Why do people click?

Uses and Gratifications of Facebook-Zynga Games among Egyptian Adults

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by Soha Eissa

under the supervision of Dr. Mohamad Elmasry

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Thesis Signature Form
Dedication

To

My Sweetheart, Eng. Islam Tawfik

I do love you

My Mom, Dr. Thoraya Farid

&

My Sunshine, Malak Tawfik
Acknowledgment

In the Name of God, Most Gracious, Most Merciful.

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Abstract

Most studies on video games have taken a passive-audience approach and focused on what the games do to video game players. There are few active-audience studies on video games, and there is little published research about video game users in the Middle East. The current research attempts to fill these gaps in the literature.

The main purpose of this study, which employs a uses-and-gratifications approach, is to explore how and why Egyptian Adults use Facebook Zynga games. Egypt has its fair share of the 230 million Facebook active game users with some Egyptian adults becoming preoccupied with these games to the extent that it might be affecting their personal lives. This study aims to highlight the reasons that motivate Egyptian players to continue playing Zynga games, which typically require a significant time commitment.

This research will employ a survey and structured interviews to answer the question of what motives are behind the usage of Zynga games among Egyptian Adults and how these games influence their lives.

Two-hundred and fifty participants answered the survey and 20 players were interviewed. Results showed that Egyptian Adult video game playing patterns do resemble those of foreign communities in key ways -- like the needs to be entertained, experience social interaction, and escape from daily routine and stress.

On the other hand, when it comes to something that contradicts traditions and customs, such as forming or establishing online relationships through gaming, and the ability to control gaming, the patterns found here differ significantly from the literature. Egyptian Adults claim that they do not desire to form new relationships from gaming, and that gaming neither negatively affects their personal relationships with friends and family nor their personal finances.
Egyptian Females Adults tend to play more than males, and married people play more often than single or engaged people.

Egyptian Adults prefer peaceful and environmental friendly games, and they love to continue playing as long as they the growth status of their games increasing, and continue their teamwork with people they know in real life. Egyptian Adults also showed a passion for living a fantasy world they’ve never experienced and dealing with excellent graphics while gaming.
Chapter 1

Introduction

Social networking applications that have emerged over the past decade such as Facebook, Twitter, and Myspace have significantly altered the way people communicate. The social networking phenomenon has made social communication over large distances easier, with people able to share ideas with friends and acquaintances anytime and anywhere there is an internet connection. Facebook, launched in 2004, has become the most popular of all the social networking sites, with more than 845 million users worldwide as of February 2012 (Protalinski, 2012).

Facebook provides its users with many facilities, applications and services that help them connect to user profiles and give them access to friends’ lists, news, feedback about friends and their activities, online chatting, private messaging, celebrity fan pages, and events, among other things (Fish, 2009).

Social networks’ online video games are one of the top ranked applications used by Facebook users, especially those offered by Zynga Inc., a social network game developer launched in 2007 in San Francisco, CA (Tumkur, 2010).

Late in the 1990s, the gaming industry started a new phase. It exploded from single-player games to engaging in games as an experience. Manufacturers such as Microsoft and Sony developed sophisticated features to their games such as enabling players to create rich, malleable environments from designer-generated fantasies to complex Hollywood movie themes. Games now allow players to live, grow, and form relationships, with each game containing its own unique theme, from forests and mountains, to buying goods and services.
And with technology becoming more portable and mobile, accessing games has become easier (Young, 2009).

Zynga has turned the video game world upside down in its short five-year history. It has over 230 million monthly active users playing its games, which include but not limited to FarmVille, CityVille, Treasure Isle, Zynga Poker, Mafia Wars, YoVille, Café World, FishVille and PetVille. All of Zynga’s games are available on Facebook, MySpace, Yahoo! and the iPhone.

Facebook has become the most important provider of Zynga games, and in May 2010, Facebook and Zynga announced a five-year strategic relationship that increases their shared commitment to social gaming on Facebook and expands the use of Facebook Credits in Zynga’s games. The Zynga games are characterized by different features from those of the old brand of online video games. Zynga games do not officially end, and offer users the chance to create their own virtual worlds and ‘live’ in them as an extension of reality (Francisco, 2010).

Many studies have been conducted on the effects of traditional video games on children, youth, and adults, with most studies concluding that video games may have some positive effects, such as enhancing knowledge and computer literacy (Dickey, 2007; Green & Bavelier, 2003), but most arguing that video games share common negative effects, such as interfering with players’ relationships with family and friends, increasing aggressive attitudes, and impacting work and studies (Young, 2004; Antonius J, Meerkerk, Schoenmakers, Tim, & M. Griffiths, 2010; Grusser, Thalemann, & Griffiths, 2007).

Studies conducted in the USA, Singapore, and China and exploring the gender difference and its effect on usage have found that many of the players tend to suffer from health problems such as severe eye dehydration and decreases in energy levels due to long hours staring at the computer (Young, 2004; Grusser, Thalemann, & Griffiths, 2007; Rauh, 2006).
Furthermore, some players tend to play games to the point of addiction, something which has driven countries like China to ban online video games and restrict the use of cyber cafes (Young, 2009).

Most studies on video games have taken a passive-audience approach and focused on what the games do to video game players. There are few active-audience focused studies on video games, and there is little published research about video game users in the Middle East (Alhabash & Wise, 2012; Sisler V. , 2008; Sisler V. , 2009; Souri, 2007). The current research attempts to fill these gaps in the literature.

The main purpose of this study, which employs a uses-and-gratifications approach (Katz E. , 1974), is to explore how and why Egyptian Adults use Facebook Zynga games. Egypt has its fair share of the 230 million monthly Facebook active game players, with some Egyptian adults becoming preoccupied with games to the extent that it might be affecting their personal lives. Although this study does not specifically examine the impact of the 2011 Egyptian Revolution on Egyptian gaming habits, it is at least possible that gaming in Egypt may have increased after the January 2011 Egyptian Revolution, when many Egyptians likely wanted to escape the instability and stress of real life. This study aims to highlight the reasons that motivate Egyptian players to continue playing Zynga games, which typically require a significant time commitment.

This research will employ a survey and structured interviews to answer the question of what motives are behind the usage of Zynga games among Egyptian Adults and how these games influence their lives.
Zynga

In 2007, Mark Pincus set the foundation of a social networking game company which he called Zynga, with the aim of connecting the world through online gaming. Subsequently, Zynga.org was created as a result of Pincus’ belief that games do good to people and society (Tumkur, 2010). Over a period of five years, Zynga has significantly evolved, becoming one of the most successful social games, drawing massive public interest. Established companies such as Electronic Arts and Actvision Blizzard found themselves competing with Zynga with a valuation of $8.9 billion and one billion-dollar IPO through which Zynga met its ambitious aspiration of investing more in gaming than any other company (Tumkur, 2010).

Zynga users can now have access to social games at all times, regardless of the time zones, locations and geographical boundaries. Oddly enough, Zynga succeeded in superseding big gaming brands in the great social game Gold Rush. Ranking number one amongst Facebook’s social games, Zynga currently produces the five top games – City Ville, Farm Ville, Hidden Chronicles, Zynga Poker & Empires and Allies – used by Facebook users (Tumkur, 2010; Francisco, 2010).¹

Facebook and Zynga joined forces in May 2010 with a five year strategy aiming to increase their mutual obligation to social gaming, offering Facebook users virtual credits to be used in all Zynga’s games. This union sustains both companies’ commitment to their users, providing them with a unique social gaming experience (Francisco, 2010).

