Brands into Bits
Game Advertising Integrations’ Effect on Brand Awareness

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Video games and gaming are nowadays a multi-billion dollar industry which is growing faster than any other entertainment sector. Gaming is very versatile and it has been used for other purposes, such as simulation, education and marketing. The industry has attracted companies and marketers, thus the game advertising market globally had reached 7.2 billion dollars in 2016. Video games can be used as a creative marketing channel for promoting non-fictional products and building brand awareness through the use of different methods of integration. Brand awareness is critical for a brand's success, as it can be perceived as one of the first steps of the consumer's buying process.

This study will investigate different game advertising implementation methods and create a new conceptual model of the different integration levels. The purpose of the study and its model is to test the integration levels’ effectiveness concerning brand awareness. The results of this study provide guidance for companies as to how they should integrate game advertisements in order to effectively acquire the customer's attention and create strong awareness for their brand.

The theoretical framework consists of game advertising and brand awareness concepts which describe the different methods of advertising in the context of video games and how brand awareness, in other words, recall and recognition, can be measured. A video game was built for this study with the purpose of testing the different game advertising integrations’ effect on brand awareness. An online survey was conducted which collected a total of 291 responses from Finnish gamers.

The findings showed that a more integral, interactive and deep game advertising integration might have twice the effect on brand recall and recognition compared to integrations which are more peripheral and on the surface level of a video game. The results also revealed that some game advertisement integrations, such as banners, might interfere with the gaming experience and may risk to negatively affect the player's perception of the brand.

Key words: Game Advertising, Gaming Experience Space, Brand Awareness, Brand Recall, Brand Recognition
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1 INTRODUCTION

The video gaming industry has grown over the past 40 years (Raatikainen 2014; Statista 2016) from a small industry into a mainstream market in which video games have reached a wide and large audience. This industry has grown the fastest in the 21st century compared to other entertainment branches, e.g. music and movies, and it is still growing fast with a nine percent global increase in 2015 (Neogames 2016; Newzoo 2016a). The video game industry has been estimated to employ, both directly and indirectly, over 146,000 people in USA alone in 2014 (ESA 2014a: 2).

Gaming has gradually become a socially accepted form of entertainment (Raatikainen 2014) and technological advancements, such as smartphones and motion-based controls, have introduced new ways to play games and created new gaming categories, such as mobile and social games (Statista 2016; Madden & Richards 2010: 3-4). Video games are a popular entertainment media because they provide enjoyable experiences which engage creativity and advancements within digital technology have also made it possible to consume this medium anywhere in an asynchronous way (Radoff 2011: 29).

Nowadays gaming is a multi-billion dollar industry with 99.6 billion dollars expected as global revenue generated for 2016 and almost 120 billion dollars generated revenue is expected globally in 2019 (Newzoo 2016a). 63% of U.S. households have a person who plays video games regularly (ESA 2016: 3) and Newzoo (2016b) estimates that there will be 2.2 billion gamers in the world in 2017 who will be entertained by this medium and all the new experiences and virtual worlds that it provides (Statista 2016). The average gamer age is 35 and all age classes and both genders are quite equally represented with female gamers accounting for approximately 41% of the consumer base (ESA 2016: 3). The growth of the this entertainment industry and its consumer base have lead to that gaming has become a very interesting, potential and attractive channel for companies and advertisers for reaching out to different audiences and gaining exposure for their brands (Smith, Sun, Sutherland & Mackie 2014: 94-95). The in-game advertising market has been estimated to have reached 7.2 billion dollars globally in 2016 (ESA 2014b: 1).

The attractiveness of this medium as a channel for advertisements derives from its potential versatile and creative usage which the advancements in technology and the growth of the industry have made possible. This medium provides several different possibilities and methods for implementing advertisement (Lehu 2007: 178) in very
creative ways which might provide the desired attention and awareness that a brand requires for being successful. The advertisements can be interesting and entertaining interactive experiences for the audience while the advertisements simultaneously, through dynamic advertising, provide companies valuable information and insights on, e.g. how the players view the advertisements (ESA 2014b: 1-2).

Game advertising has the potential to increase brand awareness, as one third of the players in a controlled study recalled the advertised brands that were present in the game (ESA 2014b: 2; see also Smith, Sun & Mackie 2014: 110-112). The creation of this brand awareness through careful integration of game advertising could finally lead to potential increase in sales of the brand (Madden & Richards 2010: 3), as awareness can be seen as one of the first steps of the consumer's purchasing process of a product (Copley 2014: 154). Brand awareness is therefore critical for companies and thus different types of marketing integrations' effect on it have also been studied and tested within older sectors of entertainment, e.g. product placements in television and movies (Kotler & Keller 2012: 536-537). Consequently, research about advertising and brand awareness within the gaming sector is also essential for providing insights on game advertising integrations that effectively increases brand awareness and narrows the gap between advertisers, game developers and consumers.

### 1.1 Research Problem and Focus

The rise of gaming as a popular entertainment medium has also attracted researchers to study the medium and its uses for advertising. Even though this topic has previously been studied extensively (see Smith, Sun, et al. 2014; Smith, Sun & Mackie 2014), there are still a lot of misunderstandings and questions of the distinct ways that advertising can be implemented within the gaming spectrum and the effect that various integration methods have on a consumer's brand awareness and the brand's potential sales (Smith, Sun, et al. 2014: 95-96). Moreover, the previous memory recall studies of game advertising have been lacking in the areas of different game genres, research participants and cultures (Smith, Sun & Mackie 2014: 116-117). Nevertheless, different studies have still been made and the interest in the area is increasing, especially within the advertising sector, as this is a sector which might interest companies who desire to create stronger awareness for their brands in distinct and effective ways.

In the beginning advertisers have been fast to react to the gaming trend and applied previous advertising methods from both traditional and nontraditional marketing.
Advertising techniques have been copied from offline entertainment media comprehended by books, music, movies and TV-series (Kotler & Keller 2012: 536-537; La Ferle & Edwards 2006: 65-66). A typical method previously used within these types of media is product placement or integration, which is the paid mass-media insertion of a real brand in a fictional environment (Karrh 1998: 33; Raatikainen 2009: 7). Another area from which advertising methods have been usually borrowed is digital media with the use of display banners and interstitials within the gaming hub (Copley 2014: 229-230; Smith, Sun, et al. 2014: 99-100). Consequentially, even new advertising forms exclusively intended for gaming have been created, such as advergaming (Lehu 2007: 179; Smith, Sun, et al. 2014: 97-98). Furthermore, the advancement in technology and the popularity of mobile gaming have brought new means of integrating advertising in this medium (Statista 2016; Madden & Richards 2010: 3-4) which requires more attention and research.

The emergence of these different methods has caused confusion and misinterpretations which has lead to incorrect use of the game advertising terms. As a result, Smith, Sun, et al. (2014) have created a conceptual framework which categorizes game advertising into advergames, around-game advertising and in-game advertising, and suggests the term game advertising to be used generally for marketing communication within video games. Nevertheless, this is a general and holistic framework of all game advertising forms and does not focus on game advertising from an integration perspective or exclusively within the space of the player’s gaming experience. An easily understandable model built around these concepts could help advertisers to create appropriate game advertisements.

Game advertising and its effect on consumer attitudes and memory recall have also been a popular research area where various influencing factors, such as the placement type and players, have been studied in close (Smith, Sun & Mackie 2014). During a gaming session, the player is immersed and active which provides the possibility for the player to interact with the brand. This active interaction might have a positive effect on brand awareness, i.e. recall and recognition (Lehu 2007: 181-183). However, sometimes brand awareness studies and tests examining the same factors have had contradicting results, as in the case of the player’s gaming experience level affecting memory recall. Raatikainen’s (2014) study demonstrated that less experienced players did recall the game advertisements better compared to more experienced players. This contradicts other studies investigating the same factors (Smith, Sun & Mackie 2014: 111) and this
indicates that continuous research and tests on the matter are required in order to acquire reliable and generalizable results. Conclusively, these game advertising studies have often emphasized 3D and realistic games (see Oranen 2011, see also Raatikainen 2014) and 2D and games with an imaginary setting have not gain as much attention in comparison (Smith, Sun & Mackie 2014).

Lastly, another important area of interest within video game studies has also been player’s acceptance of advertising in video games. Several studies (Lewis & Porter 2010; Oranen 2011; Front 2014) show that product placements in video games are generally well accepted if the brand fits the setting, it is relevant to the game and it does not interfere with the gaming experience. Similar acceptance towards product placement can also be observed from movie audiences (Lehu 2007: 64; Yang & Roskos-Ewoldsen 2007: 471). Therefore, it is important to also take the audience into consideration when creating and integrating the advertisements into games.

A good understanding of game advertising integrations and effective cooperation between the advertiser and game developer are factors that can help creating game advertisements that simultaneously builds brand awareness and are harmless to the player’s enjoyment of the video game. By contrast, an advertiser’s lack of knowledge and cooperation with the game developer might lead to companies investing in game advertising that does not generate the attention and awareness which is expected and desired. Moreover, the advertising in these cases has the risk of being interrupting and damaging to the player’s gaming experience. By understanding the integration levels and their affect on brand awareness, companies can better estimate how much cooperation with the game developer is required for a sufficient integration of the advertisement which leads to desired results on brand awareness.

The following research problem is stated:

\textit{How do different levels of game advertising integration within the gaming experience space affect the consumer’s brand recall and recognition?}

\subsection*{1.2 Purpose of the Study}

This study explores game advertising and its different levels of integration which can be implemented within the gaming experience space. In addition, the paper will investigate how these integration levels will affect the player's brand awareness, i.e.
brand recall and recognition, of an advertised brand. The purpose of the study is to build a new conceptual framework of the different integration levels within the player's gaming experience space. This framework will then be implemented in a video game in order to test, through an online survey, the effectiveness of each integration level on both brand recall and recognition.

The results of this study will provide guidance for companies on how they should apply game advertisements in order to effectively catch the customer's attention and create strong brand awareness without interfering the player's gaming experience. Furthermore, following these implications should thus lead to a strengthened cooperation between the advertisers and video game developers which in turn creates a prosperous relationship which ensures financial support for the developer's game and higher brand awareness for the company's brand.

The study is based on the assumption that a deeper level of game advertising integration will be more effectively recognized and recalled, compared to game advertising integrations with less depth.

For the investigation of the integration levels of game advertising and their effects, the following research questions are posed:

1. How can game advertisement integration levels be distinguished in order to develop a few major categories for them?

2. How does the different game advertising integration levels affect the recall of a brand?

3. How does the different game advertising integration levels affect the recognition of a brand?

1.3 Material and Method

The main concepts relevant to this study include definition of video games and advertising, the different forms of game advertising, brand awareness, recall and recognition and the measurement and testing methods of these. Additionally, a new model of game advertising integration within the gaming experience space will be developed from previous game advertising theories. Within this thesis, the gaming experience space is defined as the physical and digital environment in which the player
is situated in during a gaming session. From this space the player is able to grasp visual and verbal advertising messages which have been integrated to the game on different levels, e.g. banners around the game, and marketing displays and product placements within it.

This study is quantitative in nature and an online survey is used to contact Finnish gamers. The new conceptual framework, which is created in this study, will be used in the empirical framework in order to test the effect of every game advertising integration level on brand awareness, more specifically, on brand recall and recognition. Therefore, a video game containing every integration level will be developed for the purpose of this study. This is a test that will be a part of the survey. The online survey will be divided into three parts beginning with demographic background questions, followed by the game, and ending with follow-up questions concerning brand recall and recognition. The survey will generate primary data that can be analyzed and transformed into statistical figures and tables.

1.4 Delimitation of the Study

This is a quantitative study and will therefore provide quantifiable results which can be transformed into statistics to be used to generalize a larger population. By contrast, no deeper understanding or insights on the matter can be provided because of this study's quantitative nature.

The study is geographically limited to Finland and Finnish speaking gamers. Moreover, the chosen distribution approach of the online survey through the use social media might have restricted some potential respondents from the population. Additionally, only answers from respondents who managed to successfully get the browser-based game working were accounted in the analyzed results. Furthermore, women and older gamers were slightly underrepresented in the final sample.

The game genre chosen for the developed test and video game within this empirical study was the 2D side-scrolling platform genre. This choice affects the vision perspective of the respondents, as it is in this case a third perspective view. A consequence of this is how the players see the brands and advertisements compared to a 3D game that have usually a first perspective view. In addition, the setting of the game is imaginary or fantasy, which might make the real world brands stand out more than in games that have a realistic setting.
Other choices made by the researcher for the current study can also affect the exposure and visibility of the brands and thus, the results. First, the researcher chose the brands presented in the game and their quantity. Secondly, choices were made on how and where the brands were implemented in the game. These choices will affect how the brands are finally represented. However, these choices were carefully made in order to provide an equal amount of exposure and visibility for all of the brands present in the game and within their respective integration level.

1.5 Sequence of the Study

This thesis is divided into nine chapters; the introduction, three chapters of theoretical framework, followed by the method, results and findings, discussion of the findings, and, finally, the summarizing conclusion.

The first chapter, dealing with the theoretical framework, defines video games and advertising before exploring game advertising and its different forms. The following chapter defines the gaming experience space and establishes a new conceptual framework for the game advertising integration levels within this space. The last theoretical chapter examines brand awareness with the focus on brand recall and recognition within game advertising. Additionally, relevant measurement and testing methods of brand recall and recognition for this study are identified. The theoretical framework is summarized in chapter 5.

The methods and techniques will be discussed in chapter 6. In addition, the chapter will contain details of the implementation of the empirical study, such as the targeted sample, the sample size and the chosen contact method. Furthermore, for this study a 2D video game, containing the three distinct integration levels, will be built. The game will function as a test where an online survey is conducted in order to collect quantifiable primary data. The survey will investigate and test the effectiveness of brand recall and recognition within each integration levels in order to discover which integration level is the most effective regarding brand awareness.

The results and findings of the empirical study will be presented and summarized in chapter 7 alongside with illustrative figures and tables. The presentation of the results is followed by an analytical discussion in chapter 8 which provides information for advertisers about the different game advertising integrations. Chapter 9 contains a summary and conclusion with suggestions for future research.
2 ADVERTISING IN A VIDEO GAME CONTEXT

This chapter will deal with advertising in the context of video games and it begins with essential definitions of video game and advertising. The combination of these two areas establishes the advertising form called game advertising. Advertising in a video game context consists of all activities that promotes or advertises a real company, brand or product using video games as a channel. The advertisement can in these instances be found within or around the video game. This marketing communication channel and all its different forms will be defined and explored in order to establish the foundation for the forthcoming conceptual framework of the game advertising integration levels.

2.1 Definition of Video Game

A video game can be defined in several different ways. According to the Oxford University Press (2016) a video game is “a game played by electronically manipulating images produced by a computer program on a monitor or other display.” It is a nontraditional digital and interactive media that provides the opportunity for the player to be an active and contributing part to the relationship of the media by interacting in a fictional and digital environment (Mustonen 2001: 14, 154; Valkola 2003: 89-90; Raatikainen 2009: 17-18).

