceptions of their discipline." *Teaching in Higher Education* 14 (5): 565–577.
- Farrell, Lesley. 2000. "Ways of Doing, Ways of Being: Language, Education and 'Working' Identities." *Language and Education* 14 (1): 18–36.
- Flick, Uwe. 2000. "Episodic Interviewing." Pp. 75–92 in *Qualitative Researching with text, image and sound - a handbook*, edited by M. Bauer and G. Gaskell. London: Sage.
- Flick, Uwe. 2002a. "Qualitative Research - State of the Art." *Social Science Information* 41 (1): 5–24.
- Flick, Uwe. 2002b. *Qualitative Sozialforschung: eine Einführung [Qualitative social research: an introduction]*. 2nd ed. Reinbek bei Hamburg: Rowohlt Taschenbuch Verlag.
- Flick, Uwe, Ernst von Kardoff, and Ines Steinke, eds. 2004. *A Companion to Qualitative Research*. London: Sage.
- Foucault, Michel. 1995. *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.
- Foucault, Michel. 1988. "Technologies of the Self." Pp. 16–49 in *Technologies of the Self: A Seminar with Michel Foucault*, edited by L. H. Martin, H. Gutman, and P. H. Hutton. Cambridge, MA: MIT Press.
- Foucault, Michel. 1984. *The Foucault Reader: An Introduction to Foucault's Thought*. edited by Paul Rabinow. New York: Pantheon Books.
- Freeman, Mark. 2006. "Life 'on holiday'?: In defense of big stories." *Narrative Inquiry* 16 (1): 131–138.
- Freire, Paolo. 1970. *Pedagogy of the oppressed*. New York: Continuum.
- De Freitas, Sara. 2006. "Using games and simulations for supporting learning." *Learning, Media and Technology* 31 (4): 343–358.
- De Freitas, Sara. 2008. "Serious Virtual Worlds: A scoping study." Retrieved December 28, 2012 (<http://www.jisc.ac.uk/media/documents/publications/seriousvirtualworldsv1.pdf>).
- De Freitas, Sara, and Tim Neumann. 2009. "The use of 'exploratory learning' for supporting immersive learning in virtual environments." *Computers & Education* 52 (2): 343–352.
- Freud, Sigmund. 1995. *The Freud Reader*. edited by Peter Gay. New York: W.W. Norton.

- Freud, Sigmund. 2001. "Analysis Terminable and Interminable." Pp. 209–254 in *Complete Psychological Works Of Sigmund Freud, The Vol 23: Moses and Monotheism, An Outline of Psycho-Analysis and Other Works Vol 23*, edited by Sigmund Freud.
- Friebertshäuser, Barbara. 2003a. "Feldforschung und teilnehmende Beobachtung [Field study and participatory observation]." Pp. 503–534 in *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science]*, edited by Barbara Friebertshäuser and Annedore Prengel. Weinheim: Juventa.
- Friebertshäuser, Barbara. 2003b. "Interviewtechniken - ein Überblick [Interview techniques - a overview]." Pp. 371–395 in *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science]*, edited by Barbara Friebertshäuser and Annedore Prengel. Weinheim: Juventa.
- Garoian, Charles R., and Yvonne M. Gaudelius. 2001. "Cyborg Pedagogy: Performing Resistance in the Digital Age." *Studies in Art Education* 42 (4): 333.
- Garris, Rosemary, Robert Ahlers, and James E. Driskell. 2002. "Games, Motivation, and Learning: A Research and Practice Model." *Simulation & Gaming* 33 (4): 441–467.
- Garwood, S. Gary, Lewis Cox, Valerie Kaplan, Neal Wasserman, and Jefferson L. Sulzer. 1980. "Beauty Is Only 'Name' Deep: The Effect of First-Name On Ratings of Physical Attraction." *Journal of Applied Social Psychology* 10 (5): 431–435.
- Garz, Detlef. 2003. "Die Methode der Objektiven Hermeneutik – Eine anwendungsbezogene Einführung [The method of objective hermeneutics - an application-oriented introduction]." Pp. 535–543 in *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science]*, edited by Barbara Friebertshäuser and Annedore Prengel. Weinheim: Juventa.
- Gee, James Paul. 1991. "A linguistic approach to narrative." *Journal of Narrative and Life History* 1 (1): 15–39.
- Gee, James Paul. 2000. "Chapter 3: Identity as an Analytic Lens for Research in Education." *Review of Research in Education* 25 (1): 99–125.
- Gee, James Paul. 2009. "Games, learning, and 21st century survival skills." *Journal of Virtual Worlds Research* 2 (1): 3–9.
- Geertz, Clifford. 1973. "Thick Description: Toward an Interpretive Theory of Culture." Pp. 3–30 in *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.
- Geiss, Imanuel. 1988. *Geschichte des Rassismus [History of Racism]*. Frankfurt am Main: Suhrkamp.

- Van Gelder, Lindsay. 1991. "The Strange Case of the Electronic Lover." Pp. 533–546 in *Computation and Controversy: Value Conflicts and social Choices*, edited by Charles Dunlop and Rob Kling. Boston: Academic Press.
- Gergen, Kenneth J. 1985. "The social constructionist movement in modern psychology." *American Psychologist* 40 (3): 266–275.
- Gergen, Kenneth J. 1999. *An Invitation to Social Construction*. London: Sage.
- Gibson, James J. 1977. "The theory of affordances." Pp. 67–82 in *Perceiving, acting, and knowing: Toward an ecological psychology*, edited by R. Shaw and J. Bransford. Hillsdale, NJ: Erlbaum Associates.
- Giddens, Anthony. 1991. *Modernity and self-identity: self and society in the late modern age*. Cambridge: Polity Press in association with Basil Blackwell.
- Giroux, Henry A. 2001. *Theory and Resistance in Education: Towards a Pedagogy for the Opposition*. 2nd, rev. Westport, Conn.: Bergin & Garvey.
- De Gouges, Olympe. 2003. *Déclaration des droits de la femme et de la citoyenne* [*Declaration of the Rights of Woman and the Female Citizen*]. Paris: Mille et une nuits.
- Grimes, Justin M., Kenneth R. Fleischman, and Paul T. Jaeger. 2009. "Virtual Guinea Pigs: Ethical implications of Human Subjects Research in Virtual Worlds." *International Journal of Internet Research Ethics* 2 (1): 38–56.
- Guba, Egon G., and Lincoln. 2005. "Paradigmatic controversies, contradictions, and emerging confluences." Pp. 191–215 in *The SAGE handbook of qualitative research*, edited by Norman K. Denzin and Yvonna S. Lincoln. Thousand Oaks: Sage.
- Guest, Tim. 2008. *Second lives: A journey through virtual worlds*. London: Arrow.
- Guri-Rosenblit, Sarah, Helena Sebkova, and Ulrich Teichler. 2007. "Massification and Diversity of Higher Education Systems: Interplay of Complex Dimensions." *Higher Education Policy* 20 (4): 373–389.
- Habermas, Jürgen. 1989. *Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Cambridge, MA: MIT Press.
- Hacking, Ian. 2007. "Kinds of People: Moving Targets." Pp. 285–318 in *Proceedings of the British Academy 2006 Lectures, vol. 151*, edited by P. J. Marshall. Oxford: Oxford University Press. Retrieved November 12, 2012 (<http://www.britishacademypublications.com/view/10.5871/bacad/9780197264249.001.0001/bacad-9780197264249>).
- Haertel, Geneva D., Herbert J. Walberg, and Thomas Weinstein. 1983. "Psychological Models of Educational Performance: A Theoretical Synthesis of Constructs." *Review of Educational Research* 53 (1): 75.

- Hagström, Charlotte. 2008. "Playing with Names: Gaming and Naming in World of Warcraft [italics]." Pp. 265–286 in *Digital Culture, Play, and Identity: A World of Warcraft® Reader*, edited by Hilde G. Corneliussen and Jill Walker Rettberg. MIT Press.
- Hall, Budd. 1993. "Introduction." Pp. xiiv–xxii in *Voices of Change: Participatory Research in the United States and Canada*, edited by Peter Park, Mary Brydon-Miller, Budd Hall, and Ted Jackson. London: Bergin & Garvey.
- Hall, Donald Eugene. 2004. *Subjectivity*. London: Routledge.
- Hall, Stuart. 1996. "Introduction: Who needs 'identity'?" Pp. 1–17 in *Questions of Cultural Identity*, edited by Stuart Hall and Paul Du Gay. London: Sage.
- Hall, Stuart, and Paul Du Gay, eds. 1996. *Questions of cultural identity*. London: Sage.
- Hansen, Lene. 2006. *Security as Practice: Discourse analysis and the Bosnian war*. New York: Routledge.
- Harari, Herbert, and John W. McDavid. 1973. "Name stereotypes and teachers' expectations." *Journal of Educational Psychology* 65 (2): 222–225.
- Haraway, Donna. 2006. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late 20th Century." Pp. 117–158 in *The International Handbook of Virtual Learning Environments*, edited by Joel Weiss, Jason Nolan, Jeremy Hunsinger, and Peter Trifonas. Dordrecht: Springer.
- Hartmann, Joel, Patsy Moskal, and Chuck Dziuban. 2005. "Preparing the Academy of Today for the Learner of Tomorrow." in *Educating the Net Generation*, edited by Diana G. Oblinger and James L. Oblinger. Washington, DC: Educause. Retrieved September 7, 2012 (<http://net.educause.edu/ir/library/pdf/pub7101.pdf>).
- Hegel, Georg Wilhelm Friedrich. 1977. *Hegel's Phenomenology of spirit*. Oxford: Oxford University Press.
- Heinze, Torben, and Christoph Knill. 2008. "Analysing the differential impact of the Bologna Process: Theoretical considerations on national conditions for international policy convergence." *Higher Education* 56 (4): 493–510.
- Heinzel, Friederike. 2003. "Wiederholte Gesprächsinteraktion und tiefenhermeneutische Analyse [Repeated conversational interaction and in-depth hermeneutic analysis]." Pp. 468–480 in *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science]*, edited by Barbara Frieberthäuser and Annedore Prengel. Weinheim: Juventa.
- Hew, Khe Foon, and Wing Sum Cheung. 2010. "Use of three-dimensional (3-D) immersive virtual worlds in K-12 and higher education settings: A review of the research." *British Journal of Educational Technology* 41 (1): 33–55.