The initiation of Zynga’s platform on Facebook back in 2007 has considerably increased Facebook users’ play contributions by tens of millions in just five years (Francisco, 2010).

¹ For detailed information about Facebook Zynga Games, see Appendix 1
Since its launch of “Zynga.org” in October 2009, Zynga users have contributed in raising more than $10 million for a number of International non-profit organizations. Through its commitment to transform the world via virtual merchandise, Zynga games encourage users to purchase game-essential goods to progress in their games. This strategy has benefited some of the world’s disaster areas such as the Earthquake victims in Haiti.
Chapter 2

Literature Review

Emergence of Online Video Games

In recent years, online games have become of great importance to online communities (Lo, Wang, & Fang, 2005). In the virtual world of video games, people can interact to create their own world of amusement, and decide who they would like to be part of this new world. Players perform unique roles in which they are exempt from the normal laws of reality, and can escape from the routines of everyday life (Hsu & Lu, 2007).

In addition, online games are considered one of the fastest forms of human hobbies and entertainment in terms of growth (M.Ryan, Rigby, & Przybylski, 2006). Online game playing has captured a large portion of children and adult daily media usage in recent years (Roberts, 2000; Wallenius, Punamak, & Rimpela, 2007).

In the 1980s, single-player games against the machine, such as Pac Man and Centipede, were popular. Scoring high only meant improvement of the gamers’ abilities to play. Since the 1980s, games have evolved into pseudo-environments where players can live, grow and form relationships, with each game containing its own special theme. These games are referred to as MMORPG.

Massively Multiplayer online role playing games (MMORPG) “are a genre of role-playing video games in which a very large number of players interact with one another within a virtual game world” (Wikipedia). Dickey (2007) defines MMORPG as follows: “An MMORPG is a persistent, networked, interactive, narrative environment in which players collaborate, strategize, plan, and interact with objects, resources, and other players within a multimodal environment” (p. 254).
MMORPG games are played in different social contexts, which can take the form of friends in a living room or multiplayer online games that gathers millions of players to share their playing experiences (Cole & Griffiths, 2007). Characters that stay offline for some time will not interfere with the persistence of the game. They will enter a state of suspended animation and when they log in again, they will appear in the same place they left off. In addition, MMORPG character lives mimic real human life that can develop, grow up, and become stronger and smarter (Kelly, 2004).

For example, players have to form characters with selected features and traits according to their wish. They will select skin and hair colors, weight and height, and gender. They will also decide on the profession of the character – doctor, engineer, mafia member, or even thief or hunter. Then players assign names to these characters, with some gaming applications not allowing name changes after a name is initially chosen, a reality that causes many players to put great effort and pride in determining the right name.

The new virtual worlds of online games motivated players by providing leisure, social interaction and escapism (Woszczynski, B., Roth, & Segars, 2002). Moreover, Yee (2006) has pointed out other independent motivations for players’ participation, including achievement and immersion. Yee stressed on social relationships that are formed within the games and argues that these relationships are as important and meaningful for the players as their real-life relationships.

The effects of online video games have been studied by many researchers, although Williams (2005) claims that most studies only focused on examining violent versus nonviolent effects. He argues that technological advances and increasing game complexity require more research on areas other than violent versus nonviolent effects. Games now target specific groups of age, sex and interest, each featuring a unique set and visual style (Williams & Skoric, 2005).
Most researchers have studied video games from the perspective of psychology, focusing on how video games affect users in terms of aggression, violence and temper control (Grusser, Thalemann, & Griffiths, 2007), while others studied the effects of video games on addiction, skill development, associated health problems and acquisition of knowledge (Griffiths M., 2005). Although psychology research provides valuable knowledge about the phenomenon of video gaming, the communication discipline can contribute differently and offer unique data and analysis in understanding video games from a media perspective (Federman, et al, 1996).

Ruggiero (2000) suggested that video games should be able to fix a lot of problems with the media rather than creating new ones. This is due to the ability of video games to allow people to take on different roles than in real life, interact, and be active rather than passive. Moreover, they provide interactivity, motivation and productivity among the audience. Video games elevate education, mobile technologies, museum displays, social functions, family interactions, and workplaces. Over and above all of that, they don't differentiate between races, genders, religions or nationalities (Ruggiero, 2006).

Williams (2006) said that it is very important that researchers study games regularly and persistently because technology causes changes to occur faster than any researcher can observe, analyze, theorize or collect data.

Motivations & Personal Traits for Playing Online Games

Researchers have discovered many personal traits that play an important role in motivating people to play online games. For example, conscientious people were found to be motivated by a need for escapism, which online games can provide (Hou, Tu, & Yang, 2007). People who are highly open-minded participate in order to satisfy their need of discovery (Yee, 2006), and extraverted people derive satisfaction from the teamwork involved in
playing. Tu et al. (2007) indicated that the level of leisure satisfaction decreases in people who have a high tendency for neuroticism. Neuroticism is a characteristic that defines a person who has high tendency of anxiety and disturbance (Mehroof & Griffiths, 2010). This is clear in studies suggesting that online games have a negative impact on well-being and that neurotic individuals are more likely to be addicted to online games than non-neurotic individuals (Jeng & Teng, 2008; Hou, Tu, & Yang, 2007).

These traits can be used by online game service providers to best satisfy the players and attract more advertisers. For example, conscientious players desire temporary distraction which could be satisfied by creating interesting areas such as new roles and stories within a larger game to create a sense of immediate satisfaction for players with a need for high openness (Jeng & Teng, 2008).

In addition to personal traits, Miller (2007) pointed out in that gender plays a role in motivating players, specifically in setting the players’ expectations and behaviors towards the games. In addition gender has shaped players perception of gender differentiation and role (Miller & Summers, 2007).

For example, the male vs. female portrayal in video gaming has set particular characteristics sending indirect messages that could help us to understand and perceive the users’ variant attitudes and related behaviors. For example, typical male characters are based on superior heroic traits, mastering the use of different weapons, carrying out difficult complex tasks that need specific physical powers and robustness. Female characters, meanwhile, are portrayed as feminine, fragile, attractive, and sexy with provocative clothing. Their roles are usually complimentary.

Understanding these video game messages is an important first step in understanding the effects games may have on motivation, behavior and expected attitudes (Miller & Summers, 2007).
Positive Impact of Video Games

Video games have been found to have several positive benefits, such as increasing computer literacy (Greenfield et al., 1994), improving attention skills (Green & Bavelier, 2003), increasing the ability to keep up with technological progress (Canada & Brusca, 1991), and helping in applying for entry jobs in high-tech fields (Cassell & Jenkins, 1998).

Dickney (2007) pointed out that online video games help in learning processes, acquiring communication skills and increasing computer literacy. This is because MMORPGs are increasingly constructed as representations of 3D spaces allowing players to move and interact in simulated realistic or fantasy environments. Additionally, MMORPG support conversation and discourse which are important features that support social negotiation in the learning environments (Dickey, 2007).

Psychologists discovered that playing video games helps people learn cognitive skills, especially when they are young. These skills might include ability to maintain attention and to orient things in place (Subrahmanyam & Greenfield, 1994).

Video games can be considered a forum of interpersonal communication. Players can share activities, and players who may appear to play alone can start interacting with others through the computer moderated chat rooms and form friendships that may evolve into romantic ones. Players can form a special parasocial relationship to the game characters that resembles how they feel towards television characters (Lucas & Sherry, 2004).

Jansz and Tanis (2007) found that the social interaction motive is one of the strongest predictors of time spent gaming.