In order to define the term game one has to consider the fundamental components that a game is built on. The essential part of a game, be it a social game, board game or a video game, is the set of rules that are established for that particular game (Radoff 2011: 29) and which the player has to follow in order to accomplish the goal of the game (Salen & Zimmerman 2006: 9). In a video game, the computer sets these rules where the experience is illustrated by the images that can be seen on a screen. The machine generating these images can be, for example, a computer, console, mobile tablet or a smartphone. The images can either be produced on a screen that is a part of the machine or a display screen that can be attached to it, e.g. a TV (Raatikainen 2009: 18-20).

The term computer game is closely related to the video game term and it is usually used to define a game that is exclusively played on a computer. However, the term video game can be seen to also include computer games (Wolf 2002: 17). Other terms explicitly meant for a certain types of gaming devices are console game and mobile
game. This study will continue to use the term video game, as it is a broader definition that comprises all different gaming devices.

An important part of a video game is the player himself who interacts with the game and controls certain parts of the experience through choices and actions that advances the game (Bogost 2007: 45). These actions are performed with the help of a controller that can be, for example, a pad, touch-screen or a keyboard and mouse (Oranen 2011: 13). These actions construct and demonstrate a defining factor for the medium which is interactivity. This is a factor that is missing in other entertainment mediums, such as in movies, and it creates a new dimension with possibilities for this particular media (Küster, Pardo & Suemanotham 2010: 12).

Video games are a versatile medium as they can be used for different purposes other than entertainment, such as simulation, documentation, education and function as a platform for art, exercises, politics and promotion (Bogost 2007; Bogost 2011). The area of interest in this study considers video games as a platform for advertising and product placement and thus this aspect will be explored more thoroughly in the next subchapter.

2.2 Definition of Advertising

Advertising is one part of the marketing communication mix (Copley 2014: 152) and it can be defined as “any paid form of nonpersonal presentation and promotion of ideas, goods, or services by an identified sponsor” (Keller 1998: 221). According to Copley (2014: 152) advertising can be perceived as the art of persuasion and therefore he defines it as “Any paid-for communication designed to inform and/or persuade”. Similar to art it is not an exact science as it can be challenging to transfer a message without its meaning changing in the process (Copley 2014: 152).

Advertising is a force that has been debated to either shape society or simply reflect upon it in order to sell brands and products (Copley 2014: 152). It has the potential to influence consumer behavior, change attitudes, build on brand values and create awareness through engagement (Fill 2011: 223-225). Even though advertising can create awareness and engage consumers with a message it may have difficulties in changing their behavior without the aid of other elements of the communication mix (Fill 2011: 223-225; Copley 2014: 153; Kotler & Keller 2012: 514-515).
As stated in the earlier definitions, advertising is used in paid mass communication, e.g. television, in order for the message to reach a vast audience. However, the advancements in technology have made it possible for advertising to be used as a communication method as well for more direct and personal messages, e.g. through the use of mobile phones and text messages. (Fill 2011: 223-225; Copley 2014: 153)

Advertising has advantages and disadvantages. It can be a cost-effective communication method as it usually has a low cost per contact rate. Advertising provides the advertiser with a power of control and they as the payer for the advertising can, within regulatory boundaries, choose for what, how and where it will be advertised. In addition, the communication tool can be used in very expressive and artful ways using images, color and sound. Even though advertising has the potential to be a very cost-effective method, the production costs and use of media can be expensive with the result of low credibility in the perception of the consumers. Moreover, consumers can be quite aware of that the advertising is trying to persuade them and they can choose to ignore the advertisement and its message either by physically exiting the space of the advertisement or by mentally filter and select what is perceived. Furthermore, different “noise” between the advertiser and consumer can block or distort the message that is advertised. Lastly, a challenge with advertising is that it is mostly general and non-personal one-way communication, thus the advertiser will not receive any immediate feedback from the receiver. (Copley 2014: 153-154; see also Kotler & Keller 2012: 512-513)

2.3 Game Advertising

Advertising through or within video games is not a new concept as it has already appeared the first time in 1980 in the arcades with car game racers. Since then, many different types of games on diverse gaming platforms have contained advertising in some form. The main reason for game developers to include advertisements in their games has been to acquire financial support for the game development itself, as the cost of creating a game can be very high (Lehu 2007: 178-179). Additionally, similar to movies (see Yang & Roskos-Ewoldsen 2007: 470-471), games with a realistic setting may benefit from the inclusion of advertisements and brands because the incorporation of them can make the game appear more realistic as advertising is something that is also very common in real life (Kotler & Keller 2012: 538).
For advertisers the gaming medium provides several flexible possibilities of advertisement implementation which is intended to increase brand awareness and sales (Yang & Roskos-Ewoldsen 2007: 470-471; Küster et al. 2010: 12). It is also possible for the advertiser to verify and accept the advertisement before its inclusion or before the game is mass-produced and published. Furthermore, the medium can often be used to cost-effectively reach a very specific and attentive segment (Kotler & Keller 2012: 537). However, as with advertisements within films, the implementation of the advertisement can sometimes still be very expensive (Lehu 2007: 181-182).

As previously stated, video games offer several opportunities for marketers, such as the use of advertising, sponsorship and product placements, where video games and marketing activities interconnects with each other (Copley 2014: 241). This combination also creates new forms of advertising that are called advergames and in-game advertising (Bogost 2011: 64). Lehu (2007: 179) discusses advertising in the context of video games as product placements within videogames and uses expressions such as advergaming, in-game advertising and advertainment (see also Wells, Moriarty, Burnett & Lwin 2007: 319). These terms have often been used indistinctively, even though the concepts of advergaming and in-game advertising can be considered to be quite different from each other (Lehu 2007: 179; Smith, Sun, et al. 2014: 96). Furthermore, some advertising forms within the gaming context, such as banners, cross-promotion and sponsorship, have not yet received enough attention within this field of research (Smith, Sun, Sutherland, et al. 2014; 95, 97). A broader and more holistic conceptual framework of game advertising (see Figure 1) was created by Smith, Sun, et al. (2014: 97) that suggests the term game advertising to be used as a generic name for all advertising forms within the context of video games.

![Figure 1. Game Advertising Conceptual Framework (Smith, Sun, et al. 2014: 97).](image)
Smith, Sun, et al. (2014: 97) defines game advertising as “the association of marketing communications messages with video & computer games to target consumers through Advergames, Around-Game Advertising or In-Game Advertising activities”. As the definition implies, the framework splits game advertising into three distinct categories; advergames, around-game advertising and in-game advertising, which all have their own subcategories and specific advertising activities related to them (see Smith, Sun, et al. 2014: 97-101). These categories will be explored in the next subchapter in order to be able to identify the appropriate advertising activities for the new framework of game advertising integration levels within the gaming experience space.

2.3.1 Advergames

Advergames is a combination of the words advertising and games (Smith, Sun, et al. 2014: 97). As previously mentioned, the term has been used interchangeably with in-game advertising even though advergaming should be used for video games that are explicitly developed for a brand and its marketing campaign (Lehu 2007: 179; Raatikainen 2009: 25). These games are often discovered and played on a company’s web site and they are created from the very beginning with the main purpose to promote, through the use of the gameplay, the products, services or brands of a company (Bogost 2011: 64, 67). Smith, Sun, et al. (2014: 98) defines advergaming as “a digital game specifically designed for the primary purpose of advertising and promotion of an organization’s product, service or brand played via the Internet or on a compatible medium via a games disc or digital download”.

Advergames often provide the player a relatable experience which has the purpose to strengthen and maintain positive customer attitudes towards a brand and build upon customer loyalty (Smith, Sun, et al. 2014: 98). Alternatively, some advergames are used for obtaining direct feedback from consumers which might provide consumer data or generate revenue from the game’s sales (Bogost 2011: 67-68; Smith, Sun, et al. 2014: 98). Games that are combined and sold with another product can also be called promogames and their purpose is to work as a promotion and offer an incentive (Kotler & Keller 2012: 541) for the purchase and consumption of a firm’s goods. A promogame can be an advergame, e.g. Burger King’s “Sneak King”, or it can be a regular video game that has no special connection to the product or brand promoted (Bogost 2011: 67-68).

Advergaming as an advertising form, especially Internet based, is more commonly used than in-game advertising because it is less expensive and complicated to create (Bogost
However, as Smith, Sun, et al. (2014: 98) states, advergaming can also be found in the form of physical discs or cartridges. The first examples of advergames, e.g. Coca Cola's “Pepsi Invaders”, and one of the most commercially successful advergame, Burger King’s “Sneak King”, was distributed in a physical form (Bogost 2011: 67-68; Smith, Sun, et al. 2014: 98).

### 2.3.2 Around-Game Advertising

*Around-game advertising* is typically referred to advertising and marketing messages that are built and presented around the game through display banners, video interstitials and sponsorships (Madden & Richards 2010: 6). Additionally, Smith, Sun, et al. (2014: 99-101) argues that this game advertising category also includes licensing agreements and cross promotion activities that go beyond the environment near the player's gaming experience. The common aspect with all of these different advertising methods is that they do not intrude into the video game and its environment, but they can still be visible for the player (Perry & DeMaria 2009: 44-45), therefore the term *around-game advertising*. It can be defined as “advertising and promotion linked to video and computer games through non-intrusive around game displays or licensing of game branding with associated third-party products” (Smith, Sun, et al. 2014: 101).

*Banners, interstitials* (Nordin 2016) and *sponsorships* are the more traditional forms of around-game advertising and they can be shown before, during and after the game or between its levels (Madden & Richards 2010: 6-8). Additionally, the platform, portal or environment in where the video game is placed, i.e. a web page or console environment, can be sponsored, which is called game skinning (Madden & Richards 2010: 6; see also Kotler & Keller 2012: 538). These kinds of activities are usually seen in combination with advergames and they might contain links to the advertiser’s brand page (Smith, Sun, et al. 2014: 100).

The fourth form of around-game advertising is *cross promotion* which is meant to be agreements between organizations to license the game’s entity to external products in order for both parties to reach and benefit from a larger consumer base (Smith, Sun, et al. 2014: 100). Usually these agreements are made with franchises concerning fast-moving consumer goods, e.g. McDonalds (see Bogost 2011: 67), where the association to the video game or promotions related to the video game offered could provide exposure to the brand and increase sales. The promotion providing a purchasing incentive (Keller 1998: 239) can be a game related product, different kind bonuses for a
game or a particular game in the form of the previously mentioned promogame (Bogost 2011: 67-68). Moreover, a cross-promotional relationship between games and other media, e.g. movies, has been popular for a long time. This marketing activity is called cross media promotion (Smith, Sun, et al. 2014: 100-101), and it has resulted in films being made into games and vice-versa. An example of a video game made into a movie is the “Angry Bird” video game that was made into a movie called “The Angry Birds Movie” (BBFC 2016).

2.3.3 **In-Game Advertising**

*In-game advertising* is the third main category of game advertising. Smith, Sun, et al. (2014: 99) defines in-game advertising as “the integration of non-fictional products and brands within the playing environment of video & computer games through simulated real life marketing communications mechanisms”. The key difference between in-game advertising and around-game advertising is the location of the advertisement. Advertisements within this category are placed within or through a video game or its environment and not around or outside it (Ghirvu 2012: 114).

There are several formats of in-game advertisement, as the placement can be either *cosmetic* or *integrated* and *static* or *dynamic* (Smith, Sun, et al. 2014: 98-99). A *cosmetic*, also called *environment*, placement concerns advertising that is implemented in the environment of the game that can not be interacted with (Madden & Richards 2010: 8-9). By contrast, *integrated*, also called *immersive*, placements are immersive advertisements that can be interacted with within the game and they might also be an integral part of achieving the game’s goal (Madden & Richards 2010: 8-9; Smith, Sun, et al. 2014: 98-99). The difference between *static* and *dynamic* in-game advertising lies in the flexibility of changing the advertisement after the game has been developed and published (Bogost 2011: 64). Static in-game advertising is fixed during the development and can not be changed afterwards compared to dynamic in-game advertising, which takes advantage of online connectivity and makes it possible for advertiser to monitor and analyze the advertisement (Raatikainen 2009: 25) and react to trends and subsequently alter the existing advertisement or add new ones into the game accordingly to the situation (Smith, Sun, et al. 2014: 99).

The contents of the advertisements with these different formats can be real brands, products or advertising material that are delivered in two distinct ways; either through *marketing displays* or *product placements* (Smith, Sun, et al. 2014: 99). *Marketing*
displays are the more frequently used advertising message delivery method of the two (Smith, Sun, et al. 2014: 122) which replicates the real world media through the use of, e.g. billboards, video ads, banners, retail store fronts and posters (Madden & Richards 2010: 6, 8-9). This type of in-game advertisement may, if implemented in a suitable game, make the game appear more realistic for the player (Nelson, Keum & Yaros 2004) as it simulates the use of advertisements in the real world. The enhancement of realism and statement of authenticity are also possible positive effects of product placements (Bogost 2011: 52-57). Nevertheless, the main difference between product placements and marketing displays is that the latter form does not contain the concrete product itself (Smith, Sun, et al. 2014: 99; see also Madden & Richards 2010: 6).

Product placements can be found within both traditional and nontraditional media. It is a typical advertising method which is often called advertisment when applied within the entertainment sector, such as in movies, TV-series and video games (Kotler & Keller 2012: 536-537; La Ferle & Edwards 2006: 65-66). It can be defined as “the paid inclusion of branded products or brand identifiers, through audio and/or visual means, within mass media programming” (Karrh 1998: 33). Product placements within the context of video games can be defined as the act of integrating products or a brand into videogames of a commercial nature (Bogost 2011: 64). Smith, Sun, et al. (2014: 99) further specifies that product placements within in-game advertising concerns branded real products in the form of items, equipment and vehicles (Madden & Richards 2010: 6). These can either be cosmetic and part of the environment or an interactive component of the game (Smith, Sun, Sutherland, et al. 2014: 98-99; Madden & Richards 2010: 6, 8-9).
3 LEVELS OF GAME ADVERTISING INTEGRATION WITHIN THE GAMING EXPERIENCE SPACE: A CONCEPTUAL FRAMEWORK

An essential part of this study is to examine the different depths of integration into which game advertising can be divided. In this chapter these game advertising integration levels will be described and a new conceptual framework will be constructed of these integration levels. These levels will exist within the gaming experience space that will be investigated and defined for the purpose of the development of the conceptual framework.

3.1 The Gaming Experience Space

Before the integration levels of game advertising can be defined and explored, it is necessary to establish and describe the spectrum where these levels will be placed in. In this study this spectrum will be called the gaming experience space.

The gaming experience space is the physical and digital environment in which the player is simultaneously (Taylor 2003: 1-2) situated in during a gaming session. This means that the space comprehends all visual or verbal messages, arriving from the game or the gaming device, which the player can see, hear or experience during the gaming session. These audial and visual messages affect the sensory immersion of the player’s gaming experience (Calvillo-Gámez, Cairns & Cox 2015: 42). While playing, the player is immersed and the main focus is on the game itself. As the immersion increases it will lower the player’s awareness of his physical surroundings (Nordin, Cairns, Hudson, & Calvillo-Gamez 2014: 2), thus the fundamental messages are located within or near the screen of the video game. The outer messages from the player’s environment are not part of this space, although the physical location and environment of the player might differ greatly depending on different factors, such as the video game’s social aspects, online features, and the gaming platform and its mobility characteristics (Nordin et al. 2014: 1; see Holin 2015; see also Rufat, Minassian & Coavoux 2014).

