I looked in the mirror for the first time and saw that

Hey (hey)

I am not my hair

I am not this skin

I am not your expectations, no (hey)

I am not my hair

I am not this skin

I am the soul that lives within

Song excerpt from *I Am Not My Hair* by India Arie from her third studio album,

Testimony: Vol. 1, Life & Relationship.

ATHABASCA UNIVERSITY

IDENTITY IN DIGITAL SPACE: A PHENOMENOLOGICAL STUDY WITH NARRATIVE THERAPY IMPLICATIONS

BY

NATASHA HAMMOND

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Approval of Thesis

The undersigned certify that they have read the thesis entitled

"Identity in Digital Space: A Phenomenological Study with Narrative Therapy Implications"

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In partial fulfillment of the requirements for the degree of

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Dedication

This work is dedicated to my family who provided light and inspiration to persevere, as well as, my participants who shared their stories to make this work possible.

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Abstract

Immersive technology has been used to explore therapeutic strategies, primarily through cognitive-behavioural therapy and exposure-based methods. The aim of this project was to gain insight into the nature of identity in digital space. Five long-term Second Life users participated in a semistructured interview using Skype. A phenomenological analysis was used to determine how long-term Second Life users perceive and describe their experience of their avatar identity over time; and, whether a virtual environment with an avatar feature provides an opportunity for individuals to externalize and experience alternative storylines to influence real life individual identity. Mann's (1994) theory of selfhood was used to conceptualize avatar identity development. *Time*, *relationships*, and *change* emerged as primary themes and provided support for Mann's theory and Yee and Bailenson's (2007) *Proteus Effect*. Sample characteristics and particicipant and researcher biases may have influenced the results. The author discusses the implications for Narrative Therapy.

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Identity in Digital Space: A Phenomenological Study with Narrative Therapy Implications

Chapter I: INTRODUCTION

The use of technology has become an integral part of human communication in everyday life for most people in the modern world. People initiate, develop, and maintain relationships on the internet with others through, for example, social networking sites, blogs, and email. One of the most popular social networking sites is Facebook, which currently hosts approximately 1.31 billion monthly active members (United States; Statistic Brain Research Institute, 2015; Quantcast Corporation, 2015). In Facebook, members share photos, event information, music, videos, and engage in conversation with other members (Facebook, 2015). People join in social interactions through such social media sites using computers and mobile devices. As technology continues to evolve and propose innovative forms of social engagement, the trend to interact through technology will likely continue to rise.

As a rapidly developing medium for human communication, virtual environments (VE) offer the opportunity to expand social engagement. People interact with others in online VEs through massive multiplayer or multiuser online (MMO) games. A few well-known platforms are: World of Warcraft (WoW), Second Life (SL), and Avination. In these games, users create personalized cartoon-like characters termed as avatars that can be modified to individual tastes (e.g., hip size, hair colour, and skin colour) to project the desired persona (Avination Virtual Limited, 2015; Linden Research, Inc., 2016a). Players are able to create and design aspects of their environment, such as furniture, clothing, and weapons, as well as engage with others based on a selection of common

interests. Users of these platforms converse in avatar form with others interested in some level of social interaction for a range of purposes from entertainment to training sessions using immersive 3-dimentional (3D) technology.

Employing facets of the virtual gaming community, researchers have merged virtual reality platforms with cognitive behaviour therapy (CBT) and exposure-based therapeutic strategies to treat mental health concerns such as those related to posttraumatic stress disorder (PTSD), phobias, and body image (Gerardi, Rothbaum, Ressler, Heekin, & Rizzo, 2008; Marco, Perpiñá, & Botella, 2013; Wallach, Safir, & Bar-Zvi, 2009; Yuen, et al., 2013). Participants were typically presented with the opportunity to reconstruct their problematic experiences in a 3D emotionally triggering environment (e.g., combat environment) while simultaneously sharing this experience directly with their counsellor, an advantage that traditional exposure therapy may not afford. Advances in technology development have, therefore, created new opportunities for therapeutic engagement. However, does this opportunity extend to other forms of therapy, such as narrative therapy (NT)? In face-to-face (FTF) settings of NT, a foundational task is to deconstruct the client narrative to determine patterns of dominant problematic stories that have been instrumental in defining client identity (White & Epston, 1990). Within this process, narrative therapists would be interested in uncovering stories that provide alternative perspectives or evidence that would contradict the dominant *problem-saturated story* (narrative). With this interest in mind, the question then becomes: Do VEs support the uncovering of alternative stories and identity development? In other words, is it possible to engage in narrative practice to assist

clients in externalizing their problem outside of their individual identities within an interactive VE?

In the subsequent section, a non-exhaustive overview of the theoretical foundations and key concepts of NT is presented, as well as aspects of learning theory in relation to NT are highlighted and followed by a brief discussion of defining characteristics of avatars and VEs.

Narrative Therapy

Social Constructionism and the Narrative Approach

Narrative therapy is positioned within social constructionism, a postmodern approach that contends that meaning for knowledge and *truth* is socially situated and defined (Gergen, 2001; White & Epston, 1990). According to White & Epston's (1990) interpretation of Foucault, truths refer to constructed narratives that are bestowed a factual status and used to establish norms for people to shape their lives. Constructionism challenges concepts considered to be conventional truths or common knowledge and proposes that such thinking and understanding of experiences are shaped and supported by the larger community or dominant culture, rather than simply representations of universal truths (Gergen, 2000; Gergen, 2001). According to Burr (2003), social constructionism is a means to challenge the notion that knowledge is gained through unbiased observation. Burr claimed that unchallenged conventional knowledge is organized through the dominant cultural lens, which selects knowledge that will be accommodated and assimilated into the larger culture. Therefore, social constructionism is interested in the meaning, categories, and concepts ascribed to the explanation of behaviour by highlighting the notion that assumptions are ever present;

thereby, challenging the perception that knowledge can be gained through unbiased observation. Similarly, cultural mores define and guide acceptable lifestyles; however, mores are often based on assumptions about human behaviour and are not represented uniformly across a given culture or community and may contradict conventional knowledge of other cultures. Therefore, an important aspect of NT involves attending to the influence of common knowledge from the dominant culture in the subjugation of people and their relationships (White & Epston, 1990).

Dominant values and standards are preserved and disseminated through the language of that community (e.g., terminology and tone). Contextual language is defined through an interactive process involving individuals and the community to which that language is situated (White & Epston, 1990). Language is used to construct interpretations and meanings of experiences, which create a subjective *truth* that then, establish the groundwork for individual functioning and identity development (Gergen, 1991; Ramey & Grub, 2009; White & Epston, 1990). Furthermore, contextual language provides a means to socialize individuals into social and moral participation as deemed appropriate by the dominant culture (Cekaite, 2012). Gergen (1991) indicated that individual identity is developed and reconstructed through relationships. He expressed that identity formation has become problematic in recent years with *social saturation* - individuals are increasingly immersed in a multitude of diverse relationships that consequently create incongruence in norms, particularly in relation to appropriate and expected behaviour. According to Gergen, social saturation has given rise to identity dilemmas stemming from unpredictable and contradictory social confirmation of individual identity (e.g., behaviour valued in one culture, but discouraged in another).

When a person's personal narrative is in conflict with the dominant discourse, his or her worldview (i.e., how an individual makes sense of experiences) can be negatively influenced (White & Epston, 1990). For example, sex-trade workers may maintain secrecy and self-blame following a sexual assault due to conflictual understandings about whether their behaviour encouraged the attack. The dominant narrative defines sex-trade workers, who are victims of sexual assault, as deserving of the violence due to their conduct having been measured on moral character, as well as previous risk-taking behaviour (e.g., alcohol consumption and sexual behaviour), also defined by the dominant culture (Beichner & Spohn, 2012). In other words, the stories individuals use to define themselves and their experiences are largely influenced and understood through the lens established by the dominant culture.

Key Concepts of Narrative Therapy

The metaphor. In NT the metaphor represents the stories clients use to describe a selection of personal events or experiences (White & Epston, 1990). It is a reflection of a thinning process and is shaped by the ongoing influence of the dominant narrative. In other words, individuals are unable to keep in the forefront of memory every moment of every experience. Instead, the brain prunes out or attenuates storylines that do not fit with the dominant narrative. As individuals organize and share experiences with others, meaning for these experiences is developed and assimilated into their identities. Bruner (1986) discussed this process on a larger scale through the description of ethnography as a cultural narrative, pruned, and limited in richness by the dominant story of that time; other competing stories may be present, but are attenuated, remotely perceived, and bear minimal influence on the client's principal metaphor. To thicken individual narratives

and provide alternative perceptions, competing, non-dominant discourse requires an opportunity for space and power within the dominant story. Bruner explained this process through the evolution of two dominant discourses of North American Indians: the first was documented reflection of a story of acculturation and the second, an alternate description of genocide and cultural revival. The language chosen to describe a story provides and disseminates meaning and power to preserve the dominant narrative within an individual's identity and worldview. Individuals draw meaning for their experiences from these shallow renditions they tell themselves and have been told by others (Combs & Freedman, 2012). The narrative metaphor offers to expose the dominant (problem) discourse as a collection of thin stories that depict only a snapshot of the individual's lived experiences that are afforded the bulk of influential power.

Power. *Power* refers to an ability to constitute or shape people's lives and relationships as discussed by White & Epston (1990) in relation to Foucault's contributions. Gergen (1991) indicated that decision-making on what constitutes common knowledge (or indisputable truths) is privileged to those in positions to manage and disseminate information (e.g., scientists, politicians, and doctors). They essentially control the systems that sustain their existing positions of power, which perpetuates their realities or truths; therefore, common knowledge is a reflection of the interests of what Gergen termed the *power elite*.

White and Epston (1990) also considered the power imbalance inherent in common knowledge and its suppression of non-dominant stories. Narrative therapists would be interested in discovering and giving voice to the stories denied nurturance within the dominant perspective. Therapists would accomplish this task through the

consideration of clients as experts on their experiences rather than therapists; thereby situating clients in the power position. Narrative therapists would define the therapeutic relationship as a collaborative and equal partnership. To further counteract power imbalances within the therapeutic relationship, the influence of the therapist's perspective would be considered in the process of co-constructing the client's experiences. Consistent self-awareness and self-reflection on behalf of the therapist is a necessary component to foster personal power in clients through the amplification of their preferred stories.

Externalizing the problem. Externalizing the problem refers to the NT counselling technique that encourages clients to interpret their problem as an entity that is external to their identity (White & Epston, 1990). One purpose of this technique is to help clients to be open the possibility that other stories exist outside of the dominant discourse. The process of externalizing involves using language to situate the problem outside of the individual, often accomplished through a labelling of the problem behaviour (e.g., How do the Worries keep you from leaving your home?; Ramey, Tarulli, Frijters, & Fisher, 2009). The aim of the externalizing process is to view the problem as separate from the person (i.e., not an element of personal identity) to minimize potentials for further negative self-conceptions. Influenced by Lev Vygotsky's concepts in child development, White (2007) explained how people make changes through the course of externalizing conversations by way of *scaffolding*, which refers to "progressive and incremental distancing from the known and familiar and from the immediacy of one's own experience" (p.272). By externalizing the problem, the power typically held by the

dominant stories is shared with alternative stories through the scaffolding process, consequently influencing identity formation.

Unique outcomes. To amplify the influence of alternative stories, narrative therapists seek out exceptions or *unique outcomes* (UO), the storylines or experiences that contradict the dominant *problem-saturated stories* (Combs & Freedman, 2012; Gonçalves, Matos, & Santos, 2009; White & Epston, 1990). Gonçalves et al. (2009) viewed UO as moments of opportunity to cultivate alternative or preferred stories based on experiences (e.g., feeling, thoughts, and events) that are not represented within the dominant truth (White & Epston, 1990). These moments are accomplished through a thorough exploration of the pervasiveness of the problem while attending to alternate stories that emerge to then construct a rich new perspective of the person's dominant storyline.

Mapping the influence. In mapping the influence, the therapist engages in *relative-influence* questioning or conversation to determine the influence the problem had over the person and times when the person had power over the problem (White & Epston, 1990). In mapping the influence of workload demands, the therapist may inquire, "Does Workload prevent you from enjoying time spent with your family?" The problem is named or labeled (Workload) to provide it with an identity distinct from the client. In mapping the influence of the person, the therapist focuses the conversation on creating an opportunity for the UO to gain power. For example, "Tell me about a time when Workload did not prevent you from enjoying time with your family." From a social constructionist's perspective, the purpose of mapping the influence of the person is for the therapist and client to collaboratively engage in reconstructing the client's story. This

reconstruction shifts the power from the problem to the individual through the discovery and amplification of alternative stories and externalizations of the problem; the client acknowledges times when he or she exercised personal agency over the problem. The following task for the therapist and client is to engage in a collaborative scaffolding conversation to create distance between the emerging narrative and the problem-saturated narrative (White, 2007). This task assists clients in achieving a sense of personal agency and shapes their identity and worldview. Through collaborative scaffolding, clients are prepared to undertake the steps of responsible action needed to address their concerns. Essentially, through the collaborative process of mapping the problem and scaffolding conversations, clients develop more complex thinking and problem-solving skills.

Learning Theory and Narrative Therapy

Narrative therapy can be used to contrast or compliment other theoretical approaches, such as learning theory. This next section discusses aspects of social learning theory and experiential learning theory in relation to NT.

Theoretical Definitions

Social learning theory. According to Bandura's social learning theory, socially acceptable responses to a given setting are learned "through direct experience or observing the behavior of others" (i.e., modelling; Bandura, 1971, p. 3). In Bandura, Ross, and Ross (1961), subjects exposed to an aggressive role model were more likely to engage in the modelled aggressive behaviour (i.e., physical aggression, verbal aggression, and ignoring behaviour). Dominant discourse rather than gender differences may explain subjects' preference to imitate the male model's behaviour over the female model's behaviour. The VE offers a platform to acknowledge and attenuate power differentials as

it enables clients to essentially become their own role model, through simulations such as those practiced in virtual reality exposure therapy (VRET; see Carlin, Hoffman, & Weghorst, 1997). Virtual environments, therefore, empower individuals to experience and effect influence over their problem discourse, an essential element of NT, by staging opportunity to advance social reasoning abilities through interactive role-play within a safe, empowering, and supportive environment (Mitchell, Parsons, & Leonard, 2007).