Cole and Griffiths (2007) examined the social interactions between players and others within the games, or outside them. A sample of 912 MMPRG players from 45 different countries participated in the study, which found that the games represent highly interactive
social networks that create friendships and romantic links. These relationships provide players with a highly pleasurable feeling while playing (Cole & Griffiths, 2007).

In the video game world, many common social psychological problems are overcome, such as susceptibility to social influence tactics and judgments based on appearance (Miller G., 2007).

Adults may also engage in playing video games to satisfy needs such as the needs for competence, autonomy, and relatedness which facilitate players' well being (Chiang & Lin, 2010). In addition, online games hold the potential for facilitating adolescent players’ optimal growth if they satisfy these needs (Ryan & Deci, 2000).

Researchers have studied adults’ gaming playfulness, which is believed to be a critical aspect of continuing game adaption (Chiang & Lin, 2010), and which can satisfy needs for entertainment and overall well being. Playfulness was studied as a stable trait which refers to players' appraisal of online games (Webster & Martocchio, 1992) and as a state which represents a short-lived cognitive experience felt by players (Woszczynski et al., 2002).

**Negative Impact of Online Video Games**

Research has also found common negative consequences of playing video games in general, and online games in particular. Video gaming can result in game addiction, causing mental and physical disorders, and negatively affects social life.

Game addiction is excessive and compulsive use of computer or videogames that results in social and/or emotional problems (Weinstein, 2010); despite these problems, the gamer is unable to control this excessive use.

Computer Video games addiction may result in stress, coping mechanisms, emotional reactions, sensitization and reward, it resembles pathological gambling, particularly slot machines.
Keith Bakker, director of Amsterdam-based Smith & Jones Addiction Consultants and founder of the center, explained that though video games may appear to be innocent, they could have the same addiction effect as drugs and gambling and become hard to defeat (Rauh, 2006).

Griffith argued that despite the positive benefits of engaging in video game playing, excessive use leads to addiction, and in some cases to gambling problems (Griffiths M., 2008). This contradicts Bakker's claim that video game addiction has only minor adverse effects that are temporary and can be resolved immediately upon decreasing playing frequency (Rauh, 2006).

Griffiths associated addictive behavior of online video games players with six core components of addiction: salience, mood modifications, tolerance, withdrawal symptoms, conflict and relapse. He added that video game addiction fulfils these criteria, and that since many players are excessive players and not addicts, video game addiction may be a source of satisfaction for arousal and reward. (Griffiths M., 2005).

In addition to the medical symptoms of addiction, there are accompanied behaviors of dependence in adults such as stealing, truancy, not doing homework, and irritability if unable to play, among others (Lo, Wang, & Fang, 2005).

Like classic signs of addiction, players tend to lie about their playing usage, lose interest in other activities just to play, and become introverts in their families and their social lives (Grusser, Thalemann, & Griffiths, 2007).

In 2007, World of Warcraft and Blizzard entertainment, posted two messages on its loading screen: "Take everything in moderation, even World of Warcraft," and "Bring your friends to Azeroth, but don't forget to go outside of Azeroth with them as well (Antonius J, Meerkerk, Schoenmakers, Tim, & M. Griffiths, 2010).
Warning messages about overuse risks have never appeared before on leisure products, such as bicycles, swings, soccer balls and guitars, making these specific warning messages on games atypical.

Over the past 10 years, online video game addiction has been accepted as a legitimate clinical disorder that requires treatment (Young, 2007). Medical centers and clinics came up with some treatments services for this addiction. Rehabilitation centers have admitted cases of online video game addiction, and some colleagues have started support groups for students who would be diagnosed as online video game addicts (Young, 2009).

Online games addiction can be of a tremendous effect to the gamers. Players usually forget to sleep, eat, and socialize in real world. Gaming addicts' session could go start from ten hours a day to more than twenty hours. Due to the complex nature of the games, players are constantly been stimulated to play. Another few minutes, would turn out to hours of searching for the next conquest or challenge.

In August 2005, and after playing the game Starcraft for straight 50 hours in an internet café, a South Korean man died. At the age of 28, this man had not slept or eaten very little during the 50 hours (BBCNews, 2005).

In 2006, Yee claimed that heavy players are often young people who suffer from emotional problems or low self esteem. He suggested that emotional disturbance increases the chance for addiction to interactive gaming. The problem arise when young players tend to rely on what's not real, living the personas they create in their fantasy world. (Young, 1998)

In recent years, some studies concluded that at least a small group of gamers are having trouble controlling their playing habits. Excessive time of playing can be associated with disturbance to school, work and relationships (Antonius J, Meerkerk, Schoenmakers, Tim, & M. Griffiths, 2010).
It seemed that online video game players with a special focus on players of multiplayer online games can become addicted to the games.

To help with this problem a 2010 study suggested that game consumers should be informed with information about potential addiction risks (Antonius J, Meerkerk, Schoenmakers, Tim, & M. Griffiths, 2010) and possible reflex seizures (Weinstein, 2010) that could result from engaging in the games for long playing time..
Chapter 3

Theoretical Framework

This study employs Uses and Gratifications theory, which provides answers to the questions "why do people use the media?" and "what do people do to the media?"

In 1959, Elihu Katz described the approach of uses and gratifications of mass media for the first time. It was a reaction to an article written in the same year by Bernard Berelson in which he said that the research in the field of communication has come to an end (Berelson, 1959). Katz determined to argue that it may have come to an end in terms of persuasion as most of the research up to that time only investigated the question of "What do media do to the people?"

Katz argued that the research in mass communication field might be saved if researchers changed the question to "What do people do with the media?" and he pointed out some studies that already had researched that (Katz E., 1959).

In 1968, Katz et al. proposed a uses and gratification model which conceived of the audience as active. This contradicted an important part of communication research that assumed that media is goal directed, that communication was one-sided, and that the audiences were passive receivers (E., Blumler, & Gurevitch, 1974).

In mass communication process, Initiation comes from need gratification, and the audience member is the one who chose the media to fulfill this need.

There are other needs of gratification sources that compete with the media such as the need to escape daily routine, the need of gathering information and the need of self-understanding (Herzog, 1944).
In 1969, Blumler and McQuail used the approach of uses and gratifications in a study conducted on the 1964 general election in Britain. Their purpose was to find out why people may avoid or watch party broadcasting, what uses they wanted to satisfy and what were their preferences between how politicians presented themselves on television. They found that people used the political broadcasts as a source of information about political affairs. Other purposes included finding out about campaign promises and pledges (Blumler & McQuail, 1969).

Based on that research, McQuail, Blumler and Brown (1972), suggested some categories of gratification needs:

1. **Diversion**: the need to escape from routine and problems, emotional relief.
2. **Personal relationships**: media substitutes the lack of social utility of information in conversations.
3. **Personal identity or individual psychology**: the need of self understanding, reassurance, and exploring reality.
4. **Surveillance**: the need of gathering information that might be of help in accomplishments.

In 1973, Katz, Hass, and Gurevitch gathered 35 social and psychological needs from literature that has been done on functions of mass media, and distributed them in five categories:

1. **Cognitive needs**: the need to gather information, knowledge and understanding.
2. **Affective needs**: the need to fulfill emotional, pleasurable or aesthetic experience.
3. **Personal integrative needs**: the need to strengthen creditability, confidence, status and stability.
4. **Social integrative needs**: the need to connect with others.
5. **Tension release needs** - the need escape daily stress and relieve pressure.

A few years later in 1974, Katz, Blumler and Gurevitch pointed out in a summarized paper what studies at that time were concerned with:

“The social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential patterns of the media exposure (or engagement in other activities), resulting in (6) need gratification and (7) other consequences, perhaps mostly unintended ones (p.20)”.