This description of the gaming experience space establishes its range, which is limited. Therefore, this spectrum restricts the use of some game advertising forms, which were explored in the previous chapter. Some of the around-game advertising methods, such as cross promotion and cross media promotion (Smith, Sun, et al. 2014: 100-101), are
excluded from this spectrum as they might originate from another situation than from the gaming experience space and thus they do not arrive from the video game or the gaming device during a gaming session. Decisively, game advertising forms such as these can not be used in order to reach the player within this established gaming experience space.

3.2 Levels of Game Advertising Integration

Now that the gaming experience space has been defined, the game advertising integration levels can be established and placed within this spectrum. These levels will be created based on three factors; integrality, interactivity and the technical depth of the advertisement’s integration. Integrality refers to how essential the advertisement is for the video game (Yang & Roskos-Ewoldsen 2007: 470), while interactivity states the degree of interaction that is possible between the player and the advertisement (Küster et al. 2010: 12). Technical depth, in this context, is referring to the technical complexity of the advertisement implementation and if the advertisement is integrated around or within a video game (see Smith, Sun, et al. 2014: 97). These factors indicate the amount of cooperation required between the advertiser and video game developer and the initial thought and planning which is required for that specific integration level. A more highly integrated advertisement requires more planning, time, resources and work applied to the integration process as the developer and advertiser has to ensure that the advertisement is congruent with the experience and expectations that the players have of the video game itself (see Lewis & Porter 2010).

The purpose of the advertisement is a factor which is not relevant for this framework, therefore advergaming is not included, as this form implicates the purpose of the implementation (Lehu 2007: 179; Bogost 2011: 64, 67). If a video game exists exclusively for the purpose of marketing a single product or brand it is an advergame (Winkler & Buckner 2006: 37). A video game does not necessary have to be an advergame, even if it has one or several brands highly integrated to the game. A brand can be as highly, if not even more, integrated in a non-advergame. An example of this is the Mercedes-Benz cars (Daimler AG 2015) in Nintendo’s kart racing game, Mario Kart 8, which is built from the start for the purpose of entertainment.

This study proposes that the levels of game advertising integration can be divided into three major parts that will be called; around-game advertising integration, peripheral in-game advertising integration and integral in-game advertising integration. These
Integration levels, along with their associated advertising methods, are illustrated in Figure 2.

Figure 2. Conceptual Framework of Game Advertising Integration Levels (by the author).

The integrality and the technical depth of the integration are lowest in around-game integration and highest in integral in-game integral integration. The interactivity factor has also a tendency to be higher according to the same logic, although it depends much on the game developer’s final implementation of the advertisement and how much interactivity is provided alongside the advertisement integration. Each of these integration levels has its different forms of implementation and integration levels can also affect the player’s gaming experience in distinct ways. These game advertising integration levels will be examined in more detail in the following subchapters.
3.2.1 Around-Game Advertising Integration

The first game advertising integration level is *around-game advertising integration*. This level has the least technical depth, integrality and interactivity compared to the other two levels and the implementation of it does not necessary require much cooperation with the game developer. These advertisements are often added after the game is finished and they are very dynamic in nature (Bogost 2011: 64). Furthermore, it is not possible for the player to interact with these advertisements within the borders of the core video game. However, interaction outside of these boarders, e.g. clicking on the link and going to the advertisers page (Madden & Richards 2010: 6-8; Smith, Sun, et al. 2014: 100), is possible but this action might interrupt the game as a result. Moreover, the removal of the advertisement does not change or have any impact on the game, although this exclusion might improve the gaming experience as these kinds of advertisements can be seen as interfering or distracting (Kotler & Keller 2012: 537).

The game advertisement is in this case integrated, as the name implies, around and outside of the game and not within the game itself. This level consists of most of the around-game advertising methods (see Smith, Sun, et al. 2014: 97), such as *banners*, *interstitials* and *sponsorship*, with the exception of cross promotion, which is located beyond the borders of the gaming experience space. Consequently, around-game integration advertisements are usually found on the game’s portal on a web page or console environment (Madden & Richards 2010: 6-8), but the advertisement might also appear attached on top of the main game screen, such as seen in Figure 3.

![Figure 3. Around-Game Advertising Integration in Angry Birds (Screenshot from the Video Game Angry Birds, Rovio Entertainment 2009).](image-url)
Figure 3 demonstrates an example of around-game advertising integration in the form of a clickable advertisement banner which is displayed on top of the gameplay screen on the lower right corner. As can be seen in this case, the advertisement covers a part of the screen, which might annoy the player and break the immersion of the game. A more discrete way of implementing this kind of integration without interrupting the player’s gaming experience would be to include the advertisement outside of the gameplay screen, e.g. on the webpage portal or within the console environment hub. However, this kind of positioning might in turn compromise on the visibility of the advertisement.

### 3.2.2 Peripheral In-Game Advertising Integration

The second game advertising integration level is **peripheral in-game advertising integration**. This level has more technical depth, integrality and interactivity compared to the previous level as the advertisement is integrated within the video game and the advertisement is thus a more integral part of it. Consequently, the implementation of this kind of advertisement requires some cooperation with the game developer, as the integration is a part of the game’s environment or background. This integration level is immersive in its nature as it can add realism and visual authenticity (Bogost 2011: 52-57) to the game and its environment if the integration is appropriate and congruent to the game setting and schema. By ensuring this kind of schema congruity (Lewis & Porter 2010), the video game will better meet the player’s expectations of the game world when comparing it to its real world counterpart. Therefore, if this integration is removed, it might have an effect on the player’s perception, immersion and gameplay experience of the video game. Nevertheless, the game can still function without the advertisement, as it is still peripheral and not integral to the core game and its goals.

Peripheral in-game advertising integration can come in various forms. It can be static or dynamic and cosmetic or interactive. As such it involves methods of both **marketing displays** and **peripheral product placements** of in-game advertising (Smith, Sun, et al. 2014: 99), which can be implemented in the video game before, or after the game development is finished. The nature of the implementation decides the degree of interaction that is allowed between the player and the advertisement. This type of game advertising can typically be found in realistic sport (see Figure 4) or driving games where the advertisements are displayed in the background of the game’s environment, such as they are presented in the real world.
This figure demonstrates the use of peripheral in-game advertising in an ice hockey game. The advertisement posters attached on the fences of the ice hockey rink are replicating the look of the real world counterpart of an ice hockey environment and game. In this instance, the advertisements contribute to the video game by adding realism and authenticity to its setting and environment, which might increase the immersion of the player and thereby enhancing the gaming experience. The only interaction with the advertisement in this case is that they block the player from exiting the arena.

### 3.2.3 Integral In-Game Advertising Integration

The last and deepest game advertising integration level is *integral in-game advertising integration*. This integration level has the most technical depth, integrality and interactivity. These kinds of integrations are found within the video game and they often require interaction from the player. Cooperation between the advertiser and game developer is critical for the implementation of these advertisements as they are an essential, i.e. integral, part of the game and they are typically planned and applied to the game during its early development process. As in movies, the integrality of these advertisements might derive from their relevance to the main story of the game or the main characters’ usage of the advertisement (Yang & Roskos-Ewoldsen 2007: 470).

Within the context of video games, these advertisements are required for achieving and
completing the goal of the video game or the advertisement might even be the main goal. Therefore, if the advertisement is removed, it changes the game mechanics, plot, narrative or goal of the game, and this removal can make the video game incomplete. Figure 5 exemplifies an integral in-game advertisement that is essential to the game.

Figure 5. Integral In-Game Advertising Integration in Chibi-Robo! Zip Lash (Screenshot from the Video Game Chibi-Robo! Zip Lash, Nintendo 2015).

Integral in-game advertising integration comes in the form of an integral product placement which involves interactivity of some sort and is highly integrated and vital to the video game. These features make the advertisement automatically very static in nature and therefore it can be difficult, if not impossible, to change the advertisement afterwards. However, dynamic product placements are still possible, but unlikely, as the process can be challenging and the change might impact the core of the video game too much and make it lacking in some significant areas. The advertisement can in this integration level be, e.g. an important and integral object, which is necessary for completing the whole game or a part of it (Lehu 2007: 185; Dardis, Schmierbach & Limperos 2012: 2-3), such as the advertisement object in Figure 5. In this example, the candy brand Halvan Vanhat Autot, is a critical object in Nintendo’s video game, Chibi-Robo! Zip Lash, as this candy brand has to be found and collected in order to complete a part of the game.
4 BRAND AWARENESS IN GAME ADVERTISING

In this chapter the concept of brand awareness will be explored and defined from a theoretical perspective. Additionally, this part will contain discussion on how advertising within the video game medium can influence and increase the recall and recognition rate of brand. Lastly, some typical recall and recognition measurement and testing methods will be described for the purpose of the upcoming empirical framework.

4.1 From Brand to Brand Awareness

Brands and branding are important concepts for companies and advertisers to understand as brands assist in differentiating a company from competitors and branding strengthens and clarifies a company’s products or services in the mind of the consumers (Kotler & Keller 2012: 265; Friedman & Leclercq 2015: 3; see also Trout 2000). According to the American Marketing Association (2016), a brand is a “Name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers.” Kapferer (2000: 56) states that a brand provides a purpose and a meaning for products and services as it projects their identity and helps us to perceive them in a certain way.

There are several different perspectives on how a brand and its strength can be measured. Brand equity (Aaker & Joachimsthaler 2000: 9), i.e. the added value to a service or product from different marketing strategies, is a concept that contains different brand facets, e.g. brand awareness, association and loyalty, which generates value to a brand (Aaker 2010: 8). Furthermore, brand equity can be approached from a marketing and customer-based or financial and company-based perspective (Fill 2011: 158). The customer-based approach has a focus on the relationship between the brand and the customer, whereas the company-based approach concentrates on the financial value that a brand generates for a company (Kapferer 2012: 7). If consumers react favorably to the brand then the customer-based brand equity is positive and vice versa (Kotler & Keller 2012: 266; see also Sharma, Rao & Popli 2013: 176, 179-181)

Brand equity from a customer-based perspective comprehends brand knowledge, which is an indicator of the current brand value (Kotler & Keller 2012: 268) that consists of brand awareness and brand image (Keller 1993: 7; Lin 2015: 2). Different marketing activities can influence a consumer’s brand knowledge, which in turn
constructs the consumer's individual and distinct experience and perception of a brand and his familiarity and awareness to it (Keller 1998: 45; Fornerino & d’Hauteville 2010). Figure 6 illustrate the relationship and journey from brand to brand awareness.

Figure 6. Illustration of the Relationship Between Brand and Brand Awareness (Adapted from Aaker & Joachimsthaler 2000: 17; Keller 1993: 7).

As mentioned, brand awareness is one part of a consumer’s brand knowledge and can also be considered as an essential outcome for building brand equity, as a consumer has to be aware of the brand before he can purchase it or be influenced by it (Aaker 2010: 330; Walsh, Zimmerman, Clavio, Williams 2014: 388). According to Aaker (2010: 10) brand awareness can be defined as “the strength of a brand’s presence in the consumer’s mind” and it indicates the degree a consumer can recall or recognize a brand. Brand recognition is referring to the capability of recognizing a brand from past exposure to it (Aaker 2010: 10). Different taste tests show that a familiar brand from past exposure can have and advantage considering a consumer’s preference and liking (Keller 1998: 45). Brand recall, on the other hand, is the capability of recalling a specific brand from a certain situation, category or for a particular purpose (Keller 1998: 88; Krishnan, Sullivan, Groza & Aurand 2013: 416).

In general it is less difficult to recognize than to recall a brand from the memory (Walsh et al. 2014: 388). However, both are important as their effect on the final purchase depends on the time and place the consumer makes the purchase decision (Keller 1998: 88). Recognition is critical in the store where the products are displayed on the shelves
while recall is more effective outside the store where the brand does not inhabit a presence (Kotler & Keller 2012: 504).

A brand with high awareness has several advantages. First, it will increase the possibility of the brand being considered during a consumer’s purchase decision (Keller 1998: 91). The easier the consumer can recall a brand, the higher the possibility is that the brand is included at the time of purchase (Krishnan et al. 2013: 416). Secondly, high brand awareness may affect the customer’s choice and preference of a brand, especially within low involvement products where the purchase decision is based more on brand familiarity (Keller 1998: 50). Thirdly, brands with higher awareness might have more positive association towards them (Keller 1998: 91-92). Lastly, brand awareness strengthens brand associations thus it can also enhance the brand image (Keller 1998: 92).

Brand awareness is created and maintained by increasing a brand’s familiarity and identification rate through exposure (Wang, Hsiao, Yang & Hajli 2016: 10) and by strengthening the associations of the brand to significant situations and product classes (Keller 1998: 92). This enhancement requires resources from sales and wide reached visibility and attention through the use of different communication alternatives, such as promotion, and advertising, which contain various visual and verbal brand elements, e.g. brand name, slogan, logo and jingle (Aaker 2010: 16-17; Keller 1998: 50-51, 92).

4.2 Brand Recall and Recognition Within Game Advertising

As previously mentioned in this thesis, advertising within the context of video games can be conducted in various distinct ways. Many of these methods can also be found within other areas of advertainment (La Ferle & Edwards 2006: 65-66), e.g. movies and TV-series, and therefore these methods can also have similar effect on brand recall and recognition when used in video games (Walsh et al. 2014: 389). However, their effect on brand awareness might vary from the method used. Even though advertainment, especially in a disguised form, is an effective way to reach consumers during their spare time, the advertainment might annoy and distract the audience from the primary entertainment experience and result in unwanted negative associations and attitudes towards the brand and its image (Kotler & Keller 2012: 537). Therefore, it is also important to consider this risk when advertising within the video game medium. Carefully planned implementation of game advertising might have a positive effect on
brand awareness and brand image (Kotler & Keller 2012: 537; Bogost 2011: 52-57) without compromising the quality of the video game and its offered experience.

Important elements regarding brand recognition and recall within the context of film and video games are prominence, visibility and plot placements. First, prominence consists of the space taken, length of time and number of occurrences a brand has in a movie or video game (Lehu 2007: 110-111). More prominence means more exposure which can lead to higher recognition and recall rates. The amount of brand exposure can potentially be higher in video games compared to movies, as games tend to be longer experiences (Lehu 2007: 181-182; Walsh et al. 2014: 388-389). Secondly, visibility in a movie or video game is important for brand awareness, as without adequate visibility it can be difficult for the player to recognize the brand in the first place (Lehu 2007: 110-111; see also Walsh et al. 2014: 388-389). Thirdly, when people play a video game or watch a movie their main attention is on the central features of the particular medium. In movies the audiences’ primary attention is on following the story (Yang & Roskos-Ewoldsen 2007: 471) and in video games the players’ primary focus is on achieving the game’s goal. Brands that are a part of this main focus can be seen as having a high plot placement (Russell 1998: 357). According to a study by Russel (2002), visual brand placement that have been implemented as a key part of a film’s story have an higher recognition rate than those brands that are only placed in the background as low plot placement without any contribution to the narrative. In video games this can be compared to brands being either integral or peripheral to the core game and its experience (Lehu 2007: 185; Dardis et al. 2012: 2-3).