- Hockings, Christine, Sandra Cooke, and Marion Bowl. 2007. "Academic engagement' within a widening participation context - a 3D analysis." *Teaching in Higher Education* 12 (5): 721–733.
- Holstein, James A., and Jaber F. Gubrium. 1999. *The Self We Live By: Narrative Identity in a Postmodern World*. Oxford: Oxford University Press.
- Holzcamp, Klaus. 1987. "Lernen und Lernwiderstand: Skizzen zu einer subjektwissenschaftlichen Lerntheorie [Learning and resistance to learning: drafts of a subject-scientific theory of learning]." *Forum Kritische Psychologie* 20: 5–36.
- Holzcamp, Klaus. 1993. *Lernen - Subjektwissenschaftliche Grundlegung [Learning - Subject-scientific foundation]*. Frankfurt am Main: Campus.
- Honebein, P. C. 1996. "Seven goals for the design of constructivist learning environments." Pp. 11–23 in *Constructivist learning environments: Case studies in instructional design*, edited by B. G. Wilson. Englewood Cliffs, NJ: Educational Technology Publications.
- Hopf, Christel. 1978. "Die Pseudo-Exploration – Überlegungen zur Technik qualitativer Interviews in der Sozialforschung [The pseudo exploration - Thoughts regarding qualitative interview technique in the social sciences]." *Zeitschrift für Soziologie* 7 (2): 97–115.
- Hopf, Christel. 2004. "Qualitative Interviews: An Overview." Pp. 203–208 in *A Companion to Qualitative Research*, edited by Uwe Flick, Ernst von Kardoff, and Ines Steinke. London: Sage.
- Howard, Judith A. 2000. "Social Psychology of Identities." *Annual Review of Sociology* 26 (1): 367–393.
- Howe, N., and W. Strauss. 2000. *Millennials Rising: The Next Great Generation*. New York: Vintage Books.
- Huizinga, Johan. 1949. *Homo Ludens: a study of the play element in culture*. London: Routledge & Kegan Paul.
- Hume, David. 1984. *A Treatise of Human Nature*. Harmondsworth: Penguin Books.
- Hydén, Margareta. 2008. "Narrating sensitive topics." Pp. 121–136 in *Doing Narrative Research*, edited by Molly Andrews, Corinne Squire, and Maria Tamboukou. Los Angeles: Sage.
- Illeris, Knud. 2003. "Towards a contemporary and comprehensive theory of learning." *International Journal of Lifelong Education* 22 (4): 396–406.
- Illeris, Knud. 2007. *How We Learn: Learning and Non-learning in School and Beyond*. London: Routledge.

- Iser, Wolfgang. 1993. *Prospecting: From reader response to literary anthropology*. Baltimore: Johns Hopkins University Press.
- Israel, David K. 2010. "Oh no, you can't name your baby THAT!" *CNN Cable News Network*. Retrieved October 17, 2012 (<http://edition.cnn.com/2010/LIVING/07/03/mf.baby.naming.laws/index.html>).
- Jacobson, Michael J., and Roger Azevedo. 2008. "Advances in scaffolding learning with hypertext and hypermedia: theoretical, empirical, and design issues." *Educational Technology Research and Development* 56 (1): 1–3.
- Jones, Ann, and Kim Issroff. 2007. "Motivation and mobile devices: exploring the role of appropriation and coping strategies." *Association for Learning Technology Journal (ALT-J)* 15 (3): 247–258.
- Jones, Chris, Ruslan Ramanau, Simon Cross, and Graham Healing. 2010. "Net generation or Digital Natives: Is there a distinct new generation entering university?" *Computers & Education* 54 (3): 722–732.
- Kaas, Leo, and Christian Manger. 2010. *Ethnic Discrimination in Germany's Labour Market: A Field Experiment*. Bonn: IZA Forschungsinstitut zur Zukunft der Arbeit/Institute for the Study of Labor. Retrieved February 9, 2010 (<http://ftp.iza.org/dp4741.pdf>).
- Kaiser, Astrid. 2010. "Vornamen: Nomen est omen? Vorerwartungen und Vorurteile in der Grundschule [First names: Nomen est omen? Pre-anticipations and prejudices in primary schools]." *Schulverwaltung. Zeitschrift für Schulleitung und Schulaufsicht* 21 (2): 58–59.
- Kamberelis, George, and Greg Dimitriadis. 2005. "Focus Groups: Strategic Articulations of Pedagogy, Politics, and Inquiry." Pp. 887–907 in *The SAGE handbook of qualitative research*, edited by Norman K. Denzin and Yvonna S. Lincoln. Thousand Oaks: Sage.
- Kant, Immanuel. 2007. *Critique of Pure Reason*. London; New York: Penguin.
- Keats-Rohan, Katharine S. B. 2007. "What's in a name? Some reflections on naming and identity in prosopography." Pp. 331–347 in *Carreiras Ecclesiásticas no Ocidente Cristão (séc. xii-xiv)/Ecclesiastical Careers in Western Christianity (12th-14th c.)*. Lisboa: Centro de Estudos de História Religiosa - Universidade Católica Portuguesa. Retrieved October 17, 2012 (http://repositorio.ucp.pt/bitstream/10400.14/7209/1/EHR_5_Carreiras%20Ecclesiasticas.pdf).
- Kegan, Robert. 2009. "What 'form' transforms? A constructive-developmental approach to transformative learning." Pp. 35–52 in *Contemporary Theories of Learning. Learning theorists ... in their own words*, edited by Knud Illeris. London: Routledge.

- Kemmis, Stephen, and Robin McTaggart. 2005. "Participatory Action Research: Communicative Action and the Public Sphere." Pp. 559–603 in *The SAGE handbook of qualitative research*, edited by Norman K. Denzin and Yvonna S. Lincoln. Thousand Oaks: Sage.
- Kennedy, Gregor E., Terry S. Judd, Anna Churchward, Kathleen Gray, and Kerri-Lee Krause. 2008. "First year students' experiences with technology: Are they really digital natives?" *Australasian Journal of Educational Technology* 24 (1): 108–122.
- Kesby, Mike. 2000. "Participatory diagramming: deploying qualitative methods through an action research epistemology." *Area* 32 (4): 423–435.
- Kidd, Sean A., and Michael J. Kral. 2005. "Practicing Participatory Action Research." *Journal of Counseling Psychology* 52 (2): 187–195.
- Kim, Sahoan H., Jiyeon Lee, and Michael K. Thomas. 2012. "Between Purpose and Method: A Review of Educational Research on 3D Virtual Worlds." *Journal of Virtual Worlds Research* 5 (1): 1–18.
- Kirriemuir, John. 2008. "Second Life in higher education, medicine and health." *He@lth Information on the Internet* 64 (1): 6–8.
- Kirriemuir, John. 2009. *Virtual world activity in UK universities and colleges An academic year of expectation? Snapshot #7: Winter 2009*. Virtual World Watch. Retrieved December 14, 2009 (<http://virtualworldwatch.net/snapshots/virtual-world-activity-winter-09>).
- Kirriemuir, John. 2010. *Virtual world activity in UK universities and colleges Virtual teaching in uncertain times. Snapshot #8: Spring 2010*. Virtual World Watch. Retrieved June 15, 2010 (<http://virtualworldwatch.net/snapshots/>).
- Koubek, Anni, and Hamish Macleod. 2004. "Game-Based Learning." Pp. 15–19 in *Guidelines for Game-Based Learning*, edited by Maja Pivec, Anni Koubek, and Claudio Dondi. Lengerich: Pabst Science Publ.
- Kraus, Wolfgang. 2006. "The Narrative Negotiation of Identity and Belonging." *Narrative Inquiry* 16(1):103–11.
- Kristeva, Julia. 1986. *The Kristeva reader*. edited by Toril Moi. Oxford: Basil Blackwell.
- Kristeva, Julia. 1991. *Strangers to Ourselves*. New York: Columbia University Press.
- Kroeker, Caroline J. 1996. "The Cooperative Movement in Nicaragua: Empowerment and Accompaniment of Severely Disadvantaged Peasants." *Journal of Social Issues* 52 (1): 123–138. .
- Krüger, Heinz-Hermann. 2003. "Erziehungswissenschaftliche Biographieforschung [Educational biography research]." Pp. 43–55 in *Handbuch Qualitative*

Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science], edited by Barbara Friebertshäuser and Annedore Prengel. Weinheim: Juventa.