The theory of mass media uses and gratifications was exposed to many critics, mainly for being vague in defining what "needs" stands for, and for being nothing except more than being a data-collecting strategy.

Elliott (1974) claimed that it narrowed the focus on the individual in terms of psychological needs and neglected the social structure and the place of media in that structure (Elliot, 1974). In an attempt to answer the later criticism, Rubin and Windahl (1986) proposed a synthesis approach to uses and gratifications "The dependency Theory", in which individuals were placed within a societal systems that helped in shaping their needs (Robin & Windahl, 1986).

Other critics pointed out that audiences' selection of media might not always be purposive. They might only want to engage in some mildly pleasant stimulation and not in fact bothered by surveillance needs.

"The mood management theory" was also an addition to further empirical tests of the uses and gratifications theory. It was developed by Zillmann and Bryant in 1985. It mainly states that audiences selectively expose themselves to content that will help them regulate and elevate their moods. Listening to music and watching certain programs are examples (Severin & Tankard, 2001).
With the emergence of the internet and computer mediated communications, the significance of the uses and gratification theory was revived. "In fact, uses and gratifications theory has always provided a cutting-edge theoretical approach in the initial stages of each new mass communications medium" (Ruggiero, 2000).

With such great variations, the urge to satisfy more media motivation and choices have highly increased (Ruggiero, 2000).

Several studies have been conducted in the U & G of cable television's (Heeter and Greenberg, 1985), the VCR-video cassette recorder- (Levy 1987), in addition to U& G of the computers as communication devices.

Perse and Courtright (1993) found out that the results of a survey conducted in 1988 showed that computers ranked lowest among 12 types of mediated and interpersonal communication for satisfying some needs such as entertainment, relaxation, self-awareness and excitement (Perse & Courtright, Normative images of communication research, 1993). Perse and Dunn (1998) changed that results when they conducted a survey on the use of computer to communicate with each other through information services and the internet, it turned out that people using the computer for electronic communication were satisfying the needs of learning, entertainment, social interaction, escapism, passing the time and out of habit (Perse & Dunn, 1998).

The U & G approach is particularly important in understanding how people use the Internet, the World Wide Web, e-mails and other forms of cyberspace.

Researchers have extended their studies to use U&G to better understand the effects of mass media. For example, in 1997 Kim and Rubin, pointed out that some activities of audiences such as selectivity, attention and involvement serves as catalysts for media effects while other opposite activities such as avoidance, distraction and skepticism serve as deterrents for effects (Kim & Rubin, 1997).
In 1993, Canary and Spitzberg found evidence of another need that media satisfies, which is reliving loneliness. They found out the media was used to help those who are in temporary state of loneliness (Canary & Spitzberg, 1993).

Film scholars such as Hill (1997) used U&G to understand why audiences might watch extremely violent motion pictures such as "True Romance," "Nature born Killers," or "Reservoir Dogs." He established focus groups of brutal violence viewers, and found out particular methods of response that they brought to the watching experience such as viewing these movies as entertaining, or they anticipated the upcoming violence and readiness to choose methods of self-censorship, and establishing thresholds of adequate amount of violence (Hill, 1997).

In 2010 Cortese et al. conducted a study to understand television shopping through examining media use motives. Based on the uses-and-gratifications (U&G) perspective, they examined how social/psychological antecedents and buying outcomes relate to television-shopping viewing motives. Findings suggest that viewers watch television shopping because they want a convenient, time- and cost-effective way to shop and learn about products and want to be entertained. Factor analysis revealed two motive factors: TV Viewing Motives are associated with traditional U&G motive statements similar to those found in past studies, and Shopping Motives are those that reference motives associated with shopping (Cortese, Juliann, Rubin, & Alan, 2010).

In the same year, Dunne et al. examined U & G Young people's use of online social networking site Bebo. The findings indicate that the participants are actively using Bebo for their own personal motives and gratifications in terms of presenting and managing a certain identity and persona in a social context. Furthermore, the relatively impersonal nature of the online environment is seen to especially facilitate the young participants in negotiating the
practicalities and difficulties that can arise offline, in terms of forging identities and managing relationships (Dunne, Margaret-Anne, & Rowley, 2010).

Despite all these mixed results, U & G is still the gateway to understanding new media. U& G offers contributions to understanding as we move further into the digital age and media users are confronted with more and more choices, thus this leaves the Uses and Gratification theory the best choice for the theoretical framework of this study.

I will apply the U & G approach to answer the following research questions and test the following hypotheses.

**Research Questions**

**Research Question 1.** What are the main Uses and Gratification of Facebook Zynga Games among Egyptian Adults?

**Research Question 2.** Is establishing relationships among the highest U&G of Facebook Zynga Games?

**Research Question 3.** Do Egyptians take the games to work?

**Research Question 4.** Do Egyptians spend real money on purchasing online Zynga Games’ credits?

**Research Question 5.** Does Marital Status affect Zynga Games usage?

**Research Question 6.** Does Gender have an effect on Zynga Games usage among Egyptian Adults?
**Hypotheses**

*Hypothesis 1.* Light Zynga games usage will be associated with a belief that playing positively affects their well-being.

*Hypothesis 2.* Heavy game usage will be associated with a belief that playing Zynga Games negatively affects relationships with family and friends.
Chapter 4

Methodology

This study seeks to examine why Egyptian Adults use Facebook-Zynga games and what needs are gratified from game playing. A survey and structured interviews were carried out.

Survey

The survey investigates the impact of several independent variables on uses and gratifications. These include age, gender, marital status, peer pressure, computer usage, and Facebook exposure. Egyptian adults – defined here as Egyptian nationals 21 years of age or older – were surveyed. Although generalization is not possible because a random sample was not sought, the findings will provide important insights into Zynga game usage amongst a relatively large sample of Egyptian adults. The next section defines the variables studied in the survey.

Research variables and Definitions

Egyptian Adults. Egyptians 21 years old and above and who have an undergraduate degree. The Egyptian government acknowledges citizens are Adults and become legally independent from their parents at age 21.

Very Heavy Zynga game users. Subjects who play daily

Heavy Zynga game users. Subjects who play 4-6 times a week

Moderate Zynga game users. Subjects who play 2-3 times a week

Light Zynga game users. Subjects who play once a week
**Independent variables**

**Gender**

- Male
- Female

**Marital Status**

- Single
- Engaged
- Married
- Divorced
- Widowed

**Level of experience with Facebook-Zynga games**

- More than 2 years
- Between 1 year and 2 years
- 9-12 months
- 6-8 months
- 3-5 months
- 1-2 months
- Less than a month
Level of exposure to Zynga games

- Once a week
- 2-3 times a week
- 4-6 times a week
- Daily

Level of PC usage per day

- Less than an hour
- 1-2 hours
- 2-3 hours
- 3-4 hours
- 4-5 hours
- 5-6 hours
- 6-7 hours
- 7-8 hours
- 8+ hours

Well Being

Well being is defined here as a positive feeling that results from playing Zynga Games. For my purposes here, the positive feeling may take the form of stress relief, or better work performance.
Dependant variables

The main dependent variable in this study is the U&G of Facebook-Zynga games. This includes why subjects use, and what needs, social or psychological, they seek to fulfill and gratify.

Measurement

The study is based on the collection of different data types. Questions attempted to answer U&G were Ordinal and Likert scales.

The U&G of Facebook-Zynga games use were measured in 3 questions; the first one was ordinal with 13 possible motives for engaging in playing. The 2nd one was ordinal and listed 9 possible reasons why players continue playing Zynga games and the 3rd one was a hybrid approach of 16 possible effects or a gratified need coded on a 5-point Likert scale.