Video games as a medium differ from film in a fundamental aspect, which is interactivity. Interactivity can be seen as an additional dimension that does not exist within film and which can increase engagement and awareness (Küster et al. 2010: 12) of the advertised brand in the video game. This is especially true if the product or brand is implemented as a product placement with which the player can directly engage and interact (Küster et al. 2010: 12). Within cinema and film, the audience is passively watching the movie compared to video games in where the player is actively playing the game and interacting with it and its environment. As a result, product placements in video games may be more effective compared to product placements in movies (Raatikainen 2009: 26). With video games the player has potentially greater control over the game experience and environment and thereby the player has to be more aware and observant to the video game and the possible product placements within it.
(Lehu 2007: 181). This possibility of control results in that the player can change how the events of the video game will unfold, thus the experience of the video game and product placements can be different with each session of the game (Lehu 2007: 181-182).

Several studies show the positive effect that game advertising can have on the players' memory recall, i.e. brand awareness, which is affected by the game or placement type, or different factors originating from the players themselves (see Smith, Sun & Mackie 2014: 110-112). The different influencing factors of in-game advertising on memory recall and consumer attitudes are shown in Figure 7.

![Figure 7. In-Game Advertising Influencing Factors (Smith, Sun & Mackie 2014: 111).](image)

The players often recall smaller products that are visually placed on billboards or larger products that are integrated as product placements as these kinds of positioning provide the most space for exposure in their separate cases (see Grigorovici & Constantin 2004). In addition, product placements that are congruent with the game environment and setting have also a higher possibility for recall (see Gross 2010). This phenomenon is often demonstrated within the sport and racing game genre in where the sport brand’s presence is appropriate and a part of the realistic environment (see Oranen 2011). Furthermore, if the brand offers the possibility for interactivity in the manner of customization, e.g. modifying a branded car in a sport game, the
engagement of this activity might increase the player’s brand awareness (Dardis et al. 2012). Lastly, the player’s level of experience or skill has shown to have a positive influence on memory recall (Smith, Sun & Mackie 2014: 111). However, some studies (see Raatikainen 2014) have had contradicting results in where the players with higher level of experience or skill have had difficulties to recall brands implemented through marketing displays. Therefore, continued research is required in order to obtain reliable results of the different variables and their effects on brand recall.

4.3 Measuring Brand Awareness

Brand awareness can be measured in many different ways and they should be chosen according to which awareness level is suitable for a specific product category or at what point the consumer purchasing decision is usually made for that particular brand (Aaker 2010: 330; Keller 1998: 325). This might make comparisons between categories of brands challenging. Awareness levels include recognition, recall, top of mind, brand dominance, brand familiarity, and brand knowledge or salience (Aaker 2010: 330; see also Sharifi 2014: 45-46). In this thesis the emphasis will be on measuring recognition and recall, as they are the most appropriate methods to use for this empirical study.

4.3.1 Measuring Recognition

Brand Recognition is measured when one desires to discover how consumers can identify a brand from different brand elements within different situations (Keller 1998: 326). Traditionally the respondent is provided with a visual or oral cue of a brand and asked if they have seen or heard about it from before (Keller 1998: 326). This means that some kind of stimulus of the brand is present for the respondent at the time of the test and he must distinguish the brand amongst all the other material, e.g. other brands, which are presented alongside with it (Hernandez & Minor 2011: 209). Sometimes more subtle methods with less information, such as missing letters-tests, as are used for highly recognizable brands (Keller 1998: 327-328).

Different circumstantial factors, such as visibility, distance, speed, angle and lightning can affect the respondent’s ability of recognizing a brand or product and the inclusion or consideration of these variables in a recognition test might make the test more thorough and accurate. However, recognition as a measure only indicates the potentiality of a recall, thus measures of recall should be used in order to investigate whether the brand will be recalled within a certain situation. (Keller 1998: 328-329)
4.3.2 Measuring Recall

When measuring brand recall, the respondent has to reclaim the brand from memory when probed or cued and thus this is more challenging for the consumer compared to recognition. Depending on the clue provided, the measure can either be unaided or aided recall. With unaided recall one is trying to detect the strongest brands that comes to mind without any additional information other than the provided temporal clue, which can be in form of a simple question “What brands do you have on your mind right now?”. By contrast, aided recall contains other cues in order to help the consumer to recall a brand from a certain time, place, situation, and category or with associations to a specific attribute or purpose. The respondent can for this instance be asked about what phone brands the respondent saw in a particular television commercial. Moreover, the recall effectiveness can be categorized according to how correct, latent, or fast the brand has been recalled. (Keller 1998: 329-330; Hernandez & Minor 2011: 209)

Recall can be challenging and expensive to be measured, especially it’s effect on brand value (Krishnan et al. 2013: 416), as it can make the survey instrument less structured and straightforward with the typical inclusion of open-ended questions (Aaker 2010: 331). Furthermore, it could sometimes be more useful and important to measure the awareness of visual imagery of a brand instead of the brand name, in which case recognition (Keller 1998: 325) is a more appropriate measurement to be used (Aaker 2010: 331).

A problem especially with recognition and aided recall is spurious awareness, which Keller (1998: 330, 332) refers to “consumers erroneously claim that they recall something that they really don’t remember and that maybe doesn’t even exist” (see also Hernandez & Minor 2011: 212). The results from studies with spurious awareness might provide false indications on how the brand should be improved (Keller 1998: 332). This is especially true for newer brands with low brand awareness. Furthermore, a consumer might choose a brand that has been exposed, i.e. primed (Keller 1998: 333), to the consumer right before the final brand decision. In this case the primed brand is easier to be retrieved from memory, which results in it to have better possibility to be recalled and selected during the purchasing decision (Keller 1998: 333-334).
5 SUMMARY OF THE THEORETICAL FRAMEWORK

This section will summarize the key points of all the three chapters of the theoretical framework beginning with the concept of game advertising, continuing with the established new framework of game advertising integration levels, and concluding with brand awareness and the measuring methods of recall and recognition. Figure 8 shows the important concepts of every theoretical chapter and illustrates the logical relationship of these concepts that connects them into each other within the context of this thesis and the upcoming empirical study. The illustration begins with the previous establishment of the holistic game advertising concept and its methods. Then it continues on the creation and construction of the new conceptual model that involves the methods belonging to the gaming experience space. The illustration ends with the description of the brand awareness concept and its main approaches of measurement involving recognition and recall.

Figure 8. Summary and Relationship of the Theoretical Framework of this Thesis (by the author).
In the first chapter of the theoretical framework the foundation of game advertising was established. *Game advertising* unites video games with advertising and it can be defined as “the association of marketing communications messages with video & computer games to target consumers” (Smith, Sun, et al. 2014: 97). This concept divides game advertising into three major categories; *advergames, around-game advertising* and *in-game advertising*. *Advergames* are video games which are developed with the main purpose of promoting a specific brand, creating brand awareness and strengthening brand loyalty (Lehu 2007: 179). By contrast, *around-game advertising* consists of marketing messages, in the form of *banners, interstitials, sponsorships, cross promotion* and *cross media promotion*, which are implemented around a video game or in association with it (Smith, Sun, et al. 2014: 99-101). Lastly, *in-game advertising* is the integration of real products and brands within a video game, in the form of *marketing displays* or *product placements*, which the player can virtually interact with (Smith, Sun, et al. 2014: 98-99, 122; Bogost 2011: 64).

A new conceptual framework, called the *game advertising integration levels*, was created out of the previous game advertising forms. However, forms and methods such as *advergame, cross promotion* and *cross media promotion* are excluded from this framework, as they do not belong to the spectrum of the established *gaming experience space*, which is the physical and digital environment in which the player is present during a gaming session. This space consists of three levels of advertising integration that are based on how integral the advertising is to the game, the degree of interactivity it allows, and how technically deep the integration is to the video game. The first integration level, *around-game advertising integration*, has the least depth, interactivity and integrality of the three. It consists of *banners, interstitials* and *sponsorships* that exist around or on top of the screen and these kind of advertisements might therefore interfere with the players’ gaming experience or break their immersion of the game (Kotler & Keller 2012: 537). The second integration level, *peripheral in-game advertising integration*, contains *marketing displays* and *peripheral product placements* that are finally not essential to the core of the game. These kinds of advertisements are often discovered in the background of the video game and they might enhance the effect of immersion for the player by making the game more realistic (Bogost 2011: 52-57). The last integration level, *integral in-game advertising integration*, comprehends *integral product placements* that are vital to the mechanics, story or goal of the game. These advertisements are deeply integrated within the game
and their high integrality characteristic means that the removal of these advertisements might make the game incomplete.

All of the distinct integration levels from the model are advertisements that send visual or verbal messages from the game to the player and can therefore affect the player’s awareness of the brand advertised in the video game. Brand awareness is a part of the consumer-based brand knowledge and it is the brand’s strength of existence in the mind of the customer (Aaker 2010: 10). It consists of recall and recognition in where the latter is the ability to recognize a brand from a past exposure and the former is the capability of recalling a specific brand from specific situations (Keller 1998: 326-330). Both of these can be used in order to measure the effect that a particular game advertisement have on consumers’ awareness of a brand.
6 METHOD

This chapter will describe the research method of this study's empirical framework. It will deal with sampling strategy, collection of data, design of the online survey and video game, analysis of the data, and evaluation of the research quality. The empirical study will be developed by the basis of the theoretical and conceptual framework which has been explored and established in chapter 3. This framework consists of three game advertising integration levels which will be tested in the empirical study concerning their effect on brand awareness, i.e. brand recall and recognition. The chapter will begin by explaining the method and sampling strategy choices.

6.1 Choice of Method and Sampling Strategy

The research methods applied in this study will be quantitative in nature. A quantitative study has the goal to measure an objective reality in order to obtain information about it. Within this type of method the researcher systematically collects empirical and measurable data in order to be able to summarize it in a statistical form, which can be further analyzed and generalized (Ghauri & Gronhaug 2010: 104-105). If the objective of a study comprises managerial action principles, which one wants to measure and test, then a quantitative method is suitable for this instance (Zikmund, Babin, Carr & Griffin 2013: 134). The aim of this study is to test the new conceptual model on game advertising integration levels and obtain quantitative data, through the use of an online survey, on the effect of the specific brand advertising integration level on the player’s brand awareness. This data can then be measured and generalized on a broader scale in order to obtain results on which integration level is the most effective among the three. In addition, the analysis of the data regarding the respondents’ recall and recognition rates of the integration levels should provide insights for advertisers and companies on what type of integration is most appropriate for a certain circumstance.

The target group that is examined in a study is known as a population and a part of a population is called a sample (Krishnaswami & Satyaprasad 2010: 50; Ghauri & Gronhaug 2010: 138-141). The population in this study is Finnish gamers, which is a very general and large group as almost anyone can be a gamer nowadays. However, the online survey will be aimed at Finnish respondents from both genders, from the age 15 and older, and with various degrees of gaming skill and experience. These vague criteria
are chosen by the fact that the gamer population is also very heterogeneous. The potential respondents will be contacted through the use of social media channels, such as Facebook, in order to acquire a vast amount of responses from participants that are interested in video games and gaming. These respondents will be the sample of this study. This means that the sampling strategy involves a non-probability sampling procedure, which might provide results that do not represent the whole population, as this procedure does not ensure that everyone from the population has the chance to be selected if they lack the device, i.e. computer, to access the online survey (Krishnaswami & Satyaprasad 2010: 55-56; Ghauri & Gronhaug 2010: 140). Nevertheless, usually people interested in gaming do own or have access to a computer. Additionally, considering the time and budget available for this study, this is still an appropriate sampling method which might at least provide an indication of the nature of the phenomenon. A sample size between 100 to 500 respondents would be adequate in order for the results to be reliable, quantifiable and somewhat generalizable on the whole population.

6.2 Collection of Data

For the current thesis, the primary data will be collected through an online survey, which is a cost-effective and fast contact method for reaching a wide and large population (Kotler & Keller 2012: 132). As mentioned previously, social media channels will be used for the distribution of the online survey. This approach should help the survey to reach a vast amount of potential respondents. In addition, anonymity will be provided for the respondents in order to increase the possibility for thoughtful and honest answers. Moreover, as the data entered by the respondents is already in digital form, the survey data is possible to be easily transferred to a computer program, e.g. Excel and SPSS, for further analysis. However, choosing this contact method means that only people with a computer and Internet access can participate in the survey thus this might slightly affect the representation of the sample. Furthermore, technical difficulties are always possible with online surveys and might lead to a loss of potential responses (Kotler & Keller 2012: 132). Lastly, it can sometimes be challenging to engage people to participate in an online survey without any incentives (Kotler & Keller 2012: 132). The researcher believes that an online survey containing a video game can be an interesting and creative way to acquire the attention of this particular population.
6.3 Design of the Online Survey and Video Game

The online survey, created in Webropol, will have three main parts beginning with demographical background questions, then followed by a link to an interactive video game containing game advertisements, and ending with follow-up questions concerning the brand recall and recognition of these advertisements (see Appendix 1 and 2). The video game functions as a sort of experiment or test and it will contain all three distinct game advertising integration levels through the use of candy brands. The purpose is to test which integration level dominates and provides most exposure and effect regarding brand recall and recognition during a gaming session. The length of the survey depends much on the respondent’s invested time on the game. However, the video game developed for this study will be very short in order for the game not requiring unnecessary time from the respondent and to ensure that the survey is not ended prematurely. The whole online survey, including the video game, should normally take about 5 to 10 minutes for the respondents.

In a true experiment an independent variable is manipulated in order to see if it has an effect on a dependent variable. To exemplify, there is regular water in a bottle that is measured after which the taste of the water is manipulated with adding salt to it. The effect of the salt on the taste of the water can in this case be measured. Another example of an experimental design is to have two groups with a water bottle and salt is only added to the water bottle in one of groups. (Bryman & Bell 2015: 54, 55; Office of Research Integrity 2017)

However, the video game in this survey functions more like a test rather than a true experiment, as the independent variable, the advertising integration level, is not manipulated, as this would make the empirical study too complex and time consuming. The reason for this complexity is that there are three different integration levels that have to be compared with each other in order to discover which level is the most dominant regarding brand awareness. This means that every integration level has to be available within the same game session and thus they can not be separated, as they would be in a true experiment. In addition, the previous exposure to the brands during the first game session could affect the player’s awareness of the brands for the next game session. The reason for developing a new video game entirely for this study is to ensure that all other outside factors, which could affect the results, are eliminated or at least minimized. The problem with using existing video games is that they would all be different (compare Figure 3, 4 and 5 for example) and one game might not contain all
of the different game advertising integration levels or provide them equal level of exposure.

The video game in this empirical study will be a very short and simple browser-based 2D side-scrolling platform game with the project name “Mr. Sugar in Candyland”. The purpose of this video game is to collect all of the 15 candy pieces placed in the game’s stage in order to complete the game. This video game will have the three game advertising integration levels implemented to it in their respective appropriate way. First, the around-game advertising integration will be implemented through an advertisement banner, containing candy brands, attached on the display screen of the game. Secondly, the peripheral in-game advertising integration will be applied by displaying candy brands in the background of the game’s environment. Lastly, the integral in-game advertising integration will be executed by including candy brands as objects in the video game which has to be collected in order to complete of the game. Figure 9 illustrates how the different levels of game advertising integrations are implemented in this video game.

Figure 9. The Game with all Three Game Advertising Integration Levels (Screenshot from the Video Game Mr. Sugar in Candyland, by the author).

