

The Effectiveness of Marketing Communication within the Immersive environment

Parisa Mahyari

Master of Advertising (Creative Advertising)

Master of Business Administration (Marketing)

Bachelor of Theoretical Economics

Submitted in fulfilment of the requirements of the degree of

Master of Business (Research)

Queensland University of Technology

Faculty of Business

School of Advertising, Marketing and Public Relations

2010

Abstract

Immersive environments are part of a recent media innovation that allow users to become so involved within a computer-based simulated environment that they feel part of that virtual world (Grigorovici, 2003). A specific example is Second Life, which is an internet-based, three-dimensional immersive virtual world in which users create an online representation of themselves (an avatar) to play games and interact socially with thousands of people simultaneously. This study focuses on Second Life as an example of an immersive environment, as it is the largest adult freeform virtual world, home to 12 million avatars (IOWA State University, 2008). Already in Second Life there are more than 100 real-life brands from a range of industries, including automotive, professional services, and consumer goods and travel, among others (KZero, 2007; New Business Horizons, 2009).

Compared to traditional advertising media, this interactive media can immerse users in the environment. As a result of this interactivity, users can become more involved with a virtual environment, resulting in prolonged usage over weeks, months and even years. Also, it can facilitate presence. Despite these developments, little is known about the effectiveness of marketing messages in a virtual world context. Marketers are incorporating products into Second Life using a strategy of online product placement. This study, therefore, explores the perceived effectiveness of online product placement in Second Life in terms of effects on product/brand recall, purchase intentions and trial.

This research examines the association between individuals' involvement with Second Life and online product placement effectiveness, as well as the relationship between individuals' Second Life involvement and the effectiveness of online product placement. In addition, it investigates the association of immersion and product placement involvement. It also examines the impact of product placement involvement on online product placement effectiveness and the role of presence in affecting this relationship.

An exploratory study was conducted for this research using semi-structured in-depth interviews face-to-face, email-based and in-world. The sample comprised 24 active Second Life users. Results indicate that product placement effectiveness is not directly associated with Second Life involvement, but rather effectiveness is impacted through the effect of Second Life involvement on product placement involvement. A positive relationship was found between individuals' product placement involvement and online product placement effectiveness. Findings also indicate that online product placement effectiveness is not directly associated with immersion. Rather, it appears that effectiveness is impacted through the effect of immersion on product placement involvement. Moreover, higher levels of presence appear to have a positive impact on the relationship between product placement involvement and product placement effectiveness. Finally, a model was developed from this qualitative study for future testing.

In terms of theoretical contributions, this study provides a new model for testing the effectiveness of product placement within immersive environments. From a methodological perspective, in-world interviews as a new research method were undertaken. In terms of a practical contribution, findings identified useful information for marketers and advertising agencies that aim to promote their products in immersive virtual environments like Second Life.

Acknowledgements

I would like to start my expression of appreciation with a great thank to my Creator, who provided the abilities and facilities for my education, gave me the hope and the power to cope with my sadness and sorrows, taught me to be strong in the hard times of my life, and placed my destiny in Australia to study at QUT and have such supportive supervisors.

I wish to thank my dear supervisors Professor Judy Drennan and Dr Edwina Luck for accompanying me in every aspect of my life, as well as the education side. Thanks a lot for being with me during the whole journey. Also, I wish to thank Dr Kerri-Ann Kuhn for showing me a new outlook in conducting research. Thank you all for your support, your compliments and your kindness and many thanks for understanding me and believing in me. Thank you for your time, your patience and your knowledge, your sacrifices and devotion.

I would also like to thank my mum for bearing every second of being away from me, for devoting herself to raising me, for scarifying her youth, for loving me more than anyone, for praying the whole time, for energizing me during the rough times, for listening to me, for advising me, and for encouraging me to complete this research journey. Furthermore, I would like to thank my father who supported me financially and emotionally and paved the way to continue my studies. Also, I would like to thank my brother for being an amazing role model for me.

Moreover, I would like to thank all people who work hard in the business research department, especially Carol O'Brien and Trina Robbie, AMPRA Academics Lynda Andrews and John McDonnell, finance department staff Kritina Armstrong and Brodie Evans, IT coordinator Frederic Fery, and my friends in Z701 for being encouraging. I would also like to offer my sincere thanks to Kim MacKenzie for inspiring me, Shane

Mathews for his outstanding advice and Michael Devine for giving me the confidence to write my thesis.

Certification of Thesis

The work contained in this thesis has not been previously submitted for a degree or diploma at any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Parisa Mahyari

28 May 2010

Table of Contents

Abstract.....	i
Acknowledgements.....	iii
Certification of Thesis.....	v
List of Tables	viii
List of Figures.....	ix
Appendices Section.....	x
Glossary of Terms	xi
CHAPTER ONE: INTRODUCTION	1
1.0 Introduction.....	1
1.1 Background of the Research	2
1.2 Justification for the Research	3
1.3 Research Propositions	5
1.4 Overview of Research Methodology	6
1.5 Contribution to Theory, Methodology and Practice	6
1.6 Limitations to the Research	7
1.7 Outline of the Research Program.....	7
1.8 Conclusion	8
CHAPTER TWO: LITERATURE REVIEW	9
2.0 Introduction.....	9
2.1 Marketing Communication.....	10
2.1.1 Advertising.....	12
2.1.2 Product placement.....	13
2.1.3 Product placement vs. advertising	13
2.1.4 From traditional to online product placement.....	16
2.1.5 The effectiveness of product placement	21
2.2 Immersive Virtual Environments.....	24
2.2.1 Second Life	27
2.2.2 Avatars.....	30
2.2.3 Specific characteristics of virtual worlds.....	31
2.2.3.1 Involvement.....	33
2.2.3.2 Immersion.....	38
2.2.3.3 Presence.....	39
2.3 Initial Conceptual Model.....	41
2.4 Conclusion	42
CHAPTER THREE: RESEARCH METHODOLOGY.....	43
3.0 Introduction.....	43
3.1 Philosophical Perspective	44
3.2 Justification for Research Methodology	46
3.2.1 Face-to-face interview justification	47
3.2.2 Email-based interview justification	48
3.2.3 In-world interview justification	48
3.2.4 Advantages and disadvantages of in-depth interview techniques.....	49
3.3 In-Depth Interview Planning and Procedure.....	53
3.4 The Sample	55

3.5 Study One- Research Method and Design	56
3.5.1 Sample characteristics.....	56
3.5.2 Data collection	58
3.6 Study Two- Research Method and Design	58
3.6.1 Sample characteristics.....	59
3.6.2 Data collection	60
3.7 Method of Data Analysis	61
3.8 Reliability and Validity	63
3.9 Ethical Considerations	64
3.10 Conclusion	66
CHAPTER FOUR: RESULTS	67
4.0 Introduction.....	67
4.1 Study One Results- Analysis of Face-to-Face and Email-Based Interviews.....	68
4.1.1 Online product placement effectiveness	68
4.1.2 Proposition one	72
4.1.3 Proposition two	80
4.1.4 Proposition three	82
4.1.5 Proposition four	84
4.1.6 Proposition five	85
4.2 Study Two Results- Analysis of In-World Interviews	92
4.2.1 Online product placement effectiveness	92
4.2.2 Proposition one	94
4.2.3 Proposition two	100
4.2.4 Proposition three	101
4.2.5 Proposition four	103
4.2.6 Proposition five	104
4.3 Overall Findings from Study One and Study Two	110
4.4 Conclusion	113
CHAPTER FIVE: DISCUSSION.....	114
5.0 Introduction.....	114
5.1 Review of the Objectives of the Research	115
5.2 Discussion of Key Findings from the Propositions	115
5.2.1 Propositions' discussion	116
5.2.2 Developing a conceptual model for online product placement effectiveness....	121
5.3 Contributions to Theory and Practice	123
5.3.1 Contribution to theory and methodology	123
5.3.2 Contributions to advertising practice	123
5.4 Limitations to the Research	124
5.4.1 Methodological limitations	124
5.4.2 Measurement limitations.....	126
5.4.3 Sample limitations	126
5.5 Directions for Further Research	127
5.6 Conclusion	128
References	130

List of Tables

Table 2.1 Similarities and differences of advertisements and product placements	15
Table 2.2 Challenges faced by advertising agencies.....	17
Table 2.3 Different types of product placements	18
Table 2.4 Features of Second Life	27
Table 2.5 Concepts Definition	32
Table 3.1 Advantages and disadvantages of in-depth interviews	49
Table 3.2 Sample characteristics of study one	57
Table 3.3 Sample characteristic of study two	59
Table 3.4 Data management using NVivo	62
Table 4.1 The association between individuals' Second Life involvement with product placement involvement and its effectiveness.....	78
Table 4.2 The mediating role of presence.....	90
Table 4.3 The association of individuals' Second Life involvement with product placement involvement and its effectiveness.....	98
Table 4.4 The mediating role of presence.....	108
Table 4.5 Overview of all findings – Studies one and two	111
Table 5.1 Levels of support for the propositions	122

List of Figures

Figure 2.1 Chapter framework	10
Figure 2.2 Combination of advertising and publicity through hybrid message	14
Figure 2.3 A framework to investigate the operation of product placement	23
Figure 2.4 Conceptualizing involvement	37
Figure 2.5 Initial conceptual model of online product placement effectiveness.....	41
Figure 3.1 Chapter framework	43
Figure 3.2 An interactive model of research design	53
Figure 4.1 Chapter framework	68
Figure 4.2 The proposed model for this research.....	113
Figure 5.1 Chapter framework	114

Appendices Section

Appendix 3.1 Interview guide and questions	144
Appendix 3.2 Participant information and consent form	147
Appendix 4.1 Revised interview questions	150

Glossary of Terms

Immersive Environments

Also known as three-dimensional virtual worlds, immersive environments are artificial and interactive, computer-created scenes or worlds within which users can immerse themselves and feel like they are part of the simulated universe (Grigorovici, 2003)

Second Life

Second Life “*is a 3-D virtual world where users can socialize, collaborate, and conduct business using voice and text chat through personal avatars*” (Shen & Eder, 2009, p. 94)

Product Placement

Product Placement is “*the deliberate insertion of branded products into an entertainment program aimed at influencing the audience*” (Law & Braun-LaTour, 2004, p. 63)

Online Product Placement

Online product placement is the display of brand in virtual communities that allows individuals to interact with branded products (Wollslager, 2009)

Involvement with Immersive environment

“Involvement is a psychological state experienced as a consequence of focusing one’s energy and attention on a coherent set of stimuli or meaningfully related activities and events” (Witmer and Singer, 1998, p.227).

Involvement with Product Placement

“Product placement is the tendency of individuals to make personal connections between their own life and the stimulus object” (Schiffman, Bednall, O’Cass, Paladino, Ward, & Kanuk, 2008, p.203) High involvement refers to a positive and complete self-engagement in the advertisement, while low involvement refers to a self-separation from the advertisement” (O’Cass, 2000; Schiffman et al.2008).

Immersion

Immersion is *“the system’s ability to shut out sensations from the real world, accommodating many sensory modalities with a rich representational capability, and a panoramic field of view and sound”* (IJsselsteijn et al. 2004, p. 47)

Presence

Presence is an individual’s reaction or response to immersion (Slater, 2003). In fact, it is *“the experiential counterpart of immersion”* (IJsselsteijn et al. 2004, p. 47). It is also known as a sense of being in an environment (Witmer and Singer, 1998)

Effectiveness of Product Placement

Effectiveness of product placement is the wellness of recalling a brand (Gupta and Lord, 1998) and searching it in the off-line world. For this research, the effectiveness of product placement was measured by three stages of the hierarchy of effects framework: cognitive (unaided recall), affect (brand attitude-liking and preference), and conation (purchase intention). Unaided recall is tested when one is asked to recall any brand, while aided recall is where a brand is recalled after a prompt for a product category (Law & Braun, 2000)

CHAPTER ONE: INTRODUCTION

1.0 Introduction

Immersive environments, also known as three-dimensional virtual worlds, are artificial and interactive, computer-created scenes or worlds within which users can immerse themselves and feel like they are part of the simulated universe (Grigrovici, 2003), and as such they are direct experiential media. In fact, immersive virtual environments present an experiential marketing channel that influences advertising effectiveness (Grigrovici & Constantin, 2004).

Immersive virtual worlds are an “*evolution of web-based peer-to-peer social environments*” (Massara, Ancarani, Costabile, Moirano & Ricotta, 2009, p.2), which have recently become very popular among millions of participants the whole world over. In the last four decades technology has advanced game realism (from 2-D to 3-D graphics) and today it is moving rapidly into virtual environments where there is an enormous potential reach for advertisers (Nelson, 2002).

Interactive virtual environments are known as effective promotional vehicles that allow consumers to be actively involved in the persuasion process (Roehm & Haugtvedt, 1999) and enable the advertisement to appear in places where it cannot appear in the real world (Nelson, 2002). Based on Gartner’s (2007a, 2007b) prediction, the greatest influence on all purchases in the next ten years will be the virtual experience associated with them. Despite the growth and potential of this medium, little is known about the influence of presence and involvement in this interactive environment context (Nelson, Yaros & Keum, 2006).

This study focuses on Second Life, which is an internet-based, three-dimensional virtual world where users create an online representation of themselves (an avatar) to play games and interact socially with thousands of people simultaneously (Mahyari,

Drennan, & Luck, 2009). Essentially, these avatars are “residents” in a computer-generated environment that simulates the real world. Therefore, through their assumed identity, users can interact naturally with objects and other individuals in real-time, giving them an experience indistinguishable from normal reality (Bainbridge, 2007; Loomis, Blascovich & Beall, 1999).

The purpose of this study is to examine the effectiveness of product placement within the immersive environment. This first chapter provides an overall picture of the research that is structured as follows. A background to the research is described in section 1.1 and justification for the research is provided in section 1.2 followed by the presentation of research questions in section 1.3. Research methodology for obtaining relevant data to the research propositions is briefly discussed in section 1.4. The contribution of the research to the theory and practice and limitations to this research are discussed in section 1.5 and section 1.6 respectively. The outline of each chapter presented in this research is provided in section 1.7 and this chapter is concluded in section 1.8.

1.1 Background of the Research

Consumer attitudes toward advertising in general have long been a focus of research (Schlosser, Shavitt & Kanfer, 1999). Many studies have been conducted in recent years in this area, but most of them have focused more on investigating the structure of advertising attitude rather than the generalisability of overall attitude toward advertisements. Today consumers are media literate and prefer to be proactive users rather than being passive viewers. As consumers become more involved with Computer Mediated Communication (CMC) events such as video games and immersive virtual environments, it becomes more important for advertisers to use these channels as means of delivering advertising content (Nicovich, 2005). The key feature of these CMC events is the ability to deliver a sense of presence, enabling participants to immerse psychologically in such environments. However, to date little research has been undertaken on the effects of presence on consumer behaviour (e.g., Grigrovici & Constantin, 2004).

Recently, drawing consumers' attention to a product has become more difficult as a plethora of media and various forms of advertising now constantly surrounds individuals. Marketing communication therefore plays a significant role in arousing consumers' attention. For example, advertising and product placement, as two important functions of marketing communication, are now appearing in video games and virtual environments. Product placement is also referred to as 'brand placement' (Balasubramanian, Karrh & Patwadhan, 2006; Lehu, 2007) or 'entertainment marketing' (Hackley & Tiwsakul, 2006) and is defined as "the deliberate insertion of branded products into an entertainment program aimed at influencing the audience" (Law & Braun-LaTour, 2004, p. 63).

Product placement has received considerable attention by practitioners, as it is the most cost efficient method of promotion and has the ability to build awareness, create recall, and form attitudes (Matthes, Schemer & Wirth, 2007). Given the limited literature on the effectiveness of marketing communication in virtual worlds, this research investigates the impact of participants' involvement with the environment and product placement on evaluation of product placement effectiveness within immersive environments, particularly in Second Life.

1.2 Justification for the Research

The effectiveness of advertising message is believed to be moderated by audiences' involvement (Greenwald & Leavitt, 1984). Although many studies have been conducted to investigate the effect of product involvement and purchasing behaviour involvement on advertising effectiveness, only a few researchers have examined the influence of consumer involvement on the effectiveness of advertisements (e.g., O'Cass, 2000; Zaichkowsky, 1986).

Regardless of the developments of marketing communication, little is known about the effectiveness of marketing messages in virtual worlds. It is claimed that these virtual

worlds are potentially innovative channels for marketing content and products (Barnes, 2007), but empirical evidence of tangible outcomes for marketers is lacking (Mahyari, Drennan, & Kuhn, 2009). This research therefore explores the effectiveness of product placement as a form of marketing communication in Second Life that is a best example of a virtual world. With development of technology, expansion of the computer and video game industry, and increasing numbers of players, there is a strong need for effective product placement in such a massive market.

Processing brand messages in entertainment media has become an important topic in advertising literature owing to the increase of product placement in entertainment media (Russell, 2002; Russell & Stern, 2006). Nonetheless, little is known about the effectiveness of advertising in virtual worlds (Barnes, 2007). Grigorovici and Constantin (2004) state that the effects of immersive environments on the processing of embedded commercial messages are still unclear. Although a few studies (e.g. Grigorovici & Constantin, 2004 and Nicovich, 2005) have been carried out in this area, there is a lack of information about advertising effectiveness and brand evaluation in immersive environments. Therefore, this research aims to discover how virtual world users respond to these kinds of marketing communications.

Although presence and immersion discriminate immersive environments from other media, to date only few studies have investigated their roles in influencing advertisement effectiveness (eg Grigorovici & Constantin, 2004). Notably, Nicovich (2005) has examined the effect of consumers' involvement on advertising evaluation in a video game environment as well as the mediating role of presence. Thus, this study extends his work further by investigating the effect of consumers' involvement on product placement effectiveness within the immersive virtual environments like Second Life and examines the mediating role of presence. The next section will outline the research problem and research propositions that guide the process of this research.

1.3 Research Propositions

To examine the impact of individuals' involvement with immersive environments and product placement on effectiveness of product placement within these environments and investigate the role of immersion and presence, five propositions are developed based on the limitations and opportunities that emerge from the literature review. A detailed description of each research question is provided in chapter two. These propositions particularly extend the existing model of mediating role of presence proposed by Nicovich (2005). The propositions for this research are outlined as follows.

Proposition 1: An individual's involvement with the immersive environment is associated with the effectiveness of online product placement.

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement.

Proposition 3: An individual's immersion in the immersive environment is associated with the effectiveness of online product placement.

Proposition 4: An individual's immersion in the immersive environment is associated with the involvement with product placement.

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness.

1.4 Overview of Research Methodology

This research is based on critical realism paradigm where “reality is assumed to exist, but to be only imperfectly apprehendable because of basically flawed human intellectual mechanism and the fundamentally intractable nature of phenomena” (Guba & Lincoln, 1994, p. 110). A qualitative study is considered appropriate for this research, as the aim is to develop an understanding of social world experience (Fossey, Harvey, McDermott & Davidson, 2002) and the influence of the particular context on participants’ behaviour (Maxwell, 1997). This research incorporates two studies to examine user attitudes and behaviours towards product placement in the immersive environment and develops a model from the findings of this research. Study one includes face-to-face and email-based in-depth semi structured interviews to examine the propositions developed in the literature review. This facilitates a better understanding of the immersive environments’ setting and product placements within them, as well as to examine initial conceptual model developed in chapter two and check the efficacy of the interview questions and responses (Stebbins, 2001). Study two undertakes in-world semi-structured in-depth interviews to identify any differences in responses between those interviewed face-to-face or by email and participants interviewed in-world, as well as to explore the initial conceptual model.

1.5 Contribution to Theory, Methodology and Practice

This research makes some significant contributions to consumer behaviour and marketing literature. Theoretically, it contributes new knowledge regarding promotion within immersive environments, including the assessment of product placement in virtual worlds based on the individuals’ involvement. Also, this research proposes a new model to explore the effectiveness of online product placement considering the role of immersion as well as presence in virtual environments. In terms of methodology this research also makes a valuable contribution as it uses the immersive environment as a platform to conduct interviews, which is useful for future research in this area.

Findings from this research also contribute to practice. Firstly, it presents a comprehensive review of the virtual environments and associated activities relevant for marketing practitioners to understand online consumers segment. Secondly, as it is relevant to current marketing practice it provides findings that would be useful for promotional strategy decisions. Finally, it contributes new knowledge to evaluating promotions and individuals' involvement in immersive environments.

1.6 Limitations to the Research

There are a number of methodological, measurement and sample limitations that need to be identified and addressed. Firstly, some methodological limitations exist for face-to-face, email-based and in-world interviews with regards to generalisability, quality, technological and trust issues. Secondly, there are some limitations for measuring effectiveness, involvement, presence and immersion, which are discussed in Chapter 5. Finally, there remain some issues with sample owing to difficulties in finding appropriate potential interviewees. The following section will present the outline of this research.

1.7 Outline of the Research Program

This research consists of five chapters that develop a comprehensive research program to investigate the propositions presented in section 1.3. Brief summary of each chapter is provided as follows.

Chapter one introduces the research program of this thesis. It also provides the background and justification of the research and presented research problem and propositions as well as an overview of methodology. Additionally, this chapter identifies contributions to theory, methodology and practice, while acknowledging a number of limitations.

Chapter two presents the literature review relevant to the research topic. The literature review provides a theoretical framework based on marketing communication and immersive environments discipline. The gaps are identified and research propositions are constructed and an initial conceptual model is proposed to be examined for this research.

Chapter three describes and justifies the research methodology for this research. This chapter provides a justification of the philosophical perspective of this research and discusses the research method and designs for study one and study two. Sample, data collection and data analysis method are discussed, reliability and validity issues are addressed and ethical considerations are taken into account.

Chapter four reports the key findings of data collected from study one and study two, and discusses the results from each study separately with a proposed a model at the end.

Chapter five provides a discussion of data analysis and findings of the research, and relevant findings to each proposition are discussed. The contributions of the research to theory, methodology and practice are described and limitations associated with this research are presented and recommendations for future research suggested. Finally, a conclusion of this research is presented.

1.8 Conclusion

In conclusion, this chapter provided an overview of this research by setting the background of the research and justification for undertaking the research. Research propositions and the overview of the research methodology were presented. Further, summaries of contributions to theory, methodology and practice, as well as limitations to this research were provided. The following chapter will present the relevant literature review for this research.

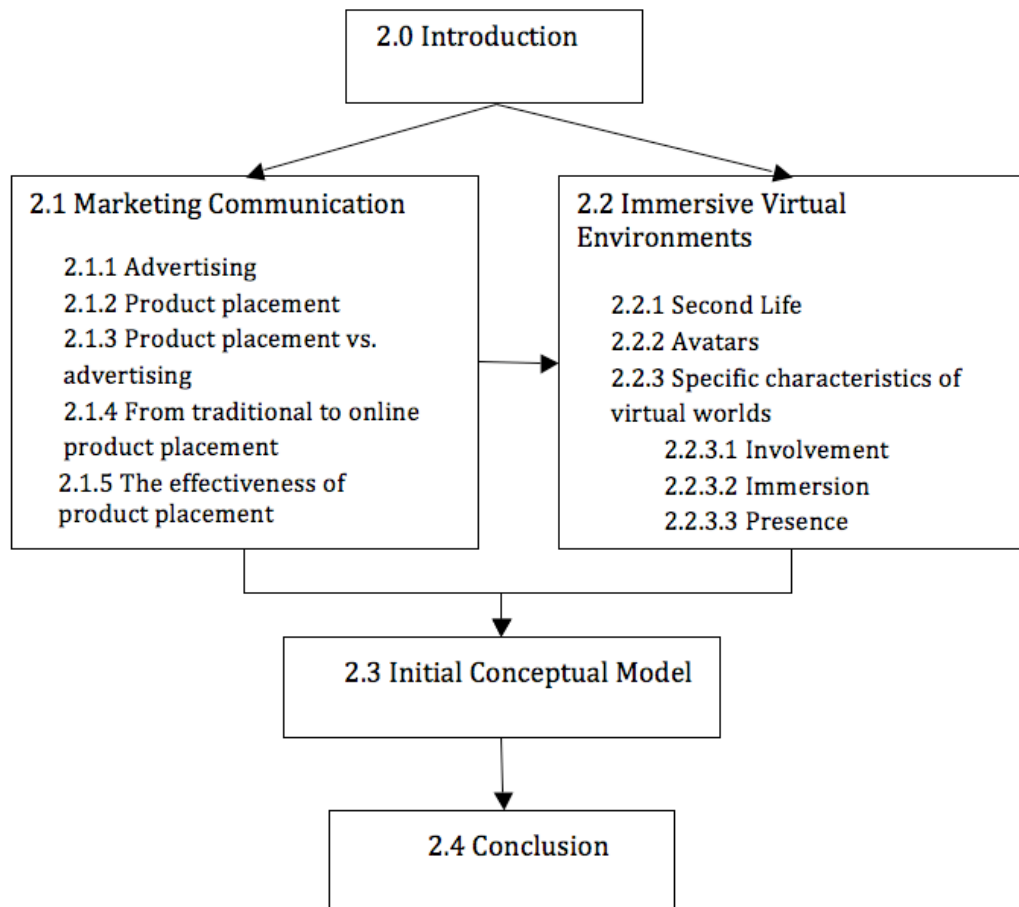
CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The previous chapter introduced the outline of the research undertaken to address the issue of whether product placement is effective in immersive environments. This research examines the influence of involvement, immersion and presence on product placement effectiveness and intends to propose a model to illustrate this. The purpose of this chapter is to provide a range of literature within the disciplines of marketing communication and immersive environments. This literature review identifies a number of theories that guide the development of a model to be tested in the primary research and also suggests significant propositions to be tested based on the gaps in the current research.

This chapter starts with an overview of marketing communication literature and defines advertising and product placement as two major components. The theoretical foundation for effectiveness of product placement is discussed within this section. Section 2.3 examines the features and characteristics of immersive virtual environments and specifically Second Life, which is the target of this research. An initial conceptual model will be described in section 2.4 and the last section concludes the literature review. This chapter framework is depicted in Figure 2.1.

Figure 2.1 Chapter framework



Source: developed for this research

2.1 Marketing Communication

Since 1950 marketing communication has been developed and performed as a vital part of business and non-business organisations and it is playing a significant role in today's world (Kitchen, 1999). Marketing communication is defined as “*a collective term for all the various types of planned messages used to build a brand-advertising, public relations, sales promotion, direct marketing, personal selling, packaging, events and sponsorship, customer service and product placement*” (Ouwensloot & Duncan, 2008, p. 8). Added to this definition can be the elements of interactive marketing and publicity (Belch & Belch, 2007). In fact, the marketing communications functions help build a brand by connecting a company with

customers and influencing the information processing activities of stakeholders (Blythe, 2006; Ouwersloot & Duncan, 2008).

With the rapid development of technology and the Internet, many opportunities have become available to marketers in online communication (Krishnamurthy, 2006). While the traditional marketing communication approach is based on one-way communication between marketer and consumer, interactive media changes marketing communication to a two-way process with the core interaction between marketer and consumer (Alba et al., 1997; Berthon, Pitt & Watson, 1996; Stewart & Pavlou, 2002). Therefore, interactive media provide the opportunity for marketers to have two-way communication with consumers and to receive immediate and contingent response to their actions (Alba et al., 1997). In fact, interactivity changes the communication process as a result of the consumers' influence (Stewart & Pavlou, 2002).

An example of an interactive medium is the Internet, which functions as a global mass medium of communication (Janoschka, 2004). The Internet as a marketing channel is a new tool for communicating with customers and distributing products and services (Stewart & Pavlou, 2002). Based on the potential the Internet has for interactivity, it serves a much wider range of functions compared to conventional media, owing to the fact that it is being used all around the world at any time without any boundaries (Stewart & Pavlou, 2002). Further, its characteristics make the interaction and relationship between consumers and marketers more complex (Stewart & Pavlou, 2002).

Since 2000, Internet usage has grown to 305.5 percent in eight years (Internet World Stats, 2008). Advertising has also grown rapidly in this global space, especially in the form of Web advertising (Janoschka, 2004). The Internet Advertising Bureau (2008) reported that Internet advertising revenue reached 5.8 billion U.S. dollars for the first quarter of 2008 (IAB U.S., 2008), almost five times more than the revenue in 1998. Also, online marketing communication has risen to be an important part of a company's promotional mix (Adegoke, 2004).

As product placement has been considered as a form of advertising in previous research, first a literature review on advertising will be provided. Product placement will then be discussed in terms of its advantages, similarities and differences with advertising in the following section.

2.1.1 Advertising

Public attitudes toward advertising have been a focus of academic research for over 20 years (Pollay & Mital, 1993; Zanot, 1984). Richards and Curran (2002) define advertising as “*a paid mediated form of communication from an identifiable source, designed to persuade the receiver to take some action, now or in the future*” (p. 74). Advertising functions as one of the central tools of marketing communication. It is the best-known promotional tool, owing to the fact that it is the most cost-effective way to reach current and potential customers and is very valuable for building a brand (Belch & Belch, 2007). Used to create brand awareness, advertising differentiates a brand from its competitors and builds an image of a brand (Ouwersloot & Duncan, 2008).

Advertising interrupts people’s activity for a very short time with commercial messages, thus it must be brief, informative and entertaining enough in order to gain consumers’ attention and generate interest (Carroll, 1997). The impact of traditional advertising has been reduced as a result of change in trustworthiness of advertising messages (Clemons, Barnett & Appadurai, 2007). Internet advertising, on the other hand, seems to be more informative and trustworthy compared to advertising in general (Schlosser, Shavitt & Kanfer, 1999).

According to Yang (2006) Internet advertising has rapidly gained much attention amongst advertising academics and practitioners. It can be delivered through any channel including video clips, interactive games and provide information on a corporate logo or official website (Schlosser, Shavitt & Kanfer, 1999). Moreover, Internet advertising has advanced to now include Online Three-Dimensional (3-D) advertising. 3-D advertising is a form of Internet advertising that promotes various products and services to different demographics worldwide, while they are playing

online video games or settling in 3-D environments. Other advances have included the use of product placement in virtual environments. This marketing communication technique will be discussed in the following section.

2.1.2 Product placement

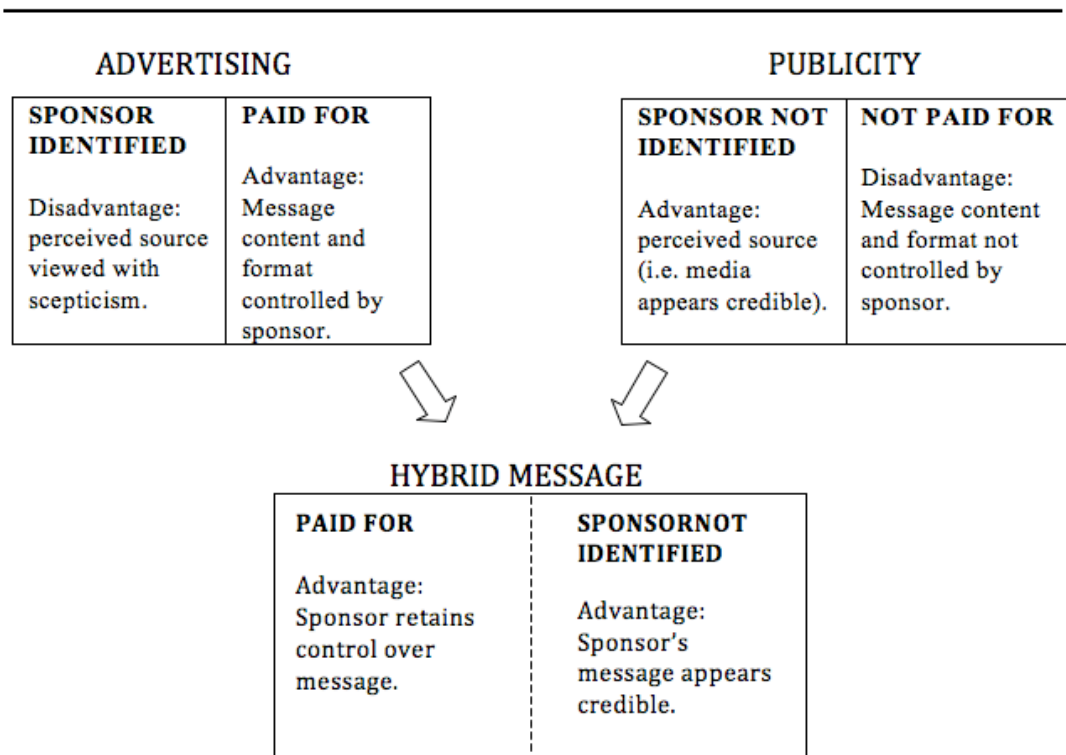
Product placement is also referred to as ‘brand placement’ (Balasubramanian, Karrh & Patwadhan, 2006; Lehu, 2007) or ‘entertainment marketing’ (Hackley & Tiwsakul, 2006) and is defined as “*a paid product message aimed at influencing movie (or television) audiences via the planned and unobtrusive entry of a branded product into a movie (or television program)*” (Balasubramanian, 1994, p. 29). Others (Law & Braun-LaTour, 2004, p. 63) define it as “*the deliberate insertion of branded products into an entertainment program aimed at influencing the audience*”. However, a comprehensive definition of product placement that applies best to this research is: “*a combination of advertising and publicity designed to influence the audience by unobtrusively inserting branded products in entertainment programs so that the viewer is unlikely to be aware of the persuasive intent*” (Cowly & Barron, 2008, p. 89).