- Kube, Julia. 2009. "Ungleiche Bildungschancen schon durch Vornamen? Studie zu Vorurteilen und Vorannahmen von Lehrern [Inequalities in education already due to first names? Study on prejudices and preconceptions of teachers]." MA Thesis, Oldenburg: Carl von Ossietzky University Oldenburg. Retrieved August 24, 2010 (http://www.fk1.uni-oldenburg.de/instpaed/astrid.kaiser/download/Masterarbeit_Noten_Vornamen.pdf).
- Kuhn, Johannes. 2011. "Das Netz muss Anonymität zulassen. Debatte über Online-Identität [The web must allow anonymity. Debate about online identity]." *Süddeutsche Zeitung*, August 3. Retrieved August 3, 2011 (<http://www.sueddeutsche.de/digital/debatte-ueber-online-identitaet-anonymitaet-im-netz-darf-nicht-verschwinden-1.1127377>).
- Kunczik, Michael, and Michaela Zipfel. 2002. "Gewalttätig durch Medien? [Violent due to media?]." *Aus Politik und Zeitgeschichte. Beilage zur Wochenzeitung Das Parlament* (B44): 29–37.
- Kuss, Daria Joanna, and Mark D. Griffiths. 2012. "Internet Gaming Addiction: A Systematic Review of Empirical Research." *International Journal of Mental Health and Addiction* 10 (2): 278–296. .
- Lacan, Jacques. 2006. *Ecrits : the first complete edition in English*. New York: W.W. Norton & Co.
- Land, Ray, Jan H. F. Meyer, and Caroline Baillie. 2010. "Editors' Preface: Threshold Concepts and Transformational Learning." Pp. ix–xlii in *Threshold concepts and transformational learning*, edited by Jan H. F. Meyer, Ray Land, and Baillie. Rotterdam: Sense Publishers.
- Van der Land, Sarah, Alexander P. Schouten, Bart van den Hooff, and Frans Feldberg. 2011. "Modelling the Metaverse: A Theoretical Model of Effective Team Collaboration in 3D Virtual Environments." *Journal of Virtual Worlds Research* 4 (3): 3–18.
- Langlois, Judith H., Lisa Kalakanis, Adam J. Rubenstein, Andrea Larson, Monica Hallam, and Monica Smoot. 2000. "Maxims or myths of beauty? A meta-analytic and theoretical review." *Psychological Bulletin* 126 (3): 390–423.
- Lee, Raymond M., and Claire M. Renzetti. 1990. "The Problems of Researching Sensitive Topics: An Overview and Introduction." *American Behavioral Scientist* 33 (5): 510–528.
- Leithäuser, Thomas. 1976. *Formen des Alltagsbewußtseins [Forms of everyday consciousness]*. Frankfurt am Main: Campus.

- Linden Research, Inc. 2012. "Second Life Marketplace." *Second Life Marketplace*. Retrieved October 31, 2012 (<https://marketplace.secondlife.com/>).
- Little, G. 1999. "A Manifesto for Avatars." *Intertexts* 3 (2): no pages. Retrieved June 30, 2010 (<http://www.gregorylittle.org/avatars/text.html>).
- Locke, John. 2008. *An essay concerning human understanding*. Oxford: Oxford University Press.
- Lombard, Matthew, and Theresa Ditton. 1997. "At the Heart of It All: The Concept of Presence." *Journal of Computer-Mediated Communication* 3 (2): no pages. Retrieved May 5, 2009 (<http://jcmc.indiana.edu/vol3/issue2/lombard.html>).
- Lombardi, Marilyn M. 2007. "Authentic learning for the 21st century: An overview." Retrieved March 2, 2013 (<http://net.educause.edu/ir/library/pdf/ELI3009.pdf>).
- Lucas, Ursula, and Rosina Mladenovic. 2007. "The potential of threshold concepts: an emerging framework for educational research and practice." *London Review of Education* 5 (3): 237–248.
- Macha, Hildegard, and Monika Klinkhammer. 2003. "Auswertungsstrategien methodenkombinierter biographischer Forschung [Evaluation strategies of combined method biographical research]." Pp. 569–583 in *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science]*, edited by Barbara Friebertshäuser and Annedore Prengel. Weinheim: Juventa.
- Macleod, Hamish. 2007. "Holyrood Park: a virtual campus for Edinburgh." Retrieved May 20, 2009 (<http://www.eduserv.org.uk/foundation/symposium/2007/> [not active anymore]).
- Madrigal, Alexis C. 2011. "Why Facebook and Google's Concept of 'Real Names' Is Revolutionary." *the Atlantic*, August 5. Retrieved October 21, 2012 (<http://www.theatlantic.com/technology/archive/2011/08/why-facebook-and-googles-concept-of-real-names-is-revolutionary/243171/>).
- Mania, Katerina, and Alan Chalmers. 2001. "The Effects of Levels of Immersion on Memory and Presence in Virtual Environments: A Reality Centered Approach." *CyberPsychology & Behavior* 4 (2): 247–264.
- Mann, Sarah J. 2001. "Alternative Perspectives on the Student Experience: Alienation and engagement." *Studies in Higher Education* 26 (1): 7–19.
- Marcia, James E. 1980. "Identity in Adolescence." Pp. 159–187 in *Handbook of Adolescent Psychology*, edited by J. Adelson. New York: John Wiley.
- Markus, Hazel, and Paula Nurius. 1986. "Possible Selves." *American Psychologist* 41 (9): 954–969.

- McAdams, Dan P. 1997. *The Stories We Live By: Personal Myths and the Making of the Self*. New York: Guilford Press.
- McCombs, Barbara L., and Robert J. Marzano. 1990. "Putting the Self in Self-Regulated Learning: The Self as Agent in Integrating Will and Skill." *Educational Psychologist* 25 (1): 51–69.
- McCosker, Heather, Alan Barnard, and Rod Gerber. 2001. "Undertaking Sensitive Research: Issues and Strategies for Meeting the Safety Needs of All Participants." *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* 2 (1): no pages. Retrieved Februar 23, 2013 (<http://www.qualitative-research.net/index.php/fqs/article/view/983>).
- McDowell, Josh. 1996. *Josh McDowell's Handbook on Counseling Youth: A Comprehensive Guide for Equipping Youth Workers, Pastors, Teachers, Parents*. Dallas: Word Pub.
- McFarland, Daniel A. 2001. "Student Resistance: How the Formal and Informal Organization of Classrooms Facilitate Everyday Forms of Student Defiance." *American Journal of Sociology* 107 (3): 612–678.
- McKee, Heidi, and James E. Porter. 2009. "Playing a Good Game: Ethical Issues in Researching NMOGs and Virtual Worlds." *International Journal of Internet Research Ethics* 2 (1): 5–37.
- Mead, George Herbert. 1969. *Mind, self & society from the standpoint of a social behaviorist*. edited by Charles William Morris. Chicago: University of Chicago Press.
- Meadows, M. S. 2008. *I, Avatar. The Culture and Consequences of Having a Second Life*. Berkley, CA: New Riders.
- Van Ments, Morry. 1999. *The effective use of role-play: practical techniques for improving learning*. 2nd ed. London: Kogan Page.
- Messinger, Paul R., Eleni Stroulia, Kelly Lyons, Michael Bone, Run H. Niu, Kristen Smirnov, and Stephen Perelgut. 2009. "Virtual worlds — past, present, and future: New directions in social computing." *Decision Support Systems* 47 (3): 204–228.
- Meuser, Michael, and Ulrike Nagel. 2003. "Das ExpertInneninterview - Wissenssoziologische Voraussetzungen und methodische Durchführung [The expert interview - Epistemological-sociological requirements and methodological execution]." Pp. 481–491 in *Handbuch Qualitative Forschungsmethoden in der Erziehungswissenschaft [Handbook of qualitative research methods in educational science]*, edited by Barbara Frieberthäuser and Annedore Prengel. Weinheim: Juventa.
- Meyer, Jan H. F., and Ray Land. 2003. "Threshold concepts and troublesome knowledge: linkages to ways of thinking and practising within the disciplines." Pp. 412–424 in *Improving Student Learning – Theory and*

Practice Ten Years On, edited by C. Rust. Oxford: Oxford Centre for Staff and Learning Development (OCSLD).

- Meyer, Jan H. F., and Ray Land. 2005. "Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning." *Higher Education* 49: 373–388.
- Meyer, Jan H. F., and Ray Land, eds. 2006. "Threshold concepts and troublesome knowledge: An introduction." Pp. 3–18 in *Overcoming barriers to student understanding: threshold concepts and troublesome knowledge*. London; New York: Routledge.
- Mezirow, Jack. 1996. "Contemporary Paradigms of Learning." *Adult Education Quarterly* 46 (3): 158–172.
- Mezirow, Jack. 1997. "Transformative Learning: Theory to Practice." *New Directions for Adult and Continuing Education* 74: 5–12.
- Mezirow, Jack. 2000a. *Learning as Transformation: Critical Perspectives on a Theory in Progress*. San Francisco: Jossey-Bass.
- Mezirow, Jack. 2000b. "Learning to Think like an Adult." Pp. 3–33 in *Learning as Transformation: Critical Perspectives on a Theory in Progress, The Jossey-Bass higher and adult education series*, edited by Jack Mezirow and Associates. San Francisco: Jossey-Bass.
- Mezirow, Jack. 2009. "An overview on transformative learning." Pp. 90–105 in *Contemporary Theories of Learning. Learning theorists ... in their own words*, edited by Knud Illeris. London: Routledge.
- Middleton, Andrew John, and Richard Mather. 2008. "Machinima interventions: innovative approaches to immersive virtual world curriculum integration." *Association for Learning Technology Journal (ALT-J)* 16 (3): 207–220.
- Mishler, Elliot G. 1991. "Representing Discourse: The Rhetoric of Transcription." *Journal of Narrative and Life History* 1 (4): 255–280.
- Mishler, Elliot G. 1995. "Models of Narrative Analysis: A Typology." *Journal of Narrative and Life History* 5 (2): 87–123.
- Montoya, Mitzi M., Anne P. Massey, and Nicholas S. Lockwood. 2011. "3D Collaborative Virtual Environments: Exploring the Link between Collaborative Behaviors and Team Performance." *Decision Sciences* 42 (2): 451–476.
- Morley, David, and Kuan-Hsing Chen, eds. 1996. *Stuart Hall critical dialogues in cultural studies*. London; New York: Routledge.
- Morningstar, C., and F. Randall Farmer. 1991. "The Lessons of Lucasfilm's Habitat." Pp. 279–301 in *Cyberspace: First Steps*, edited by M. Benedikt. Cambridge, MA: MIT Press.