Experiential learning. Kolb (1984) defined Experiential learning as a *transaction*, "the process whereby knowledge is created through the transformation of experience" that is "continuously created and recreated, not an independent entity to be acquired or transmitted" (p. 38). In this theory, knowledge is constructed through the four steps outlined in the experiential learning cycle: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Following this cycle, knowledge becomes more powerful when it is co-created with other individuals within a social context such as within an MMO environment (Steinkuehler & Williams, 2006) and corresponds with White's (2007) discussion on NT's process of learning in collaborative scaffolding conversations. In their qualitative study of cognition and learning in MMOs, Steinkuehler and Williams (2006) applied a cognitive ethnographic methodological approach to examine the kinds of social and intellectual activities (transactions) that take place within an MMO, such as "individual and collaborative problem solving, identity construction, apprenticeship, and literacy practices" (p. 888). Based on a snowball sample of 16 participants, the findings from unstructured and semi-structured interviews indicated that social networks created in the VE were comprised of individuals who had diverse worldviews and interacted on a level playing field (i.e., age

was not a factor in deciding how to interact socially). Typical real world structures of hierarchy did not necessarily apply to the MMO arena. Rather, new players were expected to learn the rules of the game through collaborative conversations and behaviour with other players, including rules related to social communication, as well as, earn their rank through gaming experience regardless of age. In this study, reflective observation, abstract conceptualization, and active experimentation were required behaviours for players to maintain collaborative interactions to then gain experience and social status within the gaming community. In essence, learning within an MMO environment was a product of "hands on" practice, as well as the social exchanges with other members participating in the MMO, similar to in-person learning strategies.

Online Environments

Online Counselling

How does learning theory apply to the online counselling environment? Akin to FTF counselling, learning theory is also present within the online counselling with the primary difference being the delivery platform. Online counselling has been defined as "the delivery of therapeutic interventions in cyberspace where the communication between a trained professional counsellor and client(s) is facilitated using computer-mediated communication (CMC) technologies" (Richards & Viganò, 2012, p, 699). Virtual counselling environments enlist the use of both synchronous (chat- or video-based) and asynchronous (email or text-based) communications (Nagel & Anthony, 2011). To assist clients in therapeutic change using asynchronous communication, Murphy and Mitchell (1998) engaged in narrative and solution-focused therapy by email (*therap-e-mail*). These authors indicated that therap-e-mail offers a platform for clients to

externalize their problem through co-constructed written communication that can be reviewed and reflected upon at any time to maintain change or assist in overcoming a problem at a later time.

In a study comparing email therapy and guided self-help with weekly modules and homework assignments, the results demonstrated significant symptom reduction for both forms of therapy; however, the outcomes were slightly more favourable for email therapy (Vernmark et al., 2010). In keeping with Murphy and Mitchell (1998), it may be that the co-constructive nature of email therapy created a slight advantage over forms of self-driven therapy. Another possible explanation for this small difference is the working alliance formed through the individuation of the email therapy. Knaevelsrud and Maercker (2007) noted that high participant ratings of the working alliance and low dropout rates were indicative of strong positive therapeutic relationships in the online environment. Although the working alliance was not measured in the Vernmark et al. (2010) study, other research has demonstrated that a working alliance can be established within an online platform comparable to that established within an FTF environment (Cook & Doyle, 2002). While Cook & Doyle found no significant differences in the working alliance based on the type of communication used (i.e., chat, email, or audio conferencing), those participants who used chat, as well as multiple types of communication reported a better working alliance, albeit not statistically significant. Additionally, scores comparing the working alliance indicators (i.e., task, bond, and goal) for online therapy and FTF were higher for online therapy, with scores for the goal and composite demonstrating significance. In essence research in asynchronous online

therapy supports an effective working alliance in the online environment as a contributing factor in positive therapeutic outcomes.

In a study examining synchronous communication through the investigation of using CBT online therapy with depression, results supported its effectiveness (Kessler et al., 2009). In this randomised controlled trial, 149 participants and 18 therapists exchanged free text from their respective computers, with messages sent and received in real-time (i.e., simultaneously). The intervention comprised of up to ten 55-minute CBT individual online sessions. The results indicated the participants in the intervention group (38%) were more likely to recover than individuals in the waitlist group (24%) at four months, as well as at eight months (42% versus 26%). Furthermore, gains recorded at four months were sustained at the eight-month mark. These authors suggested that online CBT may be magnifying its effect by encouraging reflection on the written rather than spoken word; the full-text transcripts of each session are available to each participant for review, which may serve to externalize or create distance between participants and their experiences of depression. On the other hand, Zabinski, Wilfley, Calfas, Winzelberg, and Taylor (2004) pointed to the increased interactivity of online synchronous communication environments as an influence toward positive change. Furthermore, online synchronous communication is more closely aligned than asynchronous communication to FTF communication. Additionally, participants reported high satisfaction using the real-time communication element. Other research comparing FTF counselling with online asynchronous counselling also obtained similar results (Rochlen, Beretvas, & Zack, 2004). Of interest, in their comparison of FTF communication and asynchronous communication, Murphy et al. (2009) reported stronger satisfaction with

online counselling and suggested that this satisfaction was a reflection of comfort and familiarity with an online platform. In summary virtual counselling has had at least similar positive outcomes compared to FTF counselling in terms of working alliance, client satisfaction, and symptom reduction.

Virtual Environments and Avatars

An avatar is "a digital persona that you can create and customize" as a virtual metaphoric representation of the user (Linden Research, Inc., 2016b, para. 1). Yee and Bailenson (2007) noted that "the avatar is the primary identity cue in online environments" (p. 274). However, not all online environments use avatars but offer other tools to communicate or promote user identities. In a phenomenological study conducted to understand communication within social networking sites (i.e., MySpace) as a component of social identity construction, researchers identified three central themes: a) visual metaphors (e.g., photos and images) were used to promote and affirm connections with others; b) users created a visual narrative of social identities through their posting of photos and images that linked past and present accounts of their social selves; and c) the story that was created and reinforced through the projection of select aspects of the user's self (via visual images and multimedia) became integrated into the user's sense of self (Salimkhan, Manago, & Greenfield, 2010). The act of creating an online identity consisting of select aspects helped to influence the user's identity in terms of the perception of what others see, as well as the user's perception of self; the online-based pruned story influenced the real world story of self.

How an avatar is perceived visually is dependent on the individual perceiver despite efforts of a particular self-projection (Yee & Bailenson, 2007). Neustaedter and

Fedorovskaya (2009) identified four typical categories or domains related to self-presentation: “Realistics, Ideals, Fantasies, and Roleplayers” (p. 98). A user’s self-presentation can be interpreted as a virtual manifestation of his or her self-awareness or, in NT terms, a metaphor for the user’s identity and potentially a glimpse, through characteristic selection and development, into the user’s identity within his or her *preferred story*, a preferred collection of experiences across time that are used to predict future experiences and create meaning in a person’s life (White & Epston, 1990).

In MySpace users communicate through, for example, blog posts, personal profiles, text-based conversations, photos, videos, and music preferences (Viant Technology, 2016). Similar to MySpace, SL offers a collaborative VE in which multiple individuals share the same online environment, while originating in different physical locations (Linden Research, Inc., 2016a). In SL users also have similar communication tools as those offered within MySpace; however, users primarily conduct their communications through avatar to avatar text- or voice-based communications, avatar profiles, SL screenshots, and email (Linden Research, Inc., 2016a; Yuen et al., 2013). Second Life users can determine their avatar appearance characteristics according to a self-concept they wish to project online to other users (Neustaedter & Fedorovskaya, 2009). Users also have the option of making changes to the original selection of avatar characteristics and may choose to do so as they become immersed in the VE (Yuen et al., 2013).

A VE involves more than interacting through chatrooms, blogs, and social networking sites (Gilbert, Murphy, & Ávalos, 2011). A VE is a 3D immersive, graphical environment where people interact with their constructed avatars in communities that

consist of millions of other avatar residents. Virtual environments are chosen by the user from a selection of settings or locations already created (e.g., beaches, cities, and combat communities; Yuen et al., 2013). In SL, the most popular communities are those labelled as Adult or Moderate for content (Au, 2014). Social VEs involve the possibility for users to purchase virtual vehicles, clothing, real estate, weapons, and an assortment of other lifelike and fantasy items (Linden Research, Inc., 2016a). In SL, users manoeuvre through VEs using their custom created avatar to, for example, interact with others, build structures, and engage in relationships (Jerry, 2011; Linden Research, Inc., 2016a). When setting up an account, users are required to choose from a variety of predesigned avatars (people, vampires, or classic), then choose a name that will represent the selected avatar. Brief information is also requested (e.g., birthdate and email address) to activate the free account and download the SL viewer. Once logged in, users can make changes to their avatars and explore the SL environment. Interestingly, individuals in SL are referred to as users or residents, whereas MMOs like WoW use the word players (Blizzard Entertainment, 2015; Jerry, 2011; Linden Research, Inc., 2016a). This use of language highlights the divergent intentions or purpose of the platforms: one as a game, the other as a social community. Steinkuehler and Williams (2006) commented that deeply affectionate relationships were uncommon in the MMO used in their study and attributed this finding to the light nature of this VE and the geographical dispersion of the players (Steinkuehler & Williams, 2006). It is also possible that the gaming intention of their MMO did not lend itself to deeper connections as players were required to determine strategies of attack on other players.

Although MMOs may not be optimal for establishing such relationships, an environment such as SL may offer a platform more suitable due to being a smaller virtual world in comparison to MMOs. In SL, users are potentially able to reconnect more frequently with the same users, enabling bonding. Additionally, SL uses more human characteristics for its avatars in comparison to MMOs like WoW (Blizzard Entertainment, 2015; Linden Research, Inc., 2016a). Furthermore, the lifelike avatar customizations and interactions may enable users to express their emotions in a manner that effectively reflects their feelings, facilitates connections, and permits and encourages users to construct meaningful environments and situations similar to those available in real settings.

In the next section, a literature review is presented. Relevant, albeit not exhaustive, literature is analyzed, synthesized, and critiqued in relation to previous use of immersive VEs as an integral therapeutic component, a supportive learning environment, and a potential NT workspace. Conceivable limitations and ethical considerations are also discussed.

Chapter II: LITERATURE REVIEW

Early research in the field of technology and human interaction began with the use of chatbots or computer programs designed to follow a conversational structure and demonstrate human-like qualities similar to those present in FTF interactions (e.g. nod; Cassell, 2000; Heller, Procter, Mah, Jewell, & Cheung, 2005). These conversational agents, however, were not designed for psychotherapy use. Rather, the purpose of conversational agents was an "attempt to design a computer that could hold up its end of the conversation with a human user" (Cassell, 2000, p. 70). An early example of this attempt was the ELIZA program, a conversational agent programmed to interact as a Rogerian psychotherapist through text messaging (Weizenbaum, 1966). These developments progressed to research involving VEs and psychotherapy.

Therapeutic Use of Virtual Environments

Research on therapeutic strategies with VEs is typically treatment-based, education-based, or a combination of both. Studies involving therapeutic practices in interactive VEs have addressed concerns related to, but not limited to, anxiety disorders (Maskey, Lowry, Rodgers, McConachie, and Parr, 2014; Repetto & Riva, 2011; Wallach et al., 2009; Yuen et al., 2013), trauma- and stressor-related disorders (Gerardi et al., 2008), eating disorders (Marco et al., 2013; Riva, 2011), depressive disorders (discussed earlier; Kessler et al., 2009), and neurodevelopmental disorders (Maskey et al., 2014; Mitchell et al., 2007).

Anxiety disorders. Early studies using therapeutic VEs demonstrated positive outcomes in the treatment of anxiety disorders, including those related to social anxiety disorder and phobias using exposure therapeutic techniques (Carlin et al., 1997;

Rothbaum & Hodges, 1999). Traditional FTF exposure therapy techniques typically involved gradually and safely exposing an individual to situations or artefacts representative of the original trauma to eventually reduce the symptoms associated with the traumatic experience (Rothbaum & Schwartz, 2002). According to emotional processing theory, a therapeutic environment must elicit a *sense of presence* for the individual's fear structure to be sufficiently activated (Foa & Kozak, 1986; Hodges et al., 1995; Rothbaum & Schwartz, 2002). Hodges et al. (1995) defined a sense of presence as the degree to which subjects felt they were actually present in situations taking place within the VE. To measure presence, subjects in Hodges et al. initially indicated high anxiety, but reported a decrease in subjective units of discomfort (SUD) ratings related to anxiety toward heights as habituation occurred. Rothbaum and Hodges (1999) discussed the potential use for VRET with a variety of disorders but noted that a sense of presence (or immersion into the VE) as an essential ingredient for effective exposure therapy.

Carlin et al. (1997) also utilized exposure techniques in an early study involving VEs and demonstrated successful outcomes through a reduction in SUD ratings for the treatment of arachnophobia. In this study, the participant's fear structure was effectively activated through the visual of spiders in the VE, as well as the tactile stimulation of touching artificial fur glued to a toy spider. Yuen et al. (2013) reported positive outcomes in the treatment of social anxiety disorder (SAD) using acceptance-based behaviour therapy (ABBT) on a private virtual island in SL. To assist in coping with anxiety, the ABBT approach combines exposure techniques with principles of psychological acceptance. In this study, participants were provided a training session on how to create and navigate with their avatars and a psycho-education component about

social anxiety disorder. Therapists and participants met for 12 individual therapy sessions in a private virtual room and communicated through headsets and typed messages. Results indicated a decrease in social anxiety measures from pre-treatment to follow-up with most participants (n=8, 57%) no longer meeting the criteria for a DSM-IV diagnosis. Additionally, while some participants and therapists found the lack of human components (e.g., seeing the face of the therapist and observing nonverbal communication) to be an uncomfortable aspect, most reported this treatment modality as acceptable, feasible, and easy to learn despite some technical difficulties.

The pattern emerging from these studies appears to demonstrate therapeutic success with the support of VE *in vivo* exposure through a sense of presence for the participants. However, an alternative explanation for their results is possible through narrative theory as proposed by White and Epston (1990). It could be argued that through the process of experiencing ongoing manageable levels of fear in the VE encouraged participants to practice externalizing their lived experiences. Consequently, the meaning participants attributed to the exposures changed creating UOs (Gonçalves et al., 2009). Additionally, when participants were asked to reflect on their level of discomfort every five minutes in each of these studies, researchers could have been unintentionally eliciting feedback incongruent with participants' dominant stories of intense fear of the stimuli. Nevertheless, early studies assisted in laying the foundation for subsequent research to explore various psychological concerns within a VE.

Posttraumatic stress disorder. Several authors have investigated trauma- and stress-related disorders in VEs with military service personnel also using exposure-based therapeutic techniques (Gerardi, et al., 2008; McLay, McBrien, Wiederhold, &

Wiederhold, 2010; Ready, Gerardi, Backscheider, Mascaro, & Rothbaum, 2010; Rizzo et al., 2007; Rothbaum, Rizzo, & Difede, 2010). Similar to Rothbaum & Hodges (1999), Rizzo et al. (2007) indicated that sufficient triggering by multimodal stimuli would support an immersive experience for participants who have experienced combat-related PTSD. The results in Gerardi et al. (2008) demonstrated clinically and statistically significant decreases in the client's pretreatment and posttreatment assessments of PTSD (Clinician-Administered PTSD Scale decreased 56%, $p < .05$; Symptom Scale-Self Report decreased 25 points, $p < .01$) adding further support for a VE to create an immersive experience (sense of presence) for participants. Notably, the participant in Gerardi et al. indicated that through this process, he was able to recall other scenarios regarding his war experiences, he was previously unable to remember; consequently, thickening his narrative to thereby "facilitate integration and emotional processing of the experience" (p. 211). The participant's narrative became thicker over the course of therapy as he accommodated silenced storylines, "the recounted story evolved into a flowing and cohesive narrative over time, with access to new details" (p. 211).