The objective of product placement in general is “*to generate positive associations toward the placed brand, resulting in a positive shift in brand attitude*” (Cowley & Barron, 2008, p. 89). However, one of the most common goals an advertiser wants to achieve when utilising product placement is to gain brand awareness (Karrh, McKee & Pardun, 2003). One of the aims is to enhance the audience’s familiarity with the brand so that consumers are more likely to remember it (d’Astous & Chartier, 2000)

2.1.3 Product placement vs. advertising

Product placement is a combination of publicity and advertising and has been considered as a hybrid message that influences audiences while they are unaware of commercial intents and efforts (Balasubramanian, 1994). Balasubramanian (1994) has formulated a structure of advantages and disadvantages while considering the message and its perceived source (see Figure 2.2).

Figure 2.2 Combination of advertising and publicity through hybrid message



Source: adapted from Balasubramanian, 1994

Product placements may generate higher affective outcomes than advertisements when their message contents are the same (Balasubramanian, Karrh & Patwadhan, 2006). Wollslager (2009) identified traditional advertising as banner advertising, advergames as branded online games, embedded advertising as product placement within a website and online product placement as an immersive advertising. Nebenzahl and Jaffe (1998) consider product placement as a form of advertising and stated that product placement is the least ethical form of advertising because it is both high on obtrusive and disguised ethical dimensions. They discuss two types of advertising: disguised and obtrusive, with both high and low ethical dimensions. Disguised advertising messages are recognized as unsponsored by audiences due to the fact that the message has been presented as editorial material or there is no clear source of message (Nebenzahl & Jaffe, 1998). On the other hand, obtrusive advertising messages are secondary to the main communication message like

sideboard advertisements at sports grounds when the focus is the sport event and not the advertisements (Nebenzahl & Jaffe, 1998).

In contrast, Friestad and Wright (1994) argue that the nature of product placement is unobtrusive, which makes the audiences less likely to develop ‘persuasion knowledge’. The Persuasion Knowledge Model (Friestad & Wright, 1994) assumes that people develop persuasion knowledge based on their social interaction experiences, conversation, marketing and advertising tactics observation, and use it differently to respond to persuasion attempts that are made by persuasion agents (i.e., salesperson, advertising agent).

Balasubramanian, Karrh and Patwardhan (2006) propose that product placements are more similar to transformational advertisements rather than informational advertisements in a sense that they conclude indirect messages that represent the importance of product usage and not the detailed product information. Others (Babin & Carder, 1996b) suggest that product placement is similar to word-of-mouth advertising, as it positions commercial messages in a non-commercial context. Despite the fact that product placement and advertising are similar in a way that they both present a brand, audiences process product placement differently owing to its non-commercial and hidden nature (Balasubramanian, 1994). The key similarities and differences between advertising and product placements are summarised in Table 2.1.

Table 2.1 Similarities and differences of advertisements and product placements

	ADVERTISEMENTS (Ads)	PRODUCT PLACEMENTS (PPLs)
SIMILARITIES	Ads are paid for.	PPLs are paid for.
	Skepticism toward ads adversely effects processing of ads.	Skepticism toward ads adversely effects processing of
	Attitude toward the ad is positively related to attitude toward PPL.	Attitude toward the PPL is positively related to attitude toward ads.
DIFFERENCES	Message accompanies, and is therefore distinct from, editorial content.	Message is embedded in, and is therefore not distinct from, editorial content.

	Ads accommodate mood spillover effects from program to message.	PPLs facilitate mood spillover effects better than ads.
	Ads can range over the informational/transformational continuum.	PPLs are more transformational than informational.
	Ads can range over the argument/drama continuum.	PPLs are closer to drama than to arguments.
	Informational/argument ads are processed evaluatively.	PPLs are more likely to be processed empathetically.
	Ads are characterized by low levels of disguise and obtrusiveness.	PPLs have high levels of disguise and obtrusiveness.
	Ads identify the sponsor.	PPLs do not identify the sponsor.
	Ad-specific regulations exist.	PPL- specific regulations do not exist.

Source: adapted from Balasubramanian, Karrh and Patwadhan (2006)

2.1.4 From traditional to online product placement

DVRs (Digital video recorder) and TiVo provide audiences the opportunity to bypass commercials in TV programs by skipping and zapping them, or watching pre-recorded programs free from any advertisements (Lehu, 2007). With these new technologies enabling audiences to avoid advertisements, the use of product placement has become more popular (Lehu, 2007). Product placement has been used vastly in movies and television programmes in recent years and in 2009 it had an eight percent increase from 2008 (Lowry & Helm, 2009).

There are many challenges that exist for advertising agencies that have been identified in the existing literature. These range between cost and effectiveness to themes/concepts that this research takes into consideration, such as: an increase in anti-advertising attitudes (Lee & Faber 2007; Tauder, 2005); increase in marketing communication mediums; and a loss in advertising effects on consumers' decision as consumers do not trust advertising information (Clemons, 2009; Clemons, Barnett &

Appadurai, 2007). For a more definitive lists of reasons that advertising agencies provide for manipulating product placement, see Table 2.2.

Table 2.2 Challenges faced by advertising agencies

Challenges	Researchers
Increase in anti-advertising attitude owing to existence of time shifting devices like video recorders and commercial free services like iPods	Lee & Faber, 2007; Tauder, 2005
Rise in Internet broadband usage and alternative advertising media , which requires an accurate media combination for having successful advertising	Clemons, Barnett & Appadurai, 2007; Tauder, 2005
Transform in programming opportunities and planning agenda as both media agents and communication distribution companies are stuck in a blur situation	Tauder, 2005
Loss in advertising effects on consumers' decision as consumers do not trust advertising information	Clemons, 2009; Clemons, Barnett & Appadurai, 2007
Transform in consumers' decisions based on their own preference as they have more sources, information and knowledge about their favourite products	Clemons, Barnett & Appadurai, 2007; Tauder, 2005
Decline in advertising reach and credibility	(Tauder, 2005)

Source: developed for this research

Since the type of product placement has a considerable influence on audiences' recognition and also enables executives to predict the likelihood of effectiveness of product placement (Brennan, Dabus & Babin, 1999), various types of product placements have been classified based on different research in Table 2.3 as well as online/ immersive product placement that is the focus of this research.

Table 2.3 Different types of product placements

PRODUCT PLACEMENT TYPE	DEFINITION
On-set placements	Noticeably displayed brands as it may have been mentioned or used by the main cast (Murdock, 1992)
Creative placements	Displayed brands in the background (Murdock, 1992)
Typical placements	Visual product placements (Balasubramanian, Karrh & Patwardhan, 2006)
Home-run placements	Both visual and audio product placements with long exposures (Balasubramanian, Karrh & Patwardhan, 2006)
Implicit placement	Informal (passive and background) representation of product placement (Hackley & Tiwaskul, 2005)
Integrated explicit placement	Formal (active and visible) display of product's benefits and attributes (Hackley & Tiwaskul, 2005)
Non-integrated explicit placement	Formal display of brand at the beginning and end of a program without integration with the content of that program (Hackley & Tiwaskul, 2005)
Ordinary placements	Represent real brands similar to mass advertising (Balasubramanian, Karrh & Patwardhan, 2006)
Customized placement	Audiences adjust the brand message to their situation with regards to technology and their contribution (Balasubramanian, Karrh & Patwardhan, 2006)
Collaborative placement	Similar to mass customization, this type of product placement allows the audiences to design and produce a customized product like choosing a brand name and logo in an online car-racing game (Balasubramanian, Karrh & Patwardhan, 2006)
Blatant placement	Irritating excessive exposure time and visibility of a brand (Balasubramanian, Karrh & Patwardhan, 2006)
Fake placement	Insertion of fake brands to assess the added-value of actual brands (Balasubramanian, Karrh & Patwardhan, 2006) that is more distracting than actual product placement (Natharius & Galician, 2004)
Exclusive placements	Promoting the brand as a fundamental element of the story, like mentioning the brand name in the title of a movie (Balasubramanian, Karrh & Patwardhan, 2006)
Virtual placement	Inserting a product or a logo digitally into a live or pre-recorded program, while that product or logo does not exist in physical actuality. For instance, audiences are exposed to different product placements in different parts of the world, whilst they are watching the same sports match (Hey, 2002)

Online placement/ immersive advertising	Display of brand in virtual communities that allows individuals to interact with branded products (Wollslager, 2009)
Classic placement	Obvious placement of a brand (Lehu, 2007)
Corporate placement	Inserting a brand name or logo into a plot without material support of the product with the assumption that audiences are already familiar with the brand (e.g., a placard of Pepsi might be seen in a movie but not the Pepsi itself ;Lehu, 2007)
Evocative placement	Tactful insertion of a brand in a way that the brand does not appear or is not mentioned in a plot. It is not applicable to every brand or product, as the product needs to be original and has a unique design to remind the audience of its name (e.g., a bottle of Tanqueray Gin with an invisible label is distinctive enough to be identified easily by the audience; Lehu, 2007)
Stealth placement	Can be visual like placement of a Giorgio Armani suit in a wardrobe in a scene of a movie, or audible like a ringtone. However, sometimes it can remain unnoticeable and as such is a possible disadvantage (Lehu, 2007)

Source: developed for this research

The popularity of television advertising has decreased since the late 1980s owing to the increase in costs and competition from cable and independent networks (Avery & Ferraro, 2000). Moreover, there is growing concern that viewers are ignoring formal advertisements or switching channels during commercial breaks that is called ‘zapping’ (Elliott, 1992). Consequently, brands need to find alternative ways to attract consumers’ attention.

Product placement in the entertainment media has become an increasingly popular strategy used by marketers to help bypass zapping (Avery & Ferraro, 2000; Lee & Faber, 2007). The strategy has become a feasible and increasingly important competitive weapon in the marketing communication area (Gupta & Lord, 1998). Nelson (2002) has revealed that product placement is much more preferable than advertisements owing to the fact that “*they enhance realism, aid in the development of character, generate historical subtext, and provide a sense of familiarity*” (p. 80).

The volume and sophistication of product placements has increased in both detail and scope (Tiwsakul, Hackley & Szmigin, 2005). This has occurred because they are associated with an increase in sales, which is especially notable when products appear in *“sitcoms- a program type that provides strong evidence of the strategy’s effectiveness across product categories”* (Russell & Stern, 2006, p.7). Also, researchers Nebenzahl and Secunda (1993) have found that audiences seem to have more positive attitudes toward brand placements than toward advertisements in television programs and movies.

Product placement in movies started more than six decades ago. Despite the tremendous growth of product placement, only within the last ten years has research on the practice of placing brands in movies begun to appear consistently in the literature (see for example, Avery & Ferraro, 2000; Nelson, 2002; Russell & Stern 2006). Placing products started from a science fiction movie in the 1940’s to make the scenes more realistic (Law & Braun-LaTour, 2004). Starbucks is a recent example of product placement in American movies as it can be seen in almost every romantic and comic movie.

Product placement has appeared in various types of entertainment media, including games, novels, songs, television shows, and movies (Gould & Gupta, 2006; Karrh, 1994; Vollmers & Mizerski, 1994). However, the usage of product placement is not restricted to those media. It has also appeared in live shows, blogs (Balasubramanian, Karrh & Patwadhan, 2006) and music videos (Karrh, 1998). Recently, interest in product placement has begun to expand in other forms of media, especially video, computer, and online games (Nelson 2002; Nicovich 2005; Schneider & Cornwell 2005; Yang, Roskos-Ewoldsen, Dinu & Arpan 2006). It has also appeared in virtual environments such as Second Life and There.

The majority of research on product placement has focused on brands placed in movies or television programs (DeLorme & Reid, 1999; Gupta & Lord, 1998; Lee & Faber, 2007; Russell, 2002). Furthermore, many researchers in this field have

considered placement in video games (e.g. Karrh, McKee & Pardun, 2003; Nelson, 2002; Nelson, Keum & Yaros, 2004; Winkler & Buckner, 2006), but, to the researcher's knowledge, no research has focused on product (brand) placement in Second Life (a 3-D virtual world) which is a significant example of an immersive environment where there are as many opportunities for advertising products and services as in the real world.

The real danger for product placement in virtual worlds is that they may look like spam to the users. Therefore, product placement should be consistent with the environment and amend the users' experience like what Nike did in Second Life by helping the shoe shoppers to run faster than other avatars through attaching the Nike shoe to their avatars (Hemp, 2006). By offering such experiences as well as free gifts to Second Life users, Nike is now a well-recognised brand in Second Life. Also, some companies like Fargo Bank offer education to users in their Islands for brand building, as the educators will become the best customers for them in the future.

Regardless of the developments of marketing communication, little is known about the effectiveness of marketing messages in virtual worlds. It is claimed that these virtual worlds are potentially innovative channels for marketing content and products (Barnes, 2007), but empirical evidence of tangible outcomes for marketers is lacking (Mahyari, Drennan & Kuhn, 2009). This research therefore explores the effectiveness of product placement as a form of marketing communication in Second Life that is the best example of a virtual world.

2.1.5 The effectiveness of product placement

Babin and Carder (1996b) proposed a hierarchy of effects to assess the effectiveness of product placement through brand awareness, brand evaluation and brand attitude. They also proposed the Attribution theory and the Elaboration Likelihood model to express the impact of product placement on brand evaluation.

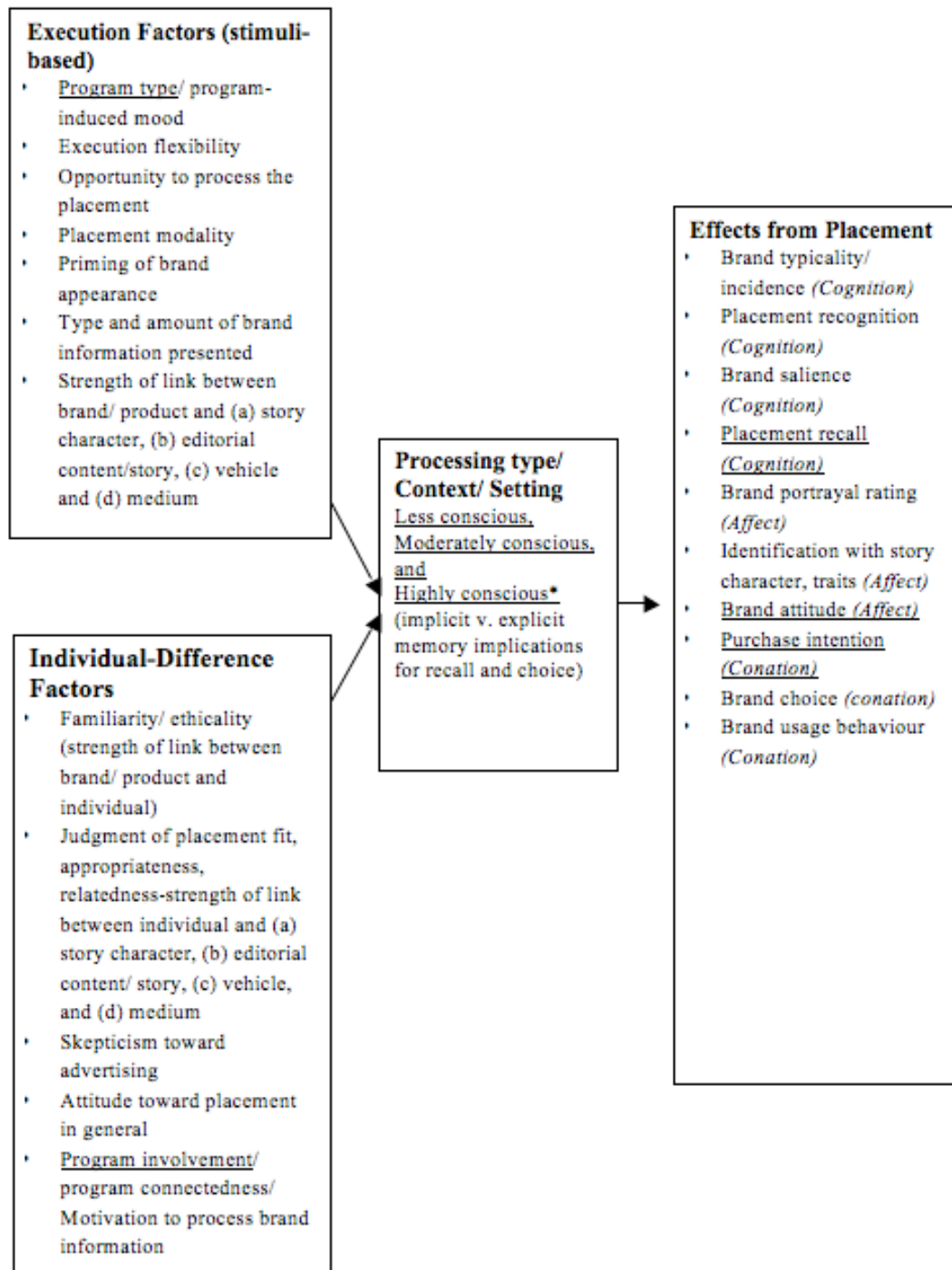
The hierarchy of effects model has received extensive attention from both practitioners and academics as a precise description of the way advertising works, and also as a foundation for measuring the effects of advertising (Weilbacher, 2001). This model is a conceptual tool to predict consumer behaviour (Barry, 2002). Some criticisms have been made on the accuracy of the model (see Weilbacher, 2001). However, the hierarchy of effects framework is still valuable and important because it is simple, intuitive, logical and useful in predicting consumer behaviour (Barry, 2002, p.46).

There are three stages of the hierarchy among the advertisers: cognition, affect and conation. Cognition refers to individuals' mental processing (Barry, 1987), affects are related to feelings, emotions and attitude toward the advertisement (Homer, 1990), and conation refers to behavioural intention (Barry & Howard, 1990). Similar to advertising, product placement can have different levels such as inform, persuade and remind (McCarty, 2004). For the current research, cognition was operationalized with regards to brand recall. Affect was operationalized by considering identification with the brand. Finally, conation was operationalized with the use of intention to search for information and purchase.

The proposed model by Balasubramanian, Karrh and Patwadhan (2006) is a significant framework to plan, predict and evaluate the impact of product placement based on different literature and hierarchy of effects model. It also best describes the effectiveness of product placement based on audiences' involvement.

Balasubramanian, Karrh and Patwadhan (2006) argue that as audiences' involvement with a program increases, the recall of the placed brands within the program will increase too. The following figure is based on four components: execution (setting) variables, individual-level variables, depth of placement processing, and placement effects. However, not all the factors been considered in this study. The ones, which have been used, are being underlined in each section in Figure 2.3.

Figure 2.3 A framework to investigate the operation of product placement



Source: Balasubramanian, Karrh and Patwadhan (2006)

*Processing context levels have been considered based on the experienced level of presence for this research

The focus of this research is investigating the effectiveness of product placement in a new medium: the immersive virtual environment. Therefore, the following section discusses the benefits and different types of virtual environments, as well as Second Life as a particular form of such environments and their characteristics.

2.2 Immersive Virtual Environments

The main objective of this research is to investigate the effectiveness of marketing communication within the immersive environment. In order to achieve this, it is important to look at the genesis and features of immersive/virtual environments that differentiate them from other communication media. Therefore, this section will discuss the development and characteristics of such a cutting-edge interactive medium.

It has been argued that many people feel disconnected from the natural world of today (Palmer, 1998). Burton and Scott (2003) proposed that individuals are searching for places full of fun, excitement and emotional fulfilment, as well as opportunities for interacting with nature, becoming less busy and enjoying leisure events. Virtual worlds have the potential to reawaken people's "*sense of place in the natural world*" (Pedretti & Soren, 2006, p.84). Such communities allow users to interact naturally with objects and other individuals within a simulated environment, as well as giving an opportunity to the users to have an indistinguishable experience from normal reality (Loomis, Blascovich & Beall, 1999). They are rapidly increasing, owing to expansion in Internet broadband access. Indeed, virtual communities have been growing as a key feature of the Internet (Bughin & Zeisser, 2001).

Virtual worlds are rising in numbers as well as in popularity owing to social, visual and role playing opportunities (Mennecke, et al., 2008). According to Gartner (2007a), 80 percent of active Internet users will have a 'second life' in a virtual world by the end of 2011. With increasing numbers of individuals subscribing to virtual worlds, every month 10 to 15 U.S. dollars are being spent by more than 10 million people to sign up to online "*role-playing environments*" (Hemp, 2006, p.49). In

addition, many users spend upward of 40 hours a week in these worlds (Hemp, 2006). Thus, as technology improves over the next decade, virtual worlds may eliminate film, TV, and non–role-playing computer games as a form of entertainment (Hemp, 2006). Immersive virtual worlds are the most recent media innovation (Grigorovici, 2003) and are computer-based simulated environments where individuals can assume an identity as an avatar. For these individuals, called “*Generation V*” (Virtual), the virtual environment is being recognized as a place that provides the opportunity to achieve reputation, prestige and personal growth without any limit on age, gender and income (Gartner Analyst Group, 2008).

Immersive virtual worlds/environments, also known as three-dimensional virtual worlds, are artificial and interactive, computer-created scenes or worlds within which users can immerse themselves and feel like they are part of the simulated universe (Grigorovici, 2003), and as such they are direct experiential media. In fact, immersive virtual environments present an experiential marketing channel that influences advertising effectiveness and brand evaluation and decreases brand recall while increasing the brand preference (Grigrovici & Constantin, 2004).

Virtual worlds, also known as digital worlds, are online simulated environments, where users can live in the form of 2-D or 3-D characters (e.g., humans, animals or nekos) with the ability to meet other characters, attend events and concerts and watch TV and play games (Jacobson, 2009). Another definition of a virtual world is an “*immersive, virtual reality space where people interact with one another via avatars*” (Shen & Eder, 2009, p.94). In the communication process, traditional medium acts as a means of linking sender and receiver; however virtual reality acts as a mediated environment where individuals are both sender and receiver (Steuer, 1992) in a way that individuals interact directly with the environment. Steuer (1992) defined a virtual reality as “*a real or simulated environment in which a perceiver experiences telepresence*” (p.78). The term telepresence will be discussed later in this chapter.

The Benefits of Virtual Worlds. The most important determinants of virtual worlds are cooperation and communication (Fetscherin & Lattemann, 2008). According to Nambisan and Baron (2007), there are four types of benefits for virtual environment users. Firstly, learning benefits as virtual worlds provide better understandings and knowledge about the products. Secondly, users might gain social and personal benefits. Social benefits refer to an increase in a sense of belonging and social identity while personal benefits refer to an achievement of a sense of self efficacy, skills and knowledge. Finally, there are hedonic benefits as the users' interaction in virtual worlds can enhance interest and pleasure of interaction with products and provide stimulating experiences. In the next section, different types of virtual worlds will be discussed, namely Second Life.

Different Types of Virtual Worlds. Virtual worlds can serve different purposes, including business, educational, social, organisational, political or pure entertainment (Jacobson, 2009). They can either be the imitation of real world (e.g., Second Life) or based on the imagination of the creator (e.g., World of Warcraft) (Shen & Eder, 2009). Hemp (2006) divides virtual worlds into two categories: combat-focused games like EverQuest and World of Warcraft, and the online worlds offering social interactions where individuals can customise their character, such as adult-oriented Second Life and teen-oriented There. On the other hand, Jacobson (2009) proposes that virtual worlds appear in different forms and the largest ones are multi-player online role playing games where characters are restricted by rules, and community-focused worlds like Second Life, which are similar to the real world and provide unlimited experience to avatars that are the idealized version of their real users (Jacobson, 2009).

Second Life as a well-known virtual world plays a significant role in the future of advertising and marketing, as it offers a platform for rich and different types of advertising (Barnes, 2007). It will be discussed in the next section as the target of this research.

2.2.1 Second Life

Second Life, one of the most widely known Internet-based virtual worlds, is “a 3-D virtual world where users can socialize, collaborate, and conduct business using voice and text chat through personal avatars” (Shen & Eder, 2009, p. 94). Second Life was established by San Francisco based software company Linden Lab in 2002 (Second Life, 2007). Table 2.4 gives an overview of the features of Second Life.

Table 2.4 Features of Second Life

Name and Description	Environment	Economy	Communication
<p>Second Life (secondlife.com) The best known of all the virtual worlds, Second Life is a high-resolution 3-D virtual world where avatars are fully customizable.</p> <p>Land can be bought and owned.</p> <p>Residents retain the rights to any digital objects created.</p> <p>Objects, such as buildings, vehicles, apparel, skins and furniture can be bought, sold or traded.</p> <p>The basic account is free but prohibits land ownership (unlike premium membership).</p>	<p>The 3-D environment is highly customizable and objects can be created using the built-in tools or using other tools outside Second Life.</p> <p>Other games or ‘sims’ can be created inside Second Life.</p> <p>There are many communities and groups including businesses such as IBM and Toyota.</p>	<p>The economy is large and active, with around \$1 to \$2 million spent per day.</p> <p>For activity within Second Life the currency unit is the Linden Dollar (approx. \$1=L\$260). Currency can be bought and sold in a highly regulated currency exchange.</p> <p>Virtual e-commerce is a significant part of the economy.</p>	<p>Communication facilities are rich and have recently integrated Voice over IP (VoIP) on top of chat and instant messaging. Body gestures can also be used.</p> <p>SL uses its own user interface (downloadable).</p>

Source: Barnes (2007)

Second Life is the largest adult reform virtual world (IOWA State University, 2008) and the most popular virtual world (Polack-Wahl, 2009). It is home to 12 million

avatars (IOWA State University, 2008). It is free to use, however, Linden dollars are required for some purchases such as buying lands or properties in Second life (Polack-Wahl, 2009). It also has a very successful economy that currently shows millions of U.S. dollars being transacted monthly into Linden dollars (Second Life currency) and vice versa (Boulos, Hetherington & Wheeler, 2007). In 2008, people spent 360 million U.S. dollars in Second Life and this year (2009) more than 1.3 million U.S. dollars is being transacted in Second Life daily (Chapman, 2009) with the average exchange rate of 270 Linden dollars for every U.S. dollar. Its population is growing at the rate of 20 percent to 30 percent per month since April 2007 with a population of five million residents (Bell, Pope, Peters & Galik, 2007).

Herman, Rosemary and Kaye (2006) also consider Second life as one of the fastest growing Massively Multi-player Online Games. In contrast, Fetscherin and Lattemann (2008) argue that virtual worlds are something more than a game, as there is no 'game over' to them and they promise platforms for real businesses. As confirmed by Gartner (2007a), virtual worlds are not games. In addition, people can buy, sell and trade virtual goods and services to the other residents in Second Life and they can preserve the rights of their creations (Fetscherin & Lattemann, 2008) with an emphasis on social interaction (Boulos, Hetherington & Wheeler, 2007). There is also a real exchange rate between the Linden dollar and the U.S. dollar (Fetscherin & Lattemann, 2008).

Residents spent about 41.5 million hours in total in Second Life in January, as opposed to the 28.3 million hours users spent in the virtual world the same month in 2008 (Chapman, 2009). According to the Second Life website, since August 2007, 65 real world companies and many universities have moved into Second Life (Gartner, 2007a), which shows the popularity and the increase of brands in Second Life. There are museums (e.g., The Tech Museum, Louvre), hotels (e.g., Chelsea), universities (e.g., Harvard University), libraries (e.g., Cullom-Davis Library at Bradley University), and immersive learning environments (e.g., Star Trek and NASA Lab). Everything that exists in the real world can be seen there, even television stations and

movies. Movies are made in these worlds, with the help of computer game technology and role-playing of avatars.

Already in Second Life, there are more than 100 real-life brands from a range of industries, including automotive, professional services, consumer goods and travel, among others (KZero, 2007; New Business Horizons, 2009). Services available in Second Life include virtual clothing, furniture design, event planning and real-estate brokering. In Second Life, marketers can simply become residents and try marketing initiatives for free with their avatars (Second Life, 2007).

Marketing practitioners are using Second Life as a vehicle for promotional messages (Herman, Rosemary & Kaye, 2006). There is evidence of reverse product placement (Edery, 2006), where products are being introduced initially in Second Life before creation and launch in the physical world. Szymanski (2009) also notes the incidence of “*brand precession*”, whereby a brand may exist and have commercial value in a virtual world, without ever existing in the real physical world. The amount of time spent in Second Life indicates that many of Second Life’s residents are highly involved in the space. This makes Second Life a potential marketing opportunity for marketers to interact with active minds, however, there is a real danger that product placement in virtual worlds may look like three-dimensional spam to residents (Hemp, 2006).

Second Life is just one of a growing number of 3-D virtual worlds, accessible via the Internet, in which users, through an avatar, are able to play games or simply interact socially with thousands of people simultaneously. Second Life can be differentiated from other virtual worlds by offering in-world economy, a platform for any purpose-which can only be limited by one’s imagination, and modelling human behaviour through avatars. By having an avatar in Second Life, individuals are no longer passive watchers of TV ads. The next section discusses the nature and role of avatars.

2.2.2 Avatars

According to Jacobson (2009), 45 percent of Second Life users are females with an average age of 32 years. As the minimum age to join Second Life is 18, Linden Lab has established a Teen Second Life for 13 to 17 year olds. These users can identify themselves in such virtual worlds via avatars, which are animated characters created by computer technology (Holzwarth, Janiszewski & Neumann, 2006; Wang, Baker, Wagner & Wakefield, 2007).

The origin of the word ‘avatar’ is in the ancient Indian language, Sanskrit, meaning interaction (Messinger et al., 2008) and refers to “*general graphic representation of an entity*” (Holzwarth et al., 2006, p. 20). Avatar is “*the face and body of a person within the virtual world*” and mediates the communication in these worlds (Messinger et al., 2008, p. 2). Avatars provide an opportunity to the users to do the normal functions like sitting, walking, eating as well as flying, driving, building and dancing (Messinger et al., 2008). However, they are unable to display many subtle motions such as gaze or blink (Vilhjalmsson & Cassell, 1998). Indeed, avatars do not have the human knowledge to perform proper behaviours in the absence of their users and even with presence of their users they may give a wrong impression to the other users/ avatars (Vilhjalmsson & Cassell, 1998).

Avatars are equipped with basic gestures, skills and wardrobes in Second Life and can develop them by using different software tools, shopping in-world, winning a game or receiving gifts from other avatars (Hemp, 2006). Avatars can communicate with each other through text boxes and also through an audio system that makes the interaction more real. Although avatars may not satisfy their basic needs, they fulfil their psychological needs - they form serious in-world relationships that can lead to real-world marriage and also adopt virtual children (Hemp, 2006).

Through avatars, people live in a new body and take on an identity as their representation in an online environment (Hemp, 2006). In such worlds, people often have more than one avatar, and gender switching is common. For instance, an

unattractive, shy woman may transform herself into a 'sexy' man (Hemp, 2006). In addition, users may change their avatars' appearance every time they enter Second Life.

Second Life and other virtual worlds are now highly interactive and collaborative (Barnes, 2007) with regard to their specific characteristics. These characteristics are discussed in the next section.

2.2.3 Specific characteristics of virtual worlds

Immersive virtual environments are more effective persuasion channels than traditional advertising media, owing to their specific characteristics. This is due to their ability to facilitate a higher level of presence, and more perceptual and psychological immersion (Grigrovici, 2003). Based on social and consumer psychology and human computer interaction theories, immersion and presence in virtual worlds increase an individual's engagement with the environment (Grigrovici & Constantin, 2004). Different definitions of immersion and presence are presented in the literature, but most of them are indistinguishable, and the terms presence, immersion and involvement overlap.