- Mount, N. J., C. Chambers, D. Weaver, and G. Priestnall. 2009. "Learner immersion engagement in the 3D virtual world: principles emerging from the DELVE project." *ITALICS* 8 (3): 40–55.
- Musselin, Christine. 2007. "The Transformation of Academic Work: Facts and Analysis." Retrieved October 15, 2012 (<http://cshe.berkeley.edu/publications/docs/ROP.Musselin.4.07.pdf>).
- Nakamura, Lisa. 1995. "Race in/for cyberspace: Identity tourism and racial passing on the Internet." *Works and Days* 13(1-2): no pages. Retrieved January 21, 2009 (<http://www.humanities.uci.edu/mposter/syllabi/readings/nakamura.html>).
- Neumann, Ruth, Sharon Parry, and Tony Becher. 2002. "Teaching and Learning in their Disciplinary Contexts: A conceptual analysis." *Studies in Higher Education* 27 (4): 405–417.
- Neustaedter, Carman, and Elena Fedorovskaya. 2009. "Presenting Identity in the Virtual World through Avatar Appearance." Pp. 183-190 in *Proceedings of the Graphics Interface 2009 Conference*, edited by Amy Ashurst Gooch and Melanie Tory. Kelowna, Canada.
- Nolen, Amanda L., and Jim Vander Putten. 2007. "Action Research in Education: Addressing Gaps in Ethical Principles and Practices." *Educational Researcher* 36 (7): 401–407.
- Norman, John. 1967. *Tarsman of Gor*. Holicong, PA: Wildside Press.
- Oblinger, Diana G. 2005. "Educating the Net Generation." Retrieved June 7, 2010 (https://www.msmc.la.edu/Include/learning_resources/todays_learner/OneDayv2-HO.pdf).
- Oblinger, Diana G., and James L. Oblinger, eds. 2005. *Educating the Net Generation*. Washington, DC: Educause. Retrieved September 7, 2012 (<http://net.educause.edu/ir/library/pdf/pub7101.pdf>).
- Ortmann, David M. and Richard Sprott. 2009. *Sexual Outsiders: Understanding BDSM Sexualities and Communities*. Lanham: Rowman & Littlefield Publishers.
- Page, Richard C., and Daniel N. Berkow. 1991. "Concepts of the Self: Western and Eastern Perspectives." *Journal of Multicultural Counseling & Development* 19 (2): 83–93.
- Palfrey, John, and Urs Gasser. 2008. *Born digital: Understanding the first generation of Digital Natives*. New York: Basic Books.
- Park, Peter. 1999. "People, Knowledge, and Change in Participatory Research." *Management Learning* 30 (2): 141–157.

- Pavlov, Ivan P. 1927. *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex*. Retrieved December 11, 2012 (<http://psychclassics.yorku.ca/Pavlov/>).
- Penuel, William R., and James V. Wertsch. 1995. "Vygotsky and identity formation: A sociocultural approach." *Educational Psychologist* 30 (2): 83–92.
- Perkins, D. 2006. "Constructivism and troublesome knowledge." Pp. 33–47 in *Overcoming Barriers to Student Understanding: Threshold concepts and troublesome knowledge*, edited by Jan H. F. Meyer and Ray Land. London: Routledge Press.
- Phillips, D. C. 1994. "Telling it straight: issues in assessing narrative research." *Educational Psychologist* 29 (1): 13–21.
- Phoenix, Ann. 2002. "Identities and diversities." Pp. 49–101 in *Mapping Psychology*, edited by Dorothy Miell, Ann Phoenix, and Kerry Thomas. Milton Keynes: The Open University.
- Piaget, Jean. 1971. *Science of Education and the Psychology of the Child*. London: Longman.
- Piaget, Jean. 1976. *To understand is to invent: the future of education*. Harmondsworth: Penguin.
- Piaget, Jean. 1989. *The child's conception of the world*. Savage, Md.: Littlefield Adams Quality Paperbacks.
- Polkinghorne, Donald. 1988. *Narrative Knowing and the Human Sciences*. Albany: State University of New York Press.
- Prasolova-Førland, Ekaterina. 2004. "Virtual Spaces as Artifacts: Implications for the Design of Educational CVEs." *International Journal of Distance Education Technologies* 2 (4): 94–115.
- Prenzel, Annedore. 1995. "Interkulturelle Pädagogik [Intercultural Education]." Pp. 64–95 in *Pädagogik der Vielfalt [Education of diversity]*. Opladen: Leske und Budrich.
- Prensky, Marc. 2001a. "Digital Natives, Digital Immigrants." *On the Horizon* 9 (5): 1–6.
- Prensky, Marc. 2001b. "Digital Natives, Digital Immigrants, Part II. Do they really think differently?" *On the Horizon* 9 (6): 1–6.
- Prensky, Marc. 2005. "Listen to the Natives." *Educational Leadership* 63 (4): 8–13.
- Prensky, Marc. 2009. "H. sapiens digital: From digital immigrants and digital natives to digital wisdom." *Innovate* 5(3): no pages. Retrieved February 4, 2009 (<http://www.innovateonline.info/index.php?view=article&id=705>).

- Rabenstein, Reinhold, René Reichel, and Michael Thanhoffer. 1985a. *Das Methoden-Set 2, Themen bearbeiten* [The methods set 2, working on themes]. Münster: Ökotoxia.
- Rabenstein, Reinhold, René Reichel, and Michael Thanhoffer. 1985b. *Das Methoden-Set 3, Gruppe erleben* [The methods set 3, experience group]. Münster: Ökotoxia.
- Rakić, Tamara, Melanie C. Steffens, and Amélie Mummendey. 2011. "Blinded by the accent! The minor role of looks in ethnic categorization." *Journal of Personality and Social Psychology* 100 (1): 16–29..
- Rapoport, Robert N. 1970. "Three Dilemmas in Action Research: With Special Reference to the Tavistock Experience." *Human Relations* 23 (6): 499–513.
- Reason, Peter, and Hilary Bradbury. 2001. "Introduction: Inquiry and participation in search of a world worthy of human aspiration." Pp. 1–14 in *Handbook of Action Research: Participative Inquiry and Practice*, edited by Peter Reason and Hilary Bradbury. London: Sage.
- Rheinberg, Falko. 2000. *Motivation* [Motivation]. Stuttgart: Kohlhammer.
- Rheingold, Howard. 1991. *Virtual reality*. New York: Summit Books.
- Rice, John W. 2007. "New media resistance: Barriers to implementation of computer video games in the classroom." *Journal of Educational Multimedia and Hypermedia* 16 (3): 249–261.
- Richardson, Stephen A., Barbara Snell Dohrenwend, and David Klein. 1965. *Interviewing: Its Forms and Functions*. New York: Basic Books.
- Riessman, Catherine Kohler. 1993. *Narrative analysis*. Newbury Park, CA: Sage.
- Riessman, Catherine Kohler. 2008. *Narrative Methods for the Human Sciences*. Thousand Oaks, CA: Sage.
- Robson, Colin. 2002. *Real World Research: A Resource for Social Scientists and Practitioner-Researchers*. 2nd ed. Oxford: Blackwell Publishers.
- Roddenberry, Gene. 2011. *Star Trek: The Next Generation - The Full Journey* [DVD]. Paramount Home Entertainment.
- Rogers, Luke. 2011. "Developing simulations in multi-user virtual environments to enhance healthcare education." *British Journal of Educational Technology* 42 (4): 608–615.
- Rollett, Brigitte A. 1987. "Effort avoidance and learning." Pp. 147–157 in *Learning & instruction: European research in an international context, vol. 1*, edited by Erik De Corte, Hans Lodewijks, and Roger Parmentier. Elmsford, NY: Pergamom Press.

- Rosenwald, George C., and Richard L. Ochberg, eds. 1992. *Storied Lives: The cultural politics of self-understanding*. New Haven: Yale University Press.
- Rouse, R. 1995. "Questions of Identity: Personhood and collectivity in transnational migration to the United States." *Critique of Anthropology* 15 (4): 351–380.
- Rousseau, Jean-Jacques. 2011. *Discourse on the Origin and Foundations of Inequality among Men*. edited by Helena Rosenblatt. New York, NY: Bedford/St. Martins.
- Rum & Monkey. 2010. "The Na'vi Name Generator." Retrieved October 23, 2012 (<http://rumandmonkey.com/widgets/toys/namegen/13151/#.UlaY2ot4K Sq>).
- Ryan, Richard. M., and Edward L. Deci. 2000. "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions." *Contemporary Educational Psychology* 25 (1): 54–67.
- Rymaszewski, Michael, Wagner James Au, Cory Ondrejka, Richard Patel, Sara van Gorden, Jeannette Cézanne, Paul Cézanne, Ben Batstone-Cunnigham, Aleks Krotoski, Celebrity Trollop, Jim Rossignol, and Second Life users. 2008. *Second Life: the official guide*. 2nd ed. Indianapolis: Wiley Publishing, Inc.
- Salmon, Gilly, and David Hawkrigde. 2009. "Editorial: Out of this world." *British Journal of Educational Technology* 40 (3): 401–413
- Salmon, Phillida, and Catherine Kohler Riessman. 2008. "Looking back on narrative research: An exchange." Pp. 78–85 in *Doing Narrative Research*, edited by Molly Andrews, Corinne Squire, and Maria Tamboukou. Los Angeles: Sage.
- Salt, Ben, Clare Atkins, and Leigh Blackall. 2008. "Engaging with Second Life: Real Education in a Virtual World. Literature Review." Retrieved January 20, 2009 (slenz.files.wordpress.com/2008/12/slliteraturereviewa1.pdf).
- Sarbin, Theodore R., ed. 1986. *Narrative psychology: the storied nature of human conduct*. New York: Praeger.
- Sarup, Madan. 1998. *Identity, Culture, and the Postmodern World*. Edinburgh: Edinburgh University Press.
- Savin-Baden, Maggi. 2004. "Achieving Reflexivity: Moving From Analysis To Interpretation In Collaborative Inquiry." *Journal of Social Work Practice* 18 (3): 365–378.
- Savin-Baden, Maggi. 2008. "From cognitive capability to social reform? Shifting perceptions of learning in immersive virtual worlds." *Association for Learning Technology Journal (ALT-J)* 16 (3): 151–161.
- Savin-Baden, Maggi. 2010. "Changelings and shape shifters? Identity play and pedagogical positioning of staff in immersive virtual worlds." *London Review of Education* 8 (1): 25–38.