A similar study by McLay et al. (2010) is also noteworthy as it utilized VRET to address combat-related PTSD in an active combat area. This case series study compared the effectiveness of VRET with active-duty patients compared to traditional FTF ET. The results indicated no differences between the VRET and the FTF ET (i.e., all patients improved in their PTSD symptoms). Although limited inferences can be drawn due to the lack of research protocol, small sample size, and the descriptive nature of the study, these results highlighted similar therapeutic progress in both platforms. Based on these results, a follow-up study was conducted using a small randomized trial comparing VR-

graded exposure therapy to a control group of treatment as usual (TAU; McLay et al., 2011). Results indicated that participants in the VR group demonstrated a clinically and statically significant greater reduction in their PTSD symptoms over those participants in the TAU group. In another study using a meta-analysis to compare the efficacy of VRET in conjunction with a behavioural framework or a cognitive-behavioural framework, researchers found that in terms of anxiety disorders, both interventions when incorporating VRET demonstrated better outcomes than the waitlist control groups and similar results to the classical evidence-based interventions without VRET (Opris et al., 2012). By and large, studies investigating the use of VEs with trauma have typically explored PTSD using exposure therapy with military personnel and have indicated positive outcomes for participants. Although there has been a recent exploration of CBT and VRET for the treatment of PSTD symptoms with adult motor vehicle accident victims (Freedman, Dayan, Kimelman, Weissman, & Eitan, 2015), minimal acknowledgement continues to be given to the role of researcher/therapist-participant conversations on the change process.

Obesity and eating disorders. Research addressing disordered eating and body image in VEs has been increasing in recent years. One study compared online CBT group therapy with traditional FTF CBT group therapy to address body image and eating problems in adult women (Paxton, McLean, Gollings, Faulkner, & Wertheim, 2007). Similar to other research, results for the online group were comparable to the FTF group; both groups achieved improvements in body dissatisfaction, avoidant behavioural tendencies, body comparisons, and internalizations of the ideal thin body image. Interestingly, the FTF group demonstrated more improvement at posttest; however, this

advantage subsided by the six-month follow-up where the effects were equivalent for both groups. These authors commented on the confusion of synchronous communication for the online group format; some member experienced difficulty in following or maintaining a cohesive conversation without the added visual component found in VEs.

Riva (2011) explored the idea of obesity and eating disorders within a VE utilizing allocentric lock theory. This theoretical perspective proposes that individuals with disordered eating are "locked to an allocentric (observer view) negative body image of their body" regardless of changes to their appearance (p. 284). In other words, individuals who perceive themselves as overweight will continue to do so despite visible weight loss. Riva reasoned that culture creates a lens that provides feedback about our body based on measurements in relation to appearance rather than performance; an individual's body image is influenced by internal (e.g., stress mechanisms and cognitive processes) and external sources (e.g., social influences of media and culture) that reinforce this lens. Within an NT perspective, these sources would be understood as a means for the dominant stories to retain power and would require deconstruction to reveal the underlying assumptions and beliefs supporting the negative body image (White & Epston, 1990). In this study, however, Riva (2011) proposed an experiential cognitive, client-centred therapeutic approach, with clients taught to notice their thinking errors and make substitutions toward desired perceptions and alternative interpretations. Using the same experiential cognitive approach, Riva, Gaggioli, and Dakanalis (2013) proposed that the allocentric negative body image posed by Riva (2011) could also be extended to individuals experiencing body dissatisfaction, unhealthy weight-management behaviours, and obesity.

Marco et al. (2013) addressed some aspects of Riva' s (2011) proposal by investigating whether using CBT with an added VE treatment component on body image for eating disorders would demonstrate better outcomes than CBT alone. The virtual reality component consisted of the use of Sense8's WorldUp software (3D real-time interactive application) on a desktop PC and a head-mounted display with a 2-dimentional mouse. Participants entered five VEs, each with a therapeutic objective. For example, in the mirror area, the aim was to evaluate the participant's body image based on discrepancy indexes between the participant's real body appearance and her body image. The participant manipulated a 3D human figure until it matched her perception of her body image. In the mirror, the participant's real body appears. The objective was for the participant to overlap the 3D image and real image and make corrections to the 3D image until it matched. The VE provided a platform to challenge the observer view (Riva, 2011) as the participants interacted in making changes to their body image through exposure to the discrepancy in the mirror. Similar to the other studies using VEs, all participants improved regardless of treatment condition. However, the participants with the added VE component demonstrated more improvement than those in the standard CBT treatment group in terms of body image, body attitudes, body satisfaction, and discomfort caused by body-related situations; of note is that those participants with the VE component received more sessions of therapy that the other group. Comparable to other studies using VEs, the sample sizes were small, which limits the inferences that can be made. In a study using a larger sample, researchers used a CBT approach to evaluate the effect of specific and contextual food-related cues on participants with eating disorders (Ferrer-Garcia, Gutierrez-Maldonado, Treasure, & Vilalta-Abella, 2015).

Participants wore polarized glasses and noise-cancelling earphones to facilitate immersion while interacting in avatar form in the VE. The results indicated that participants experienced higher craving to the presentation of desirable food choices and lower craving for less desirable foods. The context (i.e., private versus public eating areas) was also explored, but was not found to have a significant influence on cravings. Although social influences were considered in terms of impact on thinking patterns, attention was not paid to the influence of cultural or dominant discourse on participant stories in either of these studies.

Neurodevelopmental disorders. To teach social skills, Mitchell et al. (2007) used role-play within a VE café to scaffold social learning for seven adolescents with Autistic Spectrum Disorders (ASD). Superscape Virtual Reality Toolkit™ and Visual™ software was installed onto a laptop computer and used to develop the virtual café. Participants navigated through the VE using a joystick and mouse; no headset was required. To facilitate conversation regarding social decision-making, the researcher/facilitator sat beside each participant who worked individually as the tasks were completed. Results indicated significant gains toward the acquisition and generalization of social skills to real life (RL) settings. The purpose of using a VE in this study was to support the participants' use of "imagination and problem solving in a realistic environment and [encourage] the participants to experience and discuss social situations" (pp. 590-591). Although not all participants demonstrated social skill advancement on all of the tasks, use of the VE empowered participants to learn about social exchanges Furthermore, scaffolding the sessions based on the participant's individual needs (i.e., limit and increase the amount of distractors based on participant

feedback) generated opportunities for participants to consider alternate ways of being in triggering settings. Whether participant success can be attributed to the learning that occurred within the VE or to the conversations co-constructed between the facilitator and each participant while in the VE is difficult to determine based on the design of this study. Additionally, due to ethical constraints, access to details about each participant's diagnosis was not provided to the researchers; therefore, caution must be taken in making claims from the results. It is also possible that through the teacher-participant conversations, new possibilities of how to manage stressful situations emerged and created threads toward a story of power for the participant.

Maskey et al. (2014) investigated specific fears and phobias using a VRET with a small sample size of nine verbally fluent boys with ASD. In this study, Blue Room from Third Eye Technologies was used to create the immersive 3D environment and increase participants' sense of presence. In the Blue Room, "audio visual images [were] projected onto the walls and ceilings of a 360 degree seamless screened room" and did not require the participant use of a headset or joystick (p. 2). The therapist controlled the virtual scene using an iPad controller based on participant feedback, a co-facilitated process. Similar to Mitchell et al. (2007), the therapist/facilitator sat beside each participant while the tasks were individually completed. Results indicated that participants generalized their learnings from the VE to RL situations. Interestingly, in both Mitchell et al. (2007) and Maskey et al. (2014), participants with substantial initial emotional distress were unable to experience therapeutic success in their VEs. It is possible that individuals with high initial levels of emotion, not just high initial levels of anxiety as Maskey et al. pointed out, may experience interference with the effectiveness of VE treatments.

This group of studies explored strategies to reduce symptoms related to a particular diagnosis with the support of VEs. The VEs assisted in reflecting aspects of participants' narratives necessary for facilitating immersion and influencing the change process. According to Witmer and Singer (1998), the benefit to therapeutic outcomes lies in the sense of presence and immersion developed in the VE; the more immersed the participant, the better the outcomes. These authors argued that a sense of presence is predicated on the ability of the user to experience continuity, connectedness, and coherence of the VE characteristics to be perceived as a whole. A user's degree of immersion is dependent upon the user's sense of existence as separate from their physical environment. This experience is influenced by how well the VE activities attract and maintain the user's attentional resources. Participating in FTF therapy using avatars in a VR may provide added human-like ingredients to enhance client comfort and provide nonverbal cues, where other forms of VR therapy have lacked (e.g., VRET; Yuen et al., 2013). Identifying how individuals understand their presenting concerns (e.g., PTSD symptoms), has not been thoroughly explored in research regarding 3D immersive environments. The current research is, therefore, interested in determining whether the 3D environment is conducive to client expression of personal meaning through avatar FTF interactions.

Narrative Therapy Considerations in the Virtual World

The working alliance in psychotherapy is a major factor in the change process irrespective of the counsellor's theoretical orientation (Bordin, 1979). Bohart and Tallman (1999) indicated that the counsellor is responsible for providing an interactive environment that fosters a supportive, safe, and engaging relationship; an *empathic*

workspace, which encourages clients to explore their concerns. These authors also noted the importance of a guided, co-created dialogue and the opportunity to be creative within the therapeutic techniques. Narrative therapists consider these factors by situating the client as the expert on lived experiences within a collaborative relationship (White & Epston, 1990). A VE offers new ways to build collaborative therapeutic relationships whereby clients can provide a detailed visual expression of their lived experiences for the therapist to also witness, visualize, and gain deeper insight into their dominant narratives. Within a VE, clients are able to relive meaningful experiences - rather than simply express a verbal rendition of abstract information - while experiencing support from the counsellor in both the real and virtual worlds (Gorini, Gaggioli, Vigna, & Riva , 2008).

In one study, a narrative analysis was carried out about how older people with Down's syndrome who lived in institutional settings talked about themselves. Researchers found as the interviews progressed, the participants engaged in deeper reflexivity about their past, present, and future lives; the narrative accounts, however, still "varied in their structure, coherence and reflexive capacity" (Brown, Dodd, & Vetere, 2009, p. 5). The researchers suggested this variance might be due in part to insufficient narrative skill development. It was also thought some participants may have preferred a different coping strategy, such as repression. Through the process of co-constructing a preferred story in a VE, clients would be encouraged by the counsellor to talk about themselves and their experiences as would be done in traditional NT; however, they have the added potential advantage of a visual strategy in recreating them. Furthermore, learning within a VE can provide clients an opportunity to witness themselves behaving in ways that support their preferred discourse, thereby transforming the problem-

saturated story into a story of success; thereby, shifting the relationship clients have with their problem (White & Epston, 1990). Although originating from the gaming industry, the use of avatars within interactive VEs has the potential to become a 3D metaphoric tool for use within a variety of RL therapeutic approaches, including NT, as a means of supporting client mental health in a contemporary and creative manner.

Limitations and Ethical Considerations

Research on the use of therapy within a VE has been presented here; however, consideration must be granted to the risk, value, and ethics of conducting therapy with this platform. In a case analysis, Allison, von Wahlde, Shockley, and Gabbard (2006) evaluated an adult male's concern with his obsession and potential addiction with WoW. These writers indicated that because these kinds of games run in real time, players are at risk of substituting RL social interactions for virtual social experiences that do not necessarily offer the same level of depth as does an in-person human connection.

Although smaller virtual worlds (e.g., SL) may be more conducive to deeper connections, therapists should be mindful of the potential for internet addiction and value in FTF interactions, as well as other potential risks associated with online therapy. According to the American Psychological Association (APA) delivery of services via internet would be subject to "Standard 1.04c, Boundaries of Competence, which indicates that 'In those emerging areas in which generally recognized standards for preparatory training do not yet exist, psychologists nevertheless take reasonable steps to ensure the competence of their work and to protect patients, clients, students, research participants, and others from harm'" (APA, 2013, para 3). With respect to the Canadian Psychological Association (CPA), draft guidelines have been developed that reflect a

perspective similar to the APA, as well as encompass all of the Principles outlined in the CPA *Code of Ethics for Psychologists* (CPA, 2006). Essentially, therapists would be expected to obtain adequate, relevant training prior to implementation of a therapeutic approach involving VE.

Therapists would also need to be prepared to coach their clients on how to interact within a VE in an efficient manner to prevent them from prematurely ending therapy; manoeuvring in this new environment may be difficult for some to learn. Clients who struggle to grasp the VE concept may experience an increased sense of powerlessness and frustration, in addition to, their therapeutic concerns (Maskey et al., 2014; Mitchell et al., 2007). Furthermore, counsellors should be knowledgeable about the lack of guarantee of anonymity and limits to confidentiality in a multiuser VE (Gorini et al., 2008). However, applying elements of NT, clients have the opportunity to create a context that limits aspects of their dominant discourse, which can be distracting in RL settings and impact the change process. Providing this type of learning environment may also encourage clients to reconstruct and create alternative stories to the dominant discourse in a safe, empowering environment.

Chapter III – THEORETICAL FRAMEWORK

Theory of the Self: Mann's Theory

In his theory of the self, Mann (1994) used his clinical insights as a psychiatrist to explore theories of psychoanalysis and science (i.e., metaphysics and physics) and proposed that any state of the self could be understood as a change in reflexivity. He placed significant attention on the unconscious mind, which he believed to exist at the "core of the self" (p. 85). For Mann, the core represented the intersection of *reflexivity*, *embodiment*, and *time*. He defined the concept of reflexivity as consisting of the interchange between a person's level of consciousness and his or her perception and understanding, "The self is its own observer, simultaneously I and Me, subject and object, to *itself* as well as to others" and highlighted this quality as being at the heart of selfhood (p. 31). How a person relates to others and the environment, as well as how a person understands experiences using a self-reflective process are fundamental intermingling aspects that define reflexivity (Jerry and Tavares-Jones, 2012). In other words, reflexivity involves considering and adjusting to (re)construct a personal understanding of experiences, which can change how a person interacts within an environment.

Mann (1994) described embodiment as "the 'somatomorphism' of self experience" (p. 34). He further defined embodiment as the subjective and objective aspects of the self that express people's understandings and feelings about their experiences through their physical existence, "It is an envelope of consciousness, an amalgam of shape, sense and emotion, bounded by separateness" (p. 35). Jerry and Tavares-Jones (2012) further clarified this meaning as "the ability for humans to

understand and develop their own experiences and limits to their physical existence" (p. 126).

Finally, Mann (1994) explained time as "lived time," and characterized it as a function of inward states or moods rather than by clock time (p. 36). Within this definition, time consisted of a past, present, and a future through the concepts of memories and intentions and was considered unique to each person. According to Mann, these three irreducible and interconnected dimensions constitute the foundational features of the self.