Every game advertising integration level will contain three different candy brands that are carefully chosen and implemented within each integration level. It is important to
ensure that each integration level is represented with similarly strong brands and that all brands will receive an equal amount of visibility, prominence and exposure during a game session. This video game will contain the following nine different candy brands: Marabou, Haribo, Panda, Cloetta, Milka, Kinder, Toblerone, Mars and Nestlé.

The respondents will be directed back to the online survey after they have played through the video game. This final part will contain follow-up questions regarding the video game, a recall test, and a recognition tests. Consequently, this survey will consist of both open-ended and closed-ended questions. Open-ended questions will be used in order to test the recall of the advertisement and closed-ended questions will test the recognition of the advertisement through the use of a list, which contains all the brands that appeared in the game. This list will also contain a few brands that did not appear in the game in order to test the respondent’s honesty and to counter spurious awareness. The closed-ended questions in an online survey will make it possible for the primary data to be conveniently transferred to different programs, such as Excel and SPSS, for further analysis and the creation of figures and tables (Kotler & Keller 2012: 126).

6.4 Analysis of Data

All of the quantitative data from the online survey will be transferred to SPSS in where descriptive and inferential analysis will be conducted. Tests and analysis used in this study involves one-way chi square tests, cross tabulation, two-way chi square tests, comparisons of means, t-tests and ANOVA. In addition, the open-ended answers are manually analyzed and quantified in Excel. The purpose of the analysis is to discover which brands from what integration level have been recalled and recognized the most in order to then compare the effectiveness of the integration levels with each other. Furthermore, the analysis will also focus on finding significant associations between the respondents’ demographic background, gaming habit, gaming skill level, and the recall and recognition rates of the brands and game advertising integration levels.

6.5 Evaluation of Research Quality

Reliability and validity is often used for evaluating the quality of a quantitative research. Reliability is an instrument for evaluating the consistency and repeatability of a study and its results. It provides an indication on if the measurement used in a study is consistent. If a study or test is reliable then the test should provide the same results if it is repeated. This is also the case in a test-retest where the test is provided to the same
respondent at another occasion. However, sometimes the results might be different if
the time between the both tests is quite long. (Bryman & Bell 2015: 49; see Zikmund et
al. 2013: 301-306; see also Phelan & Wren 2005)

Reliability is quite challenging in the case of this study as this study involves a test of
awareness which can change drastically once the respondent is aware of the purpose of
survey and its video game. Therefore the respondent’s answers might change if the test
is conducted a second time immediately after the first test session. However, the
reliability of this study have been ensured by providing the respondents the possibility
to decide how, how long, and in what environment they can answer the survey and play
the video game in. This freedom provides this empirical study with randomness which
ensures that the results will be similar if the test is conducted again. Moreover,
multiple-choice lists within this survey have been added with a randomness factor
through having the order of the choices being randomly re-arranged for every
participant. Finally, the frequencies of most of the answers have been tested for
significance in order to ensure that the frequency sizes are not a result of chance.

Validity is referring to the accurateness of a research and its measures, in other words,
if the research is actually measuring what it is purposed to measure. This concept
consists of construct validity, i.e. the study is truthfully measuring what is intended,
external validity, i.e. the results can be generalized beyond the context and sample of
the test, and internal validity, in other words, the findings show that there is truly a
causal relationship between the variables that are studied. (Bryman & Bell 2015: 50, 51;
see Zikmund et al. 2013: 271, 273, 303, 648; see also Mora 2011)

Actions have been taken in order to ensure this study’s validity. The researcher has
been working attentively with the game developers on the video game that was
implemented to the survey in order to confirm that the game functions in the way that
was intended. Furthermore, the video game and the survey have been pilot tested
among various people, ranging from gamers that are beginners, advanced gamers, and
to game developers who have deeper understanding of video games and their
mechanics. Finally, the analysis in Excel and SPSS has been conducted carefully when
searching for associations and casual relationships between different variables.
7 FINDINGS AND ANALYSIS OF THE EMPIRICAL STUDY

This chapter presents and describes the results and findings from the online survey in which the respondents played the video game and answered questions concerning their gaming background and the game in the survey. The structure of this chapter follows closely the design structure of the survey and this chapter will therefore begin with presenting the background information of the respondents, followed by their outcomes of the video game session and their recall and recognition rates of the brands discovered during this gaming session. The chapter will conclude with results from analytical tests where associations between important variables were investigated for the purpose of finding any underlying significance in the data. Illustrative figures are provided alongside the text for a clearer understanding of the scope of the contents and results.

As mentioned in chapter 6, the online survey was distributed via the social media channel, Facebook. The survey was finally posted to six Finnish gaming centered community groups where the amount of members ranged from 1000 to 17000. The survey was posted to these groups on 27th February 2017 and it was held open one week until the end of the 6th March 2017. A total of 291 respondents participated in the survey. However, only 261 respondents, which is approximately 90% of all participants, got the browser-based video game to work on their computer and managed to finish the game. Only the answers of these respondents are considered in the final results and analysis, as the rest of the 10% were not able to answer the whole survey in the intended manner. The final sample size of 261 respondents can be considered as an adequate number for the scope and purpose of this study.

7.1 Background Information of the Respondents

The first part of the online survey comprised of five questions that were focused on the demographic and gaming background of the respondents. This information was collected for the purpose of obtaining an overview of the sample, which can also be used for further analysis and comparison if necessary. The first question, “Gender?” provides the gender distribution of the respondents and the results can be seen in Figure 10.
The results show that most of the participants (201) were male and the rest (60) were female. This means that females are underrepresented in the results of this survey with only 23% of the respondents being female compared to ESA’s report (2016: 3) where 41% of gamers are female. This difference in gender sizes in these results is significant according to the one-way chi square test which provided a significance level of 0.000. A risk of 5% was taken for this test. This underrepresentation has to be taken into account in the survey results and therefore no further analysis between genders is conducted.

The results of the second question, “Age?”, shows age distribution and sizes of the respondents’ age groups. The age groups have an interval of five years excluding the low and high cut-off point choices of “14 or younger” and “65+”. None of the respondents were older than 44 years. The results of the age groups are presented in Figure 11.
The youngest age group with respondents in this survey was “14 or younger” with only two respondents and the oldest age group with respondents was “40-44” with eight respondents. The median and mode range group can be found in the age group of “25-29”, which comprised of 80 respondents. The Figure 11 illustrates that from this age group the respondents are quite evenly distributed on both the younger and older sides in where the strongest representation of respondents are from the age 20 to 34 years. This means that the average age of the respondents in this study is a bit lower than the reported (ESA 2016: 3) average gamer age of 35 years.

The third question, “What devices do you play video games on the most?”, provides information on the respondents’ most used devices for gaming purposes. For this question the respondents could choose from one to two devices, but they had to choose at least one from the pre-determined selection. The results are illustrated in Figure 12.

![Figure 12. Gaming Device Usage Choice of the Respondents (by the author).](image)

The most popular device for gaming was console with the frequency of 205 and then closely followed by computer with 180 responses. Phone and tablet were only chosen 32 times for the former and four times for the latter. Both consoles and computers can be considered as more dedicated gaming systems in where phones and tablets are usually regarded as devices for casual gaming (ESA 2016: 5). According to ESA (2016: 5), the most frequent used devices for gaming are computers and consoles at around 50%, whereas phone and tablets are frequently used for gaming by about 30% of the gamers. The results from this survey parallels well to these statistics, although, the frequency
rates for computer and consoles were higher and the frequency rates for phones and tablets are lower in comparison. Therefore, the results indicate that the vast majority of the respondents are dedicated gamers and this circumstance might have and effect on the final results of this study.

The results of the fourth question, “I play video games weekly in average (h)?” presents the weekly gaming habits of the respondents (see Figure 13). The answers were pre-determined and grouped into intervals of every three hours from “Not at all” to “40 hours or more”. The purpose of this question was to acquire data on how much the respondents play video games. This data could in turn offer a measurement that provides an indication on their video gaming experience and skill level. The assumption is that the more and longer one plays video games, the more experience and skill one has concerning gaming.

![Weekly Gaming Time of the Respondents](image)

Figure 13. Weekly Gaming Time of the Respondents (by the author).

The highest frequencies are found in the range of one to 15 hours. The median is found in the group “10-12 h” and the mode in the group “7-9 h”. However, there are a significant amount of the respondents (34.4%) who play video games over 15 hours in a week. In comparison, the average time spent playing online video games is according to ESA (2016: 6) 6.5 hours per week. The results from this survey suggest yet again that the respondents are more dedicated gamers than they normally are compared to the international statistics.
The fifth question, “How would you describe your video gaming skills?”, provides information on how the respondents estimate their own gaming skill level. Even though this is only an individual’s subjective perception of his own skill level this information might still provide some general and truthful data which can be compared to the respondent’s score results of the game session. The answers are illustrated in Figure 14.

![Figure 14. Estimated Gaming Skill Level of the Respondents (by the author).](image)

The most frequent choice of the three alternatives was “Intermediate” with 63.22% which was followed by the option “Expert” with a total of 34.10% of the respondents. The “Intermediate” category is also the median and mode. These results show that the respondents have a general tendency of perceiving themselves as more experienced gamers.

### 7.2 Results of the Video Game Sessions

In this subchapter the respondents’ results and scores of their video game session will be presented and described. These results provide essential information on how they played the game and how they perceived it. This data might reveal variables that have an effect on what brands and how well the respondents recalled and recognized these brands regarding their integration level.

The first question for this part asked about the direction the respondent went in the beginning of the game. This question is important as the game was designed so that the
player starts in the middle of the game’s stage. The choice of the direction will affect what brands in the background of the game, i.e. *peripheral in-game advertisements*, the player will see first, which in turn might affect the rate of recall and recognition of these brands. In this game Marabou was on the right and Cloetta on the left, while Mars was located in the middle, i.e. beginning, of the stage. The answers of this question are shown in Figure 15.

![Figure 15. Direction Choice of the Respondents (by the author).](image)

The majority of the respondents (72.41%) went to the right and 26.82% of the respondents went to the left in the beginning of the video game. The one-way chi square test, with a 5% taken risk, shows that this difference in frequencies is significant with a significance level of 0.000 and thus this difference is not created by chance. This choice is expected as traditionally 2D side-scrolling platform games have had the choice to only go right as many might have a fundamental preference of visual motion going left to right (Walker 2015). One of the most well-known and iconic games of this type and this direction rule is *Super Mario Bros.*, which was released in 1985 for the Nintendo Entertainment System (Nintendo 2017). This direction has been the standard for these kinds of games ever since (Walker 2015).

The second game related question, “*Challenge of the game?*”, provides results on how challenging the respondents perceived the game to be. This is yet again an individual’s subjective perception. However, in this instance the respondent compares his gaming
skills to the difficulty of this particular game. The results from this question are illustrated in Figure 16.

The interval likert scale had a range from 1 to 5 with 1 being “Very difficult” and 5 being “Very easy”. The choice with the highest frequency was “Very easy” with 54.02% followed by “Easy” with 36.40%. The mean was 4.40 and the median and mode were 5 (Very easy). The results suggests that most of the respondents perceived the game to be easy or very easy, which is how the game was designed to be for the purpose that every respondent would be able to finish the game. This kind of perception correlates quite well with the following game session results and scores of the respondents regarding their final total time and number of deaths during their game session.

Next, the results of the respondents’ game sessions are presented in Figure 17 and 18. In these questions the respondents had to provide answers on how long it took for them to finish the game and how many times their game character died in the video game during this game session. These are objective results which define the respondents’ skill level more accurately regarding this game compared to the previous subjective questions about the respondents’ skill level. The final time measures the player’s ability to complete the goal in a short amount of time and the deaths describe the player’s capability of being careful and having fast reaction speed in order to move away from danger that are present in the game. There are also other types of gaming skill measurements that can be used. However, these are skill measurements that are
typically associated with platform and action oriented video games (Norman 2011: 6), such as this video game in this study.

The game was pilot tested beforehand in order to find out the minimum possible time for completion if one would have the possibility to practice the game several times and get familiar with the layout of the game’s stage and the location of the collective candy objects. The minimum time that the test yielded was 1 minute and 12 seconds. The time choices were divided into five groups with a one minute interval starting from “Under 2 minutes” and ending with “5 minutes or over”. The median and mode was strongly centered on the time frame between two to three minutes, which would imply that most of the respondents (50.19%) were able to finish the game in a timely manner.
The results of the death count were more diversely distributed compared to the time measure. The deaths were divided into five groups with an interval of three deaths ranging from zero to over nine deaths. The median is found in the third group, “4-6 deaths”, and the mode is the fourth group, “1-3 deaths”, with a total of 36.40% of the respondents. The results show that the death count for the majority of the players was over three, which could be considered to be quite high. However, the game was designed in the way that the player would immediately re-spawn close to the place of the recent death, thus the time penalty for dying was finally not that high.

The last game related question asked the respondents to rate the gaming experience of the game from one to five in which one was “Very negative” and five was “Very positive”. The initial goal was to create a video game that offers a neutral gaming experience which would thereby not potentially affect the respondent’s brand awareness in any significant way. The results of this question are illustrated in Figure 19.

![Figure 19. The Respondents’ Perceived Gaming Experience of the Video Game (by the author).](image)

The median and mode is located in the center of the different choice alternatives, which is the “Neutral” choice. Approximately 40% of the respondents chose “Neutral” and around 28% of the respondents chose “Positive” as their answer. However, the mean score was 3.28 which would suggest that the overall gaming experience of the game was slightly more on the positive side for the respondents.
7.3 The Respondents Brand Recall

Now when the respondents’ gaming background and game session results have been described it is time to present the main findings regarding recall and thereafter recognition. In this survey the rate of recall was discovered through the use of open-ended questions in where the respondents were asked to try to remember what brands they recalled and where they saw them in the video game. This is considered to be aided recall as one tries to recall from a specific situation (Keller 1998: 329-330; Hernandez & Minor 2011: 209). The situation in this case is the game session of the survey’s video game.

The respondents were first asked to recall the brands that they remember to have seen from their game session. The recall frequencies of every brand are presented in Figure 20 beginning with the three brands (Haribo, Panda, Milka) that were integrated as banners in the game as *around-game advertisements*, then the brands (Mars, Marabou, Cloetta) that were integrated in the background of the game’s environment as *peripheral in-game advertisements*, and lastly, the brands (Kinder, Toblerone, Nestlé) that were integrated as *integral in-game advertisements* in the form of interactive objects that the players had to collect in order to complete the game.

![Figure 20. The Respondents’ Recall Rates of the Brands (by the author).](image)

The results show that the recall frequencies are very similar for every brand within their own advertising integration level, which would imply that the integration level of the brand is a more critical factor for the rate of recall compared to choice of a specific brand that have been chosen for the advertisement implementation. The highest
frequencies are found within brands that belong to the integral in-game advertising level. Kinder had the highest frequency rate (202) from this level as approximately 77% of the respondents recalled this brand. Nestlé had the lowest frequency rate in this group (175) as only around 67% of the respondents managed to recall the brand.