- Savin-Baden, Maggi, Cathy Tombs, Terry Poulton, Emily Conradi, Sheetal Kavia, David Burden, and Chris Beaumont. 2011. "An evaluation of implementing problem-based learning scenarios in an immersive virtual world." *International Journal of Medical Education* 2: 116–124.
- Savin-Baden, Maggi, Katherine Wimpenny, Matt Mawer, Nicole Steils, Cathy Tombs, and Gemma Tombs. 2011. *Reviewing Perspectives on Virtual Worlds*. Coventry: Coventry University.
- Schachter, Elli P. 2005. "Context and Identity Formation: A Theoretical Analysis and a Case Study." *Journal of Adolescent Research* 20 (3): 375–395.
- Schiller, Frederick. 2013. "Aesthetical and Philosophical Essays. Letter XV." *Project Gutenberg*. Retrieved January 15, 2013 (http://www.gutenberg.org/files/6798/6798-h/6798-h.htm#2H_4_0019).
- Schiller, Friedrich. 2013. "Ueber die ästhetische Erziehung des Menschen, in einer Reihe von Briefen - Kapitel 3, Fünfzehnter Brief [About the aesthetical education of humans, in a collection of letters - chapter 3, fifteenth letter]." Pp. 558–573 in *Schillers Sämmtliche Werke, vierter Band*. Stuttgart: J. G. Cotta'sche Buchhandlung. Retrieved January 15, 2013 SPIEGEL ONLINE GmbH. available from <<http://gutenberg.spiegel.de/buch/3355/3>>).
- Schrader, P. G., Dongping Zheng, and Michael Young. 2006. "Teachers' perceptions of video games: MMOGs and the future of preservice teacher education." *Innovate* 2 (3): no pages. Retrieved April 24, 2008 (<http://www.innovateonline.info/index.php?view=article&id=125>)
- Schroeder, Ralph. 1996. *Possible Worlds: The Social Dynamic of Virtual Reality Technologies*. Boulder: Westview Press.
- Schroeder, Ralph 2002. "Social Interaction in Virtual Environments: Key Issues, Common Themes, and a Framework for Research." Pp. 1–18 in *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*, edited by Ralph Schroeder. London: Springer.
- Schroeder, Ralph. 2006. "Being There Together and the Future of Connected Presence." *Presence: Teleoperators and Virtual Environments* 15 (4): 438–454.
- Schuetze, Hans G., and Maria Slowey. 2002. "Participation and Exclusion: A Comparative Analysis of Non-Traditional Students and Lifelong Learners in Higher Education." *Higher Education* 44 (3/4): 309–327.
- Schulz von Thun, Friedemann. 1981. *Miteinander reden. Störungen und Klärungen. Allgemeine Psychologie der Kommunikation [Talking with each other: Disturbances and clarifications. General psychology of communication]*. 36th ed. Reinbek bei Hamburg: Rowohlt Taschenbuch Verlag.
- Schulz von Thun, Friedemann. 1998. *Miteinander reden 3. Das "Innere Team" und situationsgerechte Kommunikation [Talking with each other 3: The "inner*

- team” and communication according to the situation*]. Reinbek bei Hamburg: Rowohlt.
- Schuman, Howard, and Stanley Presser. 1981. *Questions and Answers in Attitude Surveys*. New York: Academic Press.
- Seah, May-li, and Paul Cairns. 2008. “From Immersion to Addiction in Videogames.” in *Proceedings of HCI 2008 The 22nd British HCI Group Annual Conference, vol. 1*. Liverpool John Moores University, UK. Retrieved May 5, 2009 (<http://ewic.bcs.org/content/ConMediaFile/8963>).
- Second Life. 2010. “Terms of Service.” Terms of Service. Retrieved October 7, 2010 (<http://secondlife.com/corporate/tos.php>).
- Sheely, Stephen. 2008. “Latour meets the digital natives: What do we really know.” in *Proceedings ascilite 2008*. Melbourne: ascilite/Deakin University. Retrieved July 1, 2010 (<http://www.ascilite.org.au/conferences/melbourne08/procs/sheely.pdf>).
- Sherry, J. L. 2001. “The effects of violent video games on aggression: A meta-analysis.” *Human Communication Research* 27: 409–431.
- Shulman, Lee S. 2005. “Signature pedagogies in the professions.” *Dædalus* 134 (3): 52–59.
- Shuster, Evelyne. 1997. “Fifty Years Later: The Significance of the Nuremberg Code.” *New England Journal of Medicine* 337 (20): 1436–1440.
- Siemons, Mark. 2010. “Gesellschaft mit Heiligenschein [Society with a halo].” *Frankfurter Allgemeine Nachrichten*, September 2. Retrieved September 2, 2010 (<http://www.faz.net/aktuell/feuilleton/2.1780/world-of-warcraft-gesellschaft-mit-heiligenschein-11036895.html>).
- Simonson, Lynnell, and Virginia Bushaw. 1993. “Participatory action research: Easier said than done.” *The American Sociologist* 24 (1): 27–37.
- Sixma, Tjarda. 2009. “The Gorean Community in Second Life: Rules of Sexual Inspired Role-Play.” *Journal of Virtual Worlds Research* 1 (3): 3–18.
- Snyder, Mark, Elizabeth D. Tanke, and Ellen Berscheid. 1977. “Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes.” *Journal of Personality and Social Psychology* 35 (9): 656–666.
- Somekh, Bridget. 1995. “The Contribution of Action Research to Development in Social Endeavours: a position paper on action research methodology.” *British Educational Research Journal* 21(3):339–355.
- Spence, Jeremiah. 2008. “Demographics of Virtual Worlds.” *Journal of Virtual Worlds Research* 1 (2): 1–45.

- Squire, Corinne, Molly Andrews, and Maria Tamboukou. 2008. "Introduction: What is narrative research?" Pp. 1–21 in *Doing Narrative Research*, edited by Molly Andrews, Corinne Squire, and Maria Tamboukou. Los Angeles: Sage.
- Steiner, Peter. 1993. "On the Internet, nobody knows you're a dog." *The New Yorker*, July 5, 69 (LXIX) no. 20, 61
- Stephenson, Neal. 1992. *Snow Crash*. London: Penguin.
- Stone, Allucquere Rosanne. 1994. "Split Subjects, Not Atoms; or, How I Fell in Love with My Prosthesis." *Configurations* 2 (1): 173–190.
- Stone, Allucquere Rosanne. 1996. *The War of Desire and Technology at the End of the Mechanical Age*. Cambridge, MA: MIT Press.
- Stone, Allucquere Rosanne. 2007. "Will The Real Body Please Stand Up? Boundary stories about virtual cultures." Pp. 433–455 in *The Cybercultures Reader*, edited by David Bell and Barbara M. Kennedy. London: Routledge.
- Strauss, Anselm Leonard. 1959. *Mirrors and Masks. The Search for Identity*. Glencoe, Illinois: The Free Press of Glencoe.
- Streeting, Wes, and Graeme Wise. 2009. "Rethinking the values of higher education - consumption, partnership, community?" Retrieved May 25, 2012 (<http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/Rethinking.pdf>).
- Stryker, Sheldon, and Peter J. Burke. 2000. "The Past, Present, and Future of an Identity Theory." *Social Psychology Quarterly* 63 (4): 284–297.
- Sutton-Smith, Brian. 1997. *The Ambiguity of Play*. Cambridge, MA: Harvard University Press.
- Svensson, Göran, and Greg Wood. 2007. "Are university students really customers? When illusion may lead to delusion for all!" *International Journal of Educational Management* 21 (1): 17–28.
- Tajfel, Henri. 1981. *Human groups and social categories: Studies in social psychology*. Cambridge: Cambridge University Press.
- Tajfel, Henri, ed. 1982a. *Social Identity and Intergroup Relations*. Cambridge: Cambridge University Press.
- Tajfel, Henri. 1982b. "Social Psychology of Intergroup Relations." *Annual Review of Psychology* 33 (1): 1–39.
- Tapscott, D. 1998. *Growing up digital: The rise of the Net Generation*. New York: McGraw-Hill.
- Taylor, Charles. 1989. *Sources of the Self: The Making of the Modern Identity*. Cambridge, MA: Harvard University Press.