Jerry and Tavares-Jones (2012) considered Mann's (1994) theory of the self in their ethnographic study of individuals whom the avatar had become a virtual embodiment of their RL identities. These authors approached the crossing of identity and avatar through Mann's theory of the self and found that embodiment required significant time and experience for an avatar to develop a sense of self that was an extension of the user's real-life identity. Jerry and Tavares-Jones (2012) also noted that avatars represented a virtual embodiment of the user's real-life identity and that avatars reiterated the user's application of a theory of mind about how to respond or relate in particular situations. Furthermore, the authors discovered that users developed a personality of sorts over time that was predictable and representative of the avatar selfhood, even when users resumed interactions after a period of time had elapsed. Finally, users decided on modifications to their avatars through a reflective process based on what they had learned and how they wanted to be understood by others in future interactions. Based on these findings, Mann's model will serve as a theoretical understanding of how people construct their realities in a virtual space over time.

Summary

Research on VEs and therapy has primarily focused on the use of CBT and VRET interventions; although, researchers have begun to explore a variety of psychological concerns. Throughout the literature presented, arguments have been made for the possibilities of NT practices; however, research has not yet explored NT within a VE. A VE offers new ways to build collaborative therapeutic relationships whereby clients have the opportunity to provide a detailed visual expression of their preferred stories, develop insight into their dominant narratives, and influence their identity. Past research demonstrated that within a VE, clients are able to construct and relive meaningful experiences through a collaborative learning process, rather than simply express a verbal rendition of abstract information (Gorini et al., 2008). A VE offers a platform for synergistic relationships to develop through the use of three forms of communication: visual, auditory, and textual, as a means of relating to past, present, and future experiences in identity formation (Mann, 1994). This potential creates space for clients to amend the stories that have historically defined their lives through the opportunity of living multiple versions of the self, real and avatar. In a VE individuals have the opportunity to limit and manipulate the influence of the dominant values and discourse by connecting with others through the lens of a preferred story thereby making room for other versions of lived experience to define the client's identity and worldview. However, as Keelan et al. (2015) discovered, new members experienced frustration, awkwardness, and difficulty navigating and communicating; experienced members were able to use the advanced communication features, customize their avatars, and were more comfortable in their social interactions. The aim of this study is to gain insight into the

nature of identity in digital space and what this could mean for a future for NT in this platform. In particular how do long-term SL users perceive and describe their experience of their SL avatar identity over time? Does a VE with an avatar feature provide an opportunity for individuals to externalize and experience alternate storylines to influence RL individual identity? What are the implications for NT in SL?

Research Questions

1. How do long-term SL users perceive and describe their experience of their SL avatar identity over time?
2. Does a VE with an avatar feature provide an opportunity for individuals to externalize and experience alternate storylines to influence RL individual identity?
3. What are the implications for NT in a VE?

Chapter IV: METHODS

This chapter begins with the identification of the underlying assumptions of this research project. A rationale is then provided to explain the purpose of using a qualitative research process, in particular, the phenomenological design, as it is an effective way to address the research questions. A discussion of the limitations of this design will follow, along with a description of the methodology and procedures.

Rationale for a Phenomenological Qualitative Methodology

The purpose of this study was to understand the nature of identity in a digital space. To address the research questions, a qualitative approach was chosen to gain insight and understanding into the meaning people derive from their experiences in virtual environments. A qualitative approach is defined as an investigative procedure that "begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2013, p. 44). In this study, there were assumptions about the creation of meaning and knowledge that were represented through social constructionism and postmodern theoretical perspectives. These assumptions are discussed in more detail in the following section (see *Assumptions*). Peshkin (1993) identified four intersected categories of outcomes as a means to understand the purpose of a qualitative inquiry: description, interpretation, verification, and evaluation. This research explored participant descriptions of their SL experiences over time to gain insight into SL identity development.

A phenomenological methodology analyzes an experiential account through the researcher's bracketing of beliefs and opinions; an openness to the phenomena as

expressed by participants; analyzing the data through patterns and themes that represent significant statements of meaning about the phenomena; and, a description of the phenomena (Creswell, 2013; Moustakas, 1994). Focus is on the influences of the people, themselves, as well as other environment factors (e.g., culture). Phenomenology supports engagement with participants to understand their experiences from their perspective. This approach aligns well with the elements of narrative therapy, which also embraces, a social constructionism and postmodern approaches. Additionally, a phenomenological method was chosen as this was an area lacking in the research may and could expand on the existing body of knowledge on the use of VEs for therapeutic purposes, as well as generate opportunity for exploration of narrative therapeutic practices within VEs.

Assumptions

Several assumptions influenced and directed this project. Within social constructionism and postmodern theoretical perspectives, the creation of meaning and knowledge is socially situated (Gergen, 2000, 2001), co-created, and politically located (Creswell, 2013). To gain insight into meaning, language is required to be broken down into smaller units to determine what factors are influential in the creation of such meaning. This concept is also represented within a narrative perspective. Narratives are storied by individuals and/or by others about those individuals from whom meaning is socially derived and applied to future situations (White & Epston, 1990). Individuals experience problems when their narratives do not sufficiently represent their lived experiences; and, lived experiences contradict the dominant narratives. Only a selection of lived experiences is represented in an individual's dominant narrative. The remainder of experiences are pruned out or attenuated based on the influence of individuals, others,

contexts, and dominant cultural discourses. These assumptions guided the research as to what is accepted as true.

Procedure

Participants

Murphy et al. (2009) discussed comfort and familiarity with an online (email therapy) platform as an element worth consideration in client satisfaction. Similarly, Keelan et al. (2015) noted that their less experienced SL users had difficulty performing basic actions such as communication and moving around (e.g., walking) and resulted in "frequently excusing themselves for their odd behaviours" (p. 6); whereas, experienced users were better prepared in terms of interaction, communication, keyboard commands, and social rules (Ward, 2010). The older the avatar, the more integrated the user is in this VE, and the more likely the user will have a sense of "homeness" or "everydayness" in this platform. It was my assumption that experienced SL users would also have a more developed avatar identity due to their ability to be more accurately self-expressive and less distracted by the learning curve of the platform. Therefore, this study employed a purposive sample of long-term users (i.e., a minimum of 2000 days old) who interact intuitively in SL and are able to communicate verbally and textually in English. Finally, to achieve data saturation, Dukes (1984) recommended between one and ten participants. Dukes indicated that "there is always the danger of either seeing what we want to see…or falling prey to the contingent facts of a particular case" (p. 200). This study achieved data saturation through enough experiential examples from 5 participants.

Data Collection

Participant recruitment occurred in September 2016 and consisted of emailing 6 previously identified individuals known by the project supervisor to have at least 2000 days of SL experience. These individuals were invited to participate in a study about experiences and identity of long-term SL users in virtual spaces and were also asked to extend their invitations to other long-term SL users (See Appendix A). Six individuals responded through email to the invitation and were provided a Survey Monkey link in order to obtain their informed consent (See Appendix B). Although 6 individuals provided their consent to participate, only 5 could be reached to complete the interview. These 5 participants consisted of 3 female and 2 male participants. All participants were provided a link to complete a brief demographic survey through Survey Monkey. Four participants completed the demographic survey and ranged in age from approximately 45 to 74 years in RL and a minimum of 3300 days in SL. In this survey RL ages were presented in 10-year age ranges (e.g,. 45-54 and 55-64) and qualifying participants were required to have at least 2000 days in SL. All participants identified themselves as married with one participant noting having children under the age of 18 years. Participants described themselves as Australian, Caucasian, White British, and Australian (Caucasian) and reported living in urban or suburban communities. Most participants spent less than $9 per month to maintain their SL account. All participants reported having completed at least college or university level courses. All participants agreed to be audio recorded and to the use of direct quotes from their transcripts in this study.

Participants engaged in a onetime semistructured interview to understand how long-term SL users perceive and describe their experience of their SL avatar identity over

time (See Appendix C). For this interview, participants used Skype, a free software program for use on an individual's phone, computer, or TV with Skype capabilities to speak, see, and instant message other people (Skype, 2015). Two participants used the temporary anonymous Skype accounts provided by the primary investigator, while three of the participants chose to use their personal Skype accounts. The total time requested of the participants was approximately one hour in total. The interviews were audiorecorded using Amolto call recording software for Skype and transcribed using either Scribie or Shalom transcription services. Transcriptions were not saved or stored by either service beyond the transaction timeframe of 30 days. All transcriptions were reviewed by the prime investigator for accuracy. False starts and filler words like 'uhm,' 'ah,' 'I think' were generally omitted from the transcripts for ease of understanding the content of the interview.

Data Analysis

As part of the phenomenological epoché process, I bracketed or acknowledged previous influential experiences by recognizing my stress level, acknowledging the different contributing factors, writing them in my journal, clearing my thoughts, and engaged in strategies to allay my physiological arousal to then be able to focus on and amplify the participants' lived experiences presented through the interview. Van Manen (2014) defined the purpose of epoché and reduction as a process "to open oneself to experience as lived" and free from "theoretical polemical, suppositional, and emotional intoxications" (p. 222). In engaging in the epoché process, Moustakas (1994) stressed a mindfulness practice of acknowledging preconceptions and prejudgments as they enter consciousness and write them out. I participated in this practice occurred at the

beginning of each interview and when analysing the transcripts. In the times that I nervous or rushed prior to the interview, for example, I engaged in deep breathing and attended to the reasons for my feelings and documented them in my journal so that I was better prepared to lessen this impact on the interview process. I also arranged the interviews for times that were not only convenient for the participants, but also for times when interruptions were less likely to occur. When practicing the epoché, Moustakas highlighted the importance of focusing on a specific aspect (i.e., situation, person, or issue) in an environment free from distraction to enhance the researcher's ability to concentrate on his or her experiences regarding the specific aspect under review and set aside his or her biases and prejudgments. When reviewing the transcripts, I also engaged in the epoché process by attending to my emotional and physiological, which minimized the effects of potential factors that would interfere with my ability to fully attend to the various participant experiences within the transcripts.

Moustakas (1994) also pointed to a reduction process where the researcher checks in with participants about their perceptions, feeling, and thoughts as a means of separating out the researcher's experiences from the participants. Throughout the interviews, I reflected and summarized my understanding of the participants' responses to verify an accurate account. I also asked clarifying questions when I was unclear about a particular response. Whereas in the epoché process the aim is to see things as they are natural, free of biases and preconceptions, the reduction process is aimed at describing in textural language the qualities of the participant experience to understand the nature and meaning of the experience. Once the semistructured interviews were completed and transcribed, I read the transcripts in full to achieve an overall understanding of the

participants' experiences. I then input the transcripts into NVivo11 qualitative analysis software and explored the data through word clouds, tree coding, word frequency, and specific word searches. I applied a *Themeing the Data* (Saldaña, 2016) approach through the NVivo11 program, as well as engaged in additional reviews of the full transcripts to identify significant statements (*Horizons*) that give meaning to the nature of identity in a digital space (Moustakas, 1994). These statements were labelled and grouped into themes common to all of the participants' transcripts and organized into a coherent *Textural Description* of the nature of identity in a digital space (Moustakas, 1994, Saldaña, 2016).

Rigour

Methodological rigour was obtained through literature searches to validate the gap in the research on narrative therapy in VEs, bracketing of past experiences, keeping a research journal, and following the phenomenological method (Butler-Kisber, 2010; Moustakas, 1994; Van Manen, 2014). Further trustworthiness was accomplished through analysis of interviews and verification of the integration by some participants. Additionally, only the principal investigator had access to data that included participant identifiers. The principal investigator coded the data to remove identifiers and retained a separate list that linked the participants' code numbers with their actual name so data could be re-linked. The project supervisor only had access to coded data, not the identifying list. While trustworthiness was improved by these strategies, rigour was limited due to the small homogenous sample in this project, which reduced the extent of inferences that can be drawn from the results of this study.

Data Protection and Storage Methods

Data was stored in password protected files. Participant Skype accounts were

deleted upon completion of the initial data analysis and the transcribed interview will be securely stored (i.e., password protected and encrypted) on a flash drive for five years following the completion of the project. The flash drive was stored in a locked cabinet. All hard copies of data were destroyed upon completion of the project. In FTF communications therapists must actively participate in breaches of confidentiality; online communications, such as email, may inadvertently produce openings for potential breaches (Mitchell & Murphy, 2004). Therefore, to reduce this potential for breaches of confidentiality and privacy, email communications between participants and the primary investigator as limited as possible. Any sharing of information was either password protected or encrypted. Two transcription services (Scribie.com and Shalom Transcription) were accessed due to technical difficulties. Any participant identifying information was removed, prior to accessing these services. As well, the audio recordings and transcriptions were not saved on their servers beyond the service time frame.

Chapter V: FINDINGS

In this project, three main themes of *Time, Relationships,* and *Change* were revealed and used to obtain an overall understanding of the typical participant experience. Time was defined primarily through six subareas: how participants prepared for their initial time in SL; time as ongoing assessment, exploration, curiosity, and learning; time as SL teachers; time about participants' experience of immersion; and future experiences in SL. The Relationships theme was defined in terms of community connections, significant or impactful interactions, and connections with or about the self. Finally, Change was identified in terms of the participants' sense of purpose and priorities and how these intersect in SL; and, how participant identity was projected, transformed, and developed.

Theme: Time

Initial experiences. Participants' pre-SL virtual and RL experiences shaped their initial involvements in SL. All of the participants identified previous online experience. One participant reflected on other social gaming experiences, two participants spoke about research affiliations, and two other participants discussed their roles as online educators as indicators of how they were planning to spend their time in SL. Four of the participants reflected on their initial experiences as characterized by confusion and awkwardness. Participant 1 noted "I had no earthly idea. I was lost for about three months. I didn't know what I was doing or where I was going." Participant 3 described initial feelings as "confusing and disorientating." Participant 4 remembered her first experiences of SL as being "totally lost" and stated, "I had no idea what I was doing, and I thought, this just totally sucks." Participant 5 described herself as a "non-gamer" and

"had no idea what to do" once she had created her avatar. Participant 5 reflected, "I couldn't walk. I couldn't talk. I had no idea…Then I stopped. I didn't look at it again for three months." Participant 2, on the contrary, remembered a different experience than those described by the other participants. This participant described his experience with his first avatar in SL compared to experiences with other similar platforms as "a little bit more natural in that you moved around and it seemed a little more sort of authentic in the way that you interacted with things." He also did not "recall having any major difficulties moving about," but identified previous experience in other virtual interactive spaces. Overall, however, the general description of the experience for most participants new to the SL platform was one characterized by disorientation and a sense of feeling overwhelmed.

Resources such as books; classes; guided tours; and, conversations with more experienced others within and outside of SL supported participants in their adjustment to early SL experiences. Participants 3 and 4 accessed reading material such as *Second Life for Dummies* to succour their initial transition into SL. Participant 1, 2, 3, and 5 spoke of support from other people in SL as a significant part of navigating their learning. Although Participant 1 described herself as a "game player," she attributed her transitional learning to a group of others with previous SL experience who had "schooled" her by teaching her how to, for example, "work a poseball." Participant 5 enlisted the aid of her teenaged children to show her "how to walk around and look" (i.e. visual presentation of the avatar), as well as talk to other avatars. Participant 2 and 5 utilized a group tour and classes respectively to advance their knowledge in how to use the SL environment for their purposes. Participant 2 also recalled "the Linden family

[being] there as helpers," participating in a variety of groups, and engaging in "a little bit of reading" to support his learning of the SL environment. As participants adjusted to their experiential learning in SL, their comfort level improved, creating more opportunity for exploration and curiosity about the possibility in the SL environment.