According to Slater (2003), presence is an individual's reaction or response to immersion. He states that immersion and presence are empirically strongly related. However, they can be separated logically. Depending on the applied technologies and formal features, virtual environments are considered to have different degrees of immersiveness, and hence provide different degrees of presence that is being experienced by users (Grigrovici & Constantin, 2004).

IJsselsteijn, de Kort, Westerink, de Jager and Bonants (2004) best distinguish immersion from presence by considering immersion as *"the system's ability to shut out sensations from the real world, accommodating many sensory modalities with a rich representational capability, and a panoramic field of view and sound"* (IJsselsteijn et

al. 2004, p. 47) and considering presence as “*the experiential counterpart of immersion*” (IJsselsteijn et al. 2004, p. 47). The following example clarifies the difference between presence and immersion. For instance, when individuals see a movie, they may feel a sense of immersion by considering and drowning themselves in that situation depending on the quality of the exposed scenes. They may experience some emotional sensations like crying or laughing as they are watching the movie. However, they cannot experience presence, owing to the fact that they are not actual characters that are experiencing things.

Slater (2003) separates the term involvement from presence and states that an individual can be present but not necessarily involved (e.g., attending a conference) and an individual can be involved but not present (e.g., reading a book). In fact, involvement depends on the meaning that an individual attaches to the stimulus, activity or an event. Therefore, more attention on the virtual environment will lead to higher involvement of the individual with the experience, which will increase the sense of presence (Witmer & Singer, 1998).

Perhaps Witmer and Singer (1998) best distinguish these terms in Table 2.5. They also argue that involvement and immersion are necessary for experiencing presence. As these terms are key concepts of this research and form the propositions, the following sections discuss involvement, immersion and presence in order.

Table 2.5 Concepts Definition

IMMERSION	PRESENCE	INVOLVEMENT
“ <i>Is the psychological state characterized by perceiving oneself to be enveloped by, included in, and interacting with an environment that provides a continuous stream of stimuli and experiences</i> ”(Witmer and Singer 1998, p.227)	“ <i>The subjective experience of being in one place or environment, even when one is physically situated in another</i> ” (Witmer and Singer 1998, p.225)	“ <i>Involvement is a psychological state experienced as a consequence of focusing one’s energy and attention on a coherent set of stimuli or meaningfully related activities and events</i> ” (Witmer and Singer 1998, p.227)

Source: developed for this research

2.2.3.1 Involvement

Involvement is a key to motivate consumers and a foundation for understanding the relationship between consumer and seller in markets (O'Cass, 2000). By engaging consumers more with the product and its consumption and enhancing involvement, the effectiveness and efficacy of marketing would increase too (O'Cass, 2000).

The term involvement has been defined and measured differently owing to its diverse applications (Zaichkowsky, 1985). Involvement depends on media content and its interactivity as well as users' interest and experience (Lombard & Ditton, 1997, p. 11). Many researchers perceive involvement in terms of motivation to process information (e.g., Bloch & Richins, 1983; Cohen, 1983; Zaichkowsky, 1985). Howard and Sheth (1969) define involvement in terms of a person's needs or values and use the terms 'importance of purchase' and 'involvement' interchangeably. Alternatively, Hupfer and Gardner (1971) describe involvement as a general level of interest in and engagement with an issue. Hupfer and Gardner's definition has been considered for the purpose of this research.

The essential characteristic of involvement is perceived personal relevance (Celsi & Olson, 1988; Greenwald & Leavitt, 1984; Park & Young, 1986; Zaichkowsky, 1985). Consumers devote more attention to the message content and process the information at a deeper level when they perceive message information as personally relevant or important (Greenwald & Leavitt, 1984). Celsi and Olson (1988) suggest that a concept is personally relevant when consumers perceive it to be self related or instrumental in achieving their personal goals and values.

As consumers are becoming more involved with 'Computer Mediated Communication' events, it becomes important for advertisers to use channels such as video games and immersive virtual environments as means of delivering advertising content, especially with their ability to deliver a sense of presence (Nicovich, 2005). Such ability can provide the best opportunity to advertisers to persuade consumers and affect their behaviours (Mahyari, Drennan & Luck, 2009). The involvement of

audiences with the content of a program impacts on the effectiveness of product placements (Bhatnagar, Aksoy & Malkoc, 2004). Based on Park and McClung's (1986) research, higher involvement with television programs decreases the audiences' involvement with commercials. In a study of video games, Nicovich (2005) reported that high involvement with a computer mediated communication event leads to a stronger evaluation of the advertisement. Therefore, the following proposition will be examined:

Proposition 1: An individual's involvement with the immersive environment is associated with the effectiveness of online product placement.

A consumer can be involved with a product, purchasing process of the product, advertisement of the product and consumption of the product (O'Cass, 2000). One of the aspects of this research is to examine the impact of individuals' involvement with product placement on placed brands within a virtual environment. Therefore, involvement with product placement will be discussed in the following section.

Involvement with Product Placement

The focus of involvement theory is on "the tendency of individuals to make personal connections between their own life and the stimulus object (an advertisement or brand)" (Schiffman et al. 2008, p.203). In fact, consumers become involved with an object or stimulus when they see a potential in it to satisfy their psychological needs (O'Cass, 2000).

Zaichkowsky (1986) explains the level of involvement based on the interest of the consumer to the message of the advertisement and its effect on the attitude toward the brand. Theorists view consumer behaviour in terms of high and low level of involvement (Engel & Blackwell, 1982). However, Greenwald and Leavitt (1984) identified four levels of involvement in advertising in order from low to high as pre-

attention, focal attention, comprehension and elaboration based on the different sequences of impact on the attitude. A rational, low involvement is associated with analytical mode and an emotional, high involvement is associated with engaged mode (Klimmt & Vorderer, 2003).

In this research, definitions of high and low involvement are based on that of O'Cass (2000) and Schiffman et al. (2008). High involvement refers to a positive and complete self-engagement in the advertisement, while low involvement refers to a self-separation from the advertisement. According to Nicovich (2005) a high level of involvement will lead to a positive evaluation of the exposed advertising, which enables participants to pay more attention to the advertisement and have a greater degree of interest. In addition, the higher level of involvement leads to a more positive attitude toward advertisements and the advertised brand (Lee, Hu & Tou, 2000).

The individual's degree of involvement is characterised by three factors (Schiffman et al., 2008):

- a) Intensity, which is the degree of involvement felt by individuals and is either low or high;
- b) Direction of involvement that refers to the intensity level target; and
- c) Persistence that is the duration of involvement intensity.

To emphasize the experiential nature of involvement the term 'felt involvement' (Celsi & Olson, 1988), which is known as 'response involvement' (Houston & Rothschild, 1978), has been used with two broad sources. The first source is situational sources of personal relevance that refer to physical and social aspects of the immediate environment and the second source is intrinsic sources of personal relevance that are intrinsic characteristics of the individuals (Celsi & Olson, 1988; Richins & Bloch, 1986). Understanding of the audiences' characteristics, such as emotional and

cognitive involvement, is essential for an effective product placement (Scott & Craig-Lees, 2003).

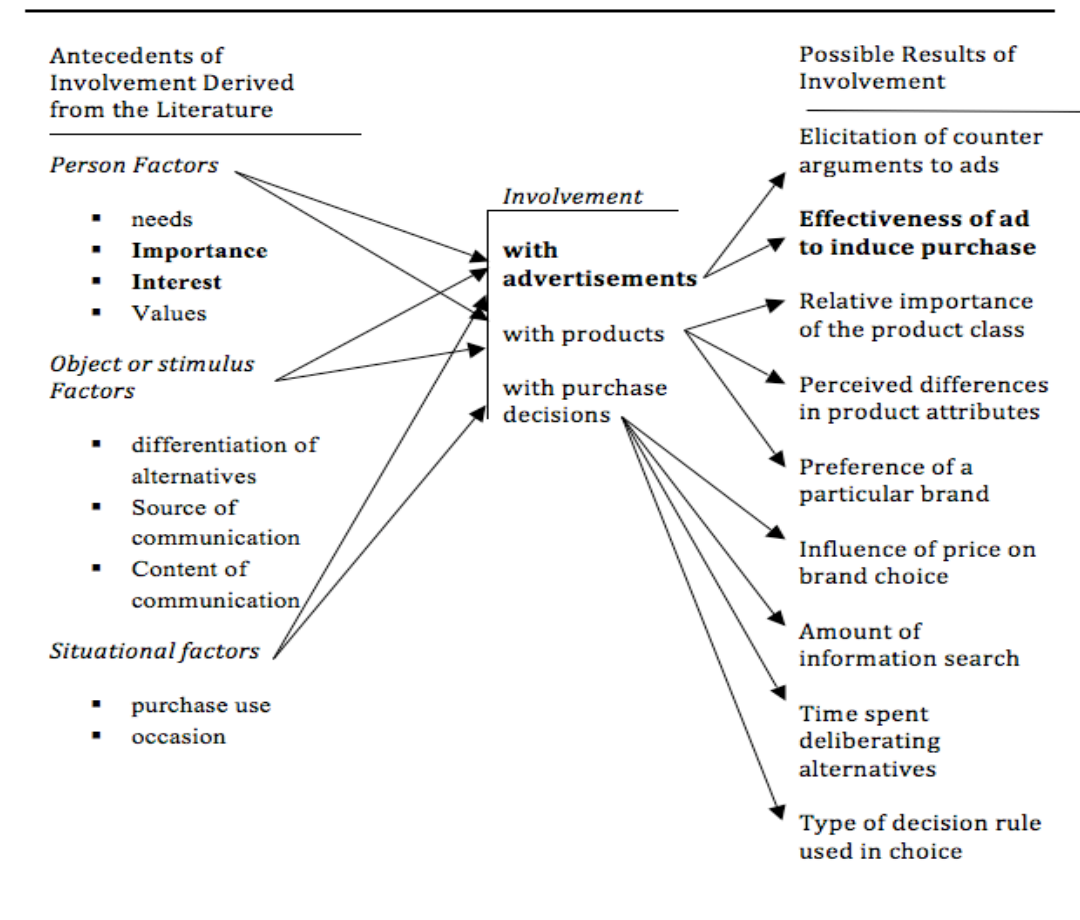
Involvement has appeared as an important factor in studying the effectiveness of advertising (Greenwald & Leavitt, 1984; Krugman, 1965; Ray, 1973). In advertising, involvement is manipulated to make the advertisement relevant to receivers and motivate them to respond to the advertisement (Petty & Cacioppo, 1981). Few researchers have studied the effect of individuals' involvement on the effectiveness of advertising (e.g., Laurent & Kapferer, 1985; Nicovich, 2005) and some have studied the influence of product involvement on advertising effectiveness and consumer behaviour (e.g., Celsi & Olson, 1988; Te'eni-Harari & Lehman-Wilzig, 2009; Zaichkowsky, 1986). Research by Te'eni-Harari & Lehman-Wilzig (2009) has shown that product involvement positively and significantly impacts advertising effectiveness. However, the impact of involvement with product placement on the effectiveness of product placement has not been studied yet. Therefore, this research addresses the following proposition:

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement.

Involvement with an advertisement means that the advertisement is relevant to the audience if it affects them personally and motivates them to respond to the advertisement (Zaichkowsky, 1986). Research by Kaskowitz and College (2007) has shown that individuals have higher purchase intention when they are more involved with a product. Zaichkowsky (1985) states that different individuals perceive the same product differently and have different levels of involvement for the same product. This can be expanded to product placements. Zaichkowsky (1986) also demonstrates that there are three different factors that affect the involvement with an advertisement, a product or purchase decision. These are personal, stimulus and situational, as shown in Figure 2.4. In addition, involvement has impact on effectiveness of advertisements, relative importance of the product class and amount of information search. Parts of

this model that are going to be used for this study have been bolded. Based on the model, depending on the level of involvement with the advertisement, individuals manipulate different kinds of cues to shape evaluation. For instance, under low involvement, attitudes are influenced by attractiveness of the source, while under high involvement, attitudes are influenced by the quality of the argument in the message (Zaichkowsky, 1986).

Figure 2.4 Conceptualizing involvement



Source: Zaichokowsky (1986)

The term involvement has been used interchangeably with immersion (e.g., Grigrovici, 2003) and presence (Slater, 2003). Therefore, the definition for the purpose of this study is provided in the following section.

2.2.3.2 Immersion

According to Slater and Wilbur (1997):

“Immersion is the extent to which the computer displays are capable of delivering an inclusive, extensive, surrounding, and vivid illusion of reality to the senses of a human participant. Inclusive indicates the extent to which physical reality is shut out. Extensive indicates the range of sensory modalities accommodated. Surrounding indicates the extent to which this virtual reality is panoramic rather than limited to a narrow field. Vivid indicates the resolution, fidelity, and variety of energy simulated within a particular modality (for example, the visual and color resolution” (p. 2).

These aspects of immersion are due to the match between body movement and displayed information (Slater & Wilbur, 1997). For instance, a turn of the head should result in a change to the visual display and auditory display. Therefore, to have immersion individuals need a virtual body (avatar) to represent themselves in the virtual environment (Slater & Wilbur, 1997). Immersion allows an avatar to become part of the program and experience the sense of running, flying, swimming and creating objects in that virtual setting (Patel & Cardinali, 1994). The lack of research on immersion and its role in virtual worlds has led to the following propositions.

Proposition 3: An individual’s immersion in the immersive environment is associated with the effectiveness of online product placement.

Proposition 4: An individual’s immersion in the immersive environment is associated with the involvement with product placement.

Presence has been considered as an increasing function of immersion by Slater and Wilbur (1997). Therefore, a virtual environment that facilitates higher level of immersion will produce a higher sense of presence (Witmer & Singer, 1998)

2.2.3.3 Presence

Presence is described by Sheridan (1992) as the users' awareness of being in a computer generated environment. Slater and Wilbur (1997, p.4) define presence as a *"state of consciousness and the (psychological) sense of being in the virtual environment"*. It includes three aspects:

- a) the sense of being in the environment portrayed by virtual world;
- b) the extent to which the virtual world becomes a major environment for the user; and
- c) the extent to which users recall the areas they have seen as places, not images (Slater, 1999).

Individuals experience presence in virtual worlds through virtual bodies while they consider the virtual body as their own body and its movement as their movement (Slater & Wilbur, 1997). Furthermore, individuals with high presence experience the virtual environment as a more engaging reality, considering the displayed environments as places rather than images (Slater, Linakis, Usoh & Kooper, 1996).

Sheridan (1992, p.122) differentiates telepresence from presence by defining telepresence as *"sense of being physically present with virtual objects"* and presence as *"sense of being physically present with visual, auditory, or force displays generated by a computer"*. While presence is defined as the sense of being in an environment (Gibson, 1979), telepresence as a psychological response to interactivity (Nelson, Yaros & Keum, 2006) refers to the experience of presence in an environment by means of a communication medium (Steuer, 1992). However, some researchers believe that both presence and telepresence are equivalent and can be used substitutionally (Held & Durlach, 1992; Sheridan & Furness, 1992). Telepresence and presence have been overlapped in some studies (e.g., Li, Daugherty & Biocca, 2002; Lombard & Ditton, 1997; Nelson, Yaros & Keum, 2006). Lombard and Snyder-Duch

(2001) discuss presence as a shortened version of telepresence. Based on these studies, presence and telepresence have been considered the same for this research.

Lombard and Ditton (1997) discuss six conceptualisations of presence as the following:

- a) **social richness.** the degree to which a medium that is used to interact with other individuals is perceived as sociable, warm, sensitive, intimate and immediate;
- b) **realism.** the extent to which a medium can produce objects', events' and individuals' representations that look, sound and/or feel like the real thing;
- c) **transportation.** the degree to which individuals are being transported to a unique environment and feel the sense of being part of that environment, where they forget that they are in a world other than the place their real body has been located. Also, individuals feel that everything in that environment is happening to them and get the impression that they are in a shared space where they can be together with others;
- d) **immersion.** a psychological state that involves, absorbs and engages individuals and immerses the senses of the media users;
- e) **social.** actor is experienced through having an avatar in a virtual world, which allows users to interact with other users;
- f) **medium.** allows the users of the medium to respond socially to the signals that are provided by the medium.

Li, Daugherty and Biocca (2002) discuss the mediating role of presence in the impact of 3-D advertising on brand attitude. According to Grigrovici and Constantin (2004), product placement will be more effective when users experience a greater sense of presence in virtual environments. Choi, Miracle and Biocca (2001) found that

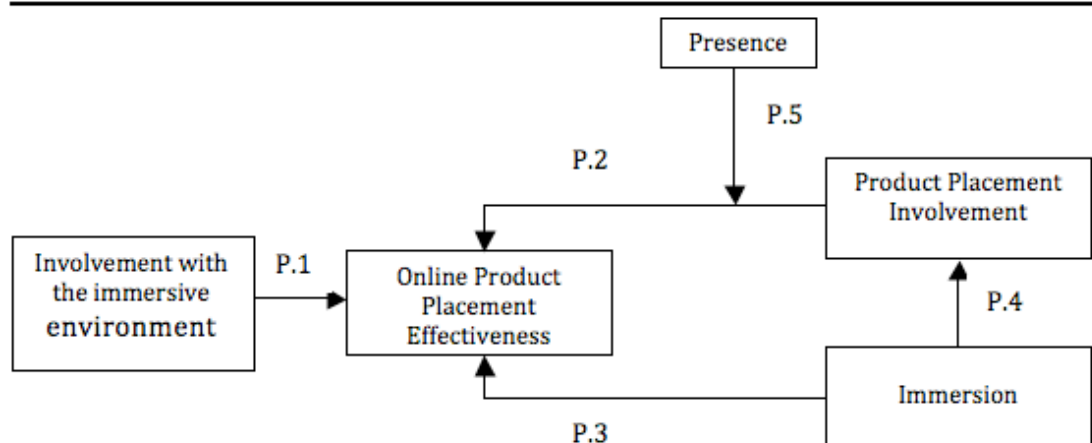
presence positively influences individuals' attitude and behavioural intentions. Nicovich (2005) found that, in video games, the greater the degree of felt presence, the stronger the evaluation of advertising experienced. The degree of experienced presence was also found to mediate the relationship between level of involvement and formed advertising judgment. The current study therefore addresses a fifth proposition:

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness.

2.3 Initial Conceptual Model

The initial conceptual model of online product placement effectiveness and the scope of each proposition are depicted in Figure 2.5. This model is examined in this research and findings will be discussed and analysed to inform the revised model of online product placement effectiveness (presented in Chapter 5). The key constructs involved in this model are derived from the literature review.

Figure 2.5 Initial conceptual model of online product placement effectiveness



Source: developed for this research

2.4 Conclusion

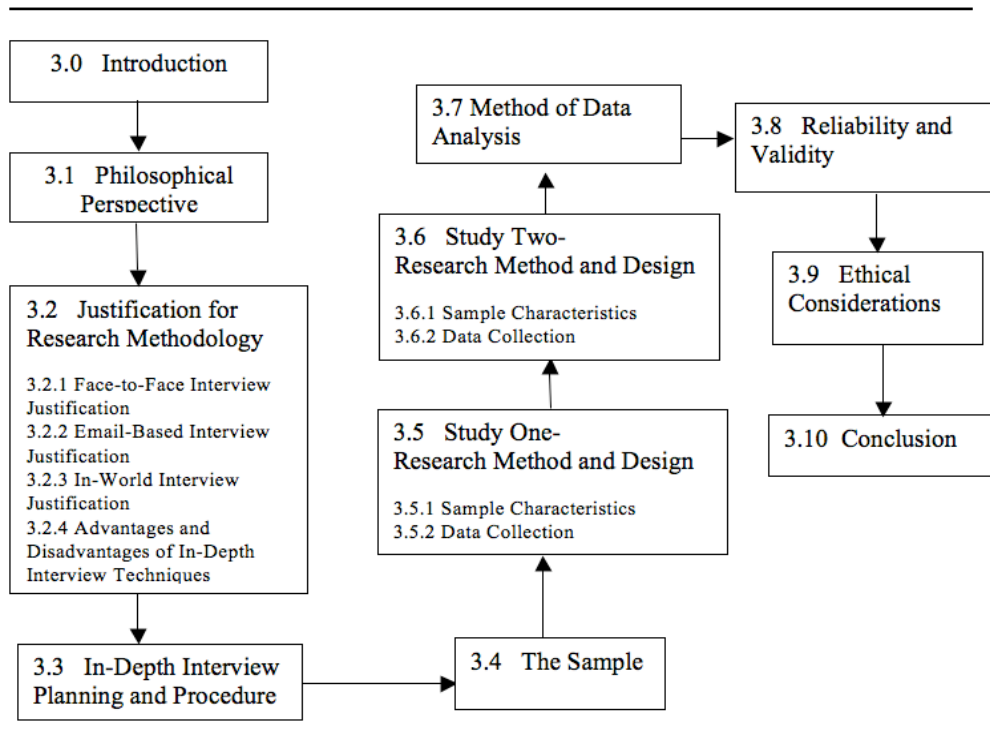
This chapter has reviewed the literature regarding immersive virtual environments and marketing communication. The literature review identified the features and characteristics of immersive virtual environments and explored Second Life as the target of this research. Advertising and product placement were discussed and compared as two functions of marketing communication and narrowed down to product placement effectiveness. Finally, an initial conceptual model of online product placement effectiveness was developed by incorporation of relevant constructs derived from the literature. The next chapter, chapter three, will discuss the methodology and design used for this research.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

The previous chapter reviewed the literature and discussed the key concepts of the current research. This chapter describes and justifies the research methodology to address the research propositions presented in chapter two. Section 3.1 explains the epistemological perspective and section 3.2 justifies the research methodology for face-to-face, email-based and in-world interviews. Interview planning and procedures are explained in section 3.3, followed by discussion of the sample size in section 3.4. The specific research method and design for studies one and two are presented in sections 3.5 and 3.6 respectively. Data analysis and reliability of the results are discussed in section 3.7 and section 3.8. The ethical considerations are considered in section 3.9. The final section concludes this chapter by summarising the research methodology. The framework for this chapter is shown in Figure 3.1.

Figure 3.1 Chapter framework



Source: developed for this research

3.1 Philosophical Perspective

In planning a research design for a study, a philosophical perspective needs to be considered, as well as the methodology (Wilson & McCormack, 2006). The paradigm or philosophical perspective is a main issue for researchers (Sobh & Perry, 2006) and is necessary to explain the research method (Guba & Lincoln, 1994). In fact, it plays an important role in comprehending the research design, its performance and assessing the quality of the research (Fossey, Harvey, McDermott & Davidson, 2002). It can be regarded as “*the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways*” (Guba & Lincoln, 1994, p.105). Ontology is the reality that a researcher examines, epistemology is the relationship between that reality and the researcher, and methodology as the last element of paradigm refers to the technique used by the researcher to explore the reality (Guba & Lincoln, 1994).

This research was underpinned by a critical realism philosophy to address the following research question: *How effective is online product placement within the immersive environment?* In the critical realism paradigm, “*reality is assumed to exist, but to be only imperfectly apprehendable because of basically flawed human intellectual mechanism and the fundamentally intractable nature of phenomena*” (Guba & Lincoln, 1994, p. 110). In this paradigm, researchers read literature about the phenomenon before and during the interview and ask the same questions from the interviewees who have been selected carefully (Sobh & Perry, 2006). Critical realists believe that “*reality is arranged in levels and that scientific work must go beyond statements of regulatory to analysis of the mechanism, processes and structures that account for the patterns that are observed*” (Denzin & Lincoln, 2005, p. 13).

Among the four different paradigms (positivism, postpositivism/critical realism, constructivism and critical theory) this study was based on a critical realism paradigm, which is suitable for marketing research aimed at exploring a social science phenomenon (Healy & Perry, 2000; Sobh & Perry, 2006). Critical realism was the most appropriate paradigm, as this research sought to propose a new model and build a

theory through conducting in-depth interviews, which allow a researcher to get closer to the participants' perspective (Denzin & Lincoln, 2005; Healy & Perry, 2000). The subjective nature of constructivism and critical theory is not always appropriate for research such as this, nor was positivism suitable for the current study, since it is used for theory testing rather than theory generation (Sobh & Perry, 2006).

The epistemology of this research was modified objectivist, which assumes that it is possible to estimate reality while the researcher is neutral (Guba & Lincoln, 1994). However, it can never be fully captured (Denzin & Lincoln, 2005). The design of the study is "*the blueprint for fulfilling objectives and answering questions*" (Cooper & Emory, 1995, p. 61). The research design for this study was exploratory, as it sought to discover insights and provide understanding to the problem (Malhotra, 2004). In an exploratory study "*researchers develop the concept more clearly, establish priorities, and improve the final research design*" (Cooper & Emory, 1995). Diagnosing a situation, screening alternatives and discovering new ideas are three purposes of conducting exploratory research (Zikmund, 1997). As for this research, the aim was to explore the effect of individuals' involvement and immersion on perceived product placement effectiveness. Thus, the objective of this research is to undertake an exploratory study to answer the five propositions posed in chapter two:

Proposition 1: An individual's involvement with the immersive environment is associated with the effectiveness of online product placement.

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement.

Proposition 3: An individual's immersion in the immersive environment is associated with the effectiveness of online product placement.

Proposition 4: An individual's immersion in the immersive environment is associated with the involvement with product placement.

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness.

The justification for the research methodology used in this research is presented next.

3.2 Justification for Research Methodology

The decision on qualitative research methodology over quantitative depends on the requirement of the research project (Green, 1999) and the research purpose (Sinkovics, Penz & Ghauri, 2005). A qualitative study was carried out for this research, as the aim was to develop an understanding of social world experience (Fossey et al., 2002) and the influence of the particular context on participants' behaviour (Maxwell, 1997).

Qualitative research is “*a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self*”(Denzin & Lincoln, 2005, p.3). To gain detailed knowledge on a subject, qualitative research is the most suitable approach, as it involves the use of unstructured exploratory techniques, such as in-depth interview (Sinkovics et al., 2005).

Among different qualitative methods, interviewing is the most widely applied technique for conducting systematic social enquiry in academic, business and media domains (Holstein & Gubrium, 2002). Interviewing comes in three forms: structured, semi-structured or unstructured (Holstein & Gubrium, 2002). Semi-structured

interview was the most appropriate technique for this research, as it allows research participants to discuss their experiences, which in turn allows researchers to discover the meanings of participants' opinions and thoughts (Murray & Sixsmith, 1998), thereby facilitating discovery of a particular subject (Fossey, et al. 2002).

Two studies were conducted for this research. Study one was carried out to explore the propositions developed from the literature, with a focus on understanding the Second Life setting and its users, as well as constructing an initial model. Also, study one aimed to test the efficacy of interview questions and the responses (Stebbins, 2001), as well to test the initial conceptual model constructed in chapter two. Face-to-face interviews were deemed most appropriate for this purpose (see section 3.2.1). In instances where participants were unwilling or unable to meet face-to-face, email-based interviews were performed (see section 3.2.2). Study two sought to determine whether more detailed information would be provided by respondents when the interviews were performed in Second Life. It also sought to construct an appropriate model for this research based on the initial conceptual model tested in study one. In-world interviews were conducted to achieve these outcomes (see section 3.2.3). Moreover, both face-to-face (study one) and in-world (study two) interviews were conducted to reinforce the credibility and validity of findings (Curasi, 2001).

The major types of interview conducted for this research include face-to-face and in-world, with email-based interviews performed where face-to-face interviews were not possible. Further details on their justification are provided in the following sections.

3.2.1 Face-to-face interview justification

There are different types of interviews, however individual interviews are the most popular, as they encourage respondents to share their opinions freely (Crouch & McKenzie, 2006). Minichiello, Aroni, Timewell and Alexander (1990, p. 19) define in-depth interviews as “*repeated face-to-face encounters between the researcher and informants directed toward understanding informants' perspective on their lives,*

experience or situations as expressed in their own words". Personal in-depth interviews were conducted, as they provide a situation for participants to discuss their experiences and opinions truthfully (Stokes & Bergin, 2006). Furthermore, compared to other research methods, personal interviews can be more effective in uncovering participants' deep feelings or personal experiences (Stokes & Bergin, 2006).

3.2.2 Email-based interview justification

Email-based research interviews were conducted in instances where participants were busy and/or uncomfortable having a face-to-face interview (e.g., English was not their first language). Therefore, to facilitate the interview for these participants, semi-structured interview questions were emailed and participants were asked to send their responses via return email within one week, which was deemed an appropriate amount of time (James & Busher, 2006). All respondents had Internet access, which was confirmed via phone.

Email-based interviews are a relatively new and innovative method (O'Conner & Madge, 2003) that provides equal conditions for participants (James & Busher, 2006). However, email-based research can raise "*confidentiality, consent and deception*" issues (Duffy, 2002, p.86). Such issues are resolvable; for instance, public computers can be provided to participants to maintain their confidentiality and protect their real identity.

3.2.3 In-world interview justification

There is great potential for behavioural and social research to be performed in virtual worlds (Bainbridge, 2007). In such worlds, interaction with interviewees occurs via avatars. The interaction does not occur face-to-face per se, but via computer-mediated communication that is mostly textual combined with audio, visual and gesture elements (Gracia, Standlee, Bechkoff & Cui, 2009). Indeed, for in-depth interviewing when face-to-face contact is not necessary and practical, computer-mediated-communication can be the best medium for several reasons (James & Busher, 2006; Kazmer & Xie, 2008).

Qualitative research through computer-mediated communication is sometimes preferred to traditional face-to-face research, as the time is flexible and there are minimal, if any, costs involved (Curasi, 2001; Mann & Stewart, 2000). In addition, in-world interview responses can be more truthful, as the participants remain anonymous (Gracia et al., 2009; Markham, 2004). Further, in virtual worlds like Second Life, individuals can effectively experience a brand and be interviewed at the time of these experiences (Labidoire, 2007). Other researchers have found Second Life to be a very efficient platform for conducting research (see Abiven & Labidoire, 2007).

3.2.4 Advantages and disadvantages of in-depth interview techniques

As with any method, in-depth interviews have their own pros and cons. The most common advantages and disadvantages of different interview techniques are presented in Table 3.1 and discussed briefly next.

Table 3.1 Advantages and disadvantages of in-depth interviews

	FACE-TO-FACE	IN-WORLD	EMAIL-BASED
A D V A N T A G E S	<ul style="list-style-type: none"> • Direct responses (Malhotra, 2004) • Very flexible (Cassell & Symon, 2004) • Greater depth of insights (Beddows, 2008; Malhotra, 2004) • More precise interpretation (Webb, 1995) • Higher data quality (Webb, 1995) 	<ul style="list-style-type: none"> • More control over response (Curasi, 2001; James & Busher 2006; Kazmer & Xie 2008; Markham, 2004) • No transcribing (Curasi, 2001; Kazmer & Xie 2008; Markham 2004; O'Connor & Madge, 2003) • Time saving (Mann & Stewart, 2000) • No need to dress up (O'Connor & Madge, 2003) • No data recording difficulties (O'Connor & Madge, 2003) 	<ul style="list-style-type: none"> • More control over response (Curasi, 2001; James & Busher, 2006; Kazmer & Xie, 2008; Markham, 2004) • Easy communication with participants (Beddows, 2008) • Inexpensive (Beddows, 2008; O'Connor & Madge, 2003) • Practical for complex cases (Beddows, 2008) • Thoughtful responses (James & Busher, 2006) • Convenient for respondents (O'Conner & Madge, 2003) • No respondent

			<p>concerns about their appearance (O'Connor & Madge, 2003)</p> <ul style="list-style-type: none"> • No data recording difficulties (O'Connor & Madge, 2003) • No transcribing (Curasi, 2001; Kazmer & Xie, 2008; Markham 2004; O'Connor & Madge, 2003)
D I S A D V A N T A G E S	<ul style="list-style-type: none"> • High cost and low speed (Appleton, 1995; Cassell & Symon, 2004) • Time consuming (O'Conner & Madge, 2003) • Potential for social desirability bias (Hair, Bush & Ortinau, 2000) • Quality of data relies heavily on interviewer's skills (Malhotra, 2004) • Difficulties in interpreting and analyzing data (Malhotra, 2004) 	<ul style="list-style-type: none"> • Providing interviewee a full copy of interview (Kazmer & Xie, 2008) • More complicated in terms of cleaning and organizing (Kazmer & Xie, 2008) • No guarantee for the comfort of the interviewee (O'Connor & Madge, 2003) • No visual cue of the late response (O'Connor & Madge, 2003) 	<ul style="list-style-type: none"> • Participant misrepresentation (Beddows, 2008) • More than one participation in the interview (Best & Krueger, 2004; Duffy, 2002) • Participant anonymity (Best & Krueger, 2004) • Deceiving responses (Walther, 2002) • No immediate clarification of the question intention (James & Busher, 2006) • May not be their own thoughts (Chen & Hinton, 1999) • Difficult to determine meaning of some responses (James & Busher, 2006) • Providing interviewee a full copy of interview (Kazmer & Xie, 2008)

Source: developed for this research

Face-to-face interviews are very useful, as direct responses can be obtained in the process of inquiry (Malhotra, 2004). Furthermore, they are very flexible in addressing different types of research questions (Cassell & Symon, 2004). Also, more in-depth information can be acquired, as this form of interview results in a free exchange of

information (Malhotra, 2004). In addition, the possibility of attributing opinions directly to respondents provides more precise interpretation (Webb, 1995). As face-to-face interviews offer the opportunity to build trust and a close relationship, the quality of data can be improved (Webb, 1995). However, depending on the length of the interviews, high time and costs are often associated with this technique (Appleton, 1995; Cassell & Symon, 2004; O'Connor & Madge, 2003). Additionally, a lack of experience and interview skills can lead to poor quality of collected data and analysis (Malhotra, 2004).