The reasons, needs and statements were compiled with the help of literature and previous studies (McQuail, Blumler, & Brown, 1972; Katz, Gurevitch, & Hass, 1973).

Following are the motives respondents were asked to identify:

1. To pass the time when bored
2. To be entertained
3. To do something with others
4. To forget about work/other things
5. To escape daily stress
6. To feel excited
7. To satisfy a habit
8. To feel less lonely
9. To explore the games
10. To beat others
11. To relax/ relieve stress
12. To make new friends
13. To engage with family and friends in an activity

Following are the reasons respondents were asked to identify for continuing playing Zynga games:

1. Different fantasy world I’ve never experienced
2. Ongoing games that have no end
3. Engagement of my friends in the same game
4. Competition with friends I know in real life
5. Establishing new relationships
6. Taking different roles than in real life
7. Seeing the growth status of my farm, city, gangster..etc
8. Showing off your abilities in gaming
9. Excellent graphics

**Sampling**

A combination of non-probability purposive and snowball sampling was used to collect survey respondents.

Responses were collected in several ways. A Facebook group and Facebook page were created, in which the URL to the survey was present. Facebook users were added to the group and were asked to participate in the survey and also to share the link with their family and
friends. Respondents simply clicked in the link to go directly to the survey. In addition, the URL was send via emails and private messages on LinkedIn.com.

A total of 367 respondents participated in the survey; however, only 250 are qualified. All participants under 21 years old and without Egyptian citizenship were filtered out. Moreover, a disqualifying question was asked early in the survey. “Have you ever played a game on Facebook?” All participants should at least have engaged in a single game before on Facebook.

**Survey design**

The survey itself was hosted and designed on the popular surveyMonkey.com portal using its enhanced paid services. The graphic template for the survey was pre-configured by surveymoney.com, using soft and cool colors so as not to distract respondents from the questions.

A consent form was present at the beginning of the survey, explaining the anonymous nature of the survey. Survey questions covered demographics, needs and gratifications scales of uses.

Questions were limited to 26. The researcher contacted participants over a period of about two weeks, from March 15th 2012 to March 31st 2012. A summary of collected information was viewed and downloaded in multiple formats including raw data CSV and Excel spreadsheets. Statistical analysis was then undertaken via SPSS software.

A copy of the survey and the interview questions can be found in Appendix 2 and Appendix 3 respectively.
Structured Interviews

U&G research relies to a great extent on self-reports, which are somewhat problematic because of the likelihood that some respondents will not be able to accurately recall or characterize their media usage habits, and others will not be perfectly truthful. Recognizing the shortcomings of self-report, the present study used a triangulation data collection methodology involving not only the use of online-administered questionnaires, but also personal interviews.

I carried out 20 interviews, which each ran for about 10 minutes. Interviewees were asked about their gaming habits, such as for how long do they per week or day, when they started playing Zynga Games, and what their favorite games are. Accordingly, they were asked about their feelings while they are playing, and the positive and the negative associated feelings they experience while playing and afterwards.

On the other hand, questions about the negative impacts of playing Zynga games on personal lives, relationships, and work were also asked.

The interviews outcome assisted in setting the survey questions, as well as, giving detailed description to the findings of the survey.
Chapter 5

Results & Findings

After the distribution of the questionnaires on both samples, the researcher inputted and analyzed the data using the professional data analysis software SPSS, in addition to using tables and charts from SurveyMonkey.

Since the targeted sample had to meet certain criteria, a number of questions were placed at the beginning and in the demographic section of the questionnaire to filter respondents. Those who never played a game on Facebook or a Zynga game before were excluded from the sample. Also, those who were non-Egyptians or were less than 21 years old or were only high school graduates were also excluded. After filtration, the number of completed surveys was 250.

The total responses collected in 2 weeks were 361. After excluding those who failed to pass the filtering questions, a total of 250 responses were collected where each one successfully met the criteria set.
Sample description:

Nationality

The 250 (100%) respondents are Egyptians.

Gender

Both genders were targeted for the sake of the research. Females outnumbered the males. A total of 61.2% (n=153) were females while 38.8% (n=97) were males (Table 1).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>97</td>
<td>38.8</td>
<td>38.8</td>
<td>38.8</td>
</tr>
<tr>
<td>Female</td>
<td>153</td>
<td>61.2</td>
<td>61.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Gender Distribution

Age

No participant under the age of 21 was included in the sample. Almost 34% (n=84) of respondents were between 21-25 years old, 45% (n=113) were aged 26-30, 11% (n=27) were 31-35, 4% (n=10) were 36-40, 1% (n=3) were 41-45, and 2% (n=3) were above 45 years old. More than 78% of the participants, then, were 30 years old or younger (Table 2).

<table>
<thead>
<tr>
<th>Age in Numbers</th>
<th>Frequency</th>
<th>%</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-25 years old</td>
<td>84</td>
<td>33.6</td>
<td>34.7</td>
</tr>
<tr>
<td>26-30 years old</td>
<td>113</td>
<td>45.2</td>
<td>46.7</td>
</tr>
<tr>
<td>31-35 years old</td>
<td>27</td>
<td>10.8</td>
<td>11.2</td>
</tr>
<tr>
<td>36-40 years old</td>
<td>10</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td>41-45 years old</td>
<td>3</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>More than 45 years old</td>
<td>5</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td>96.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>8</td>
<td>3.2</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Age Distribution & Percentage
**Education**

Respondents without college degrees were excluded. A total of 70.8% (n=177) held college degrees, and 29.2% (n=73) held post-graduate degrees. Undergraduates were excluded because they are younger than 21 years old (Table 3).

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Degree</td>
<td>177</td>
<td>70.8</td>
<td>70.8</td>
<td>70.8</td>
</tr>
<tr>
<td>Post-Graduate degree</td>
<td>73</td>
<td>29.2</td>
<td>29.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Education Frequency & Percentage

**Marital Status**

Of 250 participants 49.6% (n=124) were single, 6.8% (n=17) were engaged, 32.4% (n=81) were married, and 1.6% (n=4) were divorced. Nearly 10% (n=24) of respondents did not indicate their marital status (Table 4).

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>124</td>
<td>49.6</td>
<td>54.9</td>
<td>54.9</td>
</tr>
<tr>
<td>Engaged</td>
<td>17</td>
<td>6.8</td>
<td>7.5</td>
<td>62.4</td>
</tr>
<tr>
<td>Married</td>
<td>81</td>
<td>32.4</td>
<td>35.8</td>
<td>98.2</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>1.6</td>
<td>1.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>226</td>
<td>90.4</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>24</td>
<td>9.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Marital Status Frequency & Percentage

**Occupation**

In all, 31.6% (n=79) of respondents were unemployed, 18.4% (n=46) of respondents were unemployed, 64% (n=160) were employed non-business owners, and 4.4% (n=11) were business owners.

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
<td>46</td>
<td>18.4</td>
<td>18.4</td>
<td>18.4</td>
</tr>
<tr>
<td>Employed</td>
<td>160</td>
<td>64.0</td>
<td>64.0</td>
<td>82.4</td>
</tr>
<tr>
<td>Business Owner</td>
<td>11</td>
<td>4.4</td>
<td>4.4</td>
<td>86.8</td>
</tr>
<tr>
<td>Housewife</td>
<td>19</td>
<td>7.6</td>
<td>7.6</td>
<td>94.4</td>
</tr>
<tr>
<td>Stay at home Dad</td>
<td>14</td>
<td>5.6</td>
<td>5.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Occupation Frequency & Distribution
Data Description

*Average time spent on Facebook*

A total of 41.5% (n=103) of respondents spend less than 2 hours a day on Facebook, 24.4% (n=61) spend 2-3 hours on per day on Facebook, 16% (n=40) spend 4-5 hours, and 17.6% (n=44) use Facebook more than 5 hours a day (Table 6).