- Taylor, Edward W. 1998. *Transformative Learning: A Critical Review*. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education. The Ohio State University. Retrieved January 16, 2013 (http://www.calpro-online.org/eric/docs/taylor/taylor_00.pdf).
- Taylor, Edward W. 2001. "Transformative learning theory: a neurobiological perspective of the role of emotions and unconscious ways of knowing." *International Journal of Lifelong Education* 20(3):218–236.
- Taylor, T. L. 2002. "Living Digitally: Embodiment in Virtual Worlds." Pp. 40–62 in *The Social Life of Avatars: Presence and Interaction in Shared Virtual Environments*, edited by Ralph Schroeder. London: Springer.
- Tofts, Darren. 2003. "Avatars of the Tortoise: Life, Longevity and Simulation." *Digital Creativity* 14 (1): 54–63.
- Tronstad, Ragnhild. 2008. "Character Identification in World of Warcraft: The Relationship between Capacity and Appearance. [WOW in italics]." Pp. 249–263 in *Digital Culture, Play, and Identity: A World of Warcraft® Reader*, edited by Hilde G. Corneliussen and Jill Walker Rettberg. MIT Press.
- Tucker, Robert C., ed. 1978. *The Marx-Engels reader*. 2d ed. New York: Norton.
- Turkle, Sherry. 1996. *Life on the Screen: Identity in the Age of the Internet*. London: Weidenfels & Nicolson.
- Turkle, Sherry. 1999. "Cyberspace and Identity." *Contemporary Sociology* 28 (6): 643.
- Vasalou, Asimina, and Adam N. Joinson. 2009. "Me, myself and I: The role of interactional context on self-presentation through avatars." *Computers in Human Behavior* 25 (2): 510–520.
- Veerapen, Maeva. 2011. "Encountering Oneself and the Other: A Case Study of Identity Formation in Second Life." Pp. 81–100 in *Reinventing Ourselves: Contemporary Concepts of Identity in Virtual Worlds*, edited by Anna Peachey and Mark Childs. London: Springer.
- Verhagen, Tibert, Frans Feldberg, Bart van den Hooff, Selmar Meents, and Jani Merikivi. 2011. "Satisfaction with virtual worlds: An integrated model of experiential value." *Information & Management* 48 (6): 201–207.
- Virtual World Watch. 2008. *The Autumn 2008 Snapshot of UK Higher and Further Education Developments in Second Life*. Virtual World Watch. Retrieved December 28, 2012 (<http://www.silversprite.com/ss/wp-content/uploads/2012/08/snapshot-four.pdf>).
- Virtual World Watch. 2009. *The Spring 2009 Snapshot of Virtual World Use in UK Higher and Further Education*. Virtual World Watch. Retrieved December 28, 2012 (<http://www.silversprite.com/ss/wp-content/uploads/2012/08/snapshot-five.pdf>).

- Vygotsky, Lev Semenovich. 1978. *Mind In Society: The Development of Higher Psychological Processes*. edited by M. Cole, V. John-Steiner, S. Scribner, and E. Soubberman. Cambridge, MA: Harvard University Press.
- Wachowski, Andrew Paul, and Laurence Wachowski. 1999. *The Matrix [DVD]*. United States of America: Warner Bros. Pictures.
- Wang, C., H. Song, D. Stone, and Q. Yan. 2009. "Integrating Second Life into an EFL Program in China: Research Collaboration across the Continents." *TechTrends* 53 (6): 14–19.
- Wang, Feihong, and Barbara B. Lockee. 2010. "Virtual Worlds in Distance Education: A Content Analysis Study." *Quarterly Review of Distance Education* 11 (3): 183–186.
- Warburton, Steven. 2008. "Loving your avatar: identity, immersion and empathy." *Loving your avatar: identity, immersion and empathy*. Retrieved November 4, 2009 (<http://warburton.typepad.com/liquidlearning/2008/01/loving-your-ava.html>).
- Warburton, Steven. 2009. "Second Life in higher education: Assessing the potential for and the barriers to deploying virtual worlds in learning and teaching." *British Journal of Educational Technology* 40 (3): 414–426.
- Watzlawick, Paul, Janet Beavin Bavelas, and Don D Jackson. 1967. *Pragmatics of human communication: a study of interactional patterns, pathologies, and paradoxes*. New York: Norton.
- Webster, Leonard. 2007. *Using Narrative Inquiry as a Research Method: an introduction to using critical event narrative analysis in research on learning and teaching*. London: Routledge.
- Weick, Karl E. 1995. *Sensemaking in Organizations*. London: Sage Publications.
- White, David S., and Alison Le Cornu. 2011. "Visitors and Residents: A new typology for online engagement." *First Monday* 16 (9): no pages. Retrieved August 25, 2012 (<http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/3171/3049>).
- White, Naomi Rosh. 2007. "'The customer is always right?': Student discourse about higher education in Australia." *Higher Education* 54: 593–604.
- Whyte, William F. 1989. "Advancing scientific knowledge through participatory action research." *Sociological Forum* 4 (3): 367–385.
- Wiecha, John, Robin Heyden, Elliot Sternthal, and Mario Merialdi. 2010. "Learning in a Virtual World: Experience With Using Second Life for Medical Education." *Journal of Medical Internet Research* 12 (1): e1/no pages. Retrieved February 28, 2013 (<http://www.jmir.org/2010/1/e1/>)

- Wikia Inc. 2012. "Second Life Wikia New Jessie." *Second Life Wikia*. Retrieved December 7, 2012 (http://secondlife.wikia.com/wiki/New_Jessie).
- Wimpenny, Katherine, and Maggi Savin-Baden. 2012. "Alienation, agency and authenticity: a synthesis of the literature on student engagement." *Teaching in Higher Education* [forthcoming].
- Winkel, Olaf. 2010. "Higher education reform in Germany: How the aims of the Bologna process can be simultaneously supported and missed." *International Journal of Educational Management* 24 (4): 303–313.
- Wollstonecraft, Mary. 2008. *A Vindication of the Rights of Men; A Vindication of the Rights of Woman; An Historical and Moral View of the French Revolution*. Oxford: Oxford University Press.
- Wood, Martin, Jon Hales, Susan Purdon, Tanja Sejersen, and Oliver Hayllar. 2009. *A Test for Racial Discrimination in Recruitment Practice in British Cities*. Norwich: Department for Work and Pensions Research. Retrieved (<http://research.dwp.gov.uk/asd/asd5/rports2009-2010/rrep607.pdf>).
- Yee, Nick, and Jeremy Bailenson. 2007. "The Proteus Effect: The Effect of Transformed Self-Representation on Behavior." *Human Communication Research* 33 (3): 271–290.
- Yee, Nick, Jeremy N. Bailenson, and Nicolas Ducheneaut. 2009. "The Proteus Effect: Implications of Transformed Digital Self-Representation on Online and Offline Behavior." *Communication Research* 36 (2): 285–312.
- Zheng, Dongping, Michael F. Young, Manuela Maria Wagner, and Robert A. Brewer. 2009. "Negotiation for Action: English Language Learning in Game-Based Virtual Worlds." *The Modern Language Journal* 93 (4): 489–511.
- Zielinski, Werner. 1998. *Lernschwierigkeiten: Ursachen - Diagnostik - Intervention [Learning difficulties: Causes - Diagnosis - Intervention]*. 3rd ed. Stuttgart: Kohlhammer.
- Zimmer, Benjamin. 2009. "Skxawng! On Language." *The New York Times Magazin*, December 4. Retrieved March 4, 2011 (http://www.nytimes.com/2009/12/06/magazine/06FOB-onlanguage-t.html?_r=0).
- Zyda, M. 2005. "From Visual Simulation to Virtual Reality to Games." *Computer – IEEE Computer Society* 38 (9): 25–32.

Appendices

Content Appendices

Overview of the three data collection phases at the two research sites	298
Second Life modules as part of the Employability scheme at Churchtown University	299
Risk assessment module as part of an Environmental Health course at Seaview University	302
Approval by Coventry University's Ethics Committee	305
Example of participant information and consent form	306
Example of interview schedule (possible themes/prompts/questions)	308
Example of observation notes	310

Overview of the three data collection phases at the two research sites

Phase 1:

Churchtown University, October – December 2009 (year one):

Context: modules on Employability as part of an undergraduate scheme

- Observation of 39 students in 3 modules á 20 hours, accumulating to 60 hours free-note-taking participant observation
- 9 students interviewed in individual semi-structured interviews
- 4 students interviewed in two pair interviews
- 9 students interviewed in three interviews with three students
- 2 interviews with the tutor

Phase 2:

Seaview University, March – May 2010

Context: module Risk Assessment as part of a Masters course on Environmental Health

- 6 students interviewed in individual semi-structured interviews (incl. a student researching on the module)
- 2 focus groups:
focus group 1: 6 students + tutor/developer of the module
focus group 2: 6 students + research student
- 1 interview with the tutor

Phase 3:

Churchtown University, October – December 2010 (year two):

Context: modules on Employability as part of an undergraduate scheme

- Observation of 30 students in 2 modules á 20 hours, accumulating to 40 hours free-note-taking participant observation
- 6 students interviewed in individual semi-structured interviews
- 3 students interviewed in one group interview with three students
- 1 interview with the tutor
- 1 student interviewed, who was not part of the module context

Second Life modules as part of the Employability scheme at Churchtown University

The first and third sets of data which comprised interviews and observation notes were collected at Churchtown University, a post-1992 university in England which focuses on teaching and training courses. The description of the modules is based on the observations and interviews with students, the module guide, and the conversations with the two tutors who taught the module over the two years of data collection. At Churchtown University, Second Life was utilized in the form of two modules on learning about utilizing Second Life: A Beginner Level module was available to second year undergraduate students and an Experienced Level to the third year students. In total five modules on Second Life have been observed and interviews with students in these modules have been carried out over two years: in the first year two Beginner Level modules and one Experienced Level module was observed, in the second year one of each module was observed. In the first year the modules were taught by the module developer. In the second year a different tutor took over the facilitation of the modules, and the module developer joined some sessions, was available to students for advice, and carried out the assessment with the tutor at the end of respective modules.

The modules on Second Life were part of a university-wide mandatory Employability scheme for undergraduate students run at Churchtown University: Each year every student must choose one ten-week module from a variety of modules,³⁴ ranging from learning foreign languages, entrepreneurial skills, leadership skills, creative skills, academic writing to learning ICT skills, of which the Second Life module was one. The aim of the scheme was to enhance the employability of the Universities' students by developing work-related skills and competencies, for instance, communication skills, team work skills, and conflict management (so-called soft skills), as well as personal qualities and attributes such as self-confidence, decisiveness, initiative and adaptability. The majority of the

³⁴ For instance 75 different modules were offered to second year students in the first year of data collection.