Available knowledge on in-world interviewing is very limited and little prior research has been conducted in regards to the advantages and disadvantages of this method. According to Labidoire (2007), one of the advantages of in-world interviews is that respondents can experience a brand and be interviewed simultaneously. For example, an interviewee can teleport the researcher to the place where a brand has been located. Further, in undertaking in-world interviews, there is no concern about data recording (O'Connor & Madge, 2003) and transcribing (Curasi, 2001; Kazmer & Xie, 2008; Markham, 2004; O'Connor & Madge, 2003). However, analysis tends to be more complicated in terms of cleaning and organizing the data (Kazmer & Xie, 2008), especially when using software like Nvivo. Questions are more detailed in computer-mediated-communication environments and responses are sometimes very short (perhaps a few words) without any correct structure. Therefore, all the answers for the same question must be put together and some text reworded in order to be linked at one node; this can take a significant amount of time.

In addition, with in-world interviews the comfort of the interviewee cannot be guaranteed (O'Connor & Madge, 2003) and this can increase the risk of a lack of engagement and attention, which may affect data reliability. Further, it is more difficult in virtual worlds to motivate participants (Chen & Hinton, 1999) and they may leave during an interview. Therefore, completion rates and mortality can be problematic. Moreover, compared to face-to-face interviews, researchers cannot always obtain immediate answers due to technological difficulties (Best & Krueger, 2004) and typing speed, which can interrupt “*interviewee interviewer power relations*”

(O'Connor & Madge, 2003, p.140). Additionally, the interviewer must type further questions while the interviewee is answering to avoid lagging, which can distract the researcher from attending to the answers (O'Connor & Madge, 2003).

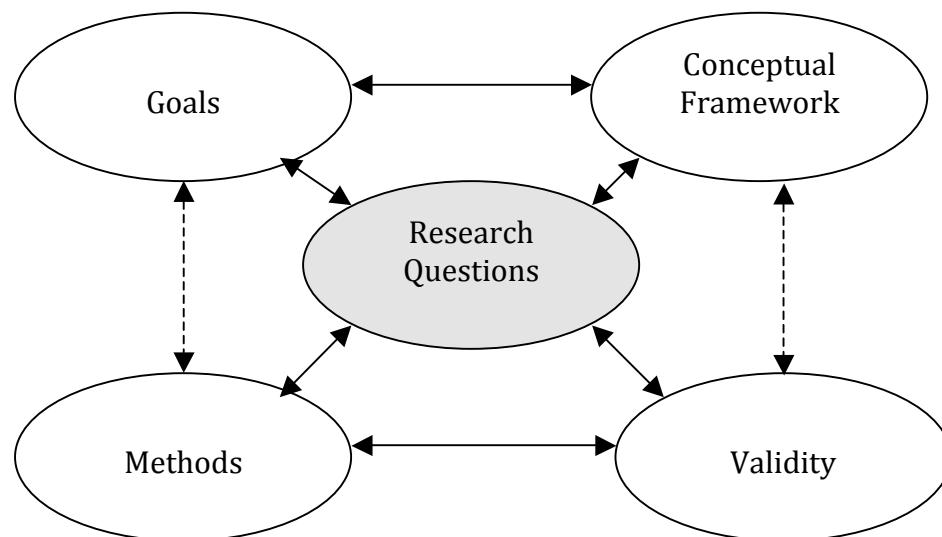
Similar to in-world interviews, the advantages of email-based interviews are: they provide the opportunity for respondents to have more control over their responses (Curasi, 2001; James & Busher, 2006; Kazmer & Xie, 2008; Markham, 2004); they save time (Mann & Stewart, 2000) as there is no need to travel to the interview venue and to dress for conducting an interview (O'Connor & Madge, 2003); and there is no transcribing since responses are typed (Curasi, 2001; Kazmer & Xie 2008; Markham, 2004; O'Connor & Madge, 2003). Easier communication is another advantage of this sort of interview (Beddows, 2008), as there is no concern about appearance and respondents can answer the questions in their own convenient time (O'Connor & Madge, 2003). However, email-based interviews suffer from some disadvantages, including potential for the misrepresentation of participants (Beddows, 2008) and deceptive responses (Walther, 2002). Further, as with in-world interviews, a significant disadvantage is that the interviewee has a copy of the full interview, which might be distributed among others and impact the results (Kazmer & Xie, 2008). However, the increased control of participants and the time and cost savings for the researcher may outweigh the disadvantages of performing text-based interviews (Mann & Stewart, 2000).

In sum, the advantages of the aforementioned interview techniques are perceived to outweigh the disadvantages, as these drawbacks can be limited by the researcher through ensuring the participants' anonymity, as well as building a sense of comfort and confidence during the interview. The following section will discuss the procedure for developing the interview questions and the research design.

3.3 In-Depth Interview Planning and Procedure

For a successful execution, this study was designed based on the '*interactive model*': a qualitative design in which “*the design components work harmoniously together and promote efficient and successful functioning*” (Maxwell, 2009, p. 215). Maxwell (2009) considers five components for research design: goals, conceptual framework, research questions, method and validity. Ethics are not identified as a separate component of this model, but rather are considered in every aspect of it. The components of the model, their relationships and effects on each other are presented in Figure 3.2. The research question is at the heart of this model and links all other components. Based on this model, the research questions should be consistent with goals, while the choice of theory must be based on goals and questions. Also, the chosen method must allow the researcher to answer the research question and deal with validity. Beside these components, research settings, skills, resources, paradigms, funding, existing theory, perceived issues, data and conclusions need to be considered, as they influence the research design (Maxwell, 2009).

Figure 3.2 An interactive model of research design



Source: Adapted from Maxwell (2005)

A review of the literature was undertaken to develop an accurate interview guide and to obtain more relevant answers from respondents. Once again, the aim of this

research was to investigate the effectiveness of product placement within the immersive environment.

Based on previous research, the most important measures of advertisement effectiveness are attitude toward the advertisement (Olson & Mitchell, 1975), attitudes toward the brand (Belch, 1982) and purchase intention (Te'eni-Hariri, Lehman-Wilzig & Lampert, 2009). Law and Braun-LaTour (2004) found that there are different factors that influence the effectiveness of product placement in terms of implicit (word fragment completion) and explicit (recall) memory. These factors are: product centrality, modality, emotional context and product category. Many studies have been conducted on the effectiveness of product placement in terms of recall and recognition of brands (Edery, 2006; Gangadharbatla, 2007; Gupta & Lord, 1998; Law & Braun, 2000; Lee & Faber, 2007; Nelson, 2002; Nelson, Yaros, & Keum, 2006; Russell, 2002). However, explicit memory is the most widely used measurement of product placement (Bressoud, Lehu & Russell, 2008; Law & Braun, 2000). Besides, there needs to be a match between the aim of placement and the measurement for the effectiveness of product placement. For instance, the effect of product placement will be best measured by recall (aided or unaided) if brand awareness is the intent (Law & Braun, 2000).

For this research, the effectiveness of product placement was measured by three stages of the hierarchy of effects framework: cognitive (unaided recall), affect (brand attitude-liking and preference), and conation (purchase intention). Unaided recall is tested when one is asked to recall any brand, while aided recall is where a brand is recalled after a prompt for a product category (Law & Braun, 2000).

An individual's involvement has also been found to influence advertising effectiveness. As involvement is subject to interpretation, involvement will vary based on differences in personality, experience and demographic status (Antil, 1984). For the current research, the amount of time spent (Engel and Blackwell, 1982), importance (Zaichkowsky, 1985) and engagement (Klimmt & Vorderer, 2003;

O'Cass, 2000) were considered to measure an individual's involvement. Same scales were used for product placement involvement.

In computer mediated communications, presence has been found to have a mediating role in affecting the relationship of advertisement involvement and advertising effectiveness (Nelson, Yaros & Keum, 2006). Also, immersion has been found to impact advertising effectiveness (Chaney, Lin & Chaney, 2004). For the current research, presence was measured by the level of reality, expression of experience and time track (Witmer & Singer, 1998). Immersion was measured by the level of emotional response and the time of entering into Second Life (Witmer & Singer, 1998). More detailed information concerning the interview format and measurements can be found in Appendix 3.1.

3.4 The Sample

Sampling is a crucial issue in qualitative research (Coyne, 1997; MacDougall & Fudge, 2001; Malhotra, 2004; Marshal, 1996). In qualitative research, purposive sampling is often used (Marshal, 1996, p. 523) rather than random sampling, in order to provide high quality data (MacDougall & Fudge, 2001). Purposive sampling refers to *“selecting units (e.g., individuals, groups of individuals, institutions) based on specific purposes associated with answering a research study's questions”* (Teddlie & Yu, 2007, p. 77). Its greatest strength is generating in-depth information by selecting the interviewees whose experiences and responses address the research questions (Teddlie & Yu, 2007). Based on its exploratory nature, the current research used a non-probability purposive sampling strategy. Non-probability sampling *“relies on personal judgment of the researcher rather than chance to select sample elements”* (Malhotra, 2004, p.320).

Decisions on sample size depend on the aim of the research (Marshal, 1996). A proper sample size answers the research question effectively (Marshal, 1996) and adds to the research quality (Coyne, 1997). In order to meet the objectives of the research, the

most appropriate sampling procedure must be selected (Zikmund, 1997). In determining the sample size for the current research, important qualitative factors such as the nature of the research, the nature of the analysis, resource constraints, as well as the sample size used in similar studies were considered (Malhotra, 2004). The sample size is typically small for exploratory research design (Malhotra, 2004; Marshal, 1996). Thus, a purposive sample of 24 participants (12 males and 12 females) was chosen for the study.

Half of the interviews were carried out in-world within the Second Life environment and half were conducted face-to-face or by email, with the number of male and female participants kept consistent across the two groups. In order to capture a variety of data, the sample consisted of current, active users of Second Life from a range of different occupations and within the age group of 20-62 years. All participants had an avatar in Second Life and had experience with some brands in this virtual environment. These qualities were confirmed by asking participants before conducting the interview.

3.5 Study One- Research Method and Design

Face-to-face and email-based interviews were carried out initially in study one for several reasons. First, these were conducted to examine the propositions developed in the previous chapter. Further, these interviews facilitated a better understanding of the Second Life setting and placed products; allowed for an initial model to be examined; and finally enabled the efficacy of the interview questions and responses to be explored (Stebbins, 2001). The sample characteristics and data collection method specifically for study one are discussed in the following sections.

3.5.1 Sample characteristics

Twelve participants were chosen purposefully for the face-to-face interviews from a target population of Australian residents/citizens of Second Life. Also, participants

have had avatars in Second Life from a week to four years. Table 3.2 provides information on the sample characteristics for study one.

Table 3.2 Sample characteristics of study one

Gender	Nationality	Age	Avatar Age	Marital Status	Job	Highest Education Degree	Motivation For Using Second Life
Female	Australian	20	2 months	Single	Student	Diploma	Doing design for a university subject
Male	Australian	56	1 year	Divorced	Lecturer	Postgraduate	Relaxing listening to music, travelling, visiting friends and watching movies
Female	Australian	45	1.5 years	Married	Student	Honours	Conducting research
Male	Australian	36	2 years	Married	Senior lecturer	Postgraduate	Doing research and lecturing
Female	Australian	41	4 months	Divorced	Academic	Postgraduate	Curiosity
Male	Arab	25	1 month	Single	Student	Postgraduate	Fun
Female	Iranian	26	1 week	Married	Housewife	Postgraduate	Networking, communication, having fun and filling in the spare time
Male	Australian	53	2 years	Married	Lecturer	Postgraduate	Lecturing and design
Female	Australian	36	1.5 years	Married	Lecturer	Postgraduate	Lecturing, visiting friends and having fun
Male	Iranian	27	2 weeks	Married	Student	Postgraduate	Having fun and meeting new people
Female	Australian	40	4 years	Single	General Manager	Undergraduate	Relaxing and catching up with boyfriend who lives overseas
Male	Iranian	27	2 weeks	Married	Student	Postgraduate	Networking and curiosity

Source: developed for this research

3.5.2 Data collection

Face-to-face in-depth interviews were carried out either in the offices of interviewees, or a booked boardroom at Queensland University of Technology (QUT). Email-based interviews were conducted to collect data from international participants who were busy and uncomfortable with a face-to-face interview (see Table 3.2). These respondents were asked to answer the questions emailed to them and respond by return email within one week. Both the face-to-face and email-based interviews were semi-structured and further questions were asked to clarify some statements.

An in-depth interview normally takes about 30 minutes to more than an hour (Malhotra 2004; Zikmund 1997). The duration for the interviews in study one was from 40 minutes to 1.45 hours, depending on the willingness of the interviewee to share more or less information. Before commencing the interviews, the purpose of the research was described for participants and all interviewees were asked to read and sign a consent form (see Appendix 3.2). The interviews were tape-recorded with interviewee permission and then transcribed to a word document format for analysis.

3.6 Study Two- Research Method and Design

In addition to face-to-face and email-based interviews, connected research in Second Life was also conducted. Study two sought to identify any differences in responses between those interviewed face-to-face or by email and participants interviewed in-world, as well as to test the initial conceptual model developed.

Connected research is “*an embedded form of market research which uses online tools to tap into social interactions between consumers and allows a more equal relation between researchers and participants in terms of communication as well as content and input*” (Schillewaert, De Ruyck & Caudron, 2008, p.3). According to Schillewaert et al. (2008) there are some advantages of manipulating this type of research as it:

- a) is a convenient and efficient way to engage participants, because with the help of a computer, there is no need to travel and the time required for completing the research is minimised
- b) provides honest responses owing to anonymity
- c) facilitates a user-friendly platform for a better quality discussion, and
- d) generates deep findings owing to the active contribution of participants as they participate in the research as a result of their interest and desire, and thus express their opinions easily.

3.6.1 Sample characteristics

The population in Second Life is interesting for market research as it includes individuals who are international, cutting-edge, tech-savvy, creative and open to new developments (Abiven & Labidoire, 2007). Twelve participants were chosen purposefully for the in-world interviews from a target population of international Second Life users. Table 3.3 provides an overview of in-world interview participants.

Table 3.3 Sample characteristic of study two

Gender	Nationality	Age	Avatar Age	Marital status	Job	Highest Education Degree	Motivation For Using Second Life
Female	American	47	3 months	Married	Web Admin	Diploma	Escaping real-life and having fun
Male	American	29	6 month	Single	Student	Postgraduate	Talking to friends and curiosity
Female	America	28	1.5 years	Single	Childcare	Secondary School	Talking to friends and curiosity
Male	Israel	31	2 years	Single	Tech-support	Diploma	Catching up with girlfriend
Female	American	42	2 years	Married	Agent	Undergraduate	Finding friends and having fun
Male	American	25	11 months	Single	Jobless	Undergraduate	Meeting Second Life girlfriend and having fun
Female	American	41	3 months	Single	School Dean Assistant	Undergraduate	Meeting new people and exploring things that cannot be

	done in real life						
Male	American	59	5 months	Married	Freelance Physician	Postgraduate	Promoting NCI, networking and watching people
Female	American	44	5.5 months	Separated	Secondary School Teacher	Postgraduate	Socializing and escaping from unhappy marriage
Male	American	62	1.5 years	Married	Retired	Undergraduate	Networking and visiting Second Life girlfriend
Female	American	60	2 years	Single	Retired	Undergraduate	Building, shopping, education and social events
Male	American	27	5 months	Single	Jobless	Undergraduate	Meeting people, exchanging idea and learning

Source: developed for this research

3.6.2 Data collection

Instant messaging, one of the connected research tools in Second Life, was employed to conduct the in-depth in-world interviews (Kazmer & Xie, 2008). In this way, the interviews were carried out in a more natural intimate environment, as instant messaging allows participants to use their daily conversational language to interact, instead of formal language (Kazmer & Xie, 2008), while also staying at their own convenient place (Mann & Stewart, 2002). Furthermore, in-world instant messaging communication allows the respondents to edit their statements and correct their errors (Markham, 2004) as soon as their answers appear in the text-box. Also, using emoticons in instant messaging makes analysis easier, because these represent the emotions of the participants (Kazmer & Xie, 2008).

The in-world interviews for study two lasted between 1.15 to 3.5 hours, dependent on the Internet speed and typing pace of Second Life users. The respondents were chosen by their answers to a few qualifying questions posed before commencing the interview. This meant their age and knowledge about brands in Second Life were assured beforehand. Interviews were conducted with participant consent, whereby respondents typed their approval in a text-box. As the data were text-based, there was no need for transcription. However, the respondent name at the beginning of each line had to be removed and all answers related to one question grouped together.

3.7 Method of Data Analysis

Data analysis is “*the application of logic to understand and interpret the data that have been collected about a subject*” (Zikmund, 1997). In order to have high-quality findings, both analytical process (data break down, categorisation, comparison, integration and reform) and interpretation (making sense of data) must be employed circularly (Fossey et al., 2002; Spiggle, 1994). Interview data were fully transcribed and analysed based on a discovery-focused approach (Fossey et al., 2002) with the help of Nvivo computer software, as the combination of manual and computer based analysis provides more accurate and reliable results (Crowley, Harre & Tagg, 2002; Welsh, 2002).

Similar to any computer software program, Nvivo has some disadvantages. However, it was the most appropriate program for data analysis in this research. The process of importing and grouping the data in Nvivo was checked twice to avoid any errors. In addition, manual analysis was carried out to ensure the reliability of the results. The coding and grouping feature of Nvivo makes the analytical process easier (Sinkovics et al., 2005), as it facilitates organising and searching data. Table 3.4 depicts the steps followed using the Nvivo program.

Table 3.4 Data management using NVivo

NVIVO STEPS	ILLUSTRATION	ADVANTAGES
Organising Processes <i>Step 1:</i> Source of data/selecting data type <i>Step 2:</i> Describing the data <i>Step 3: Changing and viewing data</i> <i>Step 4:</i> Grouping	Import of face-to-face and in-world interview transcriptions in document format, allowing each interview to become a case Description of documentary interviews: memos from the interviewer about the context, the person and related ideas Clarifying the text by coding the document Similar documents were put together with the help of a node system	Already existing material can be incorporated Increased comparability of data Irrelevant sections were cleared, the relevant sections were structured and highlighted Relevant data were structured
Coding Processes <i>Step 5:</i> Coding <i>Step 6:</i> Revising and redefining	Tree nodes were made by exploring what was coded Node system-browser was used to delete, refine and change the nodes	Reliability increased and human error decreased New ideas can be integrated through memos and links
Analysing Processes <i>Step 7:</i> Classification	Findings collected into nodes and stored separately and analysed by creating Casebook	Large number of nodes can be handled

Source: developed for this research based on Sinkovics et al. (2005)

Although text-based interviews cannot convey the real sense and emotion of the interviewee (Curasi, 2001; Gracia et al., 2009; Markham, 2004), the use of emoticons

and gestures in Second Life were helpful in interpretation and analysis of data from the in-world interviews. Notes of the emotions displayed during the face-to-face interviews were also taken to aid in data analysis.

3.8 Reliability and Validity

In qualitative research, reliability refers to stability (Guba & Lincoln, 1994) in terms of accuracy and clarity of presented findings (Lincoln & Guba, 1985). Qualitative research is credible if it discloses accurate descriptions of individuals' experiences that can be recognised instantly by people who had that experience (Sandelowski, 1986). With regards to the reliability of virtual world research, that is the extent to which the given answers in virtual worlds mirror respondents' real opinions, Massara, Ancarani, Costabile, Moirano & Ricotta (2009) discuss two supportive factors. The first factor is the effect of 'social response theory' (Reeves & Nass, 1996), which brings out authentic responses in computer-mediated settings. Social response theory suggests that people treat computers as social communication sources and they develop relationships psychologically and emotionally with them (Moon, 2000). Individuals develop these kinds of relationships especially in virtual settings through avatars, as they enhance the perception of a friendly interaction (Massara et al., 2009). The second factor that supports the reliability of research in virtual worlds is the richness of these environments, which makes them more 'real'. These worlds allow users to create original content, share knowledge, earn and exchange money, own properties, and gain an immersive experience. These factors increase the realism of the place and social interactions; hence they enhance the authenticity of responses, as well as the truthfulness of the behaviours demonstrated in virtual worlds (Massara et al., 2009).

Virtual worlds seem to be valid settings for marketing research (Massara et al., 2009). In their study, Massara et al. (2009) found no difference between off-line and in-world responses, demonstrating that participants' opinions on an issue in a virtual world were highly consistent with offline opinions. However, this similarity in responses depends on the issues discussed and questions asked, as avatars' responses in virtual worlds can be the answers of ideal characters with upgraded personalities that may not match the

real person sitting behind the computer (Massara et al., 2009). To address this in the current research, probing questions were asked of respondents to uncover deeper, more honest thoughts. Also, individuals tend to disclose more genuine information via computer (Moon, 2000), so the risk to validity was minimal. Further, in-depth interviews with small numbers of respondents can enhance validity, as a closer, ongoing relationship with respondents can be established (Crouch & McKenzie, 2006). Finally, this research attempted to offer credible results by systematic analysis of the data (Miles & Huberman, 1984), which was enabled through using Nvivo (see Table 3.4).

3.9 Ethical Considerations

Ethics have been taken very seriously in critical realism (Guba & Lincoln, 1994). The goal of ethics in research is to ensure that there are no harmful or suffering consequences to anyone from being involved in a research activity (Cooper & Emory, 1995). In order to safeguard respondents' rights, the following strategies were employed by the interviewer in the current research:

- a) starting data collection by explaining the expected benefits from the research to the respondent (Cooper & Emory, 1995)
- b) assuring respondents of the confidentiality of their answers (Cooper & Emory, 1995)
- c) obtaining the respondents' informed consent (Cooper & Emory, 1995). For the face-to-face interviews, respondents were asked to sign a consent form. For the in-world interviews, respondents' permission was gained in-world by asking them if they were happy to participate. A copy of the consent form is provided in Appendix 3.2.

One of the issues of ethical research on the Internet is obtaining participant consent (Whiteman, 2007). When conducting in-world interviews, it is almost impossible to

obtain informed consent from participants at the time of commencement, as they need to read, understand and sign the form, which may make the interview time fruitless (Mann & Stewart, 2000). However, this dilemma can be solved by obtaining participants' verbal (audio-based interview) or textual (text-based interview) permission before conducting in-world interviews. Additionally, ethical concerns are reduced when the participants are volunteers (James & Busher, 2006) and when they remain anonymous, which is achieved in-world since it is a respondent's avatar that is interviewed.

Second Life is a public place that discourages individuals from using their real names, which provides anonymity (though some users create avatars to look like their real appearance and apply a portion of their name). Therefore, the researcher may never know who is actually sitting behind the computer and responding, so obtaining consent may seem pointless (Whiteman, 2007). Indeed, individuals conducting research outside the regulatory context of a university or other businesses are not required to follow any specific policy (e.g. Policy for the Protection of Human Subjects), as long as it is not prohibited by law or the enforced policies of the particular virtual world (Bainbridge, 2007). However, considering the nature of this research, it was felt gaining textual permission was necessary and this was obtained from avatars after explaining the goal of the research and the involved risks.

Aside from the respondents' perspective, there are also some ethical issues that exist for the researcher when conducting in-world interviews. For instance, a researcher can be harassed or bullied by a participant (avatar) during an interview. In the case of the current research, one participant asked the researcher to teleport to a better venue for conducting the interview, which turned out to be a frightening place. The participant initially hid and then demanded that the researcher listen to his flute playing, before he abandoned the interview. In another case, after performing an interview, the researcher was offered a romantic kiss. These examples provide further justification for the need to obtain informed consent, because the likelihood that participants will treat the research more seriously is increased (Hair et al., 2000).

3.10 Conclusion

This chapter has presented a discussion and justification of the research methodology. More specifically, it described the philosophical perspective; face-to-face, email-based and in-world interview implementation; interview planning and procedures; the sample; research design for studies one and two; and the data analysis method. The reliability and validity of data were ensured through justification of the methods and tools employed. Finally, ethical considerations were confirmed to guarantee ethical conduct. The following chapter will present the results of the in-depth interviews.

CHAPTER FOUR: RESULTS

4.0 Introduction

The previous chapter discussed the method used for collecting data for the current research. This chapter presents details of the data analysis and the results of the research propositions proposed in chapter two. Recall that this research sought to address the following research question: *How effective is online product placement within the immersive environment?* In doing so, a number of propositions were developed, as follows:

Proposition 1: An individual's involvement with the immersive environment is associated with the effectiveness of online product placement.

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement.

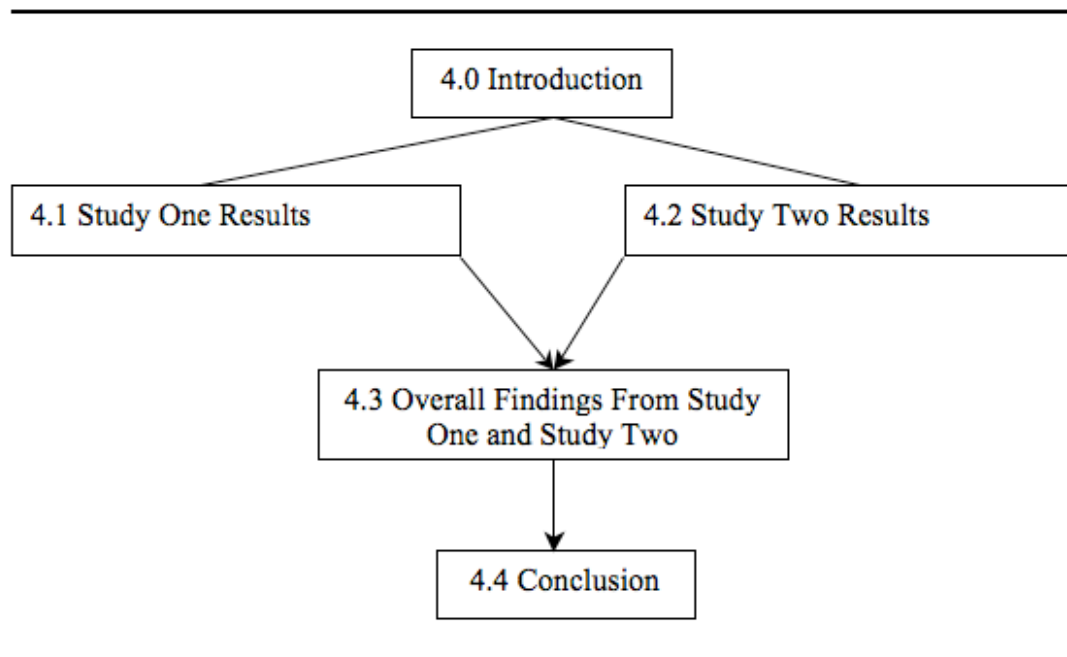
Proposition 3: An individual's immersion in the immersive environment is associated with the effectiveness of online product placement.

Proposition 4: An individual's immersion in the immersive environment is associated with the involvement with product placement.

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness.

To answer the research question and test these propositions, two studies were conducted. Section 4.1 presents the results for study one of this research. Section 4.2 outlines the results for study two. These sections also discuss additional findings from the primary research, which may not answer the research propositions, but they are valuable to the research topic. Finally, the chapter concludes with section 4.3, which presents a summary of the overall findings. The framework for this chapter is depicted in figure 4.1.

Figure 4.1 Chapter framework



Source: developed for this research

4.1 Study One Results- Analysis of Face-to-Face and Email-Based Interviews

As discussed in the previous chapter, study one was conducted for three reasons: 1) to examine the propositions developed in chapter two; 2) to obtain a better understanding of the Second Life setting and product placement in order to test the initial conceptual model developed; and 3) to test the efficacy of interview questions and the responses (Stebbins, 2001). This section provides details of the data analysis from the face-to-face and email-based in-depth interviews, and presents the findings for the propositions.

4.1.1 Online product placement effectiveness

To estimate the effectiveness of online product placement, measures used were consistent with the hierarchy of effects framework: brand recall, information search for a product placed within Second Life, attitude toward the brand including respect and likeability, and finally trial intention. In the following sections, these measures

are discussed in response to the research propositions, but first, an overview of respondent comments concerning effectiveness is necessary. Individuals in this study recalled brands if they were:

- a) the ones they like, dislike or involved with in real life;
- b) similar to the real world's brand/ product; very nice and attractive; or
- c) the first thing the interviewees had seen in Second Life.

Recall was also the result of being exposed to the brand extensively in Second Life, or having fun and good experience with them. Additionally, the recall of the brands can be the consequence of receiving free gear from a brand or having fascinating visual display. Sometimes people can just remember the sims they have bought their clothes from, like Men's Shirt, Men's Wear Jackets and Tahoe Mountain.

Many Second Life users prefer Second Life brands more than real life brands and do most of their shopping from them. Some of the users buy from the brands that they wish they could have in real life, like Rolex. Purchasing in Second Life does not necessarily lead to purchase in real life, but this depends on the product or inability to use other senses, as the following respondent states:

“When I took a Red Bull from Red Bull Machine it did make me thirsty, but it didn't make me go and get it in real life.... If it is type of new technology like a new handset, then it will influence my chance of buying it here in real life”
(Female, 36).

Around 50 percent of respondents stated that they have found product placement within Second Life very effective, whereas eight percent found it somewhat effective and 42 percent found it not very effective. However, almost all respondents indicated that they believe online product placement is more effective compared to other media. The following quote is indicative:

“I think it should be more effective because the product advertising in real life is everywhere and you tend to not even notice it, but I guess it is highlighted in Second Life because they don’t appear as much. And I become far more aware of product placement in Second Life” (Female, 36).

The findings suggest that the effectiveness of online product placement is related to the campaign, experience, engagement and level of interaction it has to offer. Almost all interviewees recalled Coca-Cola as the first brand, owing to the engagement and fun experience it provides on its site. For 25 percent of the interviewees, likeability and respect for recalled brands remained unchanged despite product placement, while the rest indicated they respect and like brands more because of their innovativeness, technology usage, attractiveness and different/ special experience. One respondent stated:

“I’m certainly very ambivalent to the advertising in the real world. So I don’t tend to be drawn to it, unless there is something very different, or there is a give away item” (Female, 45).

From most interviewees’ point of view, product placement within Second Life does not change their likeability of the brands, because in Second Life they search for the brand that they already like in real life. And in some cases if the brand/ product cannot deliver what it said it would, the likeability for the brand can even decrease. For some interviewees product placement within Second Life changes their likeability for a brand if it is engaging and visually impressive.

“I would not say likeability increased, maybe a fraction, but not substantially. If it is engaging and provides good experience that certainly increases your likeability enormously towards that particular brand” (Male, 56).

Product placement in Second Life can be more effective compared to other media as it allows the user to have interaction directly with the product, which has not been offered by other media.

“The social interaction and social engagement that a company can provide and facilitate that fun kind of engagement can make their campaign effective. Coca-cola has done that to some extent to penetrate the brand to consumer’s mind.... I hate engaging with Common Wealth in SL, they took money from me every month. So there are some brands that don’t have ability to participate in that kind of environment. It’s going to be different from what we do our traditional marketing. NAB has different product category from Nokia and won’t work well in there” (Male, 36).