Beyond initial experiences. Time in SL was also defined as a time of ongoing assessment, exploration, curiosity, and learning. Although many participants experienced a sense of being lost and confused, they also felt intrigued and interested, which fuelled ongoing participation despite the difficulties. Participants 2, 3, and 5 entered SL from the vantage point of a student or learner. Participants 2 and 5 explored the utility of the platform as an indicator for their level of interest. Participant 2 noted, "My first impression was it was interesting." This participant also expressed being "driven a lot more by curiosity" and "interested in all sorts of new developments in Second Life." Once participant 5 discovered that educational experiences could develop in SL, the use of SL fit in within her Ph.D. topic. She now "had a purpose," which spurred her desire to learn how to use the SL environment in a teaching capacity and "was there all the time building and creating." Participant 3 expressed feeling limited in the early days with being "restricted in terms of the names that you can have" for an avatar, the selection was "from pre-existing sub names or [a] combination of names." However, the choice was abundant for the style of avatar clothing, hair style or colour, as well as physique and height, which encouraged participants to try on available options and learn about what aspects of themselves they wished to share through their avatar.

Four participants spent time deciding which qualities of their real and desired selves their avatars would represent, as well as how they would portray these qualities.

Participant 1 described her avatar as having blue eyes and blonde hair and smiling as features that correspond to her real self. She also noted that her avatar "can be kind of silly…I can be really silly. Those are main attributes I wanted to keep with her." In describing his avatar, Participant 3 identified his avatar as about six feet tall, "not carrying any excess pounds" and looking "hip with a sort of turquoise hair and a little kind of goatee beard on the chin." Although not six feet tall in RL, Participant 3 expressed that he represented his real-life self through the colours available, "the colours are colours that are part of my general…palette of colours…the avatar and I wear lots of pinks in terms of shirts and things." He also expressed wanting to project aspects (e.g., taller) of whom he might desire to be in a "safe way." Participant 4 chose avatar qualities that she admired in her mother, "I wanted to look like my mom when she was young and pretty." As well she explored unexpressed RL interests through clothing and hair options, "I've got probably enough clothing in Second Life so that if I went in every day for two years, I could wear a different outfit and different hair." Real self and avatar intersected further for Participant 4 through the incorporation of her dance skill set. She described herself as a dancer from a young age and having the opportunity to incorporate this aspect of her RL into SL advanced her socially beyond her role as an educator within SL; "it was a social inroad." From the outset, Participant 5 wanted to convey her RL sense of professionalism, and used her avatar's appearance and behaviour as the medium, "My avatar looks professional, she acts professional." Referring to her avatar, Participant 5 stressed it was important to her that "people to think of her as me. That's what you have to do when you're a teacher" with mostly online students. Participant 5 also dressed her avatar "like I would in an office." Participant 5 noted that early template avatars were all

about 20 years old with perfect figures. She made her avatar proportional to her real self with the exceptions of height and age. She described her avatar as six feet tall due to that height being the norm for avatars back then, but "decided that I didn't need to age it and I didn't need to put any splurges of gray in the hair or wrinkles on the face or bits of fat." Her avatar did not wear "the latest new outfits" because that would have contradicted the image Participant 5 was trying to depict. Participant 2, on the other hand, "didn't invest a lot of time and energy into the avatar" and decided on an avatar appearance similar to his real self regarding eyeglasses, hair shape, eye colour, and body shape. He recalled having the occasional wardrobe change but justified his lack of investment in his avatar appearance as "no great difference in what I do in the real world. I'm not renowned for my dress sense." Once participants were satisfied with their avatar's fundamental physical features and basic body shape, changes in visual self-expression were limited and typically applied to variations of clothing and hair.

Time for creativity. Time spent in SL was further defined as the opportunity for creativity. Participants 1 and 2 recalled spending time role playing. Participant 1 joined a western roleplaying setting where she played the role of a doctor, saloon keeper, and a variety of others. As an online drama instructor, Participant 4 would change costumes and role-play characters through his avatar, "teaching in-role throughout a performance." Participants 3 and 4 described using the avatar attributes as a creative outlet. For example, when deciding on avatar characteristics, Participant 3 explained his creative process through the assembling of his avatar features as a "kind of experiment" of what looks nice and fun while still maintaining an avatar that is representative of the person behind the avatar (i.e., "it hasn't got wings…[or] a dragon's head"). While Participant 4

preferred to avoid role-play SIMs, she found she had a creative outlet for her RL love of dance, music, and art through the SL environment. Participant 4 has achieved an extensive range of dances and has earned her "quite a good reputation" within these social circles. She also notes that "being able to totally change my hair with my outfit" allow her to be different from her RL self in an artistic, but safe manner. Participant 5 referred to creativity as supporting students to understand learning within an environment such as SL as a transferable skill for interacting in other virtual worlds. For Participant 5 it was important for students to "think beyond their knowledge of education" as a classroom setting may look very different in the future. Furthermore, Participants 4 and 5 also alluded that openness to this learning platform supported students to witness creative expression through educational opportunities not otherwise available. Participant 4 described taking students inside a giant cell as "effective in helping students remember what is inside a cell" through an art experience. Participant 5 spoke about students visiting and learning about planets through a NASA place within SL and visiting "an exact replica of the Sistine Chapel." In essence, all participants explored and revealed artistic and imaginative aspects of themselves through the SL environment that simultaneously facilitated connections with others.

Time to teach. As participants became more comfortable in the SL environment, most described becoming SL teachers irrespective of or beyond their initial purpose for joining SL. Two participants identified sharing their knowledge of SL as part of their journey. Participant 1 reflected on one of the role-play groups she was a part of with her comment, "They all got to know me. They respected who I was…I can speak to other avatars, and they'll listen. I'm their mama." Participant 5 talked about imparting her

wisdom to her students about managing unwanted social interactions, "if they're in a bad situation where they've gone somewhere, and they feel uncomfortable, my first lesson is that they make my island their home so they can…teleport home straightaway." As participant 4 discovered that the SL environment offered the opportunity to avoid social judgment based on RL appearance, she embraced and applied this knowledge within her classroom to support students in learning about and communicating with individuals who have a disability. In SL her students "sit down with this group of people who all have disabilities. The conversation is amazing. It only takes these students like 20 minutes to realize that they're talking to really fun cool people." The interaction in SL bridges the barrier that perceptions about disabilities often create. Participant 2 described his feelings of frustration "at people who make a big issue of the learning aspect" involved in interacting and navigating in SL. He described having developed tolerance and acceptance for others' learning processes, "I'm not one of those who gets sort of bothered by people sitting where they shouldn't sit or half into walls and chairs and things like that." Participant 2, conversely, described only interacting with folks in SL he already knew in RL, all of which were provided a handbook or induction sheet on how to socialize appropriately within this space. In this instance Participant 2 learned and supported general social values, such as personal space, "space is quite important and people getting too close, you think, 'Hang on, that's my space. Move out of it, please.' I think to a large extent, kind of, I was prepared." Overall, participants demonstrated that as they became more involved in the SL environment, they supported, demonstrated, or directed guided others in mastering safety and social facets in SL.

Immersion. Participants reflected on experiences of feeling immersed in the SL environment. While Participant 1 described her ability to "turn it off or keep it going," referring to her participation in SL, she also expressed feeling remorseful when leaving, "I hate to do it sometimes because I feel I'm hurting people's feelings when I say, 'I've got to go' ya know, and I leave." Participants 3, 4 and 5 reflected on rich social interactions that influenced their immersion into the SL environment. Participant 3 expressed his surprise with the realness of the SL environment, "you're quite surprised that you can actually feel quite immersed. That's me, and I'm there, and I'm talking to people. I'm having a conversation." He also recalled a text-based interview he participated in SL and noted that "It didn't feel any less involved in that kind of interview than I am with you so now." Participant 4 explained her understanding of immersion in SL as it relates to the relationships and conversations within the platform, "it's brilliant how quickly you can communicate and how, how deep that communication can become… I persist with my students because they do experience something that I could never get them in any other way and I like that." On her experience of art, Participant 4 expressed, "the art has a quality that you can't get in a normal art gallery in that it's directive, you can touch it, feel it, hear it, ride in it. You can totally absorb, surround yourself with the art. That I can't get in real life." Participant 5 found herself to be "a hundred percent" immersed in the environment, "you forget everything around you. You're totally immersed in what's happening." Participants who experienced immersion portrayed interactions, experiences, and relationships as deeper and more intense.

A future in Second Life. Participants also reflected on their current usage and how changes in RL circumstances defined to a large extent their future involvement in

SL. Participant 2 described his current SL involvement as "someone who's grown up and moved away and drops back on occasion to visit the hometown." He expressed that his priorities and, consequently purposes, have shifted over the years with a growing family and a change in his employment/researcher role. Additionally, he "finds it hard to justify spending a lot of time in SL when I've got" a family "who would probably like Daddy's attention." Participant 3 described himself as "a pretty infrequent user of Second Life over the last…year and months." He attributes this shift to a change in his interests with new technologies, which SL developers have not yet adapted. Additionally, Participant 3 stepped out of a role that had him extensively immersed in the SL environment and has had to devote his time to completed his doctoral degree. He also indicated, "our worlds don't stay static…New things come up…new interests come along, and sometimes it's hard to fit all of those things…we have to make some priorities." Both Participant 2 and 5 described ongoing meetings as reasons for continued involvement in SL. Participant 5 also noted maintenance aspects of her island, as well as "wanting to know what's changed, what's new, what's gone." Like participant 2, Participant 5 has been awaiting the new SL program that was to be released over a year ago. In the meantime, her interests have begun to shift with the commencement of a new job and the downsizing of her previous SL lecturing role, "My job changed at the beginning of last year, and I'm only half lecturing now…I like my new job." Changes in life circumstances, including home life and work role, as well as a shift in interests, have influenced the degree of ongoing participant involvement in SL.

From another perspective, Participants 1 and 4 described decreased social activity in SL; however, both participants intended on maintaining more regular involvement in

SL than the other participants. Participant 1 described her need for companionship to extend to RL and relieve her sense of aloneness, "I'd like to meet somebody that would be a little more giving." Participant 1 characterized her RL partnership as having insufficient intimacy, "we don't talk, we don't do anything." Participant 1 also described her ongoing attendance at a variety of SL social settings that inspire joy for her, "I enjoy the music, and I enjoy the dancing; and, I enjoy the nice people, not everybody. That's what I like." Similar to Participants 2 and 5, Participant 4 spoke about her ongoing participation in work-related meetings and teaching responsibilities. However, Participant 4 also discussed the creative aspect "that I can't get in real life, so I'm obviously committed to it in the virtual world." Essentially, participant 4 identified deeper connections with people as an important motivation for her return participation in SL. She also noted that the links to the creative and artistic aspects of her being had inspired her most in SL, particularly the creative aspects that reconnected her with her childhood, "when I was a little girl, I use to love playing with paper dolls. I still love seeing paper dolls. My outlet for that is dressing up my avatar in Second Life, which is why I've got such an unbelievable bad number of outfits." Participant 4 also reflected, "I've always lived with dancing…when I was a little girl, I think I was dancing before I was walking because my mom and dad had other jobs, but they were both dancers." Second Life has also provided an outlet for Participant 4's imagination, "Every now and then I want to do something bizarre. So, I'll go in and change into a dragon for a while and fly around; or, be a mermaid and go diving somewhere; or, just do something totally, totally, totally out of it…I find it a really good release of tension; a good way to relax." That said, Participant 4 indicated that her social participation in SL has diminished due

to: some negative relationship experiences, “I had a major bust up with my builders, so I don’t go dancing there anymore”; time zone differences, “some of my closest friends are in Norway. Basically, when they’re in Second Life, I’m asleep”; a limited amount of time, “I just don’t have the time. I’m trying to work on a Ph.D. at the moment”; and, her high inventory volume used to dress up her avatar, “I don’t go on hunts very much anymore because I have about 110,000 things in my inventory, yeah, but I still go in for specific things.” Participant1 reflected on personal health issues that have influenced her time spent in SL, “I haven’t been around lately in that area because when I’m not playing, I’m resting. I have to get a lot of rest.” Participant 1 also spoke of having also joined another game, which may impact her future involvement in SL as Participant 3 remarked, “new interests come along and sometimes it’s hard to fit all of those things.” Overall, Participants’ ongoing investment of time in SL was determined by competing RL demands, changes in initial purpose, and social interests or connections.

Theme: Relationships

Community connections. Although some participants did not explicitly join SL to explore social interests, all considered themselves members of at least one group or community that supported meeting their initial purpose for joining SL. Participants 1 and 2 discussed being a part of communities at the onset of their time in SL. Participant 1 noted, “we all decided to come to Second Life to stay together. Four hundred of us came at one time…and then 200 more came.” Participants 2, 3, and 5 met people in person at a conference that were investigating similar academic areas explored through the SL environment. Participant 2 identified his community as “the people who I had met at the conference…tended to become people [I’m] interacting within Second Life; and even

nowadays, they tend to still be the main go-tos." Participant 3 had become a project leader at the beginning of his time in SL but had since stepped out of that role, and his connections within the online environment have become sparse and distant with diminished "day-to-day thinking about virtual worlds." Additionally, Participant 2, 4, and 5 talked about also having online communities with their students. Although Participant 3 also described being a teacher, he defined his relationship with the online world through his efforts toward completing his Ph.D. Participant 4 also described sizeable social connection within the SL art and dance communities. These connections went above and beyond what was necessary for her to address her initial purpose in SL. Participant 4 expressed, "I have some friends in Second Life that I will always be friends with. They feel to me almost like family." Participant 1 also described her connection to her SL community as, "That's where I belong." Participant 1 defined her relationships within this group as ones that contributed to her sense of pride and accomplishment, "they all got to know me, they respect who I was and what I did because I made the city grow…I can speak to other avatars, and they'll listen. I'm their mama." Within this community, Participant 1 also felt she had influence over whether people stayed in the group. In essence, participants described being a part of a group of others through shared similar interests or common goals that assisted in the maintenance and quality of their respective time spent in SL.