The differences to the other two integration levels are significant as the difference is at least more than twofold compared to them. However, the two other integration levels, i.e. around-game and peripheral in-game advertising integrations, have a quite equal recall frequency rate between each other. The recall rate in these levels range from 19 to 33 percent of the respondents. A one-way chi square test was conducted individually on every brand in order to investigate if the frequencies for each of the brands are statistically significant and not created by chance. A risk of 5% was taken for this test and the analysis shows that the frequencies for every brand are significant with a significance level of 0.000, thus the frequencies are not created by chance in this case.

The second question concerning recall asked the respondents about where they recall to have seen brands or advertisement in their game session. This question was also an open-ended question and the answers were divided into four groups according to the three different integration levels found in the game. Some respondents also responded with a vague answer “Everywhere”. The findings are illustrated in Figure 21.

![Figure 21. The Respondents' Recall Rates of the Brand Locations (by the author).](image)

The findings show that the location of the brands that were integrated as interactive objects were recalled the most with the recall frequency of 194. The second highest recall rate was for banner brands (around-game advertisements) with the frequency of 185. Brands found in the background had the recall frequency of 129.
7.4 The Respondents Brand Recognition

After the questions concerning recall the respondents were provided with a list with all of the nine brands that were present in the video game. In addition to these nine brands, three other brands (Fazer, Hershey’s and NamiCo) not-present in the game, were included to the list with the purpose to check for potential spurious awareness (see Keller 1998: 331-332; Hernandez & Minor 2011: 212). In this instance the list functions as a stimulus of the brands and also aids the respondent to remember what brands were recognized during the game session. Additionally, the respondents were also asked about the location or placement of every specific brand from the list. Lastly, the respondents had to rate their attitude towards these brands as the attitude might have an effect on their awareness of the brands.

The recognition frequency rates of all 12 brands are presented in Figure 22. The brands are yet again divided into their specific game advertising integration level. Furthermore, the results of the three other brands (Fazer, Hershey’s and NamiCo) are also shown in this illustration.

![Figure 22. The Respondents’ Recognition Rates of the Brands (by the author).](image)

The results of brand recognition rates are very similar to the previous results of brand recall rates. As in the case of recall, the brands within the same integration level have similar frequency rates to each other. Moreover, the highest frequencies are yet again found within brands that belong to the integral in-game advertising level. Kinder had
the highest recognition frequency rate of 247 from this level, which is approximately 95% of the respondents. Nestlé had the lowest frequency rate in this level (227), which is around 87% of the respondents.

The two other integration levels are noticeably lower compared to the integral in-game advertising level. This is similar to the results of recall. Furthermore, both of these levels have quite equal frequency rates between each other, with the exception of Cloetta compared to Haribo. Finally, 13.4% (35) of the respondents recognized Fazer in the game even though the brand did not appear in the video game.

Marabou and Haribo had yet again the highest frequencies within their integration level. A one-way chi square test was conducted individually on every brand in order to investigate if the recognition frequencies for each of the brands are statistically significant and not created by chance. A risk of 5% was taken and the analysis shows that the frequencies for all of the brands, except Haribo and Marabou, are significant with a significance level ranging from 0,000 to 0,016, thus the frequency sizes are not created by chance. However, the highest frequencies, which Haribo and Marabou have within their integration level, could in this test be a result of chance.

Next, the respondents were asked to answer where they saw the recognized brands from a selection of different options. In addition to the three location types (banner, background and object), the respondents could select that they recognized the brand, but they do not remember where they saw it. All of the 12 brands from the list were included in the calculation where the frequencies of each of the answer choices for every brand were added together to show the total frequencies of every answer choice. The results of this calculation, which involves all 12 brands, are shown in Figure 24.

![Figure 24. The Respondents' Recognition Rates of the Brand Locations (by the author).](image-url)
The results show that the respondents remember to have seen brands as objects within the game the most with the total frequency of 784 for all the 12 brands combined. This was followed by brands in banners (300) and lastly for brands in the background of the game’s environment (253). This is the same placing order as in the results regarding recall of the brand locations (compare with Figure 21). However, the difference between “Object” and “Banner” is larger in this case as the choice of “Object” has a substantially higher frequency here.

Table 1 presents how the respondents connected each individual brand to a specific location concerning the previous recognition location question. The table shows every brand, their total frequency within each of the three locations, and the location’s percentage ratio for these brands out of all 261 respondents. There seems to be a slight tendency of associating banner brands to background brands, and background brands to object brands.

![Table 1](image)

Table 1. Respondents’ Location Association for the Brands (by the author).

Sometimes (200 times) respondents recognized to have seen the brand during their game session, however, they did not remember where. Figure 25 illustrates the recognition frequency rate for the specific brands concerning this choice. The frequencies are highest for brands that were integrated in a banner or in the background of the game’s environment, which could imply that the respondents might confuse these two types with each other more easily compared to object brands. Lastly, the brand Fazer has the third highest frequency (25) of all 12 brands, which is noteworthy as the brand was not present in the game or the game session.
In the last question of the survey the respondents had to rate their attitude towards all of the 12 brands that were mentioned in the previous lists. The rating ranged from 1 to 5, in where 1 was “Very negative” and 5 was “Very positive”. The mean score for every brand is presented in Figure 26.
The results indicate that the respondents have the most positive attitude towards Fazer with the mean score of 4.02, which is a strong “Positive”. All of the other brands have a mean score ranging from 3 to 4 points, which are located between the choices of “Neutral” and “Positive”. The highest mean score of the brands, which were present in the game, were for Marabou (3.75) and Kinder (3.75), while the lowest mean scores were for Cloetta (3.27) and Nestlé (3.28). Hershey’s (3.05) and NamiCo (3.06) had the lowest mean scores of all of the 12 brands.

In this question the respondents had also the possibility to select the option “I do not know this brand” if the respondent were unfamiliar with the brand and had never seen or heard of it. This question simultaneously tests the respondents’ pre-awareness for the brands chosen for the game. The findings are presented in Figure 27.

Figure 27. The Respondents’ Unawareness of the Brands (by the author).

The findings suggest that the respondents’ pre-awareness is very high for all of the brands present in the game, except for Cloetta and Milka. These two brands had the lowest recall and recognition rates of their respective integration level (see Figure 20 and 22). However, the pre-awareness rates are still high for these two brands, thus this should not affect the overall final results of this empirical study.

The brands that had the lowest awareness rates of all of the 12 brands were the fictional made-up “NamiCo” brand and the real American brand “Hershey’s”. The lower pre-awareness rate of Hershey’s is expected, as the brand is not commonly sold in Finland. However, it is noteworthy that approximately 34% of the respondents claim to know the brand NamiCo even though the brand does not exist.
7.5 Associations to Recall and Recognition

Some further analysis was conducted for this last subchapter in order to investigate if there were any significant associations between recall and recognition to other variables in the survey. First, the respondents’ gaming experience and skill level are examined from the results of their weekly gaming time and final game time and death count from the game session. Secondly, the effect of direction choice will be examined and compared to the placement of the brands in the background of the game environment. Thirdly, the connection between the respondent’s brand attitude and brand awareness will be explored. Lastly, the respondents’ rate of pre-awareness will be checked against Cloetta’s recall and recognition rates, as both of the rates were the lowest among the brands.

7.5.1 Weekly Gaming Time and Skill Level

Cross tabulation and two-way chi square tests, with a 5% taken risk, were conducted when investigating associations between the recall and recognition rates to the categorical variables of the respondent’s weekly gaming time, final game time and amount of deaths in their game session. The results of these tests are summarized here.

No significant associations were found between respondents’ weekly gaming time and the recall or recognition rate of the brands. The percentages between who recognized/recalled or did not recognize/recall were similar between the different groups of weekly gaming time. However, some exceptions were found. Nevertheless, these exceptions are not noteworthy as the sample sizes of these groups were too small and no significance was found from these tests.

No significant associations were found between the respondents’ time of finishing the game to the recall and recognition rates of the brands. Significant associations were neither found between the amount of deaths in the game to the recall and recognition rates of the brands, except for Marabou. Those players who had a higher amount of deaths tended to recall and recognize Marabou more frequently. This is most evident with respondents who had over 9 deaths as 32% of them recalled and 66% of them recognized Marabou. Respondents with fewer deaths had in comparison recall and recognition rates ranging from 0% to 25% for the former and from 21% to 48% for the latter in an ascending order paralleled with number of deaths. The significance level was 0.019 for recall and 0.014 for recognition.
The percentages between who recognized/recalled or did not recognize/recall were similar between the different finishing time and death groups. Some exceptions were found, which of only Marabou is noteworthy as the sample sizes in the other groups were too small and no significance was neither found in the tests. In conclusion, weekly gaming time and gaming skill level had no affect on brand awareness in this study.

7.5.2 Direction Choice in the Beginning of the Game

Cross tabulation and two-way chi square tests, with a 5% taken risk, were conducted when examining associations between the recall and recognition rates to the respondents' direction choice in the beginning of the game. As previously mentioned, the player started in the middle of the stage of the video game. Marabou was located on the right side and Cloetta on the left side, while Mars located in the middle, i.e. the beginning, of the stage.

Significant associations were only found for the recall rate of Marabou with a significance level of 0.037. Those respondents who went to the right recalled Marabou more efficiently and their approximate recall rate was 23%. This is compared to the approximate recall rate of 10%, which is the result of the respondents who went to the left in the beginning of the game. This means that the direction affects the brand recalled in the case of Marabou and thus the rate is higher for those who went to the right and saw the Marabou brand first before Cloetta, which was located on the other side of the stage. Figure 28 illustrates the recall ratios for both direction alternatives.

![Figure 28. Respondents' Direction Choice and Recall Ratios of Marabou (by the author).](image)
No significant associations were found for the recognition rate of Marabou or recall and recognition rates of Cloetta or Mars. However, there was still a tendency of higher recall and recognition rates of Cloetta for respondents who went to the left in the beginning of the game compared to those who went to the right. The rates were approximately 3 percentages higher for recall and 6 percentages higher for recognition. The recognition rate of Marabou was approximately 10% higher for respondents who went to the right in the beginning of the game. The recall and recognition rates for Mars were quite similar for both respondent groups.

**7.5.3 Attitude Towards the Brands**

Comparisons of means and T-Tests, with a 5% taken risk, were conducted when investigating associations between respondents’ attitude towards brands and their respective recall and recognition rate of these brands. These tests were conducted individually for every brand.

Significant associations were only found for some of the brands and it was mostly concerning recall rates. Milka and Panda were the only brands with significant connections with both recall and recognition. The significance level was 0.001 for Milka on both recall and recognition and the significance levels for Panda’s recall was 0.004 and 0.007 for recognition. Both of these brands were integrated as banners in the game. Kinder and Toblerone had only significant associations for recall with significance levels of 0.001 for the former and 0.036 for the latter. Both of these brands were integrated as integral objects in the game.

Overall the results indicate that respondents who rated a brand with a higher mean score, i.e. they had a more positive attitude towards the brand, managed to recall or recognize the brand more frequently. Respondents who managed to recall or recognize a brand rated the brand from 0.26 to 0.46 points higher. The only exceptions were Nestlé and NamiCo, which had a higher recall and recognition rate for respondents who rated the brand lower. These differences in the mean score depended on the particular brand that was investigated. However, as mentioned before, these results were only significant for some of the brands in this study.
7.5.4  Pre-Awareness of the Brands

Cross tabulation and two-way chi square tests, with a 5% taken risk, were conducted when investigating associations between respondents’ *pre-awareness of Cloetta* and the brand’s recall and recognition rate. This particular brand was chosen as a result of its low rate of recall and recognition among other brands (Mars and Marabou) in the same integration level group (*peripheral in-game advertising integration*).

A significant association was found between respondents who did not know Cloetta from before and neither did recognize and recall it from the game session. The significance level was 0.031 for recall and 0.006 for recognition. Almost all (92% for recall and 96% for recognition) of the respondents who were not aware of the brand did not recognize or recall it. These significant results could be a possible explanation for why the recall and recognition rate for Cloetta was lowest in its integration level group. If these unaware respondents were included to the total recognition frequency rate of Cloetta then the brand would have a more equal frequency rate compared to the other brands within the group, which in turn would make the main results from this study more evident.
DISCUSSION AND SUMMARY OF THE FINDINGS

This chapter will summarize the most important findings of this study. The essential findings are those that have a direct connection to the research problem and the research questions. The first research question concerned the identification and development of the three different game advertising integration levels within the gaming experience space. This model was created and described in chapter 3.

The purpose of this study was to investigate how the different levels of game advertising integration within the gaming experience space affect the consumer’s brand recall and recognition. The results from the online survey provided answers to this question for each of the different game advertising integration levels for both on the rate of recall and recognition. The findings from the analysis also provided additional information on other variables which could have an effect on players’ brand awareness. The essential findings from this survey will now be summarized and discussed individually for each of the game advertising levels. A conclusive summary of the whole empirical survey will be provided in the end of this chapter.

8.1 Around-Game Advertisement

The around-game advertisements were integrated in the game in the form of a banner. This banner was located in the right lower corner of the game screen, but it was still very visible to the player. The brands chosen for this banner were Haribo, Panda and Milka. These brands were only shown individually on the banner for 10 seconds after which the current brand was changed to the next.

The results showed that approximately 70% of the respondents recalled to have seen brands or advertisements in the banner of the game. However, only around 18-32% of the respondents could recall the specific brands shown in the banner. The highest recall rate was for Haribo, then Panda, and the lowest rate was for Milka. This was also the order of the brands displayed in the banner. This means that there was a diminishing recall rate the later the brand was shown. It is possible that the players only looked at the banner for any critical information at the start of the game and when they realized that the banner only showed advertisements they did not selectively look at it again. The first brand shown in the banner will therefore possibly have an advantage over the others that were displayed later.
The recognition rate for the brands in the banner had higher rates compared to recall as the respondents recognized to have seen the brands from the banner 40-55% of the time. However, the results also indicate that there might have been some uncertainty of where in the game they saw these particular brands. Sometimes the respondents either did not remember where they saw it or they thought to have seen the brands in the background of the game’s environment (see Table 1).

Lastly, the respondents had the possibility to provide feedback in the end of the survey. They had also the possibility to include additional comments on questions concerning recall, as they were open-ended questions. The content of these comments and feedback was manually analyzed and this revealed that there were some negative comments about advertisement practices, specifically towards the banners displayed in the game, even though this was not the topic of the question. Approximately 7% of the respondents felt negativity towards the banner. No specific negative or positive comments were left for the other two levels of advertising integrations. The reason for this could be that the two other game advertisement integrations did not interfere with the gameplay or the video game’s immersion (Kotler & Keller 2012: 537).

### 8.2 Peripheral In-Game Advertisement

The peripheral in-game advertisements were integrated in the background of the game’s stage as peripheral product placements. The brands chosen for this integration were Mars, Marabou and Cloetta. The brands were displayed in the background in a way that one of the brands was always visible for the player. Mars was located in the center, i.e. beginning, of the stage, Marabou was located on the right side of the stage, and Cloetta was located on the left side of the stage. The player started the game at the center of the stage and had the choice to either go first to the right or to the left after which the player had to go to the other side in order to find the rest of the collectible candies and finish the game.