“It is a two way communication tool to interact with the supplier and have a virtual visualization of the product while it is impossible to have such a communication with other types of media” (Male, 27).

In total, compared to video games, product placements in Second Life seem to be more effective, owing to the low pace of things happening in Second Life and the more time users can spend with brands/products. The following statements best describe the interests of respondents to online product placement:

“It is much more engaging and interactive. It gives firm and consumers the ability to participate, which you cannot have in other media. I have control over the brand. It is fun and if it engages me I will go back to it. It gives brand a broader capability of participation and it gives brand a better ability to engage and interact as long as it is doing well and fits with the target market and product category”(Male, 36).

Some respondents believe that it is effective as they make this relaxed setting a real environment and provide an opportunity to go shopping while spending a lot less money. However, few believe that it is not effective if they are not a fan of brands in real life.

“If you want to go and buy a Volvo XC90 and you have to pay 5000 Linden dollars for it most people would not have it. Most people would not have the room or space to drive that kind of vehicle around. You’ve got to have a place to park it” (Female, 40).

In seeking to understand online product placement effectiveness, specifically the effectiveness of placements in Second Life, a number of variables was identified as potentially having an association. Second Life involvement was the first variable and is discussed next.

4.1.2 Proposition one

Proposition 1: An individual’s involvement with the immersive environment is associated with the effectiveness of online product placement.

Respondents’ involvement with the immersive environment was described by their usage of and engagement with Second Life, as well as the importance of Second Life to them. Respondents indicated that they use Second Life from one hour to 28 hours a week and may enter it once every few weeks to almost everyday. Compared to highly involved individuals, those with lower involvement log into Second Life less often and spend less time. For these individuals, Second Life is less engaging and not very important. However, about 50 percent of respondents revealed they use Second Life for more than 10 hours a week. To a great number of respondents (58 percent) Second Life is very important, as suggested by the following comments:

“Second Life is very important to me, because it allows me to teach in a new way that I really enjoy. It is nice to be there, while people don’t know who you are or what you do” (Female, 36).

“Second Life is quite important to me as I use it for teaching and design. It’s a simulation of the real world without physical boundaries” (Male, 53).

“Second Life is very important to me. It provides me, as a regular user, a highly interacting and user-friendly environment in which I can exchange and communicate my own ideas and beliefs, express my feelings and attitude toward different issues and perspectives and hear other voices, as well” (Female, 26).

For 67 percent of respondents Second Life is highly involving, while for 33 percent it is not very involving in terms of usage, importance and engagement. Many respondents found Second Life very engaging, as it enables them to meet new people in an intimate environment, communicate with friends, visit new places, shop, as well as enjoy lovely visuals and calming experiences. Although Second Life usage and importance varied, very few respondents believe that Second Life is not engaging. However, individual traits, motivations and objectives for being in Second Life seemed to have an influence on overall involvement. For instance, the following highly involved respondent stated:

“I did actually go in there for personal emotional reason and to set up a business and build things in Second Life. My boyfriend is in Sweden and I am in Australia and we use Second Life to meet up.... I was quite big, so I have found that I lost a lot of my social skills, like I couldn’t go out and I wasn’t comfortable going out, flirting and meeting guys the way I had been in my early 20’s and I said what I’ll do is I’ll go and learn how to flirt again in that flirty environment” (Female, 40).

The link between Second Life involvement and individual factors was reinforced by another respondent:

“I rarely enter Second Life and whenever I log in I spend about one hour there. I’m not very involved with Second Life. I think it is engaging to specific types of people” (Male, 25).

It can be people’s goals and interactions within Second Life that makes Second life important or unimportant. For instance, Second Life may not be very important itself to the users. However, having relationships in Second Life makes it important to them

in terms of interacting with their loved ones. Some people use it as a hobby and some people are curious to know where it is heading and what would be its diffusion into a society. From a communication point of view, it is extremely important to most of the interviewees. For those who do not use it for personal pleasure or a social experience, Second Life is not very important. However, it is important to those who found it a great platform for teaching, learning, interacting, socialising, building and relaxing. It is also very important to those for whom Second Life has had a big effect in their life or has changed their life in some way.

Based on the findings, what makes Second Life users more or less involved is the motivation of the users for entering Second Life. People mostly use Second life to visit their overseas friends and communicate with them. They also use it to have fun, like wind surfing, sailing in pirate ships, and travelling to other countries at no cost. Second Life is also a hobby for some people. A vast number of respondents use Second Life for networking, communication, meeting new people and expanding relationships. Some also use it for researching opportunities to run a business, exchanging ideas, and conducting research in different areas like distance based education. Others use it to relieve stress and escape from real life.

“I use Second life to relax because it distracts me from the real life and works on the multiple senses, for instance I’ve found a place in SL which has waterfall- the sound of the rushing water and then you set the time to sunset so it looks even prettier and the music- combination of those things is very calming and relaxing” (Male, 56).

Second Life is also used to explore things that cannot be realistically done in real life or cannot be afforded in real life, like a house on a beach, driving an Audi, or creating and building things.

“I want to go to Sunshine coast and buy a beach front house and go there every weekend, but that’s not going to happen except by renting a place, whereas in SL I can actually own the place and every day I can look at the

pretty beach which may not be a real beach, but it looks good and it's nice to just turn on your computer and go and look at this beautiful sunset over the beach" (Male, 56).

The statement below from an individual with low level of involvement confirms that Second Life involvement is related to individuals' traits, motivation and objectives.

"I'm not the sort of person that really enjoys the computer games, so I really would prefer real life. I have been in Second Life for a university subject" (Female, 20).

Contrary to proposition one, the findings indicate that online product placement effectiveness is not directly associated with Second Life involvement, but rather effectiveness is impacted through the effect of Second Life involvement on product placement involvement. The following respondent quote is indicative:

"I use Second Life for 30 minutes to two hours a week, it's not very important.... It is somewhat engaging... However, I've spent a lot of time with the LG mobile phone in Second Life and found it very engaging" (Male, 27).

The findings suggest the existence of a negative association between Second Life involvement and product placement involvement. Individuals with higher/lower involvement with Second Life indicated a lower/higher level of involvement with product placement. In the following case, the respondent has a low level of involvement with Second Life:

"In average I spend about two hours a week in Second Life. I'm not the sort of person that really enjoys the computer games. Second Life is not very engaging to me.... But it is fairly important" (Female, 20).

However, the same respondent possesses a high level of involvement with the NASA space agency brand in Second Life:

“I’ve been involved with NASA for a long time... It holds a lot of integrity for me.... and you feel special going there because it’s like oooh NASA. So there is a respect there that you walk in on their territory. You can go and watch clips about different space adventures. It’s a place for pleasure and work” (Female, 20).

On the other hand, when respondents have high involvement with Second Life they possess a low level of involvement with product placement. For example, the following respondent is highly involved with Second Life:

“Second Life becomes quite addictive, so I found that I have to limit the time I am spending with it. I can spend the whole day in there, building or creating something or just wandering around and exploring new places, so I enjoy it. Second Life has been incredibly important and beneficial to me” (Female, 40).

“In two years, I have spent almost 99 percent of my time in Second Life.... Second Life is quite important to me. When the task I am there for works well, it makes Second Life really engaging” (Male, 53).

However, they are not very involved with product placement in Second Life, as they stated:

“Coca-Cola vending machines are everywhere, but I didn’t find them very engaging or important” (Female, 40).

“I generally discard advertising.... Generally speaking I don’t care about brands at all.... When I was in QUT island at the beginning. I didn’t want to spend half a minute there” (Male, 53).

Overall, there appears to be no association between an individual's involvement with the immersive environment and the effectiveness of online product placement, thus there is a lack of support for proposition one. However, effectiveness is impacted through the effect of Second Life involvement on product placement involvement. An overview of respondents' involvement with Second Life and the association with product placement involvement is presented in Table 4.1. The association between product placement involvement and effectiveness is discussed in detail next, under proposition two.

Table 4.1 The association between individuals' Second Life involvement with product placement involvement and its effectiveness

	Respondents	SECOND LIFE INVOLVEMENT	PRODUCT PLACEMENT INVOLVEMENT	PRODUCT PLACEMENT EFFECTIVENESS
L O W S E C O N D L I F E I N V O L V E M E N T	Male, 27	<i>"I use Second Life for 30 minutes to two hours a week, it's not very important.... It is somewhat engaging."</i>	<i>"I've spent a lot of time with LG mobile phone and found it very engaging."</i> (High product placement involvement)	<i>"Since I've seen LG mobile phone in Second Life, I've searched for it on the Internet and looked for it in real life."</i> (High perception of product placement effectiveness)
	Female, 20	<i>"In average I spend about two hours a week in Second Life. I'm not the sort of person that really enjoys the computer games. Second Life is not very engaging to me.... But it is fairly important."</i>	<i>"I've been involved with NASA for a long time... It holds a lot of integrity for me.... and you feel special going there because it's like oooh NASA. So there is a respect there that you walk in on their territory. You can go and watch clips about different space adventures. It's a place for pleasure and work."</i> (High product placement involvement)	<i>"Each time I go to Second Life I will go to NASA Lab as well to ask them questions. The NASA research is almost benefiting me in real life whereas some other product wouldn't in Second Life and so there is an element of learning and learning knowledge."</i> (High perception of product placement effectiveness)
	Male, 25	<i>"I rarely enter Second Life and whenever I log in I spend about one hour there. I'm not very involved with Second Life. I think it is engaging to specific types of people."</i>	<i>"I have seen some brands like Coca-Cola, Adidas and Nike in Second Life, but was not very involved with them."</i> (Low product placement involvement)	<i>"Seeing brands in Second Life doesn't impact my purchase in real life as it's my real life purchase that would lead to my purchase and search for that particular brand in Second Life."</i> (Low perception of product placement effectiveness)

	Respondents	SECOND LIFE INVOLVEMENT	PRODUCT PLACEMENT INVOLVEMENT	PRODUCT PLACEMENT EFFECTIVENESS
H I G H S E C O N D L I F E I N V O L V E M E N T	Male, 56	<i>"I log into Second Life every few days I suppose. One day I spent about six or seven hours, it is so engaging. Second Life is important to me as it is a hobby that I enjoy."</i>	<i>"One thing I've enjoyed is doing scuba diving. I found some of the sims like PADI where you can buy diving gears in Second Life, which is quite realistic, it's got the sound, the bubbles and the swimming is realistic."</i> (High product placement involvement)	<i>"PADI wanted to promote diving and PADI itself as an organization. And I think that worked extremely well because it was giving away free gear for a time. I took all my friends to this place so that they could get the free gear and dive in Second Life."</i> (High perception of product placement effectiveness)
	Female, 40	<i>"Second Life becomes quite addictive, so I found that I have to limit the time I am spending with it. I can spend the whole day in there building or creating something or just wandering around and exploring new places, so I enjoy it. Second Life has been incredibly important and beneficial to me."</i>	<i>"Coca-Cola vending machines are everywhere, but I didn't find them very engaging nor important"</i> (Low involvement with product placement)	<i>"Product placement in Second Life hasn't made me to go out and buy anything.... I think I bought a Coke can from a vending machine in Second Life and I loved it, because it was the same kind of thing."</i> (Medium perception of product placement effectiveness)
	Male, 53	<i>"In two years, I spend almost 99 percent of my time in Second Life.... Second Life is quite important to me. When the task I am there for works well, makes Second Life really engaging."</i>	<i>"I generally discard advertising.... Generally speaking I don't care about brands at all.... When I was in QUT Island at the beginning. I didn't want to spend half a minute there"</i> (Low involvement with product placement)	<i>"...now I'm more aware of QUT belongings. Also I teach my students how to create and build things in QUT island. So we all join together in Second Life and I show them how to plant a tree and they will make it and I make a comment on that. So they are actually doing stuff on QUT island and that works very well"</i> (High perception of product placement effectiveness)

4.1.3 Proposition two

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement.

Respondents' involvement with product placement was defined by their usage of and engagement with placed brands, as well as the importance of these brands to them. Respondents are motivated to test a product or spend some time with it if: it can provide a fun experience for them; it has realistic visuals; if someone recommends (word of mouth); if it is attractive, new, unique and interesting; it is cheap; and it satisfies their curiosity. Word of mouth also appears to be an important factor in encouraging Second Life users to try a product or service in Second Life. The appearance, graphics and visual quality of products also play significant roles in users' interaction with the product and brand. In total, getting a specific brand/product is not very important to participants, unless they are a fan of a particular brand and love specific products/services. Additionally, what can make people spend more time with some brands or products is the environment, complexity of the product, the value of being involved, combination of sounds and visuals, being user-friendly, well-designed, real and fun.

"It really comes down to the environment. The Glam World sim is just a beautiful shopping environment. It's got a couple of little stores; it's got a couple of big stores. It kind of looks authentic; they've got the lighting really nice, it's high in fashion store texture" (Female, 40).

Among respondents, 58 percent could be considered highly involved with product placement, while a further 17 percent were classified as not involved. About 25 percent of respondents seemed to have a low level of product placement involvement, demonstrating the ability to recall placed brands, but failing to use or engage with them. For example:

"I have seen some brands like Coca-Cola, Adidas and Nike in Second Life, but was not very involved with them" (Male, 25).

The more time individuals spend with a brand placed in Second Life and the more engaging it appears to them, the more involved they are and, subsequently, the more effective is the online product placement. Individuals with a high level of involvement with product placement not only recall the brand, they become motivated to obtain more information, trial it, as well as recommend it to others and share their brand experiences. The following highly involved respondent stated:

“I think product placement is very effective and engaging in Second Life.... I am very involved with D&M Space Adventures, which is a real life brand. It allows my students to create their modules there. It’s fantastic, because it’s as real as you can get. It’s something that I can explore and experience via my avatar. I emailed the person in real life and had a conversation with them. It motivated me to start a real life conversation with them” (Female, 36).

Respondents with a lower/higher level of involvement with product placement seem to have lower/higher perception of product placement effectiveness. For instance, the following respondent with a high level of involvement with product placement stated:

“One thing I’ve enjoyed is doing scuba diving. I found some of the sims like PADI where you can buy diving gear in Second Life, which is quite realistic, it’s got the sound, the bubbles and the swimming is realistic” (Male, 56).

It was evident that this respondent also found the placement effective:

“PADI wanted to promote diving and PADI itself as an organization. And I think that worked extremely well because it was giving away free gear for a time. I took all my friends to this place so that they could get the free gear and dive in Second Life” (Male, 56).

On the other hand, those respondents with a lower level of product placement involvement showed a lower perception of online placement effectiveness. For example, the 25 year old male quoted earlier indicated that he had seen some brands in

Second Life, but was not involved with them. He also suggested that he believed online product placement was ineffective, stating:

“Seeing brands in Second Life doesn’t impact my purchase in real life, as it’s my real life purchase that would lead to my purchase and search for that particular brand in Second Life” (Male, 25).

Overall, proposition two was supported by the data collected from the in-depth interviews. There is an association between an individual’s involvement with product placement and online product placement effectiveness (see Table 4.1 for a summary).

4.1.4 Proposition three

Proposition 3: An individual’s immersion in the immersive environment is associated with the effectiveness of online product placement.

Immersion is known as a specific characteristic of virtual environments, as reflected by the following statement:

“I think the strength of the virtual experience is that you are feeling a sense of immersion into a particular landscape. So, combined with this intimacy you feel a sense that you are in this sort of place with products around” (Female, 45).

For the current study, immersion was estimated by the emotional response of the interviewees to the environment and the number of times they log in to Second Life. About 42 percent of respondents were classified as highly immersed in the environment, while 25 percent were not immersed and 33 percent were immersed to some extent. One Second Life user indicated that an individual can be so highly immersed that it brings them to tears:

“You might be so immersed in one character that when your Second Life partner leaves you cry, although you are happily married and pregnant with your forth child”

Highly immersed respondents stated that they log into Second Life very often and respond emotionally to the Second Life environment, as well as the things happening there. For instance, the following highly immersed respondents stated:

“I absolutely respond emotionally to the environment. I log in twice a week. Also, when I’m stressed at work I’ll take a half an hour on my lunch break and I’ll log in to Second Life and I’ll build something and I’ll be a lot less stressed” (Female, 40).

“I log into Second Life a few times a week.... The more I use Second Life the more emotional it becomes.... There is an enormous emotional atmosphere in Second Life” (Male, 36).

Not all respondents, however, respond emotionally to Second Life. The following respondent with a low level of immersion stated:

“I log in to Second Life once a week.... I respond rationally to the things happening in Second Life” (Male, 27).

Proposition three suggested there would be an association between an individual’s immersion in Second Life and the effectiveness of online product placement. To the contrary, findings indicate that online product placement effectiveness is not directly associated with immersion. The following quote supports this:

“I usually log in three to four times a week. I think I respond both rationally and emotionally to the environment.... I think product placement in Second Life can reform, improve or even change the traditional sets of rules and regulations in advertisement and become a powerful instrument in

marketing.... There wasn't any change to the way I like or respect a brand" (Female, 26).

Rather, it appears that effectiveness is impacted through the effect of immersion on product placement involvement. For example, one respondent stated:

"I enter Second Life once a week and I mostly respond rationally.... I have never been involved with a brand in Second Life.... it makes no difference if I see it in Second Life or on TV" (Female, 41).

The association between immersion and product placement involvement is discussed in detail next, under proposition four.

4.1.5 Proposition four

Proposition 4: An individual's immersion in the immersive environment is associated with the involvement with product placement.

The results suggest that there is a positive association between immersion and product placement involvement.

In other words, respondents with a lower/higher level of immersion indicated a lower/higher level of involvement with product placement. Recall that immersion was reflected by one's emotional response to the Second Life environment and the number of times they log in. Based on this, it is evident that the following respondent has a high level of immersion:

"I logged in almost everyday.... You feel like you are in a tropical location or snow coming down- that immersive intimate experience that's very powerful. I

still don't feel quite comfortable in that environment, so maybe I'm much more conservative and respond spontaneously” (Female, 45).

In addition to high immersion, this respondent also possessed a high level of involvement with product placement:

“The shortest time I was involved with a product was 15 minutes in a particular site. Coca-Cola demonstrated the experience of the flavour. I think that was a really stunning example of using a technology further from where products have been before. There was about four different flavours and you had this three dimensional visual, like with raspberry there is a wild cherries explosion” (Female, 45).

On the other hand, individuals with a lower level of immersion seemed to have low involvement with product placement, as the following respondent indicates:

“I usually log in three to four times a week. I think I respond both rationally and emotionally to the environment. I don't think I have really been involved with any brand in Second Life” (Female, 26).

In sum, proposition four was supported by the data gathered from respondents for this research. It would appear that there is an association between an individual's immersion in Second Life and product placement involvement.

4.1.6 Proposition five

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness.

For the current research, presence was estimated by the respondents' interaction and experience with Second Life, as well as the respondents' perceived reality of the

Second Life scenes; the degree to which they are drawn into the environment; and the extent to which they lose track of time. Among the respondents, about 58 percent have experienced a high level of presence, about 17 percent have experienced presence to some extent, and the rest (25 percent) have experienced a very low level of presence. Higher levels of presence seem to be the result of spending more time in Second Life, as suggested by the following:..

“The more you see and spend time, the more real it becomes even if you see artificial or strange things in there” (Male, 36).

“When you are in a spaceship in Second Life for a long time and come back, you behave like as your avatar. You feel a bit sea-sick or air-sick when you are in space, like when you are in a boat or plane in real life” (Female, 36).

Also, there appears to be an association between presence, immersion and Second Life involvement: individuals who experience high immersion and high levels of presence tend to be highly involved in Second Life. The following statement is from a respondent who was highly immersed and had a great sense of presence, as well as Second Life involvement:

“I log into Second Life every few days I suppose. One day I spent about six or seven hours, it is so engaging. Second Life is important to me as it is a hobby that I enjoy. One thing I’ve enjoyed is doing scuba diving. I found some of the sims like PADI where you can buy diving gear in Second Life, which is quite realistic, it’s got the sound, the bubbles and the swimming is realistic” (Male, 56).

Consistent with proposition four, which suggested a positive association between immersion and product placement involvement, presence too seems to have a positive association. In other words, respondents with a simultaneous high/low level of immersion and high/low presence, demonstrated high/low product placement

involvement. The following respondent with high level of immersion and presence also indicated high involvement with product placement:

“Product placement in Second Life is very engaging. Particularly, when you go to a place you are interested in you can go beyond what is there on the surface. For instance, if you go to NASA library in there, there are interactive web pages within there, like there are books which you can click on and read the content and you can stand there and mouse-look and read it and it’s as real and interactive as you read it on web page” (Female, 36).

As shown in table 4.2, higher levels of presence appear to have a positive impact on the relationship between product placement involvement and product placement effectiveness. For instance, one respondent who had very low involvement with Coca-Cola and therefore a low perception of its effectiveness showed consistency with proposition two. She said:

“Although you can buy a Coke from a vending machine in Second Life, I don’t think I would spend any Linden Dollar to get a drink, because my avatar is not thirsty because it’s not a real person” (Female, 20).

However, space agency NASA seems quite effective in the case of this respondent. This may be due to the level of presence she has had while experiencing that brand (see Table 4.2). A high level of presence is evident from the following statement:

“Scenes can happen in real life like the NASA Co Lab and NASA area which are the same in real life. I lost track of time only when I was talking to people in NASA Co Lab and finding information on space” (Female, 20).

For this respondent, product placement involvement appeared to be higher and online product placement more effective. She stated:

“Each time I go to Second Life I will go to NASA Lab as well to ask them questions. The NASA research is almost benefiting me in real life whereas some other product wouldn’t in Second Life and so there is an element of learning and learning knowledge. I was kind of excited about what’s happening on the other side of the world. Whereas, previously I had no idea and didn’t really care” (Female, 20).

Similarly, for respondents with low product placement involvement, placements seem to be more effective when experiencing a high level of presence. Recall the 53 year old male who indicated that he generally discards advertising and does not care about brands. This same respondent demonstrated a high sense of presence:

“I think Second Life is quite real. I found it annoying when I was in a space shuttle in QUT island and the speed was too fast and I was bumping my head. Also sometimes a tree gets in the way” (Male, 53).

Despite suggesting that QUT Island in Second Life is an underdeveloped environment and therefore not very effective, the respondent stated that he is more aware of QUT belongings and had indeed purchased a t-shirt at QUT Island with a QUT logo on it. This level of awareness and purchase behaviour is indicative of enhanced product placement effectiveness. He stated:

“... now I’m more aware of QUT belongings. Also I teach my students how to create and build things in QUT island. So we all join together in Second Life and I show them how to plant a tree and they will make it and I make a comment on that. So they are actually doing stuff on QUT island and that works very well” (Male, 53).

In another case, a female respondent seemed to have low involvement with Coca-Cola:

“Coca-Cola vending machines are everywhere, but I didn’t find them very engaging or important” (Female, 40).

However, the respondent advised that despite this, she had purchased the brand in Second Life. This seems to be the result of presence:

“Product placement in Second Life hasn’t made me to go out and buy anything.... I think I bought a Coke can from a vending machine in Second Life and I loved it, because it was the same kind of thing” (Female, 40).

Overall, where individuals have low or high involvement with product placement, a higher sense of presence appears to enhance product placement effectiveness.

Therefore, it seems that presence mediates the relationship between product placement involvement and effectiveness. Thus, proposition five is supported (see Table 4.2 for a summary).

Table 4.2 The mediating role of presence

	Respondents	PRODUCT PLACEMENT INVOLVEMENT	PRESENCE	PRODUCT PLACEMENT EFFECTIVENESS
L O W P R O D U C T P L A C E M E N T I N V O L V E M E N T	Male, 53	"I generally discard advertising.... Generally speaking I don't care about brands at all"	<i>"I think Second Life is quite real. I found it annoying when I was in a space shuttle in QUT island and the speed was too fast and I was bumping my head. Also sometimes a tree gets in the way."</i> (High sense of presence)	<i>"...now I'm more aware of QUT belongings. Also I teach my students how to create and build things in QUT island. So we all join together in Second Life and I show them how to plant a tree and they will make it and I make a comment on that. So they are actually doing stuff on QUT island and that works very well"</i> (High perception of product placement effectiveness).
	Female, 41	<i>"I have never been involved with a brand in Second Life"</i>	<i>"I think the interaction within Second Life is not real."</i> (Low sense of presence)	<i>"I noticed Coke pavilion and Australian Idol band. But it makes no difference if I see it in Second Life or on TV."</i> (Low perception of product placement effectiveness)
	Male, 25	<i>"I have seen some brands like Coca-Cola, Adidas and Nike in Second Life, but was not very involved with them."</i>	<i>"It's a special feeling, you can't find it in anywhere in the real life.... The interaction was not that easy ... I needed time to get use to it.... I've had an interesting experience so far.... It reminds me that I'm in an artificial setting in a way that I can't use all my senses."</i> (Low sense of presence)	<i>"Seeing brands in Second Life doesn't impact my purchase in real life as it's my real life purchase that would lead to my purchase and search for that particular brand in Second Life."</i> (Low perception of product placement effectiveness)

	Respondents	PRODUCT PLACEMENT INVOLVEMENT	PRESENCE	PRODUCT PLACEMENT EFFECTIVENESS
H I G H P R O D U C T P L A C E M E N T I N V O L V E M E N T	Male, 56	<i>“ One things I’ve enjoyed is doing scuba diving. I found some of the sims like PADI where you can buy diving gears in Second Life, which is quite realistic, it’s got the sound, the bubbles and the swimming is realistic”</i>	<i>“Second Life is intriguing.... It can be incredibly real far more than I would have ever imagined. At one level you are always aware of it being artificial, but it’s surprising how quickly you can become absorbed in that world and the time just seems to go.”(High sense of presence)</i>	<i>“PADI wanted to promote diving and PADI itself as an organization. And I think that worked extremely well because it was giving away free gear for a time. I took all my friends to this place so that they could get the free gear and dive in Second Life.” High perception of product placement effectiveness)</i>
	Female, 20	<i>“I’ve seen some brands in Second Life like Coca-cola and Flickr logo, but I’m not involved with them at all.... I’ve been involved with NASA for a long time... and you feel special going there because it’s like oooh NASA. So there is a respect there that you walk in on their territory. You can go and watch clips about different space adventures. It’s a place for pleasure and work.”</i>	<i>“Scenes can happen in real life like the NASA Co Lab and NASA area which are the same in real life. I lost the track of time only when I was talking to people in NASA Co Lab and finding information on different space.”(High sense of presence)</i>	<i>“Each time I go to Second Life I will go to NASA Lab as well to ask them questions. The NASA research is almost benefiting me in real life whereas some other product wouldn’t in Second Life and so there is an element of learning and learning knowledge.”(High perception of product placement involvement)</i>

4.2 Study Two Results- Analysis of In-World Interviews

As mentioned in the previous chapter, study two was conducted for this research in order to determine whether there would be any difference in information provided by respondents interviewed in Second Life and those interviewed face-to-face or via email. Also, study two sought to examine the appropriateness of the conceptual model developed in chapter two and revised based on the results of study one. The following sections provide details of the data analysis from the in-world interviews performed in study two.

4.2.1 Online product placement effectiveness

Compared to study one, where 50 percent of respondents held a high perception of online product placement effectiveness, in study two 33 percent of respondents suggested product placement is very effective. For 25 percent, online product placement is effective to some extent and it is ineffective to 42 percent of respondents. The latter suggested they would prefer to see product placement in other media, such as television or radio. Some respondents indicated they find product placement more effective in Second Life, but highlighted that one cannot use all their senses, like touch. For example:

“Product placement is more effective in Second Life than other media, although you can’t use all your senses” (Female, 42).

Respondents’ motivation (e.g., having fun, chatting, or doing research) for entering Second Life also seems to have an impact on the effectiveness of online product placement. Most respondents, who are in Second Life to have fun and meet other people, did not find product placement very effective. One respondent stated:

“Second Life is quite important to me. It is very engaging.... Everyday I spend about five hours to wander around and meet friends. I don’t really care about brand names in Second Life like Nike etc” (Male, 25).

However, it seems effectiveness may be impacted by respondents' attitude toward a brand in real life and their shopping behaviour. Respondents' perception of online product placement effectiveness may be quite high when they enjoy online shopping through virtual worlds, but pre-existing brand attitudes still have an influence. For example:

"I loved the experience I had with BigPond in Second Life.... It hasn't made any change in my respect or likeability to the brand though, as I have trouble with them in real life" (Female, 28).

Behind every avatar is a real person, so it makes sense that a respondent's experience with a brand can be transferred to Second Life from the real life and vice versa. Thus, if a respondent is quite involved with a particular brand in Second Life, they may not have a high perception of product placement effectiveness as s/he has not had a positive experience with the brand in real life.

Consistent with the findings for study one, the effectiveness of online product placement is related to the campaign, experience, engagement and interaction a placement offers, as well as its appearance and quality. The following quote is indicative:

"I've been to BigPond with its whole sim of advertising, which is very attractive. It was very engaging" (Female, 28).

Compared to study one, only 25 percent of respondents recalled Coca-Cola. Based on their purpose for being in Second Life, respondents recalled Second Life brands especially for hair and skin (e.g., Analog Dog), or real life brands with which they have an existing relationship (e.g., Stanford). One respondent was promoting a service and conducting research within different universities, and thus he demonstrated an ability to recall these brands:

“I’m quite involved with universities as my job here is promoting for National Cancer Institute (NCI). What Rockcliffe University is doing here on some aspects of social research caught my eye” (Male, 59).

In comparison to study one, the respect and likeability for brands remained unchanged for 67 percent of respondents, as they were mostly looking for brands that they like in real life:

“Each time I go to Second Life I will go to Ben and Jerry’s ice cream store...” (Female, 42).

Many respondents expressed such a strong like for these brands that they named them with positive adjectives like:

“CAS Delicious food” (Female, 60).

However, recommending brands to other avatars in Second Life is very common:

“I’ve found these brands here through searching and also recommendations of my friends” (Female, 44).

Overall, online product placement effectiveness appears to be associated with many factors. Proposition one examines the association with Second Life involvement.

4.2.2 Proposition one

Proposition 1: An individual’s involvement with the immersive environment is associated with the effectiveness of online product placement.

Respondents suggested that they use Second Life from one hour to 24 hours a day and most enter Second Life daily. A considerable number of respondents mentioned that they use second Life to pass time; fall in love with someone; find real life partners; learn something, such as different languages, cultures, and improve program skills; and do whatever they want without any borders or limitations. About 59 percent of Second Life users are very involved, while 33 percent are involved with Second Life to some extent and only eight percent are not involved. The reason that almost all individuals were involved is probably due to the fact that respondents were in the environment during the interview.

Individuals with lower levels of involvement log into Second life less often and spend less time there compared to highly involved individuals. Also, they find Second Life less engaging and not very important. To most respondents, Second Life is very engaging, because they can build and create things there; learn new things; experience new technology; attend different events; as well as find new friends and chat with them. For example:

“Second Life is quite important to me. It is very engaging.... Everyday I spend about five hours to wander around and meet friends” (Male, 25).

To a great number of respondents, Second Life is so important that it has changed their lives. Indeed for some, Second Life has allowed them to start a new life:

“Second Life has made a better person of me” (Male, 31).

“Second Life has changed my life. When I started I was unhappily married and I met so many interesting people here. It made me realize there was a whole world full of people out there and in here, and it made me also realize I didn’t have to worry about being lonely because I could log on and be among friends anytime-so I got the courage to finally get separated” (Female, 44).

Contrary to proposition one and similar to study one, findings indicated that online product placement effectiveness is not directly associated with Second Life involvement, but rather effectiveness is impacted through the effect of Second Life involvement on product placement involvement. The impact of product placement involvement on effectiveness is discussed in detail under proposition two. Also, an overview of respondents' involvement and the association with online product placement effectiveness is presented in Table 4.3.

Individuals who had higher involvement with Second Life appeared to have lower involvement with some brands placed in Second Life and vice versa. The following respondent demonstrated high Second Life involvement:

“Second Life is as important as the Internet and the world wide web to me. I spend most of my time in Second Life. Since my pc is on I’m logged into Second life, which is 24 hours a day” (Male, 27).