Employability modules were across faculties and disciplines. However, some modules were only run for students enrolled on specific courses or disciplines.

In the module guide, Second Life was introduced as 'essentially a game, albeit one with no specific goals'. The objective stated that learning in the virtual world was intended to relate to and for students to be able to take 'understanding and learning back into the real world'. The Second Life modules were open to students of all disciplines. Although pre-existing computer design and scripting knowledge for the Beginner Level was described as helpful in the module guide, it was not a necessary requirement. To enrol on the Experienced Level module in the third year of studies, students were required to have successfully completed the Beginner module in year two. Beside the module itself, students were required to pass an assessment of an e-portfolio that consisted on reflections on competency-based questions, career management and self-awareness. This part of the module was not assessed by the tutor; however, the tutor would remind students of the essentiality of the task and help with the functions of the e-portfolio. However, this e-portfolio part of the scheme was dropped in the second year of module observation for this study, and tutors were asked to integrate its content more into the module itself.

In these modules, Second Life was utilized in two ways firstly in its own right through exploring the environment of Second Life as well as its functions and tools and secondly, in applying the new knowledge and skills to create, negotiate, and execute a project in Second Life, thereby developing and improving communication, problem solving, time management and presentation skills. In the Beginner Level module students would work in teams with fellow students, while in the Experienced Level module they were asked to collaborate with a partner from outside the module, who could be someone they contacted either in-world or outside Second Life. The modules were run in an open computer laboratory on the university campus, each comprising ten 110 minute sessions. Whilst the two Experienced Level and one of the Beginner Level modules were in the early evening, two Beginner Level modules were in the morning in the UK, which influenced the opportunities to interact with other users of Second Life. For the

assessment, in both module levels, outcomes of the project work and reflections on the team work were presented in the form of a PowerPoint presentation or a presentation conducted in Second Life, or a combination of both. Additionally, students had to provide a short essay or handout summary of the project and their reflections regarding employability. Completion was on a pass/fail basis; however, percentage marks were given to students on the basis of the group work and individual contribution.

The modules from the outset focussed on building and scripting in Second Life, rather than on the social components such as intended interaction with Second Life residents or participation in group networks outside the module. In the first two weeks, students were introduced to the basic functions in Second Life (this continued into week three in the first year of study, due to technical problems in the first two weeks) including setting up accounts, changing appearance of avatars, the walk and fly function as well as teleporting, the search engine, usage of map, the camera controls, and the chat function. Then introduction concentrated on the building functions. In the following session students were asked to explore Second Life in the form of a treasure hunt, and were introduced to the 'snapshot' function (that is to take pictures in Second Life) as a means for proof of their participation. Students had to search for and teleport to several different places in Second Life, for instance medieval castles or under water environments, and to get in contact with different cultures, such as Furies and Gorean communities. In the second year this element was dropped and another session concentrated on building with a view to build a statue of oneself. However, other functions, for instance the option to chat with each other via instant messaging, that could only be seen by the people involved in the communication, remained widely hidden from many students. And although all students were made members of a university group, how to become a member of other groups or how to set up their own groups was left to the students to explore through their own devices.

In the remaining sessions, until the presentation in the last and tenth session, students developed and executed work on self-chosen projects with individual support from the respective tutors. Theoretically students could have worked on

projects not based on 'building and scripting' in Second Life (building in this instance includes using meshes to create clothing etc. (Rymaszewski *et al.* 2008)), but given the focus on building during the introductions, only one team worked on a non-building project, that evolved around an exploration of different sub-cultures and groups in Second Life. Building work was carried out on individual little islands with 'sandbox' function³⁵ only available to members of the university group. Access to the individual islands was unrestricted, thus it was open to all users of Second Life. The islands were situated high in the sky and therefore 'out of view' to random visitors of the main university island, although signposts on the main island indicated the sandbox islands area.

Risk assessment module as part of an Environmental Health course at Seaview University

The second research site was at Seaview University, which is also a post-1992 university in England with a focus on teaching. Second Life was embedded as part of a module on risk assessment and safety management, contained on an Environmental Health Masters course (MSc). The description is based on conversations with the module developer, who also facilitated the module and the data collected. Data were collected through interviews with students and two focus groups, including the tutor/developer of the module and an MSc research student on the project. In contrast to data collection at Churchtown University, where data collection was carried out during the time of utilizing Second Life in the module, at Seaview data were collected after the learning activities with and in Second Life had concluded. This was the first year in which Second Life was utilized in a module of the Environmental Health course. The module followed a blended teaching approach, combining lectures and seminars on campus, as well as self-managed learning supported by online material and platforms such as reading material, podcasts (recordings) and videos, and also a discussion forum.

³⁵ Sandbox areas in Second Life enable every user to build in Second Life, as a user usually needs to own or rent land in order to change or build in the environment.

Assessment of the module included an analytical-reflective e-portfolio and oral examination.

At the heart of the module, based on a situated and experiential learning approach, were case simulation and role-play activities, which introduced and applied the work of an Environmental Health manager, an example being the investigation of a breach of safety regulations after an accident had happened in a warehouse. In this simulation the investigation included an examination of the scene and interviews with witnesses. These activities were transferred into Second Life with the concept that the simulation in Second Life would provide a safe opportunity for students to actively experience the investigation of an accident as closely as possible to a 'real life' accident situation. The developer/tutor proposed that re-building an accident scenario of that scale in the physical world, even if only staged for the witnesses to observe and a scene to be examined for the students, would be both highly costly, and not achievable in the current university setting. The advantages of Second Life, in the view of the developer/tutor, compared with former teaching and learning activities, which comprised merely lectures and seminars on campus as well as self-organised reading, was that students could actively engage with the scenario, and that the interview role-plays were less staged, as the witnesses were not given any further information regarding the accident besides a very short description of their occupation in the warehouse.

The warehouse was a 'holodeck'³⁶ environment within Second Life. Borrowing the term from the concept introduced through the science series Star Trek: The Next Generation (Roddenberry 2011) was a pre-built scenario that could be changed by the tutor through a few mouse clicks. In this case, the scenario developed in which a forklift was driven into a shelf, barrels would fall from the shelf and injure a worker. This situation was observed by other employees, being in the warehouse as avatars, who would become witnesses to the accident. The holodeck concept allowed running the accident repeatedly. However, the witnesses only observed the accident happening once and students were only shown the sequence as the

³⁶ Holodecks are pre-built scenes which can be brought into existence or swapped at the click of a button by the teacher. They provide a range of different scenes that can be used for role playing, in Salt *et al.*

last step of learning activities. The learning activities incorporated asynchronous and synchronous elements which included examination of the accident warehouse scene in Second Life, as well as carrying out two role-play interviews in Second Life, with one employee who had witnessed the accident and with the manager of the warehouse. The employee-witnesses were role-played by colleagues of the module developer who had been situated in the warehouse with their avatars inside Second Life as the scenario was played. The manager was role-played by the tutor. Students were not informed who would role-play witnesses or the manager, although many students guessed that at least one role was embodied by the module tutor. The interviews were conducted utilizing the chat functions which also provided the student immediately with a transcript of the dialogue. Students were aware that the tutor would retain a copy of the transcripts (by role-playing the manager, the tutor had them anyway) to provide students with feedback on the interview process.

Approval by Coventry University's Ethics Committee

Memorandum

Coventry University

Academic Registry

Registry Research Unit
University Applied Research Committee

To
Nicole Steils
PhD Student
Learning Innovation ARG
Coventry University
c/o Serious Games Institute
Cheetah Road, Coventry, CV1 2TL

From: Judy White, Assistant Registrar, Research

Email: judy.white@coventry.ac.uk
ethics.uni@coventry.ac.uk

cc

Tel. No: 024 7688 7029	Delivery Point JA106
----------------------------------	--------------------------------

Our Reference

Date
17 July 2009

Application for ethical approval

Dear Nicole,

Thank you for your Ethics application. Your submission has undergone full consideration including final approval by the Chair of the University Applied Research Committee. I have attached, for your records, the final decision recorded.

I am pleased to inform you that you may now proceed with your research. Should you have any further queries, please do not hesitate to contact me.

Best wishes,



Judy White
Assistant Registrar, Research

Encs

Example of participant information and consent form

Nicole Steils

CURLIEW: Coventry University Research into Immersive Educational Worlds PhD project: Learner Identity (Nicole Steils)

Participant Information Sheet

What is the purpose of the study?

I am Nicole Steils, a research student at Coventry University.

My PhD project focuses on the impact of learning and teaching in immersive virtual worlds (such as *Second Life*) on learner and teacher identity. The aim of the study is to investigate in how people view their virtual identity and to contrast this with their views on real identities.

The project is externally funded by the Leverhulme Trust. More information can be found at: <http://cuba.coventry.ac.uk/leverhulme/>

Why do I approach you and what are the possible benefits of taking part?

Because I need to recruit a large number of adult participants, who experience learning or teaching in an immersive virtual world by using a unique avatar in Higher Education in the UK.

This study offers an opportunity to think about your identity as a student in a virtual world for education, and, following from this, in the real world.

What will happen to you if you take part?

I ask you to be a participant in an observation of the module you have enrolled on. During the observation I will focus on your experiences being a student in a virtual world and emotional aspects emerging out of these experiences. I hope I will find you open to share your experiences by using and creating your avatar and our experiences using it for educational purposes.

You will not be tested about your knowledge of virtual worlds. There are no right or wrong performances regarding this research, and no tricks. Collected data will only inform the research project, they will not influence the content or result of the module. Data will also not be given to the tutor of the module.

I may also approach you in a next step to ask you whether you are interested in taking part in the study in a more in-depth form by participating in a follow-up interview or focus group.

What are the possible disadvantages and risks of taking part?