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Less than an hour</td>
<td>32</td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>1-2 hours</td>
<td>71</td>
<td>28.4</td>
</tr>
<tr>
<td></td>
<td>2-3 hours</td>
<td>61</td>
<td>24.4</td>
</tr>
<tr>
<td></td>
<td>4-5 hours</td>
<td>40</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>5-6 hours</td>
<td>13</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>More than 6 hours</td>
<td>31</td>
<td>12.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>248</td>
<td>99.2</td>
</tr>
</tbody>
</table>

| Missing   | System | 2 | .8 |  |
|           | Total | 250 | 100.0 |  |

Table 6: Average Time Spent on Facebook per Day

*Level of experience of Zynga Games*

The level of experience of Zynga games was measured by a multiple-choice question in which 7 categories were present. The highest percentage, 34.4% (n=86), have been playing Zynga games between one and two years, followed by more than two years of playing experience (19.2%, n=48), and less than five months playing experience (3.2%, n=8) (Table 7).

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Between 1 year and 2 years</td>
<td>86</td>
<td>34.4</td>
</tr>
<tr>
<td></td>
<td>More than 2 years</td>
<td>48</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td>6-8 months</td>
<td>34</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>Less than a month</td>
<td>30</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>1-2 months</td>
<td>23</td>
<td>9.2</td>
</tr>
<tr>
<td></td>
<td>9-12 months</td>
<td>16</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>3-5 months</td>
<td>8</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>245</td>
<td>98.0</td>
</tr>
</tbody>
</table>

| Missing   | System | 5 | 2.0 |  |
|           | Total | 250 | 100.0 |  |

Table 7: Experience of Facebook-Zynga Games
**Favorite Zynga Game**

Respondents ranked CityVille, Hidden Chronicles and Farmville ranked as their top three favorite Zynga games. About 74% of respondents selected one of these three games as their favorite game. Mafia Wars (8.9%) and Zynga Poker (6.9%) came in fourth and fifth, respectively.

![Figure 1: Ranking of Favorite Zynga Games among Egyptian Adults](image)

**Level of exposure to Zynga Games**

Level of exposure to Zynga games was measured by a multiple-choice question asking respondents whether they played once per week (light users), 2-3 times per week (moderate users), 4-6 times per week (heavy users), or daily (very heavy users). Light users represented 31.1% (n=74), Moderate users represented 19.3% (n=46), Heavy Users represented 19.2% (n=48) and Very Heavy Users represented 29.4% (n=70) of the population (Table 8).
<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>once a week</td>
<td>74</td>
<td>29.6</td>
<td>31.1</td>
<td>31.1</td>
</tr>
<tr>
<td>Daily</td>
<td>70</td>
<td>28.0</td>
<td>29.4</td>
<td>60.5</td>
</tr>
<tr>
<td>4-6 times a week</td>
<td>48</td>
<td>19.2</td>
<td>20.2</td>
<td>80.7</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>46</td>
<td>18.4</td>
<td>19.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>238</td>
<td>95.2</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>12</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Exposure to Facebook Zynga Games
Research Questions and Hypothesis

Research question 1 asked: What are the main Uses and Gratification of Facebook Zynga Games among Egyptian Adults?

Investigating and defining the Uses and Gratifications of Facebook Zynga Games among Egyptian Adults was done in 2 multiple-choice questions. The first asked respondents to identify their main motives for playing Zynga games, and the second asked to identify motives for continuing to play Zynga games.

Main motives of Egyptian Adults for playing Zynga Games:

Participants were asked to choose as many motives as they find fit with their needs and gratifications from playing Zynga games. Results showed that the main 2 motives for playing Zynga Games are:

1. To pass the time when bored (59.5%)
2. To be entertained (55.9%)
3. Followed by “Escapism” (32.3%) and “to explore the games” (30.8%), the rest of the motives scored less than 30% with the least “To make new friends” (5.6%).
<table>
<thead>
<tr>
<th>Motive</th>
<th>Frequency</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Pass the time (when bored)</td>
<td>59.5%</td>
<td>116</td>
</tr>
<tr>
<td>To be entertained</td>
<td>55.9%</td>
<td>109</td>
</tr>
<tr>
<td>To do something with others</td>
<td>14.4%</td>
<td>28</td>
</tr>
<tr>
<td>To forget about work/ other things</td>
<td>17.9%</td>
<td>35</td>
</tr>
<tr>
<td>To escape daily stress</td>
<td>32.3%</td>
<td>63</td>
</tr>
<tr>
<td>To feel excited</td>
<td>16.4%</td>
<td>32</td>
</tr>
<tr>
<td>To satisfy a habit</td>
<td>14.4%</td>
<td>28</td>
</tr>
<tr>
<td>To feel less lonely</td>
<td>12.8%</td>
<td>25</td>
</tr>
<tr>
<td>To explore the games</td>
<td>30.8%</td>
<td>60</td>
</tr>
<tr>
<td>To beat others</td>
<td>21.5%</td>
<td>42</td>
</tr>
<tr>
<td>To relax/relieve stress</td>
<td>28.2%</td>
<td>55</td>
</tr>
<tr>
<td>To make new friends</td>
<td>5.6%</td>
<td>11</td>
</tr>
<tr>
<td>To engage with my family and friends in an activity</td>
<td>12.3%</td>
<td>24</td>
</tr>
</tbody>
</table>

Table 9: Motives for Playing Facebook-Zynga Games

Figure 2: Frequency Percentage of Motives for Playing ZG
Main reasons for continuing playing Zynga Games:

The main reasons that encouraged players to continue playing Zynga games rather than any other game was measured through a multiple choice question in which respondents were asked to choose as many reasons as they see expressive of their needs.

Respondents chose “Seeing the growth status of the game” as their first reason for continuing playing Zynga games (48%), followed by “Ongoing games that have no end” (36%), “Different fantasy world I’ve never experienced” (33%) (Table 11).

| Why do you continue playing Zynga games? (Please mark all that apply) |
|---|---|---|
| Answer Options | Response Percent | Response Count |
| Different fantasy world I've never experienced | 32.5% | 51 |
| Ongoing games that have no end | 35.7% | 56 |
| Engagement of my friends in the same game | 21.0% | 33 |
| Competition with friends I know in real life | 31.2% | 49 |
| Establishing new relationships | 4.5% | 7 |
| Taking different roles than in real life | 17.8% | 28 |
| Seeing the growth status of my (Farm, City, gangster...etc) | 47.8% | 75 |
| Showing off your abilities in gaming | 19.7% | 31 |
| Excellent Graphics | 31.2% | 49 |
| | answered question | 157 |
| | skipped question | 93 |

Table 10: Reasons for continuing playing Zynga Games
Figure 3: Frequency Percentage of Reasons for continuing playing ZG
Research question 2 asked: Is establishing relationships among the highest U&G of Facebook-Zynga Games?