He also possessed lower involvement with online product placement:

“I do not spend much time with products and brands here, unless they are technology stuff.... I mostly go for the appearance and low cost.... I’ve seen Pringles and Coke machines here.... I get my hair from Damsselfly” (Male, 27).

Subsequently, online product placement appeared to be less effective to this respondent:

“Personally, buying stuff or not won’t make me feel better or happy. I just choose what I like.... I bought this hair from Damsselfly because it’s like my real one, to make my avatar like me” (Male, 27).

Also, respondents with lower Second Life involvement possessed a higher level of product placement involvement. For instance, the following respondent with lower

Second Life involvement had higher product placement involvement and effectiveness:

“I spend a few hours daily in Second Life. Second Life is not very important to me... I’ve been to BigPond...I loved the experience I had with BigPond in Second Life” (Female, 28).

Based on the above statements and findings, there appears to be no association between an individual’s involvement with the immersive environment and the effectiveness of online product placement. Therefore, there is a lack of support for proposition one. However, it appears that effectiveness is impacted through the effect of Second Life involvement on product placement involvement. There is an apparent negative relationship between Second Life involvement and product placement involvement. The association between product placement involvement and effectiveness is discussed next.

Table 4.3 The association of individuals' Second Life involvement with product placement involvement and its effectiveness

	Respondents	SECOND LIFE INVOLVEMENT	PRODUCT PLACEMENT INVOLVEMENT	PRODUCT PLACEMENT EFFECTIVENESS
L O W E R S E C O N D L I F E I N V O L V E M E N T	Female, 42	<i>"I spend about 20 to 30 hours weekly in Second Life. To me Second Life is quite important and engaging to me."</i>	<i>"Ben and Jerry's ice cream is very important to me"</i> (High product placement involvement)	<i>"Each time I go to Second Life I will go to Ben and Jerry's ice cream store. I will not substitute it with any other brand."</i> (High perception of product placement effectiveness)
	Male, 59	<i>"I spend about 60 to 90 minutes daily. Second Life is interesting to me.... The importance of it to me would be three out of 10."</i>	<i>"I'm quite involved with universities as my job here is promoting for National Cancer Institute (NCI). What Rockcliffe University is doing here on some aspects of social research caught my eye."</i> (High product placement involvement)	<i>"I have respect for Rockcliffe University that are constantly working toward innovation and new business models. I now have personal contacts with their staff, so there is an added sense of connection."</i> (High perception of product placement effectiveness)
	Female, 28	<i>"I spend few hours daily in Second Life. Second Life is not very important to me, but the things happen in there are very important, like chatting with friends and learning new things. It is very engaging though."</i>	<i>"I've been to BigPond with its whole sim of advertising, which is very attractive. It was very engaging."</i> (High product placement involvement)	<i>"I loved the experience I had with BigPond in Second Life.... It hasn't made any change in my respect or likeability to the brand as I have trouble with them in real life."</i> (Medium perception of product placement effectiveness)

	Respondents	SECOND LIFE INVOLVEMENT	PRODUCT PLACEMENT INVOLVEMENT	PRODUCT PLACEMENT EFFECTIVENESS
H I G H E R S E C O N D L I F E I N V O L V E M E N T	Male, 27	<i>“Second Life is as important as the Internet and the world wide web to me. I spend most of my time in Second Life. Since my pc is on I’m logged into Second life, which is 24 hours a day.”</i>	<i>“I do not spend much time with products and brands here, unless they are technology stuff.... I mostly go for the appearance and low cost.... I’ve seen Pringles and Coke machines here.... I get my hair from Damselfly.”</i> (Low Second Life’s product placement involvement)	<i>“Personally, buying stuff or not won’t make me feel better or happy. I just choose what I like.... I bought this hair from Damselfly because it’s like my real one, to make my avatar like me.”</i> (Low perception of Second Life’s product placement effectiveness)
	Female, 44	<i>“Second Life is an extremely engaging environment that is very important to me.... I’m very addicted to it, so every week I spend between 15 to 40 hours in there.”</i>	<i>“I wear Sassy Kitty, Earth Stones, Stiletto Moody, Damselfly and Analog dog. And I love them as they make me beautiful.”</i> (High Second Life’s product placement involvement)	<i>“I’ve found these brands here through searching and also recommendations of my friends</i> (High perception of Second Life’s product placement effectiveness)
	Male, 25	<i>“Second Life is quite important to me. It is very engaging.... Everyday I spend about five hours to wonder around and meet friends.”</i>	<i>“I’ve seen Nokia, Nike and Adidas... To me if I like the way it looks or it does what I want it to, it doesn’t matter who made it or what brand, as long as it’s well made”</i> (No involvement with product placement)	<i>“I don’t really care about brand names in Second Life like Nike etc. People either make nice clothes or they don’t but I do go to certain shops for clothes cause they make nice ones”</i> (No perception of product placement effectiveness)

4.2.3 Proposition two

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement

In comparison with study one, where 58 percent of respondents were highly involved with product placement, only 42 percent were highly involved with product placement in study two. A further eight percent were involved to some extent and 50 percent were not very involved with product placement in Second Life. The main factors in involving Second Life users with product placement appeared to be the quality and visual attraction of the product. Interestingly, despite demonstrating lower levels of involvement, study two respondents recalled more Second Life brands compared to study one. This may be due to the fact that these respondents were interviewed in-world, hence the recency of their exposure to placed brands may have enhanced recall ability.

Similar to study one, high engagement with a brand can make it more effective. In other words, individuals that possess high involvement with a product placement tend to have a higher perception of its effectiveness. For instance, the following respondent exhibited high product placement involvement:

“Ben and Jerry's ice cream is very important to me” (Female, 42).

The product placement was also effective to this respondent:

“Each time I go to Second Life I will go to Ben and Jerry's ice cream store. I will not substitute it with any other brand” (Female, 42).

In fact, the product placement was so effective that the respondent was willing to share her brand experiences and recommend the brand:

“Ben and Jerry’s ice cream has a store here, which I go to and have mint flavour. I like it; you need to try it too” (Female, 42).

On the other hand, those respondents with a lower level of product placement involvement mostly do not care about brands and product placement, suggesting that these are ineffective in Second Life:

“Most of the avatars I see here are pretty light on clothing, so I don’t see much room for brands” (Male, 29).

Respondents with a lower level of involvement with product placement reported a low level of online product placement effectiveness. For instance:

“I’ve seen Nokia, Nike and Adidas... To me if I like the way it looks or it does what I want it to, it doesn’t matter who made it or what brand, as long as it’s well made. I don’t really care about brand names in Second Life like Nike etc. People either make nice clothes or they don’t...” (Male, 25).

Overall, this proposition was supported by the data collected from the in-world interviews. As illustrated in Table 4.3, online product placement effectiveness is associated with product placement involvement.

4.2.4 Proposition three

Proposition 3: An individual’s immersion in the immersive environment is associated with the effectiveness of online product placement

Similar to study one, immersion was estimated based on the emotional responses of the interviewees to the environment and the number of times they log in to Second Life. About 50 percent of respondents were very much immersed in the environment, 42 percent were immersed to some extent and eight percent were not immersed. Compared to study one, the number of respondents immersed in the Second Life environment was far greater in study two.

Highly immersed individuals indicated that they use Second Life frequently and experience emotions in response to this environment. For example, respondents with a high level of immersion stated:

“I log into Second Life every day as soon as I get home from work. I’m in Second Life almost all day to meet my girl friend. I absolutely respond emotionally to the environment” (Male, 31).

“I log into Second Life everyday.... It’s a very immersive and fascinating environment.... I do respond emotionally to the environment.... I know my cat Bliss here is only a bunch of pixels, but it still adds to the immersion” (Female, 60).

Comments suggest that some respondents are so immersed that they respond completely emotionally to the environment. For example, one respondent logs into Second Life just to meet his lover:

“I have a girl friend in Second Life, who’s as real to me as in real life and I share a house with her in there”

Additionally, respondents with a lower level of immersion stated:

“I log in to Second Life twice a week.... I mostly respond rationally to the things happening in Second Life” (Male, 29).

“I enter Second Life daily.... I sometimes respond emotionally and sometimes intellectually” (Female, 41).

Contrary to proposition three, findings indicate that online product placement effectiveness is not directly associated with immersion, but rather effectiveness is impacted through the effect of immersion on product placement involvement. The following quote is evidence of these relationships:

“I’m very immersed in Second life. I log in daily. I respond very emotionally to the environment.... I’ve spent some time with MystiTool HUD and Huddle and had good experience with them.... I think product placement could be very effective, depending on what it is. Some things might not be practical to place in Second Life; others would work well, like MystiTool HUD and Huddle” (Female, 47).

The association between immersion and product placement involvement is discussed in detail under proposition four.

4.2.5 Proposition four

Proposition 4: An individual’s immersion in the immersive environment is associated with the involvement with product placement

Similar to study one, the findings indicate there is a positive association between immersion and product placement involvement. Respondents with a higher level of immersion indicated a higher level of involvement with product placement. The following respondent obviously had a higher level of immersion:

“I’m in Second Life almost all day. I absolutely respond emotionally to the environment and the things happening around me” (Male, 62).

The respondent also demonstrated product placement involvement:

“I buy my clothes from Men’s Shirt, which is very engaging” (Male, 62).

As another example, the following respondent experienced a level of immersion:

“I log in daily. I don’t completely respond emotionally to the environment”
(Male, 59).

At the same time, he possessed a high level of involvement with product placement:

“I’m quite involved with universities... I have respect for Rockcliffe University as they are constantly working toward innovation and new business models. I now have personal contacts with their staff, so there is an added sense of connection” (Male, 59).

Overall, this proposition was supported by the data gathered from respondents in-world. There is an apparent association between an individual’s immersion in the Second Life environment and involvement with product placement.

4.2.6 Proposition five

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness

As in study one, the degree of presence experienced by respondents was estimated based on the following factors: interaction and experience with Second Life; the perceived realism of the Second Life scenes; the degree to which one is drawn into the environment; and the extent to which one loses track of time. Compared to study one, 50 percent of respondents indicated they feel a very high sense of presence, while the

other 50 percent experience a low sense of presence. Those respondents who experience low presence recognise the inability to use all senses (e.g., touch) in Second Life and see this as a drawback. Further, they are still aware of what is happening around them in the real world and they remain conscious of time. Overall, they see Second Life as unrealistic. The following statement is indicative:

“Avatars are the biggest fantasy elements in Second Life, because everyone has made themselves look like anime characters or porn stars. Also, the graphics are choppy. Second Life is not very real or natural” (Male, 29).

Some respondents highlighted that there are many things reminding them that they are in an artificial world (e.g., nekos, nude people, robots, lags, cartoonish graphics, and unrealistic body language). As a result, these respondents experience lower levels of presence, because they are unable to do the routine things that they do in real life (e.g., visiting their doctor). However, these same things that make Second Life very artificial and unreal for some respondents are normal and natural for others. For those respondents who have a higher sense of presence in Second Life, the strange appearance of some avatars, like vampires, robots and fairies, is normal. Respondents with a higher sense of presence are not bothered by being unable to touch and smell (recall the respondent mentioned earlier that enjoys the mint flavour of Ben and Jerry’s ice cream in Second Life). Rather, they get a sense of touch through visualizing.

Similar to study one, the results of study two suggest a positive association between presence, immersion and Second Life involvement when same level of immersion and presence is experienced. For instance, the following respondent experienced a low level of immersion, low presence and low Second Life involvement:

“Second Life is not very important to me. I just spend one hour in it when I log in. It seems boring and unrealistic to me” (Male, 29).

At the same time, the respondent demonstrated a lower level of involvement with product placement:

“I’m aware of brands like Nike in Second Life, but don’t really care about them” (Male, 29).

On the other hand, respondents with a high level of immersion and presence reported a high level of involvement with Second Life:

“Second Life is an extremely engaging environment that is very important to me.... I’m very addicted to it, so every week I spend between 15 to 40 hours in there” (Female, 44).

Similarly, a high level of involvement with product placement was evident:

“I wear Sassy Kitty, Earth Stones, Stiletto Moody, Damselfly and Analog dog. And I love them as they make me beautiful” (Female, 44).

Meanwhile, respondents with a high/low level of immersion and high/low presence possessed high/low product placement involvement. The following respondent with a high level of immersion and high presence indicated high involvement with product placement too:

“I’m very involved with Second Life, I have a house, horse and cat here. I log in everyday. It is a very immersive, fascinating and emotional environment [high immersion].... I lose track of time all the time, everything here is quite real [high presence].... When I see a brand here that I like I search for the brand online. I’m mostly involved with Second Life brands, like Analog Dog, where I get my hair. I think it’s very engaging” (Female, 60).

These results point to the mediating role of presence. Indeed, in support of proposition five, higher levels of presence seem to have a positive impact on the relationship

between product placement involvement and product placement effectiveness, as shown in Table 4.4. Where respondents have high/low involvement with a brand in Second Life, their sense of presence (low or high) can mediate effectiveness. Respondents see online product placement effectiveness as more positive when their sense of presence is high. A lower level of presence might also negatively impact this relationship. In the following case, the respondent is involved with Redskin and Audi to a high level:

“I am a huge Redskins and Audi fan in real life. Both are designed well here in Second Life. The t-shirt looks realistic and the car is very fun to drive here”
(Female, 41) [High product placement involvement].

However, contrary to proposition two, she possessed a lower perception of product placement effectiveness, but this appears attributable to a lower degree of felt presence:

“I drive an ‘Audi’ A4 Avant here, and wear Redskin T-shirts here, but owing to the inability to use other senses it hasn’t made me run out and buy anything in real life. At the moment Second Life is not realistic, especially when you see an alien, a vampire or an unnatural character. I have had confusing experiences with Second Life” (Female, 41).

Overall, proposition five is supported: presence mediates the relationship between product placement involvement and effectiveness.

Table 4.4 The mediating role of presence

	Respondents	PRODUCT PLACEMENT INVOLVEMENT	PRESENCE	PRODUCT PLACEMENT EFFECTIVENESS
H I G H P R O D U C T P L A C E M E N T I N V O L V E M E N T	Female, 42	<i>“Ben and Jerry’s ice cream is very important to me.”</i> (High product placement involvement)	<i>“Time goes by so quick when I’m in Second Life. Oh, yes scenes I see here can happen in real life. It is very real as well as the interactions ”</i> (High sense of presence)	<i>“Each time I go to Second Life I will go to Ben and Jerry’s ice cream store and get the mint flavour. I will not substitute it with any other brand.”</i> (High perception of product placement effectiveness)
	Male, 59	<i>“I’m quite involved with universities as my job here is promoting for National Cancer Institute (NCI). What Rockcliffe University is doing here on some aspects of social research caught my eye.”</i> (High product placement involvement)	<i>“I feel a considerable sense of presence in Second Life. The simulation is good enough to sense the person behind the avatar. I easily lose the track of time.”</i> (High sense of presence)	<i>“I have respect for Rockcliffe University that is constantly working toward innovation and new business models. I now have personal contacts with their staff, so there is an added sense of connection.”</i> (High perception of product placement effectiveness)
	Female, 44	<i>“I wear Sassy Kitty, Earth Stones, Stiletto Moody, Damsel fly and Analog dog. And I love them as they make me beautiful.”</i> (High Second Life’s product placement involvement)	<i>“Oh my God! I lose the track of time all the time. I interact very well in Second Life and have very positive experience.”</i> (High sense of presence)	<i>“I’ve found these brands here through searching and also recommendations of my friends”</i> (High perception of Second Life’s product placement effectiveness)

	Respondents	PRODUCT PLACEMENT INVOLVEMENT	PRESENCE	PRODUCT PLACEMENT EFFECTIVENESS
L O W P R O D U C T P L A C E M E N T I N V O L V E M E N T	Male, 27	<i>"I do not spend much time with products and brands here, unless they are technology stuff.... I mostly go for the appearance and low cost.... I've seen Pringles and Coke machine here.... I get my hair from Damsselfly."</i> (Low Second Life's product placement involvement)	<i>"I lose track of time and become drawn in the environment, only if I do something that I like. The reality aspect of Second Life depends on what you see or who you meet in there."</i> (Low sense of presence)	<i>"Personally, buying stuff or not won't make me feel better or happy. I just choose what I like.... I bought this hair from Damsselfly because it's like my real one, to make my avatar like me."</i> (Low perception of Second Life's product placement effectiveness)
	Male, 25	<i>"I've seen Nokia, Nike and Adidas... To me if I like the way it looks or it does what I want it to, it doesn't matter who made it or what brand, as long as it's well made"</i> (No involvement with product placement)	<i>"I see things like robots walking about all the time, which always remind me that I'm in an artificial world"</i> (Very low sense of presence)	<i>"I don't really care about brand names in Second Life like Nike etc. People either make nice clothes or they don't but I do go to certain shops for clothes cause they make nice ones"</i> (No perception of product placement effectiveness)

4.3 Overall Findings from Study One and Study Two

The following table (Table 4.5) presents an overview of the results from studies one and two. In some cases, respondents indicated low involvement with brands in Second Life, while other respondents suggested they were highly involved with some brands. Similarly, the level of involvement in Second Life varied among respondents, as did immersion. The mediating role of presence is obvious in some cases, with the level of presence having an influence on the relationship between product placement involvement and its effectiveness. Moreover, respondents with the same level of immersion and presence indicated the same level of involvement with Second Life and product placement, and this influenced online product placement effectiveness. For instance, a respondent who felt a low level of immersion and presence also possessed a low involvement with Second Life and product placement, and subsequently found online product placement less effective. These respondents remained exceptions for this research. The findings also suggest there are other factors that can influence online product placement effectiveness, such as respondents' buying behaviour and brand attitudes in real life, as well as their objectives and motivation for entering Second Life.

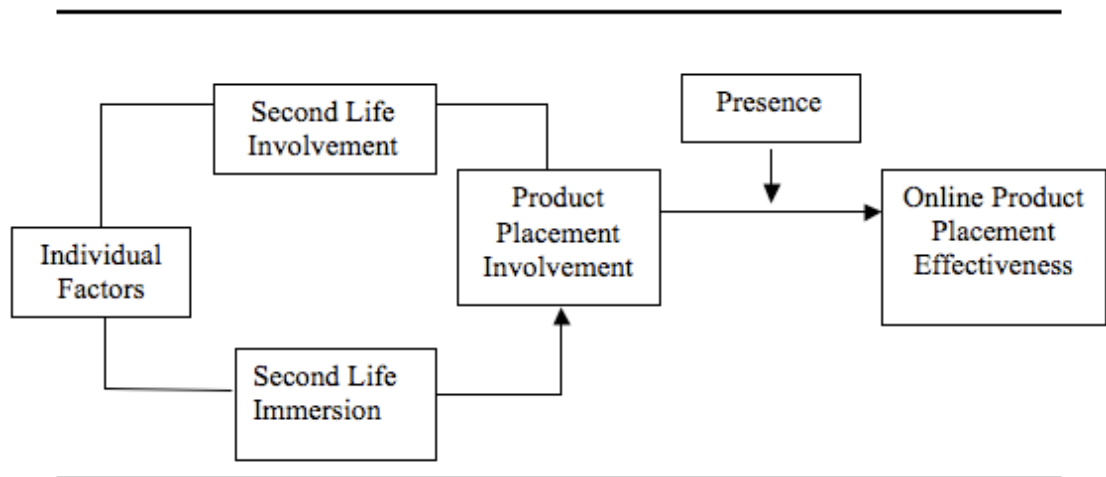
Table 4.5 Overview of all findings – Studies one and two

Respondent	Nationality	Second Life Involvement	Product Placement Involvement	Second Life Immersion	Second Life Presence	Online Product Placement Effectiveness	Intention of Using Second Life
Female, 20	Australian	Low	High	Medium	High	High	Doing design for a university subject
Male, 56	Australian	High	High	High	High	High	Relaxing listening to music, travelling, visiting friends and watching movies
Female, 45	Australian	High	High	High	High	High	Conducting research
Male, 36	Australian	High	High	High	High	High	Doing research and lecturing
Female, 41	Australian	Low	Low	Low	Low	Low	Curiosity
Male, 25	Arab	Low	Low	Low	Low	Low	Fun
Female, 26	Iranian	High	Low	Medium	Low	Low	Networking, communication, having fun and filling in spare time
Male, 53	Australian	High	Low	Medium	High	Medium	Lecturing and design
Female, 36	Australian	High	High	High	High	High	Lecturing, visiting friends and having fun
Male, 27	Iranian	Low	High	Medium	High	High	Having fun and meeting new people
Female, 40	Australian	High	Low	High	High	Medium	Relaxing and catching up with boyfriend who lives overseas
Male, 27	Iranian	High	Medium	Low	Medium	Low	Networking and curiosity

Female, 47	American	High	Medium	High	Low	Medium	Escaping real-life and having fun
Male, 29	American	Low	Low	Low	Low	Low	Talking to friends and curiosity
Female, 28	America	High	Low	Medium	High	Medium	Talking to friends and curiosity
Male, 31	Israel	High	Low	Medium	Low	Low	Catching up with girlfriend
Female, 42	American	High	High	High	High	High	Finding friends and having fun
Male, 25	American	Medium	Low	Medium	Low	Low	Meeting Second Life girlfriend and having fun
Female, 41	American	High	Medium	High	Low	Medium	Meeting new people and exploring things that cannot be done in real life
Male, 59	American	Medium	High	Medium	High	High	Promoting NCI, networking and watching people
Female, 44	American	High	High	High	High	High	Socializing and escaping from unhappy marriage
Male, 62	American	Medium	High	High	High	Medium	Networking and visiting Second Life girlfriend
Female, 60	American	High	High	High	High	High	Building, shopping, education and social events
Male, 27	American	Medium	Low	Medium	Low	Low	Meeting people, exchanging idea and learning

Source: developed for this research

Figure 4.2 The proposed model for this research



Source: developed for this research

4.4 Conclusion

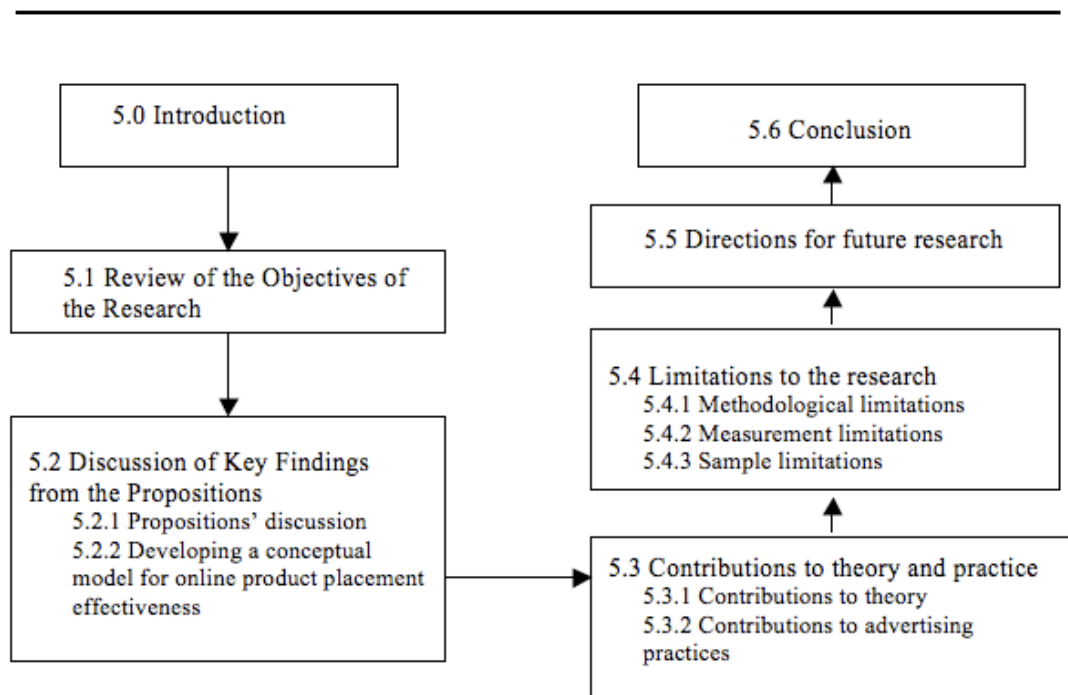
In conclusion, both study one and study two conducted for this research provide a number of valuable findings to address the propositions. This chapter presented the findings from both studies. There was no significant difference between the two. Study one sought to test the initial conceptual model developed from the literature. A revised model was then tested in study two. The results of this second study lead to a modified model, which has been proposed for this research. This chapter presented the overall findings, including those that may not address the propositions, but that are important in understanding the research topic. The next chapter will discuss the findings and the contribution of this research.

CHAPTER FIVE: DISCUSSION

5.0 Introduction

The previous chapter reported the analysis and the results for study one and study two. This chapter discusses the findings for the propositions proposed in chapter two. Section 5.1 provides a review of the research objectives. Section 5.2 presents key findings of propositions, plus a conceptual model developed from this research. The implications of the research findings in terms of their contribution to theory and advertising practice are described in section 5.3. Moreover, limitations of the research in terms of methodology, measurement and sample are explained in section 5.4. Furthermore, directions for further research and conclusion are presented in section 5.5 and section 5.6 respectively. This chapter framework is depicted in Figure 5.1.

Figure 5.1 Chapter framework



Source: developed for this research

5.1 Review of the Objectives of the Research

This research investigated the effectiveness of online product placement with regard to the impact of individuals' involvement with immersive environments and product placements, as well as the influence of immersion and presence. Therefore, this thesis contains two exploratory studies to address the five propositions presented in chapter two.

Study one conducted both face-to-face and on-line (email-based) in-depth interviews to examine the propositions and efficacy of interview questions, gaining better understanding of the Second Life setting and online product placement in order to test the initial conceptual model developed in the literature review chapter. Study two conducted in-world in-depth interviews in order to investigate whether there would be any differences in information provided by the respondents in Second Life, as well as constructing an appropriate model for this research.

5.2 Discussion of Key Findings from the Propositions

The motivation and purpose of individuals for being in Second Life tend to have a major impact on effectiveness of online product placement. For instance, those users who are in Second Life to have fun do not see online product placements as effective unless they provide entertaining and engaging experiences during the interaction. As an example, Hotel Chelsea placement seems to be very effective because it runs different events such as poetry nights, dances and live music, which are very engaging. Also the number of avatars attending the events at Hotel Chelsea is increasing. Second Life is an excellent platform for placing songs and music albums, owing to the engaging experience they provide to avatars as they can request their favourite songs to dance with or listen to, which mostly leads to their purchase of the album in real life.

In addition, providing free products and exclusive experiences in Second Life

encourages users to interact with that brand/product and, if they enjoy the experience, to look for it in real life. For instance, Nike is a very popular brand in Second Life that offers gifts and shoes that enable avatars to run faster. There is a lucky chair next to the Nike store that will give a gift to individuals who sit there and their name begins with the current 'magic letter' that is displayed above the chair. Thus, avatars may try it more than once to win the prize and this can keep avatars there for a while and even encourage them to come back to the store again other days to win other prizes, as they vary every day. This leads to having the brand at the forefront of individuals' minds, making it more effective. In addition, individuals are more likely to check the models they see in Second Life on the Internet or in real life.

Compared to other media, product placement in Second Life seems to be more effective, as it allows users to have interaction directly with the product, which has not been offered by other media. Also, compared to video games, product placements in Second Life seem to be more effective, owing to the low pace of things happening in Second Life and the more time users can spend with brands/products in that environment.

5.2.1 Propositions' discussion

Based on the information provided by respondents, findings from study one seem to have a better quality compared to study two. Respondents in face-to-face and email-based interviews were more likely to provide more information about the questions asked in comparison to respondents in Second Life. Respondents in Second Life provided very brief answers to questions, and failed to reply to some questions because they wanted to log out and live Second Life. No significant differences were found between the findings of study one and study two. Therefore, the overall findings from propositions of study one and study two and their contributions are discussed in the following sections.

Proposition 1: An individual's involvement with the immersive environment is

associated with the effectiveness of online product placement. This proposition is based on Nicovich's (2005) study that found stronger evaluation of the advertisement in video games is related to high involvement with a computer mediated communication event (video game). Also with regard to Bhatnagar et al.'s (2004) findings, audiences' involvement with the content of a programme impacts on the effectiveness of product placements. In contrast to the literature, based on findings from this research, there appears to be no direct relationship between an individual's involvement with the immersive environment and the effectiveness of online product placement, thus there is a lack of support for this proposition.

Balasubramanian, Karrh and Patwadhan (2006) argue that as individuals' involvement with a programme increases, the recall of the placed brands within the programme will increase too. Similar to this and Nicovich's (2005) research, some highly involved respondents indicated higher perception of online product placement when they experienced high level of presence and immersion simultaneously. Also, respondents with low level of involvement with Second Life seemed to have lower perception of online product placement effectiveness when they felt low level of presence and immersion simultaneously. These respondents had the same level (high and low) of involvement with product placement as well.

On the other hand, parallel to Bhatnagar et al.'s (2004) findings, individuals' involvement with the Second Life programme seemed to have impact on the effectiveness of online product placement. Some respondents illustrated a negative relationship between Second Life involvement and product placement effectiveness. For instance, respondents with higher level of involvement with Second Life seemed to have lower perception of online product placement effectiveness while having a lower level of involvement with product placement in Second Life. Hence, contradiction with the literature might be the result of not considering the role of product placement involvement.

Effectiveness seems to be impacted through the effect of involvement with the immersive environment on product placement involvement. As findings indicated, a negative association appears to exist between Second Life involvement and product placement involvement. This is parallel to Park and McClung's (1986) research, which showed higher involvement with television programmes decreases individuals' involvement with commercials. To date, no research has investigated this relationship in immersive environments. Therefore, the impact of individuals' involvement with immersive environments on product placement involvement needs to be taken into account when estimating the effectiveness of online product placement. Additionally, highly involved users should be key targets for product placement messages in immersive environments.

Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement. This proposition extends Zaichkowsky's (1986) findings that involvement with an advertisement has an impact on its effectiveness. Previous studies in video games have shown that higher level of involvement with an advertisement leads to a more positive attitude toward the advertisement (Lee et al., 2000). This research is the first to identify this relationship in immersive environments. This proposition was supported by the data collected from the interviews. Findings indicated that respondents with a lower/higher level of involvement with product placements seem to have lower/higher perception of online product placement effectiveness.

These findings are supported by previous research (Te'eni-Harari & Lehman-Wilzig, 2009) that product involvement positively and significantly impacts advertising effectiveness. Those individuals who found products placed within Second Life more engaging and involving recalled the products better, had a more positive attitude toward them and also had searched them online or in real life. Moreover, highly involved respondents with placed products had higher purchase intention (Kaskowitz & College, 2007). However, individuals who were not very involved with product placements did not have any intention to search the product in real life.

Involvement with a product placement in immersive environments seems to have a significant effect on effectiveness of online product placement. Based on this positive association, marketing managers and advertising agencies need to make their product in virtual worlds more engaging, so that it highly involves the virtual world users and results in a positive effectiveness.

Proposition 3: An individual's immersion in the immersive environment is associated with the effectiveness of online product placement. As mentioned in chapter two, individuals' immersion and its role in virtual worlds has received very little attention by academics. This proposition therefore addresses this gap. In contrast to the findings by Grigorovici and Constantin (2004) that highly immersive environments are likely to lead to lower recall and recognition of embedded commercial messages within their context, this research shows that online product placement effectiveness is not directly associated with immersion. As in some cases, respondents with higher level of immersion also indicated higher perception of online product placement effectiveness. Additionally, some respondents seemed to have lower perception of online product placement effectiveness while they felt lower level of immersion. Notably, almost all of those respondents who depicted a positive relationship between immersion and effectiveness of online product placement effectiveness experienced same level (high/low) of presence and immersion simultaneously.

A study by Grigorovici and Constantin (2004) revealed that immersive environments influence advertising effectiveness. As these environments provide a sense of connectedness and association to the users, a higher degree of immersion brings about a stronger affect of the advertisement to the user. In this research, however, it appears that online product placement effectiveness does not directly influence the effectiveness of online product placement. Instead, the effectiveness is impacted through the influence of immersion on product placement involvement.

Proposition 4: An individual's immersion in the immersive environment is

associated with the involvement with product placement. This proposition addresses the gap in the literature about the role of individuals' immersion in virtual environments, owing to the lack of research in this area. The results suggest that there is a positive association between individuals' immersion and product placement involvement. This finding supports the research undertaken by Grigorovici and Constantin (2004) that immersion in virtual worlds increases individuals' engagement with the environment. .