The results revealed that approximately 50% of the respondents recalled to have seen brands in the background of the game. However, only around 20-23% of the respondents managed recall the specific brands displayed in the background of the game. The highest recall rate was for Mars while Marabou and Cloetta had the exact same recall rate. This means that the brand that was located in the center and was visible first for every player had a slightly higher recall rate compared to the brands on the sides of the stage.
The recognition rate for the brands in the background of the game had higher rates compared to recall as the respondents recognized to have seen the background brands 30-50% of the time. However, the results again indicate that there might have been some uncertainty of where in the game the players saw these particular brands. Sometimes the respondents either did not remember where they saw the brand or they thought to have seen them as a collectible object in the game (see Table 1).

Both the recall and recognition rates of the background brands had similar ratios compared to the brands on the banner. However, they the rates were still slightly lower, especially for Cloetta, which had an exceptionally low rate on recognition. The analysis on attitude towards the brand revealed that Cloetta had the highest amount of respondents that were not aware of the existence of the brand at all. A statistical significance was found between this pre-awareness factor and the recall and recognition rate of the brand, which means that this factor could be a cause of Cloetta’s lower rates. Other factors that could have affected this were the fact that most of the respondents went to the right in the beginning of the game and because the part where Cloetta was visible had falling rocks that the player had to avoid. This part was more challenging and thus required more concentration and attention on the rocks than on the brands.

As previously mentioned, the choice of direction was a factor that could affect the recall and recognition rates of the background brands located on the sides of the stage, as one of the brands would be seen first before the other. Over two thirds of the players went to the right and saw Marabou first. The analysis revealed that these players had a tendency to recall and recognize Marabou better than those who went first to the left. This is also true the other way around for Cloetta. However, a statistical significance was only found for the recall rate of Marabou. According to the concept of primacy effect, people will have an improved recall rate for things that they have seen first compared to things that comes after (Kahana & Miller 2013: 493). This effect on recall and recognition have also been tested with television commercials where the results showed that the first commercials had a better recall rate compared to those that came later in the order (Terry 2005).

8.3 Integral In-Game Advertisement

The integral in-game advertisements were integrated as vital collectible objects, i.e. interactive and integral product placements, found within the game. The brands
chosen for this were *Kinder*, *Toblerone* and *Nestlé*. There were five objects for each of the brands that amounted to a total of 15 collectible objects that were evenly spread around the stage of the game. These objects seized a smaller size of the screen compared to the banner or background brands. These brands were essential candies that the player had to collect all of in order to complete the game. In this sense they become a part of the goal of the video game.

The results show that approximately 75% of the respondents recalled to have seen brands as objects in the game. Moreover, approximately 67-77% of the respondents could recall the specific brands that were objects in the game. The highest recall rate was for *Kinder*, followed by *Toblerone*, and lastly, *Nestlé*. The recognition rate for the brands integrated as objects had yet again higher rates compared to recall as the respondents recognized to have seen the brands that were objects 87-95% of the time. The ranking order of the brands was the same as they were for recall. The order is interestingly same as the brands’ mean score of respondents’ attitude towards these brands. Nevertheless, no statistical significant connections were discovered between these two variables, except for the recall rates of *Kinder* and *Toblerone*. Finally, the findings also showed that the respondents could effectively remember that they saw these brands as collectible objects in the game (see Table 1).

Finally, the recall and recognition rates were significantly higher for brands that were integrated as integral in-game advertisements compared to the other two integration levels. The recall rates were over twice more frequent for the integral in-game brands and the recognition rates for these were close to 100% whereas the percentage for the other two integration levels situated around 50%. A possible explanation for these results could be that the player usually is aware of and follows the objective and goal of a game and wants to finish the game in a timely manner and as effectively as possible. In the case of this game the player knows that the collectible candies are an integral part and objective of the game which the player has to follow and accomplish in order to get to the goal and complete the game (Radoff 2011: 29; Salen & Zimmerman 2006: 9). This means that the player will focus on looking for and finding the collectible candies within the game. In a 2D platform game such as this, the sight of the player will assumedly center on the game’s character, the direction where the character is going to and on the collectible objects, which in this case are the candy brands.
8.4 Concluding Summary of the Empirical Findings

The survey received an eligible number of 261 respondents, which accumulate into an adequate sample size for this study. Women were slightly underrepresented (23% to 77%) compared to the general gender distribution (ESA 2016: 3) of gamers (41% to 59%). Moreover, the average age of the respondents were slightly younger (mean range group of ages 25-29) compared to the general average gamer age which is 35 years (ESA 2016: 3). Conclusively, the respondents still quite well represent the average gamer. The results of the respondents’ gaming device usage, weekly gaming time and skill level might imply that this sample represents a certain type of gamers that are more dedicated to gaming compared to the average gamer (ESA 2016: 5-6).

The recall rates of the brands and their game advertising integration level were always lower compared to their recognition rates. This is possibly a result of the aid that the ready-made list offered to the respondents. The list functioned as a cue that helps the respondents to more effectively remember the brands that were recognized (Keller 1998: 326-330). However, the ratios and shares between the three different game advertising integration levels were still very similar when comparing recall and recognition with each other.

The results show that an integral in-game advertising integration has evidently the most effect on brand recall and recognition, as it is approximately twice as effective compared to the other two integration levels. Peripheral in-game advertisements and around-game advertisements had both similar brand recall and recognition rates whereas the latter had a slightly higher effectiveness of these integration levels. However, around-game advertisements might have a higher risk of being perceived as negative, at least if the integration is in the form of a banner. This could ultimately affect negatively on the consumer’s perception of the brand that is advertised. Therefore, it would be suggested for marketers and companies to use peripheral in-game advertising integrations instead of around-game advertising integrations.

Finally, there were some other factors discovered in this study which might affect the recall and recognition rates of a brand. Some statistical significance was found from variables such as the respondent’s pre-awareness of a brand, direction choice and the order of a brand seen, and the respondent’s attitude towards the brands. First, pre-awareness seems to be critical, as one cannot recognize or recall a brand that one is not aware of in the first place. Secondly, the direction choice the player took in the
beginning of the game decided on which brand the player will see first, which could later be recalled more efficiently. Thirdly, a more positive attitude towards a brand might in some cases significantly help the player with recalling and recognizing a brand more effectively. In addition to these variables, the players’ skill level could potentially have a positive effect on brand recall and recognition. However, further research has to be conducted on this in order to find a possible significant connection between these variables.
9 FINAL SUMMARY AND CONCLUSION

This final chapter will briefly summarize the whole thesis. Additionally, the relevance of the findings for advertisers and game developers will be discussed and appropriate recommendations concerning the matter for businesses will be presented. Moreover, the study’s contribution to research will be reviewed. Finally, suggestions for possible future areas of research will be provided.

This thesis explored game advertising and the main different ways that brands can be integrated within video games. The purpose of the study was to create, from previous research in the area, a new conceptual model of major game advertising integration levels which has a focus on the player’s gaming experience space. Furthermore, the effect that these main integration levels have on consumer’s brand awareness, i.e. recall and recognition, was investigated and tested with the use of the new developed model. The assumption of this study was that a deeper level of integration affects more positively on the consumer’s brand recall and recognition rates.

The theoretical framework was divided into three parts. The first part explored game advertising as a concept and the different approaches that marketers use for implementing brands into the context of video games, such as advergaming, banners, cross promotion, marketing displays and product placements. In the second chapter, a new conceptual model was created through the identification of different game advertising integration levels and the development of new categories for game advertising. The model consisted of three game advertising integration levels within the player’s gaming experience space; around-game advertising integration, peripheral in-game advertising integration, and integral in-game advertising integration. The third and last chapter of the theoretical framework investigated brands and brand awareness, which is divided into recall and recognition. Moreover, possible ways of measuring brand recall and recognition was also briefly examined in this chapter.

A browser-based video game, containing all three of the different game advertising integration levels from the model, was created for the empirical study of this thesis. The purpose was to conduct a quantitative study in where an online survey was used as a contact method in order to receive a larger sample size of Finnish gamers. The video game and survey tested the respondents’ brand recall and recognition regarding the brand’s integration level. The primary data from the survey was analyzed using computer programs such as Excel and SPSS.
The results showed that the integral in-game advertising integration level was most effective with the highest recall and recognition rates, approximately twice the size, compared to the other integration levels. Around-game advertising and peripheral in-game advertising integrations had similar rates of frequencies for both recall and recognition with the former having slightly higher rates in both areas. However, the results also revealed that around-game advertisements, at least in the form of a banner, might interfere with the player's gaming experience and might therefore be perceived as negative. Lastly, other factors such as pre-awareness, attitude and the seeing order of the brands can also affect brand awareness.

The findings provided clear and significant answers on the research problem and questions stated in the beginning of this thesis. The results are at least significant for marketers, businesses and game developers on the Finnish market. The findings might also be, after some further international testing, significant for these actors on an international level. The implication for these actors is to build a strong relationship between each other and focus, if possible, on integral in-game advertising integrations when advertising in the context of video games. This process might require more time, money and resources for the planning and implementation of the integration compared to the other two integration levels, but the effect on brand awareness can be twice as high in the end. The next integration level recommended to use for advertising within video games would be peripheral in-game advertising, even though it has a slightly lower rate than around-game advertising. The reasoning for this is that the latter integration level has the risk of being perceived as interfering and negative to the experience of the game. This might in turn negatively affect the player's perception of the brand that is advertised. However, whichever integration level one chooses to use, it is always critical to ensure that the game advertising integration is implemented carefully and that the players are kept in mind.

This study also contributed to research within marketing and video games as a new conceptual model of game advertising was developed from previous research on the subject. The model consists of new concepts, such as the gaming experience space and the different depths of game advertising integration levels, which were explored and defined within this study. Furthermore, this model was empirically tested and the analysis provided significant results concerning the model’s integration levels’ effect on brand awareness, i.e. recall and recognition. The model can also be utilized for further testing regarding other variables concerning game advertising.
The study had some limitations as the game created for the test was in 2D with a third person perspective and not in 3D with a first person perspective. Additionally, the video game in this empirical study was only a used as a test and not as a true experiment. Moreover, the analysis showed that females were underrepresented in the results thus gender differences could not be explored further. However, these limitations and the analysis of the findings provide several interesting propositions which could be studied in the future. Suggestions for future research possibilities would be to use the model within a 3D game that has a first person perspective. In addition, it should be possible to try to recreate this empirical study and investigate it in the form of a true experiment. Additionally, the model could be used for studying the integration levels effect and significance on player’s gaming experience. Moreover, it would be of interest to examine the brand dimensions, e.g. logo, name, and colors, and how they can improve brand awareness within the model. Furthermore, it should also be possible to explore the distinctions of the different advertising implementations within each of the integration level. Finally, an interesting area for further research would be a more thorough investigation on the player’s skill level and its effects on brand awareness concerning the different integration levels.
SVENSK SAMMANFATTNING

Denna magisteravhandling är indelad i fyra delar, och börjar med en introduktion av ämnet och samtidigt motiveras studien och dess syfte fastställs. Det teoretiska ramverket redogör först för marknadsföring i kontexten för videospel och fortsätter sedan med att beskriva skapandet av en ny konceptuell modell för spelmarknadsföringens integrationsnivåer inom rymden för spelupplevelsen (eng. gaming experience space) och avslutas med en förklaring av varumärkeskännedom inom spelmarknadsföring. Den empiriska undersökningen är indelad in i två delar: metodologin och resultatredovisningen. Den konkluderande avslutningen sammanfattar studien i korthet, presenterar rekommendationer för marknadsförare och andra aktörer, samt beskriver studiens kontribution till forskningen och presenterar förslag till vidare forskning.

Introduktion


Inom tidigare forskning har man studerat spelmarknadsföring, dess olika tillämpningsmetoder och hur de påverkar spelaren och spelupplevelsen. Ibland har resultaten från olika studier (Smith, Sun & Mackie 2014; Raatikainen 2014) varit motstridiga gällande metodernas påverkan på spelarnas attityder till varumärken och varumärkeskännedom. Detta är orsaken till att det behövs mera forskning inom området. Generella och holistiska modeller och kategoriseringar för spelmarknadsföringsmetoder existerar, men sådana som specialiserar sig på spelmarknadsföringens integrationsnivåer eller på spelarens rymd för spelupplevelsen saknas fortfarande.

**Avhandlingens Syfte**

Syftet med denna avhandling är att identifiera spelmarknadsföringens olika integrationsnivåer, skapa en ny konceptuell modell för kategoriseringen av integrationsnivåerna inom spelupplevelserymden och undersöka hur de påverkar konsumenternas igenkännande och återkallelse av varumärken. Detta kommer att göras med hjälp av den nya modellen som empiriskt tillämpas till ett videospel i vilket integrationsnivåerna testas genom en onlineenkät.

Marknadsföring i Videospelkontexten


Det finns flera olika metoder för marknadsföring genom videospel. Smith, Sun, Sutherland och Mackie (2014: 97) definierar **spelmarknadsföring** (eng. **game

**Integrationsnivåer av Spelmarknadsföring**


Integrationsnivåerna är skapta med utgångspunkt i tre faktorer: **väsentlighet, interaktivitet och teknisk djup**. Med väsentlighet avses hur nödvändig och viktig annonser är för spelet (Yang & Roskos-Ewoldsen 2007) 470 medan interaktivitet syftar
på graden av samspel som är möjlig mellan spelaren och annonsen (Küster et al. 2010: 12). Med teknisk djup syftar man på integrationens tekniska komplexitet.


**Varumärkeskännedom inom Spelmarknadsföring**

perspektiv omfattar kundens varumärkeskunskap som består av varumärkeskännedom och varumärkesbild (Kotler & Keller 2012: 268).


**Metodologi**


**Resultatredovisning**


Enkätens första frågor handlade om respondenternas demografiska bakgrund. Majoriteten av respondenterna (77 %) var män, vilket betyder att kvinnorna är en aning underrepresenterade jämfört med den generella könsfördelningen för spelare där kvinnornas andel är 41 % (ESA 2016: 3). Medelåldern och medianen för
respondenterna fanns i åldersgruppen "25-29 år" vilket är en aning yngre än den allmänna medelåldern på spelare som är 35 år (ESA 2016: 3).

De följande frågorna i enkäten var relaterade till respondenternas spelvana. De mest använda spelapparaterna var konsol och dator, vilket över hälften av respondenterna valde. Detta resultat överensstämmer väl med ESAs (2016: 5) studie, där 50 % av spelarna använder dator och konsol för spel. Fortsättningsvis visade resultaten att respondenterna spelar videospel i medelsnitt 10-12 timmar i veckan, vilket är en aning högre än genomsnittet på 6,5 timmar per vecka (ESA 2016: 6). Slutfinalen anser majoriteten av respondenterna att deras spelskicklighet är antingen medelmåttlig (63 %) eller avancerad (34 %). När man jämför dessa svar med ESAs (2016: 5-6) statistik kan resultaten antyda att respondenterna är mera dedikerade spelare än genomsnittet.


Resultaten för spelmarknadsföringens olika integrationsnivåer demonstrerar deras effekt på respondenternas återkallelse och igenkännande av varumärkena. For det första var Haribo, Panda och Milka integrerade som marknadsföring runtom spelet genom en banderoll i vilken varje varumärke var synligt i tio sekunder tills den byttes ut till nästa varumärke. Varumärkenas återkallelegegrad sträckte sig från 18-32%, medan 40-55% av respondenterna lyckades känna igen dem. För det andra integrerades Mars, Marabou och Cloetta som perifer marknadsföring i spelet och varumärkena fanns med som oväsentliga produktoplaceringar i bakgrunden av spelets omgivning. Omkring 20-23% av respondenterna kunde återkalla dessa varumärken och 30-50% av respondenterna lyckades känna igen dem. Slutligen var Kinder, Toblerone
och Nestlé integrerade som integral marknadsföring i spelet genom väsentliga produktplaceringar som spelaren var tvungen att plocka upp för att komma igenom spelet. Återkallelsegraden för dessa varumärken var ungefär 67-77% och graden av igenkännande 87-95%.