This research question is of high importance, because according to most of the previous research done on U&G of video games, “Establishing relationships” was a main need and cause for playing. Research referred this to the result of feeling lonely, being an introverted person or just because of boredom. Surprisingly, the sampled Egyptians did not report “establishing relationships through online video game” of as important. Only 5.6% (n=11) reported that one of their motives for playing Zynga games is making new friends, and, 4.5% indicated establishing new relationship as a need. In addition, the average scale for the agreement level on “Zynga have helped me establish new friendship” is 3.5 (see Table 18), which indicated a disagreement of the statement. When the sample was asked if they ever added friends they don’t know to increase games’ neighbors, only 40% answered yes. In the structured interviews, interviewees said that adding strange people was only for the purpose of gaming and not to get to know new people.

Therefore, establishing new relationships or making new friends is not an important U&G for playing Zynga Games among the sampled Egyptian adults.
Research question 3 asked: Do Egyptian Adults take the games to work?

This research question is meant to clarify if the sampled Egyptian Adults have difficulty in controlling their playing habits by assessing the extent to which respondents play Zynga games while at work. A five-point likert-type item was used to measure responses. Respondents were asked to indicate whether they very frequently, frequently, occasionally, rarely, or very rarely played games at work. Nearly 55% said they play “very rarely,” with another 15% indicating they played at work “rarely”. (Table 12) However, in asking respondents if they talk about their game achievements with co-workers, results reported that 54% do talk about their gaming experience with their friends and co-workers (Table 13).

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Frequently</td>
<td>12</td>
<td>4.8</td>
<td>6.9</td>
</tr>
<tr>
<td>Frequently</td>
<td>19</td>
<td>7.6</td>
<td>10.9</td>
</tr>
<tr>
<td>Occasionally</td>
<td>22</td>
<td>8.8</td>
<td>12.6</td>
</tr>
<tr>
<td>Rarely</td>
<td>27</td>
<td>10.8</td>
<td>15.4</td>
</tr>
<tr>
<td>Very Rarely</td>
<td>95</td>
<td>38.0</td>
<td>54.3</td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>70.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>75</td>
<td>30.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: Playing Zynga Games during working hours

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, often</td>
<td>18</td>
<td>7.2</td>
<td>7.6</td>
</tr>
<tr>
<td>Yes, sometimes</td>
<td>110</td>
<td>44.0</td>
<td>46.4</td>
</tr>
<tr>
<td>No, never</td>
<td>109</td>
<td>43.6</td>
<td>46.0</td>
</tr>
<tr>
<td>Total</td>
<td>237</td>
<td>94.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>13</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 12: Talking about ZG achievements with friends & co-workers
Figure 4: Frequency of playing Zynga games at work
Research question 4 asked: Do Egyptians spend real money on purchasing online Zynga Games credits?

Since Zynga company establishment in 2007, Zynga holds now a valuation of $8.9 billion and one billion-dollar IPO. Thus it was important to impose this research question in order to know if the sampled Egyptians do contribute to this value or not. The frequency for this question showed that 93% (n=225) of the valid population did not purchase online Zynga credits before (Table 14).

In the structured interviews, people claimed that they limit their game to what is offered because they fear of getting involved in an online video game addiction. In addition, some said that they are not used to purchasing online and they fear of getting their accounts hacked.

Therefore, the sampled Egyptians do not spend real money on purchasing online Zynga games credits.

Figure 5: Percentage of Online ZG credits Purchase
Have you ever purchased online Zynga credits or coins?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>6.4</td>
<td>6.6</td>
<td>6.6</td>
</tr>
<tr>
<td>No</td>
<td>225</td>
<td>90.0</td>
<td>93.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>241</td>
<td>96.4</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>9</td>
<td>3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table13: Purchasing online Zynga credits
Research question 5 asked: Does Martial Status affects Zynga Games Usage?

Table 15 shows 21.7% (n=47) of single status players are light Zynga usage players, while 7.4% (n=16) of married people and less than 5% of engaged and divorced people play once a week. On the other hand, 10.1% (n=22) of single status players are very heavy Zynga usage players versus 16.6% (n=36) of married people. A chi-square test showed a significant difference between all marital status categories ($\chi^2=24.2$, p=0.004), and also a significant difference between single and married categories only ($\chi^2=21.82$, p=0.00). The results suggest that sampled married Egyptians tend to play more often than sampled single Egyptians.

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Single</th>
<th>Engaged</th>
<th>Married</th>
<th>Divorced</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Average, how often do you play Zynga games?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>once a week</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>47</td>
<td>6</td>
<td>16</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>21.7%</td>
<td>2.8%</td>
<td>7.4%</td>
<td>.5%</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>28</td>
<td>5</td>
<td>11</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>12.9%</td>
<td>2.3%</td>
<td>5.1%</td>
<td>.5%</td>
</tr>
<tr>
<td>4-6 times a week</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
<td>1</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>12.0%</td>
<td>.5%</td>
<td>4.6%</td>
<td>.5%</td>
</tr>
<tr>
<td>Daily</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
<td>5</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>10.1%</td>
<td>2.3%</td>
<td>16.6%</td>
<td>.5%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>123</td>
<td>17</td>
<td>73</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>56.7%</td>
<td>7.8%</td>
<td>33.6%</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td>Chi Square</td>
<td>X2=24.254</td>
<td>P=0.004</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 14: Crosstab of Marital Status & Average Zynga Usage
<table>
<thead>
<tr>
<th>On Average, how often do you play Zynga games?</th>
<th>Marital Status</th>
<th>Single</th>
<th>Married</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>once a week</td>
<td>Count</td>
<td>47</td>
<td>16</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>24.0%</td>
<td>8.2%</td>
<td>32.1%</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>Count</td>
<td>28</td>
<td>11</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>14.3%</td>
<td>5.6%</td>
<td>19.9%</td>
</tr>
<tr>
<td>4-6 times a week</td>
<td>Count</td>
<td>26</td>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>13.3%</td>
<td>5.1%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Daily</td>
<td>Count</td>
<td>22</td>
<td>36</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>11.2%</td>
<td>18.4%</td>
<td>29.6%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>123</td>
<td>73</td>
<td>196</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>62.8%</td>
<td>37.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Chi Square</td>
<td>X²= 21.82</td>
<td>P= 0.000</td>
<td></td>
</tr>
</tbody>
</table>

Table 15: Crosstab Married & Single with Average Zynga Usage
Research question 6 asked: Does Gender have an effect on Zynga Games usage among Egyptian Adults?

To answer research question 6, gender is crosstab with average of Zynga game usage. Chi square (χ²) for the Table 15 shows high significance indicating a high significant difference between all sampled Egyptian males and females (χ²=10.67, p=0.014). Females tends to be in the category of heavy and very heavy usage players (11.3%) & (15.1%) respectively, while males are (8.8%) and (14%) respectively. Results, then, suggest that Egyptian females tend to play more frequently than Egyptian males.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Average, how often do you play Zynga games?</td>
<td>once a week</td>
<td>Count</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>11.3%</td>
<td>19.7%</td>
</tr>
<tr>
<td></td>
<td>2-3 times a week</td>
<td>Count</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>3.8%</td>
<td>15.5%</td>
</tr>
<tr>
<td></td>
<td>4-6 times a week</td>
<td>Count</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>8.8%</td>
<td>11.3%</td>
</tr>
<tr>
<td></td>
<td>Daily</td>
<td>Count</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>14.3%</td>
<td>15.1%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Count</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>38.2%</td>
<td>61.8%</td>
</tr>
</tbody>
</table>

Table 16: Crosstab Gender and Average Zynga Usage
Research question 7 asked: What are the effects of playing Facebook Zynga Games on Egyptian Adults?