In other words, respondents with a higher level of immersion and who log into Second Life very often respond emotionally to the virtual environment and the things happening in there and indicated a higher level of involvement with product placement. These respondents found product placement very engaging and were likely to spend more time with it. Meanwhile, respondents, who felt lower sense of immersion and logged in less often, responded more rationally than emotionally to the virtual environment. Moreover, they seemed to have less involvement with online product placement.

Thus, the impact of immersion on online product placement effectiveness was supported in proposition four. As immersion is the system's ability to deliver the sense of being in the environment (Witmer & Singer, 1998) and it impacts the effectiveness of online product placement through affecting product placement involvement, it needs to be considered seriously for having positive online product placement effectiveness.

Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness. This proposition extends Nicovich's (2005) study that found higher degree of felt presence results in a stronger evaluation of advertisement in video games. Similar to Grigorovici & Constantin's (2004) study, findings indicated that online product placement would be more effective when users experience higher sense

of presence in virtual environments. This finding also supports the research undertaken by Choi et al.'s (2001) in a way that greater sense of presence makes the immersive environment more real to the users and positively influences their attitude toward the brand and their intention to try that brand. Respondents with a higher sense of presence are easily drawn into the immersive environment and lose track of time. As a consequence, they do not really notice what is happening around them in real life and are completely absorbed in the virtual environment. On the other hand, respondents with lower sense of presence feel there are many reminders (e.g., seeing strange avatars) that they are in an artificial world.

This proposition was supported by the findings from Li et al. (2002) who proposed that presence has a mediating role in the impact of three-dimensional advertising on brand attitude. In some cases, where individuals have low involvement with product placement, a higher sense of presence appears to enhance product placement effectiveness. For instance, a respondent who had low level of involvement with a product placement in Second Life indicated higher perception of online product placement effectiveness after experiencing a high sense of presence. Also, there were some respondents who had high involvement with product placement in Second Life and possessed lower perception of online product placement effectiveness owing to lower sense of presence. Thus, it seems that presence mediates the relationship between product placement involvement and effectiveness. Therefore, immersive environments should be designed to facilitate high presence.

5.2.2 Developing a conceptual model for online product placement effectiveness

As discussed in previous chapters, a model proposed for testing the effectiveness of online product placement in regards to the findings for the conceptual model was presented in chapter two under section 2.3. Three propositions were supported by the findings from this research, except proposition one and three. The levels of support for propositions have been depicted in Table 5.1. Therefore, an adjustment has been made for the final conceptual model presented in the last section of chapter four.

Table 5.1 Levels of support for the propositions

Propositions	Level of support
Proposition 1: An individual's involvement with the immersive environment is associated with the effectiveness of online product placement.	Not supported
Proposition 2: An individual's involvement with product placement is associated with the effectiveness of online product placement.	Supported
Proposition 3: An individual's immersion in the immersive environment is associated with the effectiveness of online product placement.	Not supported
Proposition 4: An individual's immersion in the immersive environment is associated with the involvement with product placement.	Supported
Proposition 5: The degree of experienced presence mediates the relationship between product placement involvement and online product placement effectiveness.	Supported

Source: developed for this research

The final conceptual model of online product placement effectiveness suggested that individual factors, such as motivation and the extent to which virtual world users are visual and possess imagination in exploring the immersive environment, influence the individuals' involvement with these environments and their immersion. Also, as supported by the data collected from the interview, immersion and virtual worlds' involvement impact the effectiveness of online product placement through affecting

product placement involvement. Moreover, the mediating role of presence in affecting the relationship between product placement involvement and the effectiveness of online product placement was confirmed by findings. This model would have a significant role in evaluating the effectiveness of online product placement.

5.3 Contributions to Theory and Practice

The studies undertaken in this research contribute to a deeper understanding of the immersive environments and online product placement effectiveness. The highlights of the theoretical and practical contributions of this research are discussed as follows.

5.3.1 Contribution to theory and methodology

This research makes a contribution to consumer behaviour and marketing communication literature by investigating the individual's involvement and the effectiveness of product placement within the immersive environments. Further, this research proposes a new model as an insightful framework to test the effectiveness of online product placement. Nicovich (2005) proposed a model to show the mediating role of presence in affecting the relationship between involvement and advertising judgement in video games. This model has been developed further based on findings from this research, considering the role of immersion as well as presence in virtual environments. In addition, contributions of this research to advertising practices will be discussed in the next section.

This research also contributes to methodology in that it uses the immersive environment to interview participants. In particular, the researcher's avatar interrogated participant's avatars to gather data relating to attitudes and behaviours within the virtual world of Second Life. Very little research has been undertaken using avatars for qualitative data collection, and the insights brought to light in this thesis are useful for future research in this domain.

5.3.2 Contributions to advertising practice

The findings from this research can be beneficial for marketing managers or online product placement practices for two reasons. Firstly, this research helps to understand a particular segment of online consumers, specifically immersive virtual environments' users whose involvement influences the effectiveness of online product placement. Findings from this research can help marketing managers and advertising agencies to define their customers and improve the efficacy of their promotional activities. Furthermore, the concept of online product placement illustrates the emerging phenomenon of advertising within immersive environments.

These findings are also beneficial for conducting in-world interviews as they highlight the advantages and disadvantages of such interviews as well as the experiences of the researcher during these interviews. Thus, immersive virtual environments can be significant potential platforms for undertaking further research.

5.4 Limitations to the Research

Face-to-face, email based (study one) and in-world (study two) interviews were conducted in this research to investigate the impact of individuals' involvement with virtual environments and immersion on product placement involvement and effectiveness as well as to examine the mediating role of presence. While acknowledging the benefits of these methods in chapter three (section 3.2.4), there are a number of limitations that need to be identified and addressed. The limitations toward research methodology, measurements and sample are described as follows.

5.4.1 Methodological limitations

It must be recognised that there are limitations associated with the research method employed. The fact that this is exploratory, qualitative research with a small sample means that the results may not be representative and, therefore, not generalisable. Also, the quality of results depends on the interviewer's skills (Guba & Lincoln, 1981) as well as their experience (Zikmund, 2003). In regards to email-based interviews, no question can be clarified for the respondent in terms of ambiguity and

confusion. In addition, it cannot be guaranteed that the answers are the respondent's own thoughts.

Regarding in-world interviews, both researcher and respondent can be distracted easily by the things happening around them, such as the sudden appearance of another avatar in the middle of an interview. Also, as the researcher does not really know who is behind the avatar, some issues remain unpredictable. For instance, the participant does not necessarily need to know English as s/he might be from a non-English background and may use translating software available in the virtual environment. However, some words may not make sense in translation or stay unclear. In addition, some words may not be read easily in the text-box, as some participants cannot switch to an English keyboard, so some letters will appear in their own language.

Another issue is that slow responses from both the researcher and participant seemed to weaken participants' sense of involvement in a formal interview and reduced their willingness to maintain research conversation, as confirmed by James and Busher (2006). This may be due to the server's function (Whiteman, 2007), Internet speed (Best & Krueger, 2004), typing pace (Markham, 2004), familiarity with software and technology, and interruption by friends or other avatars in Second Life. Also, time lags in textual chat can lead to losing the flow of conversation in some cases and increasing the risk of not discussing important points. This has also been found in James and Busher's (2006) online interviews. Although these delays become normal after a while, they tend to increase the scheduled time for the interview (James & Busher, 2006). In addition, in two cases, part of the interview was postponed to another time owing to time zone differences, as the interviewee wanted to sleep or had used all her lunch break at work. Furthermore, noises created by other avatars (e.g., laughter and shooting), attacks from other avatars (e.g., being pushed to somewhere far from the interview venue), and changing clothes while the avatar was naked were distracting.

Best and Krueger (2004) discuss the problems and limitations which can be caused by technology variation. In the case of the current research, not having a good graphics card during the first few interviews was very concerning, as it was difficult to type in the text box, and instead of paying attention to the participants' responses, a solution to type the next question had to be found. Therefore, complete concentration could not be dedicated to responses, leading the researcher to forget what had been said previously (Mann & Stewart, 2000).

5.4.2 Measurement limitations

Using the word 'product placement' in Second Life may not have any meaning to avatars, as in that environment users do not look at brands as a form of promotion, in fact they look at brands as part of their life and a product. Therefore, it might be more efficient if the researcher asks questions about specific brands or products, although it would be very difficult for researchers to find interviewees who had experience with similar brands or products.

Some questions were not asked during the interview in Second Life and face-to-face, as the respondents had a limited amount of time. This happened mostly in Second Life, as the duration of the interview could not be guaranteed, owing to typing pace, technological difficulties (e.g., graphics cards and Internet connection) and different time zones. Thus, some measurements for this study may suffer from insufficient responses.

Furthermore, no study has yet identified a particular scale for measuring presence, immersion and product placement effectiveness. Also, different research suggests diverse measurements for involvement of individuals and advertising, and no research yet offered a scale for measuring product placement involvement. Additionally, most studies conducted in these areas have undertaken a quantitative method, and not enough attention has been paid to measurements of these factors in qualitative exploratory research.

5.4.3 Sample limitations

For both face-to-face and in-world interviews, the researcher faced some limitations. It was very difficult to find people willing to participate in face-to-face interviews, as most people enter into virtual worlds like Second Life to have a private life and do not want to share their experiences. It is also difficult to find suitable interviewees in virtual worlds, as the real person behind the avatar cannot be recognised. For instance, sometimes individuals are very old, but their avatar is very young and the researcher may not notice this matter. However, their typing pace or their understanding of questions reveals it. In addition, respondents in virtual worlds may not have enough knowledge to provide appropriate information.

5.5 Directions for Further Research

Based on the available literature review on advertising in virtual environments and findings of this thesis the following studies have been suggested for further research.

The role of immersion and presence has been discussed in this study. Previous research showed that immersion is a necessary condition for having a sense of presence (Slater & Wilbur, 1997; Witmer & Singer, 1998). However, the effect of immersion on presence or presence on immersion has not been considered in this research. Therefore, this effect and its impact on online product placement effectiveness can be taken into account for future research.

Different types of real life product placements, which can be transferred to Second Life, have been discussed in chapter two of this research. Each type of product placement can have a different impact on Second Life users and therefore influences its effectiveness. Thus, each type can be researched separately in order to find out the most effective one.

In Second Life every landmark has its own radio station and channel, like a German news radio channel called 'Cool FM'. Other radio channels are Martini in the Morning.com and Sky.FM, which provide promotions as well as music. Therefore, these audio forms of product placement (stealth product placement) can be considered in future research.

A huge difference between avatars and real people is that their information would not be revealed by a click; however it is possible in Second Life. By clicking on each avatar, their information, like date of birth, pictures and favourite groups, which are indeed attached to them, will appear. Groups include the places the avatar is a member of, which can be a place, a shopping mall, a store or a restaurant. Every time a user logs into Second Life they receive note cards notifying of the upcoming events and offers from the groups the avatar is a member of. This is another type of promotion that can be studied regarding its effectiveness

During the conducting of interviews, many respondents mentioned that they tried a product based on their friends' recommendations. Therefore, word of mouth seems to have a strong influence on choosing a brand/product. Hence, the role of 'word of mouth' in effectiveness of a product placement/advertisement can be considered for future research.

This qualitative research has proposed a model based on 24 interviews for testing the effectiveness of a product placement in virtual worlds (Figure 4.2). Thus, using quantitative research with a large number of participants would help to improve the model. In addition, Second Life was chosen as a representative of virtual worlds, therefore conducting research in other virtual worlds like worlds.com is suggested to confirm the model and findings.

5.6 Conclusion

This research provided an investigation of an emerging area in the immersive environment context. This research examined the impact of individuals' involvement with virtual worlds and product placement on product placement effectiveness as well as the influence of immersion and the role of presence. Therefore, to address the propositions presented in the literature review chapter, two studies were conducted for this research. Study one sought to gain better understanding of virtual environment setting and online product placement and to test the initial conceptual model developed from the literature. A revised model was then tested in study two. The results of this second study led to a modified model, which has been proposed for this research.

An in-depth interview method was chosen throughout the two studies, underpinned by a critical relativism epistemology to explore a social science phenomenon (Healy & Perry, 2000; Sobh & Perry, 2006) and to propose a new model (Denzin & Lincoln, 2005). The findings provided in-depth and rich insights to answer the five research propositions. Further, this research presented a number of valuable contributions to the immersive environment literature as well as online practices. Limitations recognised in the methodology and analysis of data were discussed and directions for further research were provided.

References

- Abiven, F., & Labidoire, E. (2007), Second Life. A tool to collaborate with the consumer. *Esomar Congress 2007 - Excellence, Berlin*, 585 – 596.
- Adegoke, Y. (2004). Web still fastest growing channel in marketing mix. *New Media Age*, 22, 12.
- Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., et al. (1997). Interactive home shopping: consumer, retailer, and manufacturer incentives to participate in electronic marketplaces? *Journal of Marketing*, 61(3), 38-53.
- Anderson, P. H. (2001). Relationship development and marketing communication: An integrative model. *The Journal of Business and Industrial Marketing*, 16(3), 167-182.
- Antil, J. H. (1984). Conceptualization and operationalization of involvement. In T. C. Kinnear (Ed.), *Advances in consumer research Vol. 11* (pp. 203-209). Provo, UT: Association for Consumer Research.
- Appleton J.V. (1995). Analysing qualitative interview data: addressing issues of validity and reliability. *Journal of Advanced Nursing*, 22, 993-997.
- Arakji, R.Y., & Lang, K. R. (2008). Avatar business value analysis: A method for the evaluation of business value creation in virtual commerce. *Journal of Electronic Commerce Research*, 9(3), 207-218.
- Avery, R., & Ferraro, R. (2000). Verisimilitude or advertising? Brand appearance on prime-time television. *Journal of Consumer Affairs*, 34(2), 217-244.
- Babin, L. A., & Carder, S. T. (1996a). Viewers' recognition of brands placed within a film. *International Journal of Advertising*, 15(2), 140-151.
- Babin, L. A., & Carder, S. T. (1996b). Advertising via the box office: Is product placement effective? *Journal of promotion management*, 3(1/2), 31-51.
- Bainbridge, W. S. (2007). The scientific research potential of virtual worlds. *Science* (317)5387, 472-476.
- Balasubramanian, S. K. (1994). Beyond advertising and publicity: hybrid messages and public policy issues. *Journal of Advertising*, 23(4), 29-46.
- Balasubramanian, S. K., Karrh, J. A., & Patwardhan, H. (2006). Audience response to product placements: An integrative framework and future research agenda. *Journal of Advertising*, 35(3), 115-141.
- Barnes, S. (2007). Virtual worlds as a medium for advertising, *The DATABASE for Advances in Information Systems*, 38(4), 45-55.
- Barry, T. E. (2002), In defense of the hierarchy of effects: A rejoinder to weillbacher, *Journal of Advertising Research*, 42(3), 44-47.
- Barry, T. E., & Howard, D. J. (1990), A review and critique of the hierarchy of effects in advertising, *International Journal of Advertising*, 9(2), 121-135.
- Barry, T. E., (1987). The development of the hierarchy of effects: An historical perspective. In J. Leigh & C. Martin (Eds.), *Current issues & research in advertising* (pp. 251–295). Ann Arbor, MI: University of Michigan Press.
- Beddows, E. (2008). The methodological issues associated with Internet-based research. *International Journal of Emerging Technologies and Society*, 6(2), 124 – 139.
- Belch G. E., & Belch, M. A. (2007). *Advertising and Promotion*. New York: McGraw-Hill.
- Belch, G. E. (1982). The effects of television commercial repetition on cognitive

- response and message acceptance. *Journal of Consumer Research*, 9(1), 56-65.
- Bell, L., Pope, K., Peters, T., & Galik, B. (2007). Who's on third in Second Life?, *Online*, 31(4), 14-18.
- Berthon, P., Pitt, L. F., & Watson, R. T. (1996). The World Wide Web as an advertising medium: Toward an understanding of conversion efficiency. *Journal of Advertising Research*, 36(1), 43-55.
- Berthon, P., Pitt, L., & Watson, R. T. (1996). Marketing communication and the World Wide Web. *Business Horizons*, 39(5), 24-32.
- Best, S. J., & Krueger, B. (2004). *Internet data collection*. Thousand Oaks, California: Sage.
- Bhatnagar, N., Aksoy, L., & Malkoc, S. A. (2004). Embedding brands within media content: The impact of message, media and consumer characteristics on placement efficacy In L. J. Shrum (Ed.), *Psychology of entertainment media*, (pp. 99-116). Mahwah, NJ: Lawrence Erlbaum..
- Bloch, P. H. (1983). A theoretical model for the study of product importance perceptions. *Journal of Marketing*, 47(3), 69-82.
- Blythe, J. (2006). *Marketing*. London: Sage Publications.
- Boulos, M. N. K., Hetherington, L., & Wheeler, S. (2007). Second life: An overview of the potential of 3-D virtual worlds in medical and health education. *Health Information and Libraries Journal*, 24(4), 233-245.
- Brennan, I., Dabus, M. K., & Babin, L. A. (1999). The influence of product-placement type and exposure time on product placement recognition. *International Journal of Advertising*, 18(3), 323-337.
- Bressoud, E., Lehu, J. M., & Russell, C. A. (2008, June). *Integrating placemen and audience characteristics to assess the recall of product placement in film: Findings from a field study*. Paper presented at 7th International Conference on Research in Advertising (ICORIA), Antwerp, Belgium.
- Bressoud, E., Lehu, J. M., & Russell, C. A. (2008, June). *Integrating placemen and audience characteristics to assess the recall of product placement in film: Findings from a field study*. Paper presented at 7th International Conference on Research in Advertising (ICORIA), Antwerp, Belgium.
- Briggs, R. (2004). Cross media optimization: Measuring sales and branding across media (including online), *ESOMAR, Cross Media Conference*. Geneva. Retrieved September 11, 2008, from <http://www.warc.com.ezp01.library.qut.edu.au>.
- Bughin, J., & Zeisser, M. (2001). The marketing scale effectiveness of virtual Communities. *Electronic Markets*, 11(4), 258-262.
- Burton, C., & Scott, C. (2003). Museums: Challenges for the 21st century. *International Journal of Arts Management*, 5(2), 56-67.
- Carroll, J. (1997). Levi's I-Candy - Advertising on the tangled web, Account Planning Group (UK), Silver winner, Creative Planning Awards. Retrieved September 11, 2008, from <http://www.warc.com.ezp01.library.qut.edu.au>.
- Cassell, C., & Symon, G. (2004). *Essential guide to qualitative methods in organizational research*. London: Sage.
- Celsi, R. L., & Olson, J. C. (1988). The role of involvement in attention and comprehension processes. *The Journal of Consumer Research*, 15(2), 210-224.
- Chaney, I. M., Lin, K., & Chaney, J. (2004). The effect of billboards within the gaming environment. *Journal of Interactive Advertising*, 5(1), 37-45.
- Chapman, G. (2009). Second Life finding new life. *The Sydney Morning Herald*.

- Retrieved August 31, 2009, from <http://news.smh.com.au/breaking-news-technology/second-life-finding-new-life-20090314-8y9f.html>
- Chen, P., & Hinton, S. M. (1999). Realtime interviewing using the World Wide Web. *Sociological Research Online*, 4(3). Retrieved November 11, 2009, from www.socresonline.org.co.uk/socresonline/4/3/chen.html
- Choi, Y. K., Miracle, G. E., & Biocca, F. (2001). The effects of anthropomorphic agents on advertising effectiveness and the mediating role of presence. *Journal of Interactive Advertising*, 2(1), 19-32.
- Clemons, E. K. (2009). The complex problem of monetizing virtual electronic social networks. *Decision Support Systems*, 1, 46-56.
- Clemons, E. K., Barnett, S., & Appadurai, A. (2007). The future of advertising and the value of social network websites: Some preliminary examinations. *Proceedings of the ninth international conference on electronic commerce. Minneapolis, MN, USA*, 258, 267-276.
- Cohen, J. B. (1983). Involvement and you: 1000 great ideas. In R. P. Bagozzi & A. M. Tybout (Eds.), *Advances in consumer research: Vol. 10.* (pp. 325-328). Ann Arbor, MI: Association for Consumer Research.
- Cooper, D. R., & Emory, C. W. (1995). *Business research methods* (5th ed.) Chicago:Irwin. .
- Cowley, E., & Barron C. (2008). When product placement goes wrong: the effects of program liking and placement prominence. *Journal of Advertising*, 37 (1), 89-98.
- Coyne, I. T. (1997). Sampling in qualitative research. Purposeful and theoretical sampling: Merging or clear boundaries? *Journal of Advanced Nursing*, 26(3), 623-630.
- Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, 45(4), 483-499.
- Crowley, C., Harré, R., & Tagg, C. (2002). Qualitative research and computing: Methodological issues and practices in using QSR NVivo and NUD*IST. *International Journal of Social Research Methodology* 5(3), 193-197.
- Curasi, C. F. (2001). A critical exploration of face-to-face interviewing vs. computer-mediated interviewing. *International Journal of Market Research*, 43(4), 361-375.
- d' Astous, A., & Chartier, F. (2000). A study of factors affecting consumer evaluations and memory of product placements in movies. *Journal of Current Issues and Research in Advertising*, 22(2), 31-40.
- Dahlen, M., Rasch, A., & Rosengren, S. (2003). Love at first site? A study of website advertising effectiveness. *Journal of Advertising Research*, 43(1), 25-33.
- DeLorme, D. E., & Reid, L. N. (1999). Moviegoers' experiences and interpretations of brands in films revisited. *Journal of Advertising*, 28(2), 71-95.
- Denzin, N. K., & Lincoln, Y. S. (2005). *The sage handbook of qualitative research* (3rd ed). Thousand Oaks, CA: Sage.
- Dobrow, L. (2004). How to play games and influence people: Advergaming emerges as new ad option. *Media Daily News*, Retrieved January 15, 2009, from <http://www.aef.com/channel.asp?ChannelID=6&DocID=2492&location=In%20The%20News>
- Duffy, M.E. (2002). Methodological issues in web-based research. *Journal of Nursing Scholarship*, 34(1), 83-88.
- Edery, D. (2006). Reverse product placement in virtual worlds. *Harvard Business Review*, 84(12), 24.

- Elliott, S. (1992). Product Placement is Under New Attack. *New York Times*, September 2, 141, D4.
- Engel, J. F., & Blackwell, R. D. (1982). *Consumer Behaviour*. NY: Dryden Press.
- Erm, L., & Myra, F. (2005). *Fundamental components of gameplay experience: Analysing immersion, changing views*. World in Play selected papers of the 2005 Digital Games Research Association Second DiGRA Annual Conference 15–27.
- Farrand, T., Nichols, D., Rowley, T., & Avery, M. (2006). Brands and gaming: are you ready to play? *Young Consumers: Insight and Ideas for Responsible Marketers*, 7(2), 8-13.
- Fetscherin, M., & Lattemann, C. (2008). Users' acceptance of virtual worlds. *Journal of Electronic Commerce Research*, 9(3), 231-242.
- Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry*, 36, 717-732.
- Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21(1), 1 – 30.
- Gangadharbatla, H. (2007, April). *Active versus passive gamers: A comparison of recall, attitudes and purchase intentions of brands placed in video games*. Working paper presented at the American Academy of Advertising Conference, Burlington, VT.
- Gartner analyst group, 2008, Retrieved Oct 20, 2008, from <http://secondlifereasearch.blogspot.com/2008/01/gartners-generation-virtual.html>
- Gartner, (2007a). Gartner says 80 percent of active Internet users will have a "Second Life" in the virtual world by the end of 2011. Gartner Newsroom. Retrieved June 20, 2009, from <http://www.gartner.com/it/page.jsp?id=503861>
- Gartner, (2007b). Gartner says "Generation Virtual" will have a profound influence on culture, society and business. Gartner Newsroom. Retrieved June 20, 2009, from <http://www.gartner.com/it/page.jsp?id=545108>
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston: Houghton Mifflin.
- Gould, S. J., & Gupta, P. B. (2006). "COME ON DOWN": How consumers view game shows and the products placed in them. *Journal of Advertising*, 35(1), 65-81
- Gracia, A. C., Standlee, A. I., Bechkoff, J., & Cui, Y. (2009). Ethnographic approaches to the Internet and computer-mediated-communication. *Journal of Contemporary Ethnographic*, 38(1), 52-84.
- Green, L. (1999). Focusing upon interview methodologies. *Australian Journal of Communication*, 26(2), 35-46.
- Greenwald, A. G., & Leavitt, C. (1984). Audience involvement in advertising: Four levels. *The Journal of Consumer Research*, 11(1), 581-592.
- Grigorovici, D. (2003). Being there: Concepts, effects and measurement of user presence in synthetic environments. In F. D. G. Riva & W. A. IJsselstein (Eds.), *Persuasive effects of presence in immersive virtual environments* (pp. 192-205). Amsterdam: Ios Press.
- Grigorovici, D. M., & Constantin, C. D. (2004). Experiencing interactive advertising beyond rich media: Impacts of ad type and presence on brand effectiveness in 3d gaming immersive virtual environments. *Journal of Interactive Advertising*, 4(3), 1-23.

- Grigrovici, D. (2003). Persuasive effects of presence in immersive virtual environments. In G. Riva, F. Davide & W.A. IJsselsteijn (Eds.), *Being there: Concepts, effects and measurement of user presence in synthetic environments* (pp. 191-207). . Amsterdam: Ios Press.
- Grodal, T. (2000). Video games and the pleasure of control. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal*. NJ: Lawrence Erlbaum Associates.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage Publications.
- Guba, E.G. & Lincoln, Y.S. (1981). Effective evaluation. San Francisco: Jossey-Bass.
- Gupta, P. B., & Lord, K. R. (1998). Product placement in movies: The effect of prominence and mode on audience recall. *Journal of Current Issues and Research in Advertising*, 20(1), 47-59.
- Gupta, P. B., & Lord, K. R. (1998). Product placement in movies: The effect of prominence and mode on audience recall. *Journal of Current Issues and Research in Advertising*, 20(1), 47-59.
- Gupta, P. B., & Gould, S. J. (1997). Consumers' perceptions of the ethics and acceptability of product placements in movies: product category and individual differences. *Journal of Current Issues and Research in Advertising*, 19(1), 37-50.
- Hackley, C., & Tiwsakul, R. (2006). Entertainment marketing and experiential consumption. *Journal of Marketing Communications*, 12(1), 63–75.
- Hair, J. F., Jr., Bush, R. P., & Ortinau, D. J. (2000). *Marketing research: A practical approach for the new millennium*. Irwin: McGraw Hill.
- Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research: An International Journal*, 3(3), 118 – 126
- Healy, R., & Perry, C. (2006). Research design and data analysis in realism research. *European Journal of Marketing*, 40(11/12), 1194-1209.
- Held, R. M., & Durlach, N. I. (1992). Telepresence. *Presence: Teleoperators and virtual environments*, 1(1), 102-112.
- Hemp, P. (2006, June 1). Avatar-based marketing. *Harvard Business Review*, 48-57.
- Herman, A., Rosemary, J. C., & Kaye, L. (2006). Your Second Life? *Studies* 20(2), 184-210.
- Hey, D.W. (2002). Virtual product placement. *Television quarterly*. 32(4). 24-29.
- Hoffman, D. L., & Novak, T. P. (2000). Advertising pricing models for the World Wide Web. In D. Hurley, B. Kahin & H. Varian (Eds.), *Internet publishing and beyond: The economics of digital information and intellectual property* (pp. 45-62). Cambridge: MIT Press.
- Holstein, J. A., & Gubrium, J. F. (2002). *Handbook of interview research: Context and method*. Thousand Oaks, California: Sage Publications.
- Holzwarth, M., Janiszewski, C., & Neumann, M. (2006), The influence of avatars on online consumer shopping behaviour, *Journal of Marketing*, 70, 19-36.
- Homer, P. A. (1990, February), The mediating role of attitude toward the ad: Some additional evidence, *Journal of Marketing Research*, 27(February), 78-86.
- Houston, M. J., & Rothschild, M. L. (1978). Conceptual and methodological perspectives in involvement. In S. Jain (Ed.), *Research frontiers in marketing: Dialogues and directions* (pp. 184-187). Chicago, IL: American Marketing Association.

- Howard, J. A., & Sheth, J. N. (1969). *The theory of buyer behaviour*. NY: John Wiley.
- Hupfer, N. T., & Gardner, D. M. (1971). Differential involvement with products and issues: An exploratory study. In D.M. Gardner (Ed.), *Proceedings, Association for Consumer Research* (pp. 262–270). Association for Consumer Research, College Park, MD. Retrieved September 10, 2008, from <http://www.acrwebsite.org/volumes/display.asp?id=11965>
- IJsselsteijn, W., de Kort, Y., Westerink, J., de Jager, M., & Bonants, R.. Fun and sports: Enhancing the home fitness experience. *Proceedings of the 3rd International Conference on Entertainment Computing, Berlin*, 46–56.
- Internet Advertising Bureau (IAB). (n.d.). *IAB data from 2008 Internet Advertising Revenue Report*. Retrieved September 15, 2008, from http://www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/339821
- Internet World Stats (2008). *Usage and population statistics*. Retrieved July 17, 2008, from <http://www.internetworldstats.com/>
- IOWA State University, 2008. Second Life classroom: A virtual path to a real-world experience. Prospectus 24 (1), 15-19. Retrieved June 30, 2009, from <http://www.bus.iastate.edu/Prospectus/> New Business Horizons, 2009. Companies and organisations in Second Life.
- Jacobson, C. M. (2009). Virtual worlds and the 3-D Internet. In P. Candace Deans (Ed.), *Social software and Web 2.0 technology trends* (pp. 80-104), Hershey, PA: Information Science Reference.
- James, N., & Busher, H. (2006). Credibility, authenticity and voice: Dilemmas in online interviewing. *Qualitative Research*, 6(3), 403-420.
- Janoschka, A. (2004). *Web advertising: New forms of communication on the Internet*. Amsterdam: John Benjamins Publishing Company.
- Karrh, J. A. (1994). Effects of brand placements in motion pictures. In K.W. King (Ed.), *Proceedings of the 1994 conference of the American Academy of Advertising* (pp. 90-96). Richmond, VA: American Academy of Advertising.
- Karrh, J. A. (1998). Brand placement: A review. *Journal of Current Issues and Research In Advertising*, 20(2), 31-49.
- Karrh, J. A., McKee, K. B., & Pardun, C. J. (2003). Practitioners' evolving views on product placement effectiveness. *Journal of Advertising Research*, 43(2), 138-149
- Kaskowitz, G., & College, M. (2007). The effects of involvement on a website: A case study of a service provider. *Journal of Business and Public Affair*, 1(1). Retrieved August 8, 2008, from <http://www.scientificjournals.org/journals/2007/articles/1050.htm>
- Kazmer, M. M., & Xie, B. (2008). Qualitative interviewing in Internet studies: Playing with the media, playing with the method. *Information, Communication and Society*, 11(2), 257-278.
- Kim, S. S., Scott, D., & Crompton, J. L. (1997). An exploration of the relationships among social psychological involvement, behavioural involvement, commitment, and future intentions in the context of birdwatching. *Journal of Leisure Research*, 29(3), 320–341.
- Kitchen, P. J. (1999), *Marketing communications: Principles and practice*. London: International Thomson Business Press.
- Klimmt, C., & Vorderer, P. (2003). Media psychology is not yet there: Introducing theories on media entertainment to the presence debate. *Presence: Teleoperators and Virtual Environments*, 12(4), 346-359.