Resultaten visar tydligt att integral marknadsföring i spelet har mest effekt på varumärkenas återkallelse och igenkännande, eftersom den är närapå dubbelt så effektiv som de andra två integrationsnivåerna. Perifer marknadsföring i spelet och marknadsföring runtom spelet har båda snarlika grader av återkallelse och igenkännande med varandra, men den sistnämnda har en aning högre effekt. Trots detta visade resultaten att respondenterna hade benägenhet för att uppfatta spelmarknadsföring runtom spel, speciellt i form av en banderoll, som ingripande och störande. I slutändan kan detta ha en negativ påverkan på konsumenternas uppfattning av varumärket.


**Konkluderande Avslutning**

Denna undersökning påvisar att integral marknadsföring i spel har den största effekten på konsumentens återkallelse och igenkänningande av ett varumärke. Marknadsföring runtom spel och perifer marknadsföring i spel har nästan lika höga effekter på återkallelserna och igenkännandet, varav den förstnämnda hade en aning högre effekt. Det finns dock en risk för att varumärken som har integrerats som marknadsföring runtom spel, åtminstone i form av banderoll, kan störa spelupplevelsen och uppfattas som negativt. Slutligen kan det konstateras att andra faktorer, såsom medvetenhet om
och inställning till varumärken och ordningen i vilken varumärket har observerats, också kan påverka varumärkeskännedomen.


REFERENCES


APPENDIX 1. THE ONLINE SURVEY IN FINNISH

Videopelikysely

Osa 1: Taustatiedot

1. Sukupuoli? *
   ○ Nainen
   ○ Mies

2. Ikä? *
   ○ 14 tai nuorempi
   ○ 15-19
   ○ 20-24
   ○ 25-29
   ○ 30-34
   ○ 35-39
   ○ 40-44
   ○ 45-49
   ○ 50-54
   ○ 55-59
   ○ 60-64
   ○ 65+

Aiempi pelikokemus
Pelaamisella tarkoitetaan tässä yhteydessä videopelien pelaamista (konsolit, tietokoneet, matkapuhelimet, tabletit)

3. Millä laitteilla pelaat videopelejä eniten? *
(Valitse enintään kaksi vaihtoehtoa)

☐ Konsolilla (esim. Nintendo, Playstation, Xbox, 3DS, PSVita)
☐ Tietokoneella
☐ Matkapuhelimella
☐ Tabletilla

4. Pelaan videopelejä viikossa keskimäärin (h)? *

Arvioi aiempaa pelikokemustasi yleisesti viikottaisen pelaamisen (h) perusteella. Jos pelaat alle tunnin viikossa niin valitse vaihtoehto "1-3 h".

☐ En lainkaan
☐ 1-3 h
☐ 4-6 h
☐ 7-9 h
☐ 10-12 h
☐ 13-15 h
☐ 16-18 h
☐ 19-21 h
☐ 22-24 h
☐ 25-27 h
☐ 28-30 h
☐ 31-33 h
☐ 34-36 h
☐ 37-39 h
☐ 40 h tai enemmän

5. Miten kuvailisit videopelitaitoasi? *

☐ Aloittelija
☐ Keskitasoinen
☐ Eksperti

Osa 2: Videopeli

Klikkaa alla olevaa linkkiä tai kuvaa avataksesi uuden välilehden selaimeen, josta löydät videopelin.

Peliohjeet suomeksi:

Pelin päämääränä on kerätä kaikki 15 kentästä löytyvää karkkia ja sen jälkeen palata kentän keskellä olevaan alkuun avataksesi puussa olevan, lukitun oven.

Pelin ohjaimet:

- **Liiku vasemmalle:** Vasen nuolinäppäin, A, tai painamalla peliruudun vasenta reunaa.
- **Liiku oikealle:** Oikea nuolinäppäin, D, tai painamalla peliruudun oikeaa reunaa.
- **Hyppy:** Välilyönti tai painamalla peliruudun alareunaa.

Voit tuplahypätä painamalla "Hyppy"-näppääntä ilmassa.

- **Klikkaa tästä päästäksesi peliin!**  [http://85.217.96.136](http://85.217.96.136)

**HUOM!**

6. Saitko pelin toimimaan JA läpäsit pelin? *
   - [ ] Kyllä
   - [ ] En

**Osa 3: Peliin liittyvät kysymykset**

7. Toimiko peli ongelmitta? *
   (Ilman esim. pelaamista häiritsevää hitautta tai nykimistä)
   - [ ] Kyllä
   - [ ] Ei
8. Minne suuntaan lähdit pelin alussa? *
   ○ Vasemmalle
   ○ Oikealle
   ○ En muista

9. Pelin vaikeustaso? *
   Asteikoilta 1-5 (1 = Erittäin vaikea, 2 = Vaikea, 3 = Keskitasoinen, 4 = Helppo, 5 = Erittäin helppo)
   1 2 3 4 5
   Erittäin vaikea ○ ○ ○ ○ ○ Erittäin helppo

10. Kauanko sinulla kesti pelata peli läpi? *
    (Katso aika pelin loppuruudusta)
    ○ Alle 2 minuuttia
    ○ 2:00-2:59
    ○ 3:00-3:59
    ○ 4:00-4:59
    ○ 5 minuuttia tai yli

11. Montako kertaa kuolit pelissä? *
    (Katso määrä pelin loppuruudusta)
    ○ 0
    ○ 1-3
    ○ 4-6
    ○ 7-9
    ○ Yli 9 kappaletta

12. Pelikokemus? *
    Asteikoilta 1-5 (1 = Erittäin negatiivinen, 2 = Negatiivinen, 3 = Neutraali, 4 = Positiivinen, 5 = Erittäin positiivinen)
    1 2 3 4 5
    Erittäin negatiivinen ○ ○ ○ ○ ○ Erittäin positiivinen

13. Huomasitko mainoksia/tuotesijoittelua pelissä? *
14. Mitä brändejä muistat nähneesi pelissä/pelin aikana? *

Brändit:

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

15. Missä päin pela ja tai peliruutua näit mainoksia/tuotesijoittelua? *

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

16. Mitä seuraavia brändejä tunnistit pelissä? *

☐ Fazer
☐ Nestlé KitKat
☐ Panda
☐ Mars
☐ Kinder Surprise
☐ Toblerone
☐ Haribo
☐ NamiCo
☐ Cloetta Polly
☐ Hershey’s
☐ Marabou
17. Missä näit seuraavien brändien mainokset/tuotesijoittelun pelaamisen aikana? *
Valitse yksi vaihtoehto, joka sopii parhaiten.

<table>
<thead>
<tr>
<th></th>
<th>En nähnyt/muista nähneeni brändiä</th>
<th>Näin brändin, mutta en muista missä</th>
<th>Peli-ikkunan alareunassa (bannerina)</th>
<th>Pelissä taustalla</th>
<th>Kerättävänä esineenä pelissä</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toblerone</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>Hershey's</td>
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<td>Fazer</td>
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<td>○</td>
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<tr>
<td>Kinder Surprise</td>
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<tr>
<td>Marabou</td>
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<tr>
<td>Cloetta Polly</td>
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<td>Haribo</td>
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<tr>
<td>Mars</td>
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<td>Milka</td>
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<tr>
<td>Panda</td>
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<tr>
<td>Nestlé KitKat</td>
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</tr>
</tbody>
</table>

18. Mikä on yleinen mielipiteesi/suhtautumisesi seuraavia brändiä kohtaan? *
Asteikoilta 1-5 (1 = Erittäin negatiivinen, 2 = Negatiivinen, 3 = Neutraali, 4 = Positiivinen, 5 = Erittäin positiivinen)

<table>
<thead>
<tr>
<th></th>
<th>En tunnet brändiä</th>
<th>1 (Erittäin negatiivinen)</th>
<th>2 (Negatiivinen)</th>
<th>3 (Neutraali)</th>
<th>4 (Positiivinen)</th>
<th>5 (Erittäin positiivinen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marabou</td>
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<td>Nestlé</td>
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<td>Hershey's</td>
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<td>NamiCo</td>
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<tr>
<td>Kinder</td>
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<td>○</td>
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<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Cloetta</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Polly</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Milka</td>
<td>○</td>
<td>○</td>
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<td>○</td>
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<td>○</td>
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<tr>
<td>Panda</td>
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<td>○</td>
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<tr>
<td>Toblerone</td>
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</tr>
</tbody>
</table>

Kiitos vastauksistasi ja ajastasi!
Muista painaa vielä "Lähetä"-nappia.

19. Vapaaehtoinen palaute koskien kyselyä tai peliä:
________________________________________________________
________
________________________________________________________
________
________________________________________________________
________
________________________________________________________
________
APPENDIX 2. ENGLISH TRANSLATION OF THE ONLINE SURVEY

Video Gaming Survey

Part 1: Background Information

1. Gender? *
   - Female
   - Male

2. Age? *
   - 14 or younger
   - 15-19
   - 20-24
   - 25-29
   - 30-34
   - 35-39
   - 40-44
   - 45-49
   - 50-54
   - 55-59
   - 60-64
   - 65+

Previous Gaming Experience
Playing in this context concerns playing video games (consoles, computers, phones, tablets)

3. What devices do you play video games on the most? *
   (Choose max two options)
   - Console (e.g. Nintendo, Playstation, Xbox, 3DS, PSVita)
4. I play video games weekly in average (h)? *
Estimate your previous gaming experience generally on the basis of you weekly playing time (h). Choose the option "1-3 h" if you play under one hour in a week

- Not at all
- 1-3 h
- 4-6 h
- 7-9 h
- 10-12 h
- 13-15 h
- 16-18 h
- 19-21 h
- 22-24 h
- 25-27 h
- 28-30 h
- 31-33 h
- 34-36 h
- 37-39 h
- 40 h or more

5. How would you describe your video gaming skills? *

- Beginner
- Intermediate
- Expert

**Part 2: Video Game**

Click on the link or picture below in order to open a new window tab on you browser from which you will find the video game.
Read the game instructions carefully. Lue peliohjeet tarkasti.
Play the game through once.
Continue on this survey once you have finished the game.

Game instructions in English:

The goal of the game is to collect all 15 candies found in the stage. After this, return to the beginning, the center of the stage, in order to open the locked door in the tree.

The game’s controls:

- **Move to the left:** Left arrow key, A, or click on the left side of the screen.
- **Move to the right:** Right arrow key, D, or click on the left side of the screen.
- **Jump:** Space bar or click on the bottom of the screen.

You can double jump by pushing the ”Jump”-button while in the air.

- [Click here to get to the game!](http://85.217.96.136)

**NB!**
The game does not work on the phone or tablet.
The game does work on almost every browser (e.g. Firefox, Safari ja Chrome).
Try to close the browser and open the survey and game page again if the browser informs that the game does not work.
The game does also work on Internet Explorer, even though the browser would inform otherwise. However, the loading of the game takes longer, it does not support sounds and the game might be functioning slowly.

6. Did you get the game to work AND you finished the game? *
   - Yes
   - No

**Part 3: Questions Related to the Game**

7. Did the game work without problems? *
   
   (Without e.g. slowness or staggering that interferes with playing the game)
8. To which direction did you go in the beginning of the game? *
   - Left
   - Right
   - I do not remember

9. Challenge of the game? *
   From a scale of 1-5 (1 = Very difficult, 2 = Difficult, 3 = Intermediate, 4 = Easy, 5 = Very easy)
   
   1 2 3 4 5
   Very difficult ○ ○ ○ ○ ○ Very easy

10. How long did it take for you to finish the game? *
    (Look at the time on the end screen)
    - Under 2 minutes
    - 2:00-2:59
    - 3:00-3:59
    - 4:00-4:59
    - 5 minutes or over

11. How many times did you die in the game? *
    (Look at the amount on the end screen)
    - 0
    - 1-3
    - 4-6
    - 7-9
    - Over 9 times

12. How was the gaming experience? *
    From a scale of 1-5 (1 = Very negative, 2 = Negative, 3 = Neutral, 4 = Positive, 5 = Very positive)
    
    1 2 3 4 5
    Very negative ○ ○ ○ ○ ○ Very positive
13. Did you notice advertisements/product placements in the game? *
   - Yes
   - No

14. What brands do you recall to have seen in the game/during the game? *
    Brands:
    __________________________________________________________
    __________________________________________________________
    __________________________________________________________
    __________________________________________________________

15. Where in the game and/or game screen did you see advertisements/product placements? *
    __________________________________________________________
    __________________________________________________________
    __________________________________________________________
    __________________________________________________________

16. Which of the following brands did you recognize in the game? *
   - Fazer
   - Nestlé KitKat
   - Panda
   - Mars
   - Kinder Surprise
   - Toblerone
   - Haribo
   - NamiCo
   - Cloetta Polly
   - Hershey's
Marabou
Milka
I did not recognize any of these brands in the game

17. Where did you see the advertisements/product placements of the following brands during the game? *

Choose one option that fits best.

<table>
<thead>
<tr>
<th>Brand</th>
<th>I did not recognize / or remember to have seen the brand</th>
<th>I recognized the brand, but I do not remember where I saw it.</th>
<th>On the down right corner of the game screen (as a banner)</th>
<th>In the background of the game</th>
<th>As a collectible object in the game</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toblerone</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Hershey's</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Fazer</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>Kinder Surprise</td>
<td>o</td>
<td>o</td>
<td>o</td>
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<td>o</td>
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<tr>
<td>Marabou</td>
<td>o</td>
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<td>o</td>
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<tr>
<td>Cloetta Polly</td>
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<tr>
<td>Haribo</td>
<td>o</td>
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<td>o</td>
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<tr>
<td>NamiCo</td>
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<td>Mars</td>
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<td>Milka</td>
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<tr>
<td>Panda</td>
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<tr>
<td>Nestlé KitKat</td>
<td>o</td>
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<td>o</td>
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<td>o</td>
</tr>
</tbody>
</table>

18. What is your general opinion/attitude towards the following brands? *

From a scale of 1-5 (1 = Very negative, 2 = Negative, 3 = Neutral, 4 = Positive, 5 = Very positive)

<table>
<thead>
<tr>
<th>Brand</th>
<th>I do not know this brand</th>
<th>1 (Very Negative)</th>
<th>2 (Negative)</th>
<th>3 (Neutral)</th>
<th>4 (Positive)</th>
<th>5 (Very Positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marabou</td>
<td>o</td>
<td>o</td>
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<tr>
<td>Haribo</td>
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<tr>
<td>Nestlé KitKat</td>
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<td>Fazer</td>
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<td>Hershey's</td>
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<td>Mars</td>
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<td>Kinder Surprise</td>
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<td>Cloetta Polly</td>
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<td>Toblerone</td>
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</tr>
</tbody>
</table>

Thank you for your time and answers!
Remember to click on the "send"-button.

19. Voluntary feedback related to the survey or game:

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________