Significant interactions. Participants reflected on their deeper relationships with others in SL. Participants 1, 2, 4, and 5 discussed having positive significant in-world relationships that influenced their experience of SL. Participant 1 recalled some close friendships, one of which had evolved into a romance and RL connections, "The very

first man that I was with had been in the other game prior to coming to Second Life. I went with him in, and we danced, and then we chatted… [I found out] he had always like me, but I didn't know that…Everybody accepted it; they didn't balk at it…They just let us go on and live our life." Participant 1 shared that this man was "in love" with her, both in avatar and RL form. Participant 1 also talked about having "Second Life sister" and travelling in RL to visit her for her birthday. Participant 4 also referred to having close friendships in SL and that these individuals "feel to me almost like family"; and clarified that "the actual way you can establish relationships, the way you can become such good friends, the way you can interact and it feels as real as real life." Participants 4 and 5 discussed how their relationships with their online students became more meaningful through their interactions in SL. Participant 4 explained that the combination of interactions SL in addition to their face-to-face communications, created deeper connections, "it [changed] the relationship between myself and the students." She clarified that the interactions were "more fun" and that the "level of communication they [had] within one hour could never be achieved face-to-face." Referring to her online students, Participant 5 noted that "once you meet these people in RL, it was like you had known them for so many years, and really well." She expressed that students got a good sense of who she was in RL through the appearance of her avatar, as well as through their communication, "You don't actually meet them until they graduate. I hope they get a sense of, yeah, who I am just from my avatar and how I respond. I think they do because I actually have really good relationships with my students" when she met them in RL. Participant 5 reflected on a particular student that she has had a strong association with that has been maintained over the past six years, "we've actually got a really good

relationship; but, it did start way back as a student in Second Life." With respect to professional relationships, Participant 4 described the connections she made in virtual conferences as relationships that were "established so much quicker, so much firmer." Similarly, Participant 2 reflected that one of his reasons for continued albeit diminished participation in SL over the years had been the significant relationships he has been a part of, "I've still got connections." Participant 3, on the other hand, did not make reference to any specific relationships created within SL; however, he noted that his significant relationships began in RL and communication and were maintained both in RL and SL.

Participants also reflected on experiences that changed their future relationships within the SL environment. Two participants reflected on experiences that impacted their sense of safety and personal control. Participant 1 described a relationship with another SL user that resulted in the creation of a second avatar for Participant 1. She explained that her friend had become "very controlling"; so, she brought in and hid this avatar from her friend. Participant 1 described this second avatar as "a looker; she was very pretty." The addition of this avatar helped Participant 1 to regain her sense of personal control without hurting her friend's feelings through a confrontational conversation. Participant 1 also described an occasion where she shared her RL experience of cancer with a few of her SL male acquaintances, "a couple of men, when they found out I had cancer, they didn't wanna come anywhere around me. That hurt." Participant 1 cautioned that "you have to learn who is what" and that "sometimes it takes time to figure it out," in particular, figure out who is the kind of friend that RL sharing is safe. Participant 4 reflected on her experience with a stalker in SL. She described this user as always being present whenever she logged on, "Even if I went to a totally different SIM, he was there."

Participant 4 enlisted the support of others she knew in SL to get this user to leave her area and never return. This experience caused Participant 4 to be "a little bit weary" about whom she spoke to and what she did. Based on their experiences in these interpersonal situations, both participants adjusted their approach with others in succeeding scenarios to uphold personal safety and control.

Three participants also reflected on experiences with other avatars that influenced the participants' perceptions and future relationships. Participant 4 described a close friendship with a female avatar that involved frequent conversations and spending time together exploring common interests in SL. One day her friend decided to show her photos from RL, and Participant 4 discovered that "this friend of mine was actually a guy." This experience was somewhat shocking for Participant 4, who had imagined her girlfriend to be female and not male; consequently, this has lead Participant 4 to trust "people a little bit less." Participant 5 described an initial experience in SL where she attended a conference and "saw this cute puppy…Then he started speaking." Participant 5 was surprised by this experience and decided at that moment that "students can come only as people" to her classes in SL as no one would be able to take them seriously nor believe what they had to say. Participant 3 recalled a physiological response to an invasion of his "personal space" with other avatars. He described a similar experience when he had his avatar's back to his students while teaching, "I remember standing there virtually standing there looking at my screen as I'm presenting and being very conscious that actually, my back was to the audience." Participant 3 commented that it surprised him that he "should feel quite so kind of troubled by it when…on the one hand, it wasn't real [but] at the same time, it was very surreal." These experiences made Participant 3

have a greater sense of the impact of his actions on "other people both in the virtual kind of world…and the physical [world]." In essence, these experiences challenged participants' perceptions and definitions of reality due to the influence of real world cues or expectations applied to SL experiences.

Relationship with self. Through relationships with others in SL, participants learned about themselves. Participant 1 and 4 reflected that through connections in SL, they experienced power and believed they had qualities that others appreciated. Participant 1 recalled, "They all like me, that's all I can tell you. They like that I'm silly…They respected who I was and what I did." Unlike her real-life intimate relationships, Participant 1 felt a sense of belonging and [being] loved by others; she liked who she was in SL. Participant 4 also described that her relationships in SL helped during a time of loneliness, "At the time when I was very social in Second Life, I was quite lonely in real life." However, Participant 4 also recognized that her interactions in SL created an opportunity for her to exude confidence in her relationships with others, even though in RL she would describe herself as a "social submissive." Participant 4 expressed that the changes she can make to her avatar allow her to be different, "I like being different. I think personality changes with that too in a way because I am definitely bolder, stronger, more confident in SL…No one gets the better of me in there."

Two participants highlighted their deepened awareness into the effects of their interactions through the SL platform. Participant 1 expressed concern about the feelings of the individual behind the avatar and chose to create another avatar, "I didn't to hurt his feelings." Participant 3, on the other hand, discussed his increased insight into his experience, as well as the experience of others both in RL and SL. When reflecting on

his SL interactions, Participant 3 noted that they made him more self-aware of "feelings, experiences, and perhaps more sensitive to those of other people, as well," particularly regarding how his behaviour was "impacting people in the physical world." He was mindful that his interactions had the potential of having an effect on the people behind the avatars in their day-to-day lives.

It was important for two participants to have congruence between their avatar and RL appearance and persona. Although Participant 2 admittedly spent little time creating his avatar, he intentionally created his avatar overweight, "I try not to hide that sort of reality… [I adjusted] him, so it looked a little bit closer to my disproportionate body shape." Participant 5, similarly, used her avatar appearance to project her sense of professionalism as well as her physical characteristics, "the characteristics represented through her are mine…I want people to think of her as me." Broadly, interactions with others in SL highlighted relevant personal values (i.e., personal power, self-awareness, and authenticity) for each participant during this time.

Theme: Change

Purpose and priorities. All participants identified joining SL with an initial purpose, which RL and SL experiences influenced. Participant 1 reflected on a change occurring in another game, which inspired her and 600 other users to investigate SL as a platform to continue their social relationships. Participant 1 also expressed that connections with other people were "harder to get in real life sometimes" and planned to continue to pursue significant relationships within SL or another similar social platform. Participant 2 decided to join SL to satisfy his "needs for the study I was doing at the time." In addition to the study, Participant 2 noted that in SL he was partaking in "the

sorts of things that I do socially in real life [like]… going to the theatre, watching music performances, wandering through art galleries, and sort of attending conference events." However, changes in his RL (i.e., marriage and children) have shifted his priorities away from satisfying personal interests through the SL platform to satisfying other needs or priorities through only RL experiences, "I got married and had kids…priorities have shifted. [It's] hard to justify spending a lot of time in Second Life when I've got two little girls, five and seven, who would probably like Daddy's attention occasionally." With respect to his initial purpose, his connection involved monthly meetings to discuss new virtual world products or developments, "we sort of meet monthly in Second Life and …discuss…a new product or a development that's occurred somewhere…But, I'm not as actively involved as I used to be." Participant 3 was introduced to SL through her university while completing a master's degree in e-learning, "Most of my kind of use of SL has been for kind of educational or even research related purposes." Participant 3 reflected on changes to his professional interests that focused more so on advances in technology and virtual world, "my kind of own interests in using Second Life had perhaps waned a bit in recent time partly [due to]… the potential new Second Life on the horizon or not, [and] the new technologies." Due to the extensive waiting period for the upgraded version of SL, Participant 3's interests and curiosities have shifted "New things come up before long new interests come along and sometimes it's hard to fit all of those things. Anyway, we have to make some priorities."

Two participants initially signed up for SL as part of their employment. Participant 4 recollected, "my boss came to me, and he said, 'Look, we want someone to be the lead educator for the project fund that they were applying for.' And he asked me if

I would lead the project chain. And it was education and Second Life." Participant 5 recalled, "I needed to do a Ph.D. for my work and I wanted to do something interesting and social media wasn't doing it for me." However, with the passage of time, Participant 4 noted that she does not engage in SL to the same degree as she previously did "because I just don't have the time." Participant 4 identified that completing her Ph.D. has been time-consuming; however, she also expressed that "when I was very social in SL I was quite lonely in real life. That kind fooled a bit of a worry but the busier I've become and the more I've taken on, the less I seem to need to be sociable." Participant 5 also noted decreased involvement in SL. She credited this decrease to reduced class sizes, completion of her Ph.D., and a new job position:

> My job changed at the beginning of last year, and I'm only half lecturing now, and the other half is doing research stuff. That's limited the amount of classes I have, and I find that a bit sad that I don't have as many students there anymore, and I'm glad I submitted my Ph.D. because with a Ph.D. I could show the number of students that were enrolled in HU, it was going up and things like that well because of my change of jobs I can't offer it to any more students.

On the whole, changes in the participants' personal, employment, and educational priorities played a role in resource (e.g., time and relational) allocation for SL.

Identity. Participant identity was projected, transformed, and developed in the SL environment beyond avatar design. Participants projected their identity to others through presentation and usage of their respective avatars, as well as the SIMs they chose for their interactions. Although Participant 1 did not recall specific change, she highlighted experiences where she projected her values, "I didn't like Gor because it was,

the women were subservient to the men; and, I'll be John Brown if I'm gonna be subservient to any man." Participant 1 returned to a previous role-play SIM where she felt she belonged and "was allowed to grow and be myself." She did not feel that the Gor SIM was a personal fit for her. The value of personal power was also present when she created the second avatar. She used this avatar to manage the power differential within a SL relationship, "he was very controlling, and so I brought [a new avatar] on, hid [the new avatar] from him, and went and played with [the new avatar]." Once her sense of power had recovered, Participant 1 returned to playing with her original avatar. Participant 4 sense of personal power also developed through SL experiences. She reflected on experiences of being in control, "I'm so much more in control where I go, what I do, and who I see and I just do things which I know will be rewarding for me"; feeling empowered, "It's the frustrations of what I go through in life that make me feel so empowered in SL where I can go and buy my house, paid in full, you know, 10 Linden and I certainly can't do that here"; and a change in her experience of confidence, "that's one thing my avatar does say is that I'm confident in what I can do, who I am and yet I'm approachable." For Participant 4 SL provided a platform to try on an empowered, confident persona. Similarly, Participant 3 talked about the idea of SL providing an opportunity to try out aspects of his identity in a safe way, suggesting that RL does not always allow for such deliberate kinds of experimentation. "It's quite a nice safe way to kind of play it being me but slightly different me from the me I am." While he acknowledged that he could not make himself taller, he could take steps to adjust his fitness. In SL he could make those changes and perhaps experience changes in how he perceived himself, "Maybe there's kind of an ambiance…I want to present a sort of me

that is the person I [would] really like to be... There may be multiple me's not simply the kind of the me that I present in a classroom or when I go shopping or when I'm with my wife." In essence, participants experienced the opportunity to tentatively explore possible identity characteristics while maintaining a sense of personal power over the experience.

Three participants developed aspects of their RL identity through fine arts within the SL environment. Participant 1 reflected on aspects of her personality, such as her giving nature and her sensitivity towards others' feelings. Participant 1 described making arrangements to visit her old SIM to celebrate a friend's birthday and say "hello to people." While visiting, she also donated to the SIM, her friend celebrating his birthday, as well as the DJ providing music for the party. Participant 1 noted that this was "another part of [my avatar] that's special to me," that is, "I love to give…that's just part of me." Participant 1 expressed that in RL she has minimal connections with other people. Through her avatar, she was able to express aspects of her identity that in RL were dormant. Participant 4 involved herself in the dance and art communities, which created an opportunity for her to connect real-life past experiences with new experiences in SL, "I've always lived with dancing…So when I found I could dance in Second Life especially when I found out I could get quite a good reputation from being the one with the most incredible range of dances, well it sort of was, yeah, it was social inroad." Participant 2 noted that he was drawn to the theatre groups and sites "because my word was about theatre and drama education" and attended theatre and music performances, as well as perused art galleries. However, as his "role shifted from being a researcher" to other "futurist" ideas (e.g., occulus headsets) in the area of teaching and learning, as well as his new roles as husband and father, the SL environment no longer supported his

identity in the same way it had initially. The shift in roles that defined the participants' identities influenced time spent in SL as well as the value participants placed on their time spent in SL.

Two participants also expounded how their experience of SL intensified their passion for education and broadened their vision of their roles as educators. Participant 4 described the immersive experience of teaching within SL, "I bring my students in for things like a tour of the testes and the fallopian tubes on University of Texas SIM… I have never had anything more memorable than that." Similarly, Participant 5 reflected on two main SL places she would take her students, "One of them was NASA…That was fantastic and [you could] wander around and sometimes you could even talk to someone from NASA if you were there at the right time." However, Participant 5 also expressed her discouragement that both NASA and the Sistine Chapel have been removed from SL, "I'm really sad about those two… now I actually have to search more and more." Participant 4 and 5 also noted that economic changes within their respective institutions had impacted their ability to connect on SL the same way. Participant 4 explained that "we've got half the staff we use to have in doing the same amount of work." Participant 5 noted that due to downsizing, "I'm only teaching around about 50 [students] a year now; whereas I was [teaching] hundreds before." Participant 2 also highlighted one of his observations regarding this topic, "over the last five or six years…a number of institutions using Second Life as a kind of an adjunct perhaps to more familiar forms of teaching had begun to diminish in Second Life." He also noted that this decline was also noticeable with large corporations that have pulled out "because they found Second Life wasn't giving them what they wanted, or they were perhaps intending to use other

technologies instead." This line of thinking was common amongst participants in that when the SL environment was unable to meet the participants' changing needs or priorities, whether work-related or personal, involvement in SL changed.

Chapter VI: DISCUSSION

The findings from this study provided insight into the nature of identity in digital space about how long-term SL users perceived and described their experience of their SL avatar identity over time. Mann (1994) indicated that human identity could be understood using the following three dimensions of experience: time, embodiment, and reflexivity (which included the reflexive experience within the self and the relating experience between the self and others). He defined time in terms of the past, present, and future of lived human experiences, which was used in this study to organize participants' understandings of their SL experiences.