- Krishnamurthy, S. (2006). Introducing E-MARKPLAN: In a practical methodology to plan e-marketing activities. *Business Horizon*, 49(1), 51-60.
- Krugman, H. E. (1965). The impact of television advertising: Learning without involvement. *The Public Opinion Quarterly*, 29(3), 349-356.
- Kurita, S., (2006, June) *Presence, involvement, and gender differences: How emotional dimensions explain the mechanism of presence*. Paper presented at the annual meeting of the International Communication Association, Dresden International Congress Centre, Dresden, Germany.
- KZero. (2007). 100 major brands now in Second Life. KZero.co.uk. Retrieved June 20, 2009, from <http://www.kzero.co.uk/blog/?p=857>
- Labidoire, E. (2007, Sep). Second Life: A laboratory to get closer to consumer 2.0. *Admap*. Retrieved October 5, 2009, from http://www.warc.com/Search/Browse/Research/Market_research/Data_collecti on_methods/Online/Online_communities_social_networks_word-of-mouth/
- Laurent, G., & Kapferer, J. N. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research*, 22(February), 41-53.
- Law, S., & Braun-LaTour, K. (2004). Product placements: How to measure their impact. In Shrum, L. J. (Ed.), *The psychology of entertainment media: Blurring the lines between entertainment and persuasion* (pp. 63-78). Mahwah, NJ: Lawrence Erlbaum.
- Law, S., & Braun-LaTour, K. A. (2000). I'll have what she's having: Gauging the impact of product placements on viewers. *Psychology and Marketing*, 17(12), 1059-1075.
- Lee, E., Hu, M. Y., & Tou, R. S. (2000). Are consumer survey results distorted? Systematic impact of behavioural frequency and duration on survey response errors. *Journal of Marketing Research*, 37(1), 125-133.
- Lee, M., & Faber, R. J. (2007). Effects of product placement in online games on brand memory: A perspective of limited-capacity model of attention. *Journal of Advertising*, 36(4), 75-90..
- Lehu, J. M. (2007). *Branded entertainment: Product placement & brand strategy in the entertainment business*. London: Kogan Page.
- Leong, E. K. F., Huang, X., & Stanners, P. (1998). Comparing the effectiveness of the Web site with traditional media. *Journal of Advertising Research*, 38(5), 44-51.
- Li, H., Daugherty, T., & Biocca, F. (2002). Impact of 3-D advertising on product knowledge, brand attitude, and purchase intention: The mediating role of presence. *Journal of Advertising*, 31(3), 43-57.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverley Hills, California: Sage.
- Lombard, M., & Ditton, T. (1997), At the heart of it all: The concept of presence. *Journal of Computer Mediated Communication*, 3(2). Retrieved August 9, 2009, from <http://www.ascusc.org/jcmc/vol3/issue2/lombard.html>
- Lombard, M., & Snyder-Duch, J. (2001) Interactive advertising and presence: A framework. *Journal of Interactive Advertising*, 1(2), 56-65.
- Loomis, J. M., Blasovich, J. J., & Beall, A. C. (1999). Immersive virtual environment technology as a basic research tool in psychology. *Behaviour Research Methods, Instruments & Computers*, 31(4), 557-564.
- Lowry, T., & Helm, B. (2009, October 15). Blasting away at product placement. *Business Week*. Retrieved October 17, 2009, from http://www.businessweek.com/magazine/content/09_43/b4152060060411.htm 17 Oct 2009

- MacDougall, C., & Fudge, E. (2001). Planning and recruiting the sample for focus groups and in-depth interviews. *Qualitative Health Research*, 11(1), 117-126.
- Mahyari, P., Drennan, J., & Kuhn, K. (2009, Nov-Dec). *Virtual product placement: Examining the role of involvement and presence in second life*. Paper presented at the Australian and New Zealand Marketing Academy (ANZMAC) conference, Melbourne, Australia.
- Mahyari, P., Drennan, J., & Luck, E. M. (2009, May). *The effectiveness of product placement within the immersive environment*. Paper presented at the 38th European Marketing Academy Conference (EMAC 2009), Audencia Nantes School of Management, Audencia Nantes, France.
- Malhotra, N. K. (2004). *Marketing research: An applied orientation*. Upper Saddle River, N.J.: Pearson/Prentice Hall.
- Mann, C., & Stewart, F. (2000). *Internet communication and qualitative research: A handbook for research online*. London: Sage.
- Markham, A. N. (2004). Internet communication as a tool for qualitative research. In D. Silverman (Ed.), *Qualitative research, theory, method and practice* (2nd ed., pp.95-214). London: Sage.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), pp. 522-525.
- Massara, F., Ancarani, F., Costabile, M., Moirano, M., & Ricotta, F. (2009). Are you telling me the truth? Authenticity of responses in virtual worlds research. *8th International Congress Marketing Trends*, Paris, France, 1-17.
- Matthes, J., Schemer, C., & Wirth, W. (2007). More than meets the eye: Investigating the hidden impact of brand placements in television magazines. *International Journal of Advertising*, 26(4), 477-503.
- Maxwell, J. (2009). Designing a qualitative study. In L. Bickman & D. J. Rog (Eds.). *Handbook of applied social research methods* (2nd ed., pp. 214-253). Thousand Oaks, CA: Sage. Second Edition
- Maxwell, J. A. (1997). Designing a qualitative study. In L. Bickman & D. J. Rog (Eds.), *Handbook of applied social research methods* (pp. 69-100). London: Sage Publications.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage.
- McCarty, J.A. (2004). Product placements: The nature of the practice and potential avenues of inquiry. In L. J. Shrum (Ed.), *The psychology of entertainment media: Blurring the lines between entertainment and persuasion* (pp. 45-62). Mahwah, NJ: Lawrence Erlbaum.
- McKinney, S. A., Horspool, A., Willers, R., Safie, O., & Richlin, L. (2008). Using Second Life with learning-disabled students in higher education. *Innovate*, 5(2), 1-6.
- McMillan, S. J. (1999). *Advertising Age and Interactivity: Tracing Media Evolution through the Advertising Trade Press*. Paper presented at the Proceedings of the American Academy of Advertising (pp. 107-114), M. S. Roberts, (Ed.), Gainesville, FL: University of Florida.
- McMillan, S. J. (2002). Longevity of websites and interactive advertising communication. *Journal of Interactive Advertising*, 2(2), 11-21.
- Mennecke, B., McNeill, D., Ganis, M., Roche, E., Townsend, A., & Lester, J. (2008). Second Life and other virtual worlds: A roadmap for research, *Communications of the Association for Information Systems*, 22(1), 371-388.

- Messinger, P., Ge, X., Stroulia, E., Lyons, K., Smirnov, K., & Bone, M. (2008, November). On the relationship between my avatar and myself *Journal of Virtual Worlds Research* 1(2). Retrieved October 5, 2009, from <https://journals.tdl.org/jvwr/article/view/352/263>
- Miles, M. B., & Huberman, A. (1984). *Qualitative data analysis: A sourcebook of new methods*. London: Sage.
- Minichiello, V., Aroni, R., Timewell, E., & Alexander, L. (1990). *In-depth interviewing: Researching people*. Melbourne: Longman Cheshire.
- Mittal, B. I. (1989). Measuring purchase-decision involvement. *Psychology and marketing*, 6(2), 147–162.
- Montgomery, A. L., & Faloutsos, C. (2001). Identifying Web browsing trends and patterns. *Computer*, 34(7), 94-95.
- Moon, Y. (2000). Intimate exchanges: Using computers to elicit self-disclosure from consumers. *Journal of Consumer Research*, 36(4), 323-339.
- Morgan, G., & Smircich, L. (1980). The case for qualitative research. *The Academy of Management Review*, 5(4), 491-500.
- Morton, C. R., & Friedman, M. (2002). 'I saw it in yhe movies': Exploring the link between product placement beliefs and reported usage behaviour. *Journal of Current Issues & Research in Advertising*, 24(2), 33-33.
- Murdock, G. (1992). Branded images. *Sight and Sound*, 2(3), 18-19.
- Murray, C., & Sixsmith, J. (1998). E-mail: A qualitative research medium for interviewing? *International Journal of Social Research Methodology: Theory and Practice*, 1(2), 103-121.
- Nambisan, S., & Baron, R. A. (2007). Implications for product support and customer relationship management. *Journal of Interactive Marketing*, 21(2), 42-62.
- Natharius, D., & Galician, M. (2004). When product placement is NOT product placement. *Journal of Promotion Management*, 10(1), 213=218.
- Nebenzahl, I. D., & Jaffe, E. D. (1998). Ethical dimensions of advertising executions. *Journal of Business Ethics*, 17(7), 805-815.
- Nebenzahl, I., & Secunda, E. (1993). Consumers' attitudes toward product placement in movies. *International Journal of Advertising*, 12(1), 1-12.
- Nelson, M. R. (2002). Recall of brand placement in computer/video games. *Journal of Advertising Research*, 42(2), 80-92.
- Nelson, M. R., Keum, H., & Yaros, R. A. (2004). Advertainment or adcreep? Game players' attitudes toward advertising and product placements in computer games. *Journal of Interactive Advertising*, 5(1), 3-21.
- Nelson, M. R., Yaros, R. A., & Keum, H. (2006). Examining the influence of telepresence on spectator and player processing in a computer game. *Journal of Advertising*, 35(4), 87-99.
- Nelson, P. (1974). Advertising as information. *Journal of Political Economy*, 82(4), 729-754.
- New Business Horizons. Retrieved June 20 from <http://www.nbhorizons.com/list.htm>
- Nicovich, S. G. (2005). The effect of involvement on ad judgment in a video game environment: The mediating role of presence. *Journal of Interactive Advertising*, 6(1), 29-39.
- O'Cass, A. (2000). An assessment of consumers' product, purchase decision, advertising and consumption involvement in fashion clothing. *Journal of Economic Psychology* 21(5), 545-576.
- O'Connor, H., & Madge, C. (2003). "Focus groups in cyber-space": Using the Internet

- for qualitative research. *Qualitative Market Research: An International Journal*, 6(2). 133-143.
- Olson, J. C., & Mitchell, A. A. (1975). The process of attitude acquisition: The value of the developmental approach to consumer attitude research In M. J. Schinger (Ed.), *Advances in consumer research: Vol. 2* (pp. 240-264). Provo, UT: Association for Consumer Research.
- Ouwersloot, H., & Duncan, T. (2008). *Integrated marketing communication*. London: McGraw-Hill.
- Palmer, J. (1998). *Environmental education in 21st century*. NY: Routledge.
- Park Associates (2006, June 13). *PC In-Game Advertising Revenue to Top \$400 Million by 2009*. Retrieved March 17, 2008, from http://newsroom.parksassociates.com/article_display.cfm?article_id=313
- Park, C. W., & McClung, G. W. (1986). The effect of TV program involvement with commercials. In R. J. Lutz (Ed.), *Advances in consumer research* (Vol.13, pp.544-548). Provo, UT: Association for Consumer Research.
- Park, C., & Young, S. (1986). Consumer response to television commercials: The impact of involvement and background music on brand attitude formation. *Journal of Marketing Research*, 23(1), 11-24.
- Patel, H., & Cardinali, R. (1994). Virtual reality technology in business. *Management Decision*, 32(7), 5.
- Pavelchak, M. A., Antil, J. H., & Munch, J. M. (1988), The Super Bowl: An investigation into the relationship among program context, emotional experience, and ad recall. *The Journal of Consumer Research*, 15(3), 360-367.
- Pedretti, E., & Soren, B. J. (2006). Reconnecting to the natural world through an immersive environment. *Canadian Journal of Science, Mathematics and Technology Education*, 6(1), 83-96.
- Perry, C., Riege, A., & Brown, L. (1998). Realism rules ok: Scientific paradigms in marketing research about networks. *Competitive paper, Australia and New Zealand Marketing Academy. Conference (ANZMAC98), University of Otago, Dunedin, New Zealand*.
- Petty, R. E., & Cacioppo., J. T. (1981). Issue involvement as a moderator of the effects on attitude of advertising content and context. In K. B. Monroe (Ed.), *Advances in consumer research: Vol. 8* (pp. 20-24). Ann Arbor: Association for Consumer Research.
- Polack-Wahl, J. A. (2009). Seeing data in Second Life. *Journal of Computing Sciences in Colleges*, 24(6), 103-109.
- Pollay, R. W., & Mittal, B. (1993). Here is the beef: Factors, determinants, and segments in consumer criticism of advertising. *Journal of Marketing*, 57(3), 99-114.
- Pslonsky, M. J., & Waller, D. (2005). *Designing and managing a research project: A business student's guide*. Thousand Oaks, USA. Sage Publication, Inc.
- Qiu, G., & Papatla, P. (2008). An empirical analysis of inter-acquisition time of free online content. *Journal of Interactive Marketing*, 22(2), 19-27.
- Raney, A., Arpan, L. M., Pashupati, K., & Brill, D. A. (2003). At the movies, on the Net: An investigation of the effects of entertaining and interactive Web content on site and brand evaluations. *Journal of Interactive Marketing*, 17(4), 38 – 53.
- Ray, M. L. (1973). Marketing communications and the hierarchy-of-effects. In P. Clarke (Ed.), *New models for mass communication research* (pp. 147-175). Beverly Hills, CA: Sage Publications.

- Ray, M., & Webb, P. H. (1986). Three prescriptions for clutter. *Journal of Advertising Research*, 26(1), 69-77.
- Reeves, B. & Nass, C. I. (1996), *The media equation*. Stanford, CA: Cambridge University Press.
- Richards, J. I., & Curran, C. M. (2002). Oracles on “advertising”: Searching for a definition. *Journal of Advertising*, 31(2), 63-77.
- Richins, M. L., & Bloch, P. H. (1986). After the new wears off: The temporal context of product involvement. *The Journal of Consumer Research*, 13(2), 280-285.
- Roehm, H. A., & Haugtvedt, C. P. (1999). Understanding interactivity of cyberspace advertising. In D. W. Schumann & E. Throson (Eds.), *Advertising and the World Wide Web*. NJ: Lawrence Erlbaum.
- Russell, C. A. (2002). Investigating the effectiveness of product placement in television shows: the role of modality and plot connection congruence on brand memory and attitude. *Journal of Consumer Research*, 29(3), 306-318.
- Russell, C. A., & Stern, B. B. (2006). Consumers, characters, and products: A balance model of sitcom product placement effects. *Journal of Advertising*, 35(1), 7-21.
- Sandelowski, M. (1986). The problems of rigor in qualitative research. *Advances in Nursing Science*, 8(3), 27-37.
- Schiffman, L. G., Bednall, D., O'Casey, A., Paladino, A., Ward, S., & Kanuk, L. (2008). *Consumer behaviour* (4th ed.). Frenchs Forest, N.S.W.: Pearson.
- Schillewaert, N., De Ruyck, T., & Caudron, J., (2008). Together we build the future - Getting intimate with consumers via online communities. *Qualitative 2008 Conference*, 1-17.
- Schlosser, A. E., Shavitt, S., & Kanfer, A. (1999). Survey of Internet users' attitudes toward Internet advertising. *Journal of Interactive Marketing*, 13(3), 34-54.
- Schneider, L. P., & Cornwell, T. B. (2005). Cashing in on crashes via brand placement in computer games: The effects of experience and flow on memory. *International Journal of Advertising*, 24(3), 321-343.
- Scott, J., & Craig-Lees, M. (2003). Audience characteristics and product placement effects. *Proceedings of ANZMAC 2003 Conference, Adelaide*, 73-82.
- Second Life (2007). Retrieved August 31, 2009, from <http://www.second-life.com/>
- Shen, J., & Eder, L. B. (2009). Exploring intentions to use virtual worlds for business. *Journal of Electronic Commerce Research*, 10(2), 94-103.
- Sheridan, T. B. (1992). Musing on telepresence and virtual presence. *Presence: Teleoperators and Virtual Environments*, 1(1), 120-126.
- Sheridan, T. B., & Furness, T. A. (Eds.). (1992). Musing on telepresence and virtual presence. *Presence: Teleoperators and Virtual Environments*, 1(1), 120-126.
- Sinkovics, R. R., Penz, E., & Ghauri, P. N. (2005). Analysing textual data in international marketing research. *Qualitative Market Research: An International Journal*, 8(1), 9-38.
- Slater, M. (1999). Measuring presence: A response to the Witmer and Singer presence questionnaire. *Presence: Teleoperators and Virtual Environments*, 8(5), 560-565.
- Slater, M. (2003). A note on presence terminology. Presence-connect. Retrieved September 14, 2009, from <http://people.cs.uct.ac.za/~dnunez/reading/papers/presenceterminology.pdf>
- Slater, M., & Wilbur, S. (1997). A framework for immersive virtual environments (FIVE): Speculations on the role of presence in virtual environments. *Presence: Teleoperators & Virtual Environments*, 6 (6), 603- 616.

- Slater, M., Linakis, V., Usoh, M., & Kooper, R. (1996, July). Immersion, presence, and performance in virtual environments: An experiment using tri-dimensional chess. Paper presented at the 1996 Virtual Reality and Software and Technology Conference, Hong Kong.
- Sparrow N. (2007), Quality Issues in Online Research. *Journal of Advertising Research*, 47(2), 179-182.
- Spiggle, S. (1994). Analysis and interpretation of qualitative data in consumer research. *Journal of consumer research*, 21(3), 491-503.
- Stebbins, R. A. (2001). *Exploratory research in the social sciences*. Thousand Oaks, California: Sage Publications.
- Steuer, J. (1992). Defining virtual reality: Dimensions determining telepresence. *Communications in the Age of Virtual Reality*, 4(2), 73-93.
- Stewart, D. W, & Pavlou, P. A. (2002). From consumer response to active consumer: Measuring the effectiveness of interactive media. *Journal of the Academy of Marketing Science*, 30(4), 376-396.
- Stewart, D. W. (1989). Measures, methods, and models of advertising response over time. *Journal of Advertising Research*, 29(3), 54-60.
- Stokes, D. & Bergin, R. (2006). Methodology or "methodolatry"? An evaluation of focus groups and depth interviews. *Qualitative Market Research: An International Journal*, 9(1), 1352-2752.
- Tauder, A. R. (2005). Getting ready for the next generation of marketing communications. *Journal of Advertising Research*, 45(1), 5-8.
- Taylor, N. J., Loiacono, E. T., & Watson, R. T. (2008). Alternative scenarios to the "BANNER" years. *Communications of the ACM*, 51(2), 53.
- Te'eni-Harari, T., & Lehman-Wilzig, S. N. (2009). The importance of product involvement for predicting advertising effectiveness among young people. *International Journal of Advertising*, 28(2), 203-209
- Teddle, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1(1), 77-100.
- Te'eni-Harari, T., Lampert, S., & Lehman-Wilzig, S. N. (2006, June). *Information Processing of Advertising Among Children: The Elaboration Likelihood Model as Applied to Youth*. Paper presented at the annual meeting of the International Communication Association, Dresden International Congress Centre, Dresden, Germany
- Tiwsakul, R., Hackley, C., & Szmigin, I. (2005). Explicit, non-integrated product placement in British television programmes. *International Journal of Advertising*, 24(1), 95-111.
- Vilhjalmsson, H., & Cassell, J., (1998). BodyChat: Autonomous communicative behaviors in avatars. *Proceedings of the Second Annual Conference on Autonomous Agents (Agents98)*, Minneapolis, MN, 269-276.
- Volmers, S., & Mizerski, R. (1994). A review and investigation into the effectiveness of product placement in films. In K.W. King (Ed.), *Proceedings of the 1994 conference of the American Academy of Advertising* (pp. 97-102). Athens, GA: American Academy of Advertising.
- Vorderer, P. (2000). Interactive entertainment and beyond. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal* (pp. 21-36). Mahwah, NJ: Lawrence Erlbaum.
- Walther, J. B. (2002). Research ethics in Internet-enabled research: Human subjects issues and methodological myopia. *Ethics and Information Technology*, 4(3), 205-216.

- Wang, L. C., Baker, J., Wagner, J. A., & Wakefield, K. (2007, July), Can a Retail Web Site Be Social. *Journal of Marketing*, 71(July), 143-157.
- Wang, L. C., Baker, J., Wagner, J.A., & Wakefield, K. (2007). Can a retail web site be social? *Journal of Marketing* 71(3), 143-157.
- Webb, J. R. (1995), *Understanding and designing marketing research* London: The Dryden Press.
- Weilbacher, W. M. (2001), Point of view: Does advertising cause a "Hierarchy of Effects?". *Journal of Advertising Research*, 41(6), 19-26.
- Wells, W. D. (1998). Lectures and dramas. In P. Cafferata & A. M. Tybout (Eds.), *Cognitive and affective responses to advertising* (pp.13-20). Lexington, MA: Lexington Books.
- Welsh, E., 2002. Dealing with data: Using NVivo in the qualitative data analysis process. *Qualitative Social Research* 3 (2). Retrieved June 21, 2009, from <http://www.qualitative-research.net/index.php/fqs/article/view/865>,
- Whiteman, E. (2007). "Just chatting": Research ethics and cyberspace. *International Journal of Qualitative Methods*, 6(2), 1-9.
- Williams, D. (2002). Structure and competition in the U.S. home video game industry. *International Journal on Media Management*, 4(1), 41-54.
- Wilson, V., & McCormack, B. (2006). Critical realism as emancipatory action: The case for realistic evaluation in practice development. *Nursing Philosophy*, 7(1), 45-57.
- Winkler, T., & Buckner, K. (2006), Receptiveness of gamers embedded brand messages in advergames: Attitudes towards product placement. *Journal of Interactive Advertising*, 7(1), 37-46.
- Witmer, B. G., & Singer, M. J. (1998). Measuring presence in virtual environments: A presence questionnaire. *Presence: Teleoperators and virtual environments*, 7(3), 225-240.
- Wollslager, M. E. (2009). Children's awareness of online advertising on Neopets: The effect of media literacy training on recall. *Studies in Media & Information Literacy Education*, 9(2), 31-53.
- Yang, K. C. C. (2006). The influence of humanlike navigation interface on users' responses to internet advertising. *Telematics and Informatics*, 23(1), 38-55.
- Yang, M., & Roskos-Ewoldsen, D. R. (2007). The effectiveness of brand placements in the movies: Levels of placements, explicit and implicit memory, and brand-choice behaviour. *Journal of Communication*, 57(3), 469 – 489.
- Yang, M., Roskos-Ewoldsen, D. R., Dinu, L., & Arpan, L. M. (2006). The effectiveness of 'in-game' advertising. *Journal of Advertising*, 34(5), 143-152.
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *The Journal of Consumer Research*, 12(3), 341-352.
- Zaichkowsky, J. L. (1986). Conceptualizing involvement. *Journal of Advertising*, 15(2), 4-34.
- Zanot, E. J. (1984). Public attitudes toward advertising: The American experience. *International Journal of Advertising*, 3(1), 3-15.
- Zikmund, W. G. (1997). *Business research methods* (5th ed.). Fort Worth, Texas: Dryden Press.
- Zikmund, W.G. (2003). *Business research methods*. 7th ed. Ohio: Thomson South Western.

Appendix 3.1 Interview guide and questions

The focus of this research is “the impact of user involvement on evaluation of virtual product placement within Second Life”

Product placement is a form of promotion that is widely used in video games and immersive environments. It allows advertisers to insert different brands and products in a scene. Coca-Cola and Diesel are two examples of placed brands in Second Life. It's been done by advertisers, not accidentally there.

(Second Life involvement)

- 1) How important is Second Life to you?
- 2) How would you describe Second Life in your own words?
 - Why do you use Second Life? (For fun, networking, finding friends....)
 - How often do you enter Second Life?
 - How many hours do you spend weekly?

(Importance & interest)

- How have you found the events portrayed in Second Life? (Important, valuable, beneficial, boring...)
- 3) In what way do you interact with Second Life? (Visiting specific Island, talking to other avatars ...)
 - How real/ natural is the interaction within Second Life?
 - How engaging is it?

(Spatial ecology)

- Is there anything reminding you that you are in an artificial world?

(Product placement effectiveness)

- 4) Have you noticed product placement in Second Life? (If yes, please answer the following questions)
 - Can you recall/name any product/brand? Can you remember where you have seen it?
 - Do you think it would be more effective for you when you are in a virtual setting?

(Product placement evaluation)

- 5) How believable is the product placement within Second Life? (Reliable)
With familiar products obviously you've already got that sort of trust in the product, because you have experienced it in real life, but say you come across unfamiliar products in SL and try that out for example, would there be any issue with reliability there?
- 6) How attractive is product placement within Second Life?
- 7) Does any product placed in Second Life affect your feelings? (Negatively or positively)

(Product involvement)

8) Have you ever been involved with a product/service for a long time? (If yes, please answer the following questions)

- What was the product?
- What was its specific characteristic?
- How was the product experience?

(Mediators)

9) What motivates you to test a product within Second Life or spend some time with it?

(Product involvement)

10) Which products/brands are you interested in within Second Life?

- Which products/brands do you use the most?
- How important is getting the product/brand to you?
- Will you substitute it with any other product/brand?

11) Do you think the product that you choose within Second Life says something about you?

(Mediators)

12) Do you appear with your own appearance and personality in Second Life? If not, why?

- Do you think that affects your choice of product/brand? (Do you behave differently?)

(Product placement effectiveness)

13) In total, how do you evaluate a product placed in Second Life compared to other media (e.g. TV)?

- How engaging is it?
- How effective can it be?
- Does it change your respect for the brand? (More, less, unchangeable)
- Does it change your likeability of the brand? (More, less, unchangeable)

(Presence)

14) How would you describe your experience with the Second Life environment?

- How well could you interact with the environment? (Easy, difficult ...)
- Do you think that the depicted scenes can occur in the real world?
- Do you feel that you respond emotionally to the environment? (Respond spontaneously rather than through conscious effort)
- Have you been drawn into the environment?
- Have you lost track of time?

Do you have anything to add?

Please answer the following questions about yourself.

1) Your job -----

2) Employment status

- ☐ Casual
- ☐ Part-time
- ☐ Full-time
- ☐ Unemployed

3) Highest education level achieved.

- ☐ Diploma
- ☐ Undergraduate degree
- ☐ Postgraduate degree
- ☐ Other

4) Marital Status

- ☐ Married
- ☐ Single

5) Your age

- ☐ Less than 26
- ☐ 26- 31
- ☐ 32- 37
- ☐ 38-43
- ☐ 44-49
- ☐ More than 49

6) Your yearly income -----

7) Approximate monthly spending in Second Life

- ☐ Nothing
- ☐ Less than \$10
- ☐ \$10- \$40
- ☐ \$41-\$71
- ☐ \$71-\$101
- ☐ More than \$101

Thank you for your participation!

Appendix 3.2 Participant information and consent form



PARTICIPANT INFORMATION for QUT RESEARCH PROJECT

The Effectiveness of Marketing Communication within the Immersive Environment

Research Team Contacts

Parisa Mahyari, Masters by Research Student 0448618688 p.mahyari@qut.edu.au	Dr Judy Drennan, Prof. (07)31385308 j.drennan@qut.edu.au
--	--

Description

This project is being undertaken as part of Masters Project for Parisa Mahyari.

The purpose of this project is to gain an understanding of how participants' involvement affects their evaluation of placed products within Second Life.

The research team requests your assistance because you may be able to provide insights into incidents that have occurred in interacting with products placed within virtual environments such as second Life.

Participation

Your participation in this project is voluntary. If you do agree to participate, you can withdraw from participation at any time during the project without comment or penalty. Your decision to participate will in no way impact upon your current or future relationship with QUT.

Your participation will involve an interview, which will take approximately 30 minutes.

Expected benefits

It is expected that this project will not benefit you. However, it may benefit marketers and advertisers in identifying their promotional strategies in growing immersive environments.

Risks

There are no risks beyond normal day-to-day living associated with your participation in this project.

Where the research may cause distress, independent counseling services may be

offered via inclusion of the following statement:

QUT provides for limited free counseling for research participants of QUT projects, who may experience some distress as a result of their participation in the research. Should you wish to access this service please contact the Clinic Receptionist of the QUT Psychology Clinic on 3138 4578. Please indicate to the receptionist that you are a research participant.

Confidentiality

All comments and responses are anonymous and will be treated confidentially. The names of individual persons are not required in any of the responses.

Discussions are likely to be audio recorded for transcription purposes. Transcripts of all discussions will only be used for the research described in this form and not for any other purpose. Only the principle researcher will have access to the audio recordings and transcripts.

Consent to Participate

We would like to ask you to sign a written consent form (enclosed) to confirm your agreement to participate.

Questions / further information about the project

Please contact the research team members named above to have any questions answered or if you require further information about the project.

Concerns / complaints regarding the conduct of the project

QUT is committed to researcher integrity and the ethical conduct of research projects. However, if you do have any concerns or complaints about the ethical conduct of the project you may contact the QUT Research Ethics Officer on 3138 2340 or ethicscontact@qut.edu.au. The Research Ethics Officer is not connected with the research project and can facilitate a resolution to your concern in an impartial manner.



CONSENT FORM for QUT RESEARCH PROJECT

The Effectiveness of Marketing Communication within the Immersive Environment

Statement of consent

By signing below, you are indicating that you:

- have read and understood the information document regarding this project
- have had any questions answered to your satisfaction
- understand that if you have any additional questions you can contact the research team
- understand that you are free to withdraw at any time, without comment or penalty
- understand that you can contact the Research Ethics Officer on 3138 2340 or ethicscontact@qut.edu.au if you have concerns about the ethical conduct of the project
- agree to participate in the project
- understand that the project will include audio recording

Name

.....

Signature

.....

Date

..... / /

Appendix 4.1 Revised interview questions

The focus of this research is “the impact of user involvement on evaluation of virtual product placement within Second Life”

Product placement is a form of promotion that is widely used in video games and immersive environments. It allows advertisers to insert different brands and products in a scene. Coca-Cola and Diesel are two examples of placed brands in Second Life. It's been done by advertisers, not accidentally there.

(Second Life Involvement)

- 0) How long have you been in Second Life for?
- 1) How important is Second Life to you?
- 2) How would you describe Second Life in your own words?
 - How often do you enter Second Life?
 - How many hours do you spend weekly?
 - How have you found the events portrayed in Second Life? (Important, valuable, beneficial, boring...)
- 3) To what extent do you think you are involved with Second Life?
 - How engaging is it?

(Presence)

- How real/ natural is the interaction within Second Life?
- Is there anything reminding you that you are in an artificial world?

(Purpose)

Why do you use Second Life? (For fun, networking, finding friends....)

(Product placement Effectiveness)

4) Have you noticed product placement in Second Life? (If yes, please answer the following questions)

- Can you recall/name any product/brand? Can you remember where you have seen it?
- Does your purchase in SL lead to your purchase in real life?
- Do you think it would be more effective to you when you are in a virtual setting?

(Product placement Evaluation)

5) How believable is the product placement within Second Life? (Reliable)

With familiar products obviously you've already got that sort of trust in the product, because you have experienced it in real life, but say you come across unfamiliar products in Second Life and try that out for example, would there be any issue with reliability there?

6) How attractive is product placement within Second Life?

(Experience)

7) Has any product placed in Second Life affected your feelings? (Negatively or positively)

(Product Involvement)

8) Have you ever been involved with a product/service for a long time? (If yes, please answer the following questions)

- What was the product/ **brand**?
- What was its specific characteristic?
- How was the product experience?

(Mediators)

9) What motivates you to test a product within Second Life or spend sometime with it?

(Product Involvement)

10) Which products/brands are you interested in within Second Life?

- Which products/brands do you use the most?
- How important is getting the product/brand to you?
- Will you substitute it with any other product/brand?
- Will you choose another brand when your preferred brand is not available?
- How involved do you think you are with product placement?

11) Do you think the product that you choose within Second Life says something about you?

(Mediators)

12) Do you appear with your own appearance and personality in Second Life? If not, why?

- Do you think that affects your choice of product/brand? (Do you behave differently?)

(Presence)

13) How would you describe your experience with the Second Life environment?

- How well could you interact with the environment? (Easily, with difficulty ...)
- Do you think that the depicted scenes can occur in the real world?
- Have you been drawn into the environment?
- Have you lost track of time?

(Immersion)

- Do you feel that you respond emotionally to the environment? (Respond spontaneously rather than through conscious efforts)
- How often do you enter Second Life?

(Product placement Effectiveness)

14) How do you evaluate a product placed in Second Life compared to other media (e.g. TV)?

- How engaging is it?
- How effective can it be?
- Does it change your respect for the brand? (More, less, unchangeable)
- Does it change your likeability of the brand? (More, less, unchangeable)

Do you have anything to add?

Please answer the following questions about yourself

1) Your nationality -----

2) Highest education level achieved.

- ☐ Diploma
- ☐ Undergraduate Degree
- ☐ Postgraduate Degree
- ☐ Other -----

3) Your Job -----

4) Employment status

- ☐ Casual
- ☐ Part-time
- ☐ Full-time
- ☐ Unemployed

5) Marital Status

- ☐ Married
- ☐ Single
- ☐ Separated/divorced

6) Your age -----

7) Your yearly income -----

8) Approximate monthly spending in Second Life

- ☐ Nothing
- ☐ Less than \$10
- ☐ \$10- \$40
- ☐ \$41-\$71
- ☐ \$71-\$101
- ☐ More than \$101

Thank you for your participation!