I might get in contact with you during the observation - if that is possible and not intervening the learning process of the module. Please note that you can always refuse this if you wish. I might ask some personal questions. This is deliberate as I am interested in feelings and emotions that people have being in a virtual world. If you feel uncomfortable or unsure how to answer, please note that there is no right or wrong answer, and you can always refuse to give an answer if you wish.

If the observation causes further confusion or distress, I would suggest talking to the professional counselling service at your university.

Will your taking part in this study be kept confidential?

Yes. All data will be fully anonymised. Additionally, raw data will be stored secured and with no access from third parties. Raw data will be destroyed after I have successfully completed my PhD. All the consent forms will be stored in a separate, secure (locked) location from the raw data itself. You will only be identified on the score sheet by your participant code number.

Do you have to take part?

No. Participation is entirely voluntary. If you choose not to take part, I will pay no attention to you during the module and no data will be taken regarding your person or performance.

If you change your mind about taking part in the study, you can withdraw at any point until data are published, at least for up to 2 months after the conclusion of the session. If you decide to withdraw all your data will be destroyed and will not be used in the study.

What will happen to the results of the research study?

The results will be written up and presented as part of my PhD thesis. The results may also be presented at academic conferences and / or written up for publication in academic journals.

Who has reviewed the study?

This study has been through the University Peer Review process and been approved by the Chair of UARC/RDS-C.

Making a complaint

If you take part and are unhappy with any aspect of this research then you should contact the Principal Investigator above in the first instance. If you still have concerns and wish to make a formal complaint about the conduct of the research then you should write to:

Professor Ian M. Marshall, Pro-Vice-Chancellor (Research)
Coventry University, Priory Street, Coventry, CV1 5FB

In your letter, please provide as much detail about the research as possible, the name of the researcher and indicate in detail the nature of your complaint.

Contact for further information

Nicole Steils
Learning Innovation ARG, Coventry University
Enterprise Centre, Puma Way, Coventry, CV1 2TT
E-mail: [REDACTED]
mobile: [REDACTED]

The Director of Studies is
Prof. Maggi Savin-Baden,
who can be contacted through:
E-mail: [REDACTED]

The Consent Statement

Participant Reference Code: _____

I have read and understand the attached participant information sheet. By signing below I consent to participate in this study. I understand that I have the right to withdraw from the study without giving a reason at any time during the study itself. I understand that I also have the right to change my mind about participating in the study until the data have been published, at least for up to 2 months after the conclusion of session.

Participant's Signature	Print Name	Date
_____	_____	_____
Researcher's Signature	Print Name	Date
_____	<u>Nicole Steils</u>	_____
Signature of Witness	Print Name	Date
_____	_____	_____

I give informed consent to be approached again for follow-up interviews or focus groups by giving my E-mail address. I understand that the E-mail address will only be used for matters of this research and will not in any case be given to any third party.

My E-mail address _____

Example of interview schedule (possible themes/prompts/questions)

Informed consent form
Information Recorder
Questions

To start with

Why module on Second Life? / follow-up module?
What course do you study? Why?
What are your aims with the study?

Background information

Age, Origin, tell me about yourself, what is important to you?

Module in/about Second Life (virtual worlds)

prompts:

Did you **know** SL before start of the module? (first module)
How **long** are you in Second Life?
Do you know **other virtual worlds**?
(Which? Gaming worlds? Sims?)

What would you **like to learn** about Second Life?
How do you **describe/explain** Second Life to others?

Being a student in Second Life

prompts:

Experiences so far (or in last course)
Do you **enjoy** being in-world?
Any special **situations**/moments? good/uncomfortable (frightened, anxious)

Working in groups? Enjoy it?
Helping each other? Students as teachers?
Role of **tutor**?

You and your Avatar

prompts:

Do you use your **own account** in the module?
Name, special meaning, did you long think about it
What does the **avatar look like**?
Is there something **special** about your avatar? (proud about?)

Did you **change** the appearance since you started?
Tried out **other sex**? **Animals**? Aliens? Why, not?
If you would have total **technology power**, what would avatar look like?
How **important** is it, how your avatar looks like?

Relationship with avatar:

How would you describe the **relationship** to your avatar?
Do you sometimes **think about what your avatar might think about you**?
Do you think, being in-world has changed you personally?

Other worlds, different avatars?

Difficult question: What do you hide about yourself in-world?

Outlook/Future use of Second Life in Education

Would you prefer to use **uniformed avatars** in the classroom? Why/why not?

From your knowledge now, what would you **tell other students** who start with Second Life?

Is there **anything** you would like to add/say that I have not asked about?

Thank you!!!

Debrief

Example of observation notes [slightly edited for reasons of anonymity]

Date/time	general	Students	Individual student	tutor	me/behaviour/ thoughts/feelings	later/comments	categories/possible themes/questions	possible themes/questions
	get in the computer lab, the room is very warm, get myself organised with info sheets and what I want to say, full of students	Lots of students outside room		Tutor not there yet	yes, I am nervous, but it's a good nervousity	Open computer labs are changed into classroom, many interruptions through students who are not aware of this	authority	
	[...]							
		To question of tutor of how many students have been to SL. 2 raise their hands		Tutor gives short introduction to SL: "It's a social networking thing, like facebook but in 3D"		Tutor seems to believe strongly in SL as a medium	Definition of SL	Definition of SL
	Typical computer lab situation, students enter internet on other webpages (e.g. checking emails,						inattention handling interruptions	handling of interruptions
	Technical problems start, most students cannot enter SL because of tech issues with the computers in the lab.	Students try to set up accounts Change PCs/work spaces, because machines do not work		Tutor asks students to go to SL homepage and set up an account Gives Warning that name is the one that will stick 'forever'				
	Chaos at start, lot's of changing places/PCs. No request by tutor to introduce to each other.	Students getting into pairs voluntarily, talking about information on screens		Tutor runs around, trying to dissolve the tech problems		As a tutor you need lots of tech information if PCs do not work - has not anything to do with the software	Design of course: Why no ice-breakers, introduction round? --> How does the tutor see students? Prejudices, hopes,	
	[...]							
		Students start looking up SL on YouTube Giggling starts		Tutor introduces alternative and asks students to look up videos about SL on YouTube			Giggling --> Uncertainty	Handling of uncertainties
		Students look up information about SL on YouTube and other homepages	112 has account and is obviously familiar to SL. Has managed to find a computer that works with his account Flies his avatar	Went straight into SL, no instruction about module so far, handed out module line-out, that was it			Students as teachers Helping others	Students as teachers = teachers as students
	About 5-6 students have access.	3 Girls (...) look around- for help? Seem to be unsure what to do. Start to give out about tech. 112 offers help, girls refuse this help	Amy: student female says, so loud everyone can hear her: "This is rubbish, this is bullshit."			Handling of a new kind of technology	Uncertainty Resistance	Handling of uncertainty
	Everyone shall gather behind and around the tutor to see what he does in SL.	Not all students gather around tutor, some stay behind their desks	112 does not gather, keeps on working/playing with SL. Sits two places beside tutor. 103 very sceptical, unsure look	Tutor gives introduction about SL and explains netiquette issues.	Shall I talk to 103 and ask her around? --> How much shall I intervene/interfere with the tutor and lecture itself.	Unfortunately, there was no time for introduction in reality to each other. If aim of course is to work with each other, work in teams, starting in two weeks, there is no sign for that. Course content is only about building in SL.	Uncertainty Violence	Handling of uncertainty

	About the class: Finally 16 students, 7 girls, 9 guys From observation no one older than 22.			Show s how to change appearance, uses the term "physical appearance" not virtual appearance		Class size changed a lot during the weeks. Some did never show up again, some only for the presentation,	Physical appearance not virtual appearance. Distinction between both?	
		Students start giggling, others knit their brow s		Tutor mentions possibility to use cross-gender avatars, that some people use an avatar of the other sex			Virtual w orlds = jeopardy, danger or chance? Cross gender	
		Students start yaw ning, attention drifts aw ay, start looking around, some look quite bored	112 attracts attention from group, he is still playing on his ow n	Tutor explains on	I feel bored too. Can understand that students miss doing something. It's hard to see smt on the screen w ith so many students around it.	The technology (has) let the tutor down.		
	[...]							
		Students go back to their computers. Do not get into groups, try to w ork things out on their ow n		Tutor asks students to get into groups of 3 or 4 to try things out		No forcing of getting into groups		
	Working situation, silence, you hear tipping and some little laughs.	Students w ork on their ow n	110 gets an avatar w ho has a female character. Student is male. He asks how to change appearance	Tutor gives out ready made avatars to people w ithout accounts so they can w ork out SL				
	The sex chair appears. Keypoint situation	Students look at the chair w ith surprise, annoyment, tell each other to have a look at it on a screen	112 puts a sex chair on the island	Walks around finally says "Who's sex chair is this?" No further report, comment on that	Waiting for a comment by the tutor Did he see it, is he ignoring it? It is clearly testing the tutor	Key situation. Group formation.	Testing the tutor Sex Annoyments	Handling of annoyments to tutor and/or students
	Some students w ork ahead in SL or about SL, another group show s signs of boredom.	Students in middle get familiar w ith environment, tutor w alks around and show s several things. Students on side lines get no attention: 2 girls, 2 boys don't use the	1 girl (= 103) does nothing, looks quite on her ow n, lonely	Tutor assists students in the middle of room, 7 students (5 girls) stay w ithout attention and are not asked w hether they need or w ant any help	Question myself: Shall I intervene? Shall I ask w hether they need help? Have questions?	Ethics	Introduction SL complicated	
	Atmosphere of departure, of w ant to leave the room, of having done anything possible.	101, 102, 103, 105, 106, 107, 113 leave. All had no attention for a long time.	103 still not mixing w ith others	Tutor allow s to leave: Who w ill can leave.	I thank them.			