Participants characterized their initial time spent in SL as a time to learn, explore, and be curious. They also identified feeling overwhelmed, lost, disoriented, and confused. Keelan et al. (2015) found that with sufficient support and training, users were able to navigate and communicate with other avatars. Participants in the current study recalled accessing a number of supports (e.g., books, groups, and other experienced SL users) to advance their learning of the SL environment and over time demonstrated their ability to draw from experiences for future decision-making purposes. From a social learning perspective, Bandura (1971) would explain that participants first learned the new behaviour (i.e., interacting in SL) from observing others and later used symbolic construction of the initial learning to refine and adjust behaviour based on feedback from others. Bandura (1977) would also claim that participants' ability to persevere through the difficulty was representative of their perceived self-efficacy. However, Mann (2008) would reason that participants initially experienced a dynamic tension between reflection, as the RL self was acclimatizing to the SL experiences, and dissociation, which was

working to set limits to their adaptation. Through Mann's lens, participants' acclimatization to the SL environment represented completed reflexivity through connections to the SL experiences and subsequent adaptation. From a clinical perspective, narrative therapists may view this initial time in SL as an opportunity to support users' (clients') to actively engage in reflexivity through thoughtful questioning designed to gain a sense of clients' preferred realities and identities, which would then become the goals of therapy (White & Epston, 1990). Additionally, this would be a time to consider local knowledges rather than accepting and reproducing marginalizing values of the dominant culture (Combs & Freedman, 2012). The process of defining preferred realities and identities and considering local and dominant discourses takes time as people shift from targeting the immediate concerns to modifying aspects of identity that require a gradual reflexive approach.

Participants seemed to adapt over time through the creative aspects of the SL environment and made strides toward achieving their initial purposes for joining SL. The creative aspects of SL inspired participants to be imaginative about their self possibilities. Participants expressed that the use of avatars facilitated self-expression in a safe, intentional manner while simultaneously supporting connections with others. According to Kang, Watt, and Ala (2008), the use of avatars provides anonymity for the user without weakening the effectiveness of communication or reducing the social copresence of the communication. Within this time of creativity, participants spent time deciding what physical characteristics would define their avatars, with most choosing items that represented their RL ideal qualities or qualities they wanted others to perceive about them. This finding is consistent with other research that found avatars to be an extension

of the user, albeit in an idealized form (Jerry & Tavares-Jones, 2012). Based on Mann's (1994) theory, participants drew from their knowledge about SL experiences to inform aspects of their RL identity as represented through their avatar presentation and interactions. Other research noted that users created fictional characters (i.e., avatars) that portrayed or expressed their personality traits or RL suppressed desires (Schechtman, 2012). Furthermore, participants also described making decisions about their avatar interactions and presentation based on their perceptions of others' feelings and their perceptions of others' experiences of the participants' online presence. This decisional process was determined by the participants' reflexivity or self-awareness as informed by self-observation and understanding of feedback from others (Mann, 1994). In essence, participants achieved virtual embodiment through their avatar's physical representation (i.e., self-image) of their subjective and objective experiences, while time and reflexivity supported participants to reconstruct their understanding of their SL experiences and accommodate or adapt the new information.

As experienced users, participants shared their wisdom about interactions within the SL environment to support novice users with their skill development in this platform. It appeared that as participants spent time interacting with others through avatars, their avatar selves and real selves became more aligned. Overall participants expressed that for their interest in the SL platform to be maintained into the future, there needed to be an ongoing appeal for their attention. For those participants who had concluded their original purposes for joining SL, their future participation had become bleak and unknown. According to Mann (2008), these participants' over time may have experienced a shift where they no longer saw themselves in the collective others to the

same extent as previously; and, consequently experienced a sense of alienation or estrangement from where they once experienced belonging.

Participants who had committed to the environment through a variety of social activities, groups, or communities, tended to anticipate and desire future SL interactions. Additionally, participants who were more socially involved in the SL environment satisfied aspects of their RL interests. Participants influenced and experienced an increased sense of personal control in response to others and situations in the SL environment. With these participants, Mann (2008) would argue that through the process of reflexivity over time, they continued to experience enough congruence with others to maintain their sense of group belonging and identity. Mitchell et al. (2007) found that VEs provided an opportunity for users to expand social understanding beyond task practice and repetition; and the VE presented an opportunity for participants in the current study, as well as Mitchell et al.'s study, to experience interacting in a different way through a preferred storyline. The dimensions of Mann's (1994) theory also seemed to support participants to interact in the environment differently, with more intention, and perhaps a richer sense of self. These outcomes align with the NT concept of thickening a person's identity with storylines free of problem-saturated description and dominant discourse suppression (Combs & Freedman, 2012; White & Epston, 1990). Reconstructing people's understandings of their experiences contribute to a richer description of people's lives, which create possibility and choice that impact the influence of experienced problems on identity (Combs, & Freedman, 2012).

Participants also expressed that their relationships in the SL environment developed quickly and were more intense than in RL. Previous research supported this

finding in that people disclosed more information verbally and nonverbally about themselves to other avatars that were comparable in behavioural similarities (Bailenson, Yee, Merget, & Schroeder, 2006); this, in turn, may encourage increased connections with others. According to Mann (2008), "Our capacity to feel the you in me and the me in you allows us to relate… We understand each other to the extent that we can recognize ourselves in each other" (p. 242). In other words, the intensity and quick development of relationships may be an indicator of participants' ability to engage in empathy development through reflection in combination with the avatar features (verbal and nonverbal) in the SL environment. From a social learning perspective, participants may be learning to develop more intense relationships as they observe and compare others also doing so as an element of the normal SL culture and without obvious adverse consequences (Bandura, 1971, 1977). In other words, participants learned the norms that pertained to attitudes and behaviours in SL by watching those around them and experiencing somewhat obscure social persuasion. Researchers also noted that in terms of nonverbal communication, the avatar was the user's main identity cue for the user and other avatars (Yee & Bailenson, 2007). Applying Mann's (1994) theory, avatar identity cues represent the embodiment dimension of the self, which is determined through reflexivity over time and would include influential experiences from both RL and SL in decision-making processes in avatar presentation and interactions.

Decisions about avatar interactions and presentation, as well as relationship qualities revealed participants' sense of immersion in the SL environment. Salimkahn et al. (2010) found that MySpace users highlighted and reinforced their connections with others, in addition to displaying aspects of their identity through visual metaphors.

Second Life users, on the other hand, could make changes to their avatar characteristics, and some participants did so as a means of shifting their internal experience and interpersonal dynamics as they became immersed in the VE.

According to Yee and Bailenson (2007), users in VEs conform to the behaviour they think other users would expect of them based on the appearance of their avatar; they termed this the *Proteus Effect*. These authors viewed this process as a moment of self-perception, a time of reflection on the perception of other avatars about the user. In this theory, users are affected psychologically and behaviourally by their digital representation and persona. Change to the user's avatar reflects a user's change in knowledge or perception about what other users understand and expect avatar features to mean. Similarly, Yee, Bailenson, and Ducheneault (2009) found that avatars can change a user's RL identity by changing how other avatars interact with the user. This change could be accomplished by directly shifting the user's behaviour and engaging intentionally in other behaviours. The theory centres on three contextual concepts: *behavioural confirmation; self-perception theory;* and, *deindividuation and identity cues.* Behavioural confirmation holds that the user's avatar appearance would influence how others interact with the user, which is based on his or her perceptions of appropriate behaviour as determined by the avatar's appearance. In other words, it is the user's behaviour that influences the response from others. Self-perception theory states that individuals assume their attitudes and beliefs through self-observations (Bem in Yee et al., 2009). Self-observation of behaviour (Valins, 1966), as well as appearance in RL situations (Frank & Gilovich, 1988) and VEs through avatar appearance (Merola, Penas, & Hancock, 2006) influenced individuals to modify their attitudes, as well as behaviour.

Deindividuation refers to the externally focused attention (social identity) on situational cues used to influence behaviour rather than the internal attention that defines self-awareness or individual identity (Johnson & Downing, 1979) and has been found to occur in conjunction with increased anonymity (Postumes, Spears, & Lea, 2000). Participants in the current study discussed designing their avatars to create an image of confidence to increase their sense of personal control. Avatars were created to be taller, younger, and sometimes more attractive and outgoing than participants perceived their RL selves to be. Applying the Proteus Effect theory, participants had a sense of awareness about change and were purposeful in decision-making about their avatar appearance and subsequent interactions. Furthermore, participants made changes based on their perceptions (i.e., self-reflection) in the moment, as well as, the feedback from others of what avatar changes were necessary for the user to adjust their negative emotional experience.

With the information gleaned through self-reflection and responses from others, participants seemed to reconstruct their projected identity to get the desired response from others (e.g., respect through perceived expertise and control) that in turn enhanced participant confidence and self-worth. In this sense, the user was in the role of both subject and object (Mann, 1994). Information gathered from their experiences contributed to their decisions about avatar changes. Social learning theorist would argue that participants drew on inferences from social comparisons made about influential role models from RL and SL, particularly during their initial time in SL, in order to create the desired visual identity to then behave in a manner that projected to others confidence and self-worth (Bandura, 1977). Mann (1994) would suggest that through reflexivity of

experiences over time, participants would experience an identity that consists of confidence and self-worth beyond the momentary experiences. Participants also highlighted how experiences changed their interactions with others in their SL communities as well as the opportunities that arose professionally out of their SL experiences; however, some participants did not seem to be aware or denied the influence of their SL experiences on their RL identity and vice versa, yet their reflections of their experiences described such changes taking place over the course of time. This finding was consistent with Mann's (1994) theory as the process of identity formation was believed to be an aspect of the unconscious mind.

Participants described their avatars as existing as a separate entity from the user. They described experiences that impacted how they interacted with others, what communities they entered, and the physical characteristics of the actual avatar in an effort to influence participants' perceptions of other users' thoughts and feelings about them. However, participants also reflected on historical RL experiences, as well as initial and ongoing SL experiences that informed the trajectory of their avatar selves. According to Mann's (1994) theory of selfhood, the observer role helps to create a perception of identity in conjunction with the individual's self-reflective process over time. In the Proteus Effect, it is the person's moment to moment externally informed perceptions, alone, that provide the identity cue feedback (Yee & Bailenson, 2007). Elements of the RL and SL environments, as well as internal processes (e.g., physiological responses) provided information about participant identity (e.g., safety and personal power). Change in self-perception for participants involved self-reflection and feedback from others that drew from RL and SL experience over the course of time. Essentially, the Proteus Effect

can be understood as the reflexivity dimension of Mann's theory. In essence, engaging in reflexivity over time about behaviours or interactions alters a person's identity rather than simply influencing an immediate self-perceptual experience as described through the Proteus Effect. However, both theoretical perspectives support the idea of the self-reflective process as a significant factor in changing one's self-perspective. Making deliberate changes to highlight other attenuated aspects of a person's identity or explore new areas that could shift a problem-oriented identity then seems plausible and hopeful from an NT perspective (White & Epston, 1990).

By using VEs as a platform for NT, people can actively and purposefully influence their experience of time, reflexivity, and relationships. With deliberate changes in VEs, people could experience personal transformation in ways not restricted by time (i.e., past experiences). People could rewrite their dominant narratives that have impacted their sense of self (Combs & Freedman, 2012). In the current study participants demonstrated their ability to hold two realities (real and virtual) simultaneously. Some participants demonstrated how interacting through their avatars created opportunity to experience personal power and realize their strengths that RL interactions had not supported. In VEs, users have the unique opportunity of being strategic with the use of their avatars; changes can be made to their avatars instantly for users to experience and reflect on the effects. Incorporating elements of NT, users witness the visual representation of their identity, as well as interactions with other avatars (White & Epston, 1990). Users have the opportunity to visualize and practice their influence through the presentation of their avatar. Users may also gain deeper insight into their dominant narratives as they experiment with alternate storylines or simply exercising

personal control over a storyline and the effects of their relationships with other avatars and has further potential practice implications for narrative therapists. users could define and explore their preferred realities and identities by creating scenarios that intentionally provide opportunities to increase personal control or sense of agency through a thorough exploration of local and dominant discourse in an effort to adjust the VE and avatar features to reduce the influence of the dominant discourse. To externalize or separate the problem from the person, users could be supported to consider other sides or versions of themselves and adjust their avatars' visual presentation and use of language to reflect the preferred identity. Therapists could use relative influence questioning to map out the influence of the problem and persons in the VE in a text-based format; and, I would expect that the dialogue would support clients to have a conversation that orients them on how to think about a situation similar to conversation that take place in FTF NT sessions. Furthermore, the text-based format of VEs may support clients to experience increased externalization of their problem through co-constructed written communication. As well, clients may experience additional benefit in that the textual conversation could be reviewed and reflected upon by the user at any time to promote change unrestricted by time (Murphy & Mitchell, 1998).

This project was grounded in Mann's (1994) theory; however there are many other, more well-known theories that could explain the results and provide a different perspective than what has been discussed here. For example, as discussed throughout this section, Bandura's (1971) social learning theory could account for a number of the participants' experiences through concepts such as role modelling and vicarious experience. Rogers' (1959) humanistic theory may also offer another angle to explain

participant experiences. This theory holds that *self-concept* is developed through a mix of elements (e.g., physical characteristics, social roles, and personality traits) that characterize self-image, what value we place on ourselves (i.e., self-esteem), and how we would like to see ourselves (i.e., *ideal self* through avatar verbal and nonverbal presentation). Applying Rogers' humanistic lens, VEs provide a platform of choice where users could experience their *actualizing tendency* and create *congruence between self and experience*, as well as experience meaning and purpose through their evaluations of interactions with other users. User behaviour could be understood in terms of how it satisfied the needs (e.g., *need for positive regard*) of the user and would be mostly consistent with the user's concept of self. Experiences in SL could be understood in relation to the user's RL or SL ideal self, with the avatar representing the ideal self. Other experiences could be disregarded because of a lack of perceived relevance to the RL or SL selves; or, *distorted in awareness* or *denied to awareness* due to the activation of a defense mechanism.

Mann's theory, on the other hand, centres more on the interaction of reflexivity, embodiment, and time as essential elements in identity development that participants demonstrated in the discussion of their understanding of their experiences. Although Mann's theory was used in previous research to understand identity in VEs (Jerry & Taveres-Jones, 2012; Nagy & Coles, 2014), it is not well-known or explored in terms of virtual identity development. Additionally, Mann's (1994) theory of selfhood views identity from a broad, philosophical perspective, whereas other more descriptive theories may provide deeper insight into specific aspects of identity development in digital space. Therefore, future research could focus on virtual identity development through the lens of

other more well-known theories such as Rogers' (1959) theory of self and Bandura's social learning theory (1971). Additionally, the results of this project have highlighted implications for NT goal setting strategies of performing preferred realities and identities and increasing user's personal power, as well as the technique of externalizing by presenting preferred versions of the user (minus the undesired attributes) in SL through the use of a user defined avatar. Future research could focus on how interactions in SL support a thickening of RL identity through scaffolding conversations in conjunction with the social contexts available in SL.

Limitations

This study examined how long-term SL users perceive and describe their experience of the SL avatar identity over time. This study used a qualitative research design, which involved a small, homogenous sample; therefore, limited inferences can be drawn from the results. Most participants identified the steep learning curve for interacting in the SL environment as a significant challenge. In their study, Keelan et al. (2015) pointed to this difficulty in learning how to use the SL environment as a major drawback that could outweigh the possible benefits of the SL environment. Another limitation to the present study is that it is unknown whether a social desirability bias was present due to the use of self-report measures (van de Mortel, 2008). It is possible that participant responses represented what they wanted the interviewer to perceive about them rather than what they actually remembered of their SL experiences. Since this study involved a semi-structured interview, sub-questions may have been determined in part by factors influencing the interviewer (e.g., fatigue or distractedness). Finally, in an effort to provide convenient interview times for participants, a few of the interviews

occurred at the end of a workday for the interviewed. It is possible that the interviewer may have been less insightful or reflexive during these interview times despite efforts to address bias through use of a research journal and engaging in the epoché process (Moustakas, 1994; Van Manen, 2014).

Chapter VII: CONCLUSION

The aim of this study was to gain insight into the nature of identity in digital space. This aim was addressed by two primary research questions: How do long-term SL users perceive and describe their experience of their SL avatar identity over time; and, does a VE with an avatar feature provide an opportunity for individuals to externalize and experience alternate storylines to influence RL individual identity? The results suggested that the avatar identity of long-term SL users was developed through experiences originating from both RL and SL, with each environment allowing for different aspects of the individual's identity to be amplified. In other words, experiences in both RL and SL environments informed each other. The SL environment provided opportunity and options not always available in RL; consequently, participants experienced other, preferred storylines that changed or enhanced their self-perception despite not always being aware on a conscious level of their reflexivity in this process.

Though this study was exploratory in nature, a theory of selfhood was effective in providing insight into participant experiences in VEs. The results supported the notion of "realness" of the VE based on how users chose to portray themselves, an outcome of their reflexivity. How users portrayed themselves was a reflection of how they perceived themselves and their experiences; how they perceived others' perceptions about them; and, how these perceptions, in turn, influenced future interactions in this platform and offline. Although this study contributed to the understanding of identity development in VEs, much is still unknown about the contribution of the blended nature of offline and virtual experiences. Exploration through other theoretical perspectives could provide further insight.

This study also has implications for counselling research. Participants described experiences similar to those defined within narrative therapy (e.g., externalizing and amplifying alternative storylines). By understanding how to intentionally influence aspects of users' identity within a VE, clinicians may be able to offer therapeutic interventions in new ways that support the experience of a preferred storyline toward RL identity change. In summary, VEs offer a platform for identity development, exploration of preferred storylines, and a possibility for narrative therapeutic practice.

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Appendix A: Recruitment Poster

PARTICIPANTS NEEDED FOR

RESEARCH ABOUT THE NATURE OF IDENTITY IN VIRTUAL ENVIRONMENT

I am looking for volunteers to take part in a study
about peoples' long-term experience of identity development in Second Life.

As a participant in this study, you would be asked to: participate in an interview regarding your experience over time of interacting in Second Life. Your identity will only be known to the principal investigator. The project supervisor will not have access to identifying information.

Your participation is **entirely voluntary** and would take up approximately one hour and 15 minutes of your time over two occasions. By participating in this study, you will help us to advance knowledge of identity and narrative therapy in the virtual environment.

To learn more about this study, or to participate in this study,
please contact:

Principal Investigator:
Natasha Hammond
natasha.hammond@gcap.ca

This study is supervised by:

Dr. Paul Jerry
Registered Psychologist & Professor
Program Director & Chair, Graduate Centre for Applied Psychology Athabasca University
866-313-4373 (toll-free) 403-502-6961 (cell)
paulj@athabasca.ca

This study has been reviewed by the Athabasca University Research Ethics Board.

APPENDIX B: Letter of Information/Informed Consent Form

LETTER OF INFORMATION / INFORMED CONSENT FORM

Identity in Digital Space: A Phenomenological Study with Narrative Therapy Implications

Commencement Date: SEPTEMBER 15, 2016

Principal Investigator (Researcher):
Natasha Hammond
403-302-8533
natasha.hammond@gcap.ca

Supervisor:
Dr. Paul Jerry
Registered Psychologist & Professor
Program Director & Chair, Graduate Centre for Applied Psychology Athabasca University
866-313-4373 (toll-free) 403-502-6961 (cell)
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Athabasca University
Peace Hills Trust Tower
1200, 10011 - 109 Street
Edmonton, AB Canada T5J 3S8

You are invited to take part in a research project entitled 'Identity in Digital Space: A Phenomenological Study with Narrative Therapy Implications.'

.

This form is part of the process of informed consent. The information presented should give you the basic idea of what this research is about and what your participation will involve, should you choose to participate. It also describes your right to withdraw from the project. To decide whether you wish to participate in this research project, you should understand enough about its risks, benefits and what it requires of you to be able to make an informed decision. The following is the informed consent process. Take time to read this carefully as it is important that you understand the information given to you. Please contact the principal investigator, Natasha Hammond, if you have any questions about the project or would like more information before you consent to participate.

It is entirely up to you whether or not you take part in this research. If you choose not to take part, or if you decide to withdraw from the research once it has started, there will be no negative consequences for you now, or in the future.

Introduction
My name is Natasha Hammond, and I am a Graduate Centre of Applied Psychology student at Athabasca University. As a requirement to complete my degree, I am conducting a research project about peoples' long-term experience of identity development in Second Life. I am conducting this project under the supervision of Dr. Paul Jerry.

Why are you being asked to take part in this research project?
You are being invited to participate in this project because you are a long-term Second Life user. You are also able to communicate textually and verbally in English. YOU ARE AT LEAST 18 YEARS OLD.

What is the purpose of this research project?
The purpose of this study is to understand the nature of identity for adult individuals who interact in virtual environments with avatars. I am also interested in whether a virtual environment with an avatar feature provides an opportunity for individuals to experience alternate storylines to their real life experiences and what influence this may have on the real life identity.

What will you be asked to do?
You will be participating in a private one hour Skype semi structured interview regarding your experience of interacting in the Second Life environment over time. This interview will also be arranged for a date and time convenient to your schedule.

Copies of the transcription of the interview will be available for you at your request and will also provide an opportunity to review your copies for clarification purposes and any feedback you wish to provide.

What are the risks and benefits?
Although unlikely, through the process of your participation, you may become inadvertently emotionally triggered. Should this occur, you will need access to local support. As well, you have the option to withdraw from participation and request that your data also be withdrawn from the study. Your participation remains voluntary throughout the course of the completion of this project. To safeguard your information, all data (compiled chat logs and interview transcripts) will be stored on a password protected hard drive, to prevent information being stolen or hacked, and/or viewed by unauthorized personnel, from my laptop computer.

In participating in this study, your contributions will provide an opportunity to advance knowledge related to identity in a digital space, as well as narrative therapy in the virtual environment.

Do you have to take part in this project?
As stated earlier in this letter, involvement in this project is entirely voluntary.
You have the right to decline to answer any of the questions asked of you in the interview without having to withdraw from the study. However, at any point in this study, you may

inform the principle investigator of your wish to discontinue participation in the study by email or phone contact without stating your reason. Data collected for this study can be removed up until the point of data analysis.

How will your anonymity, privacy, and confidentiality be protected?
Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance. The information presented will be in a group form (i.e., themes). However, if quotes are used from your responses, your identity will remain anonymous and at most only your assigned number will be used. Every reasonable effort will be made to ensure your anonymity; you will not be identified in publications without your explicit permission. However, if you wish to be identified in this project, you have the option of informing the primary investigator.

The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use or disclosure. While your identity will be known to the principal investigator, all identifying information will be kept confidential and separate from other members of the research team. All identifiers (e.g., name and email addresses) will be stored separately from the data. Consent forms will also be kept separate from the data and will be stored in a locked file for up to five years and then destroyed. Only the principal investigator will have access to the consent forms. Participants will also be assigned a number in relation to their screen name as additional privacy and confidentiality measures to prevent the project supervisor, who is also the Graduate Centre for Applied Psychology program's Director and Chair, from discovering the identity of the participants.

"All information will be held confidential, except when legislation or a professional code of conduct requires that it be reported."

How will the data collected be stored?
Data will be stored in password protected files. Only the principal investigator will have access to data that includes participant identifiers. The principal investigator will code the data to remove identifiers and will retain a list that links the participants' code numbers with their actual name so data can be re-linked if needed. The project supervisor will only have access to coded data, not the identifying list.

All transcriptions will be securely stored (i.e., password protected and encrypted) on a USB flash drive for five years following the completion of the project. The USB flash drive will be stored in a locked cabinet. All hard copies of data will be stored in a locked filing cabinet and destroyed upon completion of the project. Skype contact information will also be deleted upon completion of the project. Transcribed anonymized data will be kept indefinitely for future research.
Anticipated future secondary use of the data will examine the linguistic content of the data. However, further REB approval would be required if a later project is determined.

Who will receive the results of the research project?

The existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room; and the final research paper will be publicly available. Although the focus is to use data reported in the aggregate and summarized form, direct quotes may be used to assist readers in better understanding the participants' experience. However, any use of direct quotations from your data will be with your permission only.

Whom can you contact for more information or to indicate your interest in participating in the research project?
Thank you for considering this invitation. If you have any questions or would like more information, please contact me, (the principal investigator) at natasha.hammond@gcap.ca or my supervisor at paulj@athabasca.ca or 866-313-4373 (toll-free). If you are ready to participate in this project, please click the **Next** button at the bottom of the page and submit the survey by clicking the **Done** button at the end of the survey by SEPTEMBER 30, 2016 to Natasha Hammond at natasha.hammond@gcap.ca.

Thank you.

Natasha Hammond

This project has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this project, please contact the Research Ethics Office by e-mail at rebsec@athabascau.ca or by telephone at 1-800-788-9041, ext. 6718.

Informed Consent:

Please select those items that apply to you.

◯	I agree to be audio-recorded
◯	I agree to the use of direct quotations
◯	I allow my name to be identified in any publications resulting from this project
◯	I allow data collected from me to be archived in a secure (i.e., password protected and encrypted flash drive) and locked location
◯	I allow my anonymized data to be used in future research
◯	I would like a copy of my transcribed interview
◯	I would like a copy of the final report emailed to me

By clicking Next, you are confirming:

• You have read the information about the research project and understand the risks and benefits.
• You have had time to think about participating in the project and had the opportunity to ask questions and have those questions answered to your satisfaction.
• You are satisfied with the answers to any questions you may have had.
• You understand what the research project is about and what you will be asked to do.
• YOU ARE AT LEAST 18 YEARS OLD.
• You understand that you are free to withdraw your participation in the research project without having to give a reason and that doing so will not affect you now, or in the future.
• You understand that if you choose to end your participation during data collection, any data collected from you up to that point will be retained by the researcher unless you indicate otherwise.
• You understand that the survey data collected on Survey Monkey will be initially collected and stored on a server in the U.S. and is subject to access under the U.S. Patriot Act until it is transferred from that server to the researcher's computer.
• You understand that if you choose to withdraw after data collection has ended, your data can be removed from the project at your request, until the point of data analysis.
• You may print or request a copy of this Informed Consent form for your records (Please email Natasha Hammond [natasha.hammond@gcap.ca] if you would like a copy emailed to you); and
• You agree to participate in this research project.

Survey link:
https://www.surveymonkey.com/r/?sm=oHU8h4UTkcqqPflDcvWmbUgF7bl084ZHv%2f

C%2flUVuyxkpt5nZR2LCBDld7jA5N0KotgbHKys62l2rO8UGKuieAcn0jDgGbp%2fMwnNH8jHXQ0o%3d

Appendix C: Semistructured Interview Questions

1. What influenced your decision to join Second Life?
2. What were your first experiences of the Second Life environment?
3. What were some of your initial avatar features?
4. How did you decide what characteristics would be represented through your avatar?
5. How did you learn the "etiquette" of second life and what affect did this have on your interactions with other avatars, your avatar presentation, and your desire to return to Second Life?
6. Describe your level of engagement when interacting with others in Second Life (i.e., attention you would give to the Second Life environment to the dismissal of other entities or events competing for your attention).
7. What was it like to learn the Second Life culture?
8. What is your current regular SIM (place to go or do) rating (General, Moderate, or Adult)? What draws you to these particular SIMs? How is this different if at all from when you first joined Second Life? How did this change over time?
9. Please share an experience you had with another avatar in Second Life that challenged you or surprised you. Did this change future interactions? If so, how? If not, why?
10. Describe turning-points in the use of your avatar (e.g., when you changed key physical characteristics of your avatar or started a new avatar or joined a community). What prompted these changes? What frustrations did you experience? How did you manage these experiences?

11. Describe your current avatar? What significance do the features you describe say about who you are in the online environment? How closely related are these elements to your real life self?
12. When you reflect on your avatar over time, how has your avatar been an extension of your real life self?
13. How has interacting in the Second Life environment influenced your real life?
14. What keeps you coming back to Second Life after all this time?
15. What plans do you have for your continued involvement in Second Life?

Appendix D: Timeline of Study

- June 13, 2016: Give Supervisor a copy of the proposal (4 weeks min. before proposal oral defence)
- June 27, 2016: Proposal defence - complete changes/ recommendations and submit ethics application to REB once changes have been accepted
- August 2016: Ethics review – once given the green light…get started on the research.
- September 2016: Recruitment - Pending acceptance of ethics application- potential start date of the study
- September 2016: Initial interaction with participants – give a link to the survey which explains consent and purpose of the study and gathers demographic and identifying information. Set up times for interviews.
- September 2016: Complete interviews.
- November 2016: Code data and identify themes.
- January 2017: Write up analysis, send a rough draft to Paul.
- March 2017: Make changes based on Paul's feedback; Send final thesis to Paul and Committee members and arrange thesis defence date

Appendix E: Ethics Approval

September 14, 2016

Ms. Natasha Hammond

Faculty of Health Disciplines\Graduate Centre for Applied Psychology

Athabasca University

File No: 22291

Ethics Expiry Date: September 13, 2017

Dear Natasha Hammond,

Thank you for your recent resubmission to the Faculty of Health Disciplines Departmental Ethics Review Committee, addressing the clarifications and revisions requested for your research entitled, 'Identity in digital space: A phenomenological study with narrative therapy implications'.

Your application has been Approved and this memorandum constitutes a Certification of Ethics Approval. You may begin the proposed research.

This REB approval, dated September 14, 2016, is valid for one year less a day.

Throughout the duration of this REB approval, all requests for modifications, ethics approval renewals and serious adverse event reports must be submitted via the Research Portal.

To continue your proposed research beyond September 13, 2017, you must apply for renewal by completing and submitting an Ethics Renewal Request form. Failure to apply for annual renewal before the expiry date of the current certification of ethics approval may result in the discontinuation of the ethics approval and formal closure of the REB ethics file. Reactivation of the project will normally require a new Application for Ethical Approval and internal and external funding administrators in the Office of Research Services will be advised that ethical approval has expired and the REB file closed.

When your research is concluded, you must submit a Project Completion (Final) Report to close out REB approval monitoring efforts. Failure to submit the required final report

may mean that a future application for ethical approval will not be reviewed by the Research Ethics Board until such time as the outstanding reporting has been submitted.

At any time, you can login to the Research Portal to monitor the workflow status of your application.

If you encounter any issues when working in the Research Portal, please contact the system administrator at research_portal@athabascau.ca.

Sincerely,

Simon Nuttgens

Chair, Faculty of Health Disciplines Departmental Ethics Review Committee

Athabasca University Research Ethics Board