To answer research question 7, Participants were asked to rate some Likert scale statements from “Strongly agree” (rated at 1) to “Strongly disagree” (rated at 5). The average rates of the statements showed that respondents are neutral with a slight disagree about the associated feeling that they can do better in their jobs after playing Zynga games. The sample tends to agree that in order to excel in games they need to increase their neighbor/friends list and spend more time playing. On the other hand, respondents disagreed that they would rather play games than to go out with their friends and family (Average rating 4.28) and that Zynga games negatively affect their relationships with family and friends. In addition, the sample disagreed that Zynga games help them establish new relationships and were Neutral about the effect of Zynga games on enhancing their knowledge about different countries (Table 18).
Please indicate your level of agreement with the following statements:

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel I can do better in my job/studies after playing Zynga games.</td>
<td>11</td>
<td>19</td>
<td>60</td>
<td>41</td>
<td>42</td>
<td>3.49</td>
</tr>
<tr>
<td>In order to excel in games, I need to increase my game neighbors/ friends list.</td>
<td>44</td>
<td>70</td>
<td>38</td>
<td>8</td>
<td>11</td>
<td>2.25</td>
</tr>
<tr>
<td>In order to excel in games, I need to spend a lot of time playing.</td>
<td>37</td>
<td>67</td>
<td>39</td>
<td>22</td>
<td>5</td>
<td>2.36</td>
</tr>
<tr>
<td>Persistent friends’ requests to join the Zynga games influenced me join.</td>
<td>16</td>
<td>48</td>
<td>48</td>
<td>36</td>
<td>18</td>
<td>2.95</td>
</tr>
<tr>
<td>Facebook utilities such as chat, messaging, and tags are needed for success in Zynga games.</td>
<td>18</td>
<td>30</td>
<td>53</td>
<td>51</td>
<td>19</td>
<td>3.13</td>
</tr>
<tr>
<td>Checking Zynga Games is part of my daily routine.</td>
<td>20</td>
<td>34</td>
<td>42</td>
<td>42</td>
<td>31</td>
<td>3.18</td>
</tr>
<tr>
<td>I feel proud posting pictures of my game growth status: (i.e. new buildings, new café, etc).</td>
<td>8</td>
<td>27</td>
<td>37</td>
<td>51</td>
<td>49</td>
<td>3.62</td>
</tr>
<tr>
<td>I would rather play Zynga games than go out with my family and friends.</td>
<td>2</td>
<td>5</td>
<td>29</td>
<td>38</td>
<td>92</td>
<td>4.28</td>
</tr>
<tr>
<td>I feel sad when I am not able to play Zynga games.</td>
<td>9</td>
<td>19</td>
<td>40</td>
<td>42</td>
<td>58</td>
<td>3.72</td>
</tr>
<tr>
<td>Playing Zynga games distracts me from work.</td>
<td>26</td>
<td>45</td>
<td>41</td>
<td>26</td>
<td>30</td>
<td>2.93</td>
</tr>
<tr>
<td>Playing Zynga games does not negatively affect my personal relationships with friends and loved ones.</td>
<td>48</td>
<td>57</td>
<td>32</td>
<td>15</td>
<td>16</td>
<td>2.37</td>
</tr>
<tr>
<td>Seeing branded entertainment and celebrities on Zynga Games (such as McDonald’s, Enrique Iglesias and Lady Gaga) increases my urge to play.</td>
<td>13</td>
<td>23</td>
<td>46</td>
<td>43</td>
<td>43</td>
<td>3.48</td>
</tr>
<tr>
<td>Zynga games enhance my knowledge about different cultures.</td>
<td>13</td>
<td>51</td>
<td>47</td>
<td>36</td>
<td>21</td>
<td>3.01</td>
</tr>
<tr>
<td>I feel relieved of stress after playing Zynga Games</td>
<td>16</td>
<td>43</td>
<td>69</td>
<td>26</td>
<td>15</td>
<td>2.89</td>
</tr>
<tr>
<td>Zynga games enhance my relationships with friends and family.</td>
<td>7</td>
<td>28</td>
<td>59</td>
<td>45</td>
<td>30</td>
<td>3.37</td>
</tr>
<tr>
<td>Zynga games have helped establish new friendships.</td>
<td>7</td>
<td>28</td>
<td>45</td>
<td>51</td>
<td>37</td>
<td>3.49</td>
</tr>
<tr>
<td>Answered 177</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skipped 73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 17: Level of Agreement of Zynga Game Effects
Hypothesis 1 hypothesized that: Light Zynga games usage players will be associated with a belief that playing positively affects their well-being.

Hypothesis 1 was tested by measuring 3 dependent variables: “relief of stress,” “doing better at work” and “distracting from work.” This hypothesis was offered because it had appeared to me that entertainment and relaxation might be the motives for light Zynga usage players to engage in the games, while heavy and very heavy Zynga usage players might be playing heavily because they just can’t control their playing habits and they might experience negative feelings when they are not able to play.

Relief of Stress

<table>
<thead>
<tr>
<th>stress relief</th>
<th>How often(How often)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>once a week</td>
<td>2-3 times a week</td>
</tr>
<tr>
<td>Does Relieve Stress</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>24.39</td>
<td>50.00</td>
</tr>
<tr>
<td>neutral</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>36.59</td>
<td>36.67</td>
</tr>
<tr>
<td>Does not Relieve Stress</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>39.02</td>
<td>13.33</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>30</td>
</tr>
<tr>
<td>Frequency Missing = 109</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 1 was tested by the cross tabulation of respondents’ average Zynga games usage and their level of agreement with the statement “I feel relieved after playing Zynga games”. The sample was divided into four groups according to how often they play. An association between how often people play and their perception of stress release is significant (p <0.05). Thirty-nine percent (n=16) of light Zynga usage players are not associated with a belief that playing Zynga games distress them, while 50 % of moderate Zynga usage players, 28% of heavy Zynga game usage players and 45% of very heavy Zynga game usage players are associated with that belief.
To investigate further, the “Neutral” response category was eliminated. Table 21 clarifies what is driving this association. Those who play more than 2 times per week (Moderate, Heavy, Very Heavy Zynga Usage players) tend to perceive that Zynga Games do relieve stress while those who play only once a week (Light Zynga Game usage players) don’t think it relieves stress. Heavy Zynga Game usage, then, is associated with a belief that playing positively affects their well-being (relief stress). This is the opposite of what was hypothesized.

<table>
<thead>
<tr>
<th>Stress relief</th>
<th>How often do you play Zynga Games?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>once a week</td>
<td>2-3 times a week</td>
</tr>
<tr>
<td>Does Relieve Stress</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>38.46</td>
<td>78.95</td>
</tr>
<tr>
<td>Does not Relieve Stress</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>61.54</td>
<td>21.05</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>19</td>
</tr>
</tbody>
</table>

Frequency Missing = 10

Table 20: Crosstab of Zynga Average Usage and Stress Relief

<table>
<thead>
<tr>
<th>Statistic</th>
<th>DF</th>
<th>Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>3</td>
<td>9.5111</td>
<td>0.0232</td>
</tr>
</tbody>
</table>

Table 21: Chi Square of Table 19
Job Performance

It was also hypothesized that Light Zynga Usage will be associated with a feeling of doing better at their jobs after playing Zynga games. Table 21 shows no significance between Light Zynga Usage players and heavy Zynga usage players (p>0.05), and Zynga Usage does not appear to affect perceptions of job performance amongst sampled respondents. This is additional evidence against H1.

<table>
<thead>
<tr>
<th>How often do you play x Can do better after playing</th>
<th>Can do better after ZG</th>
<th>Neutral</th>
<th>Cannot do better after ZG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play &lt;3 times a week</td>
<td>39</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>57.35</td>
<td>42.59</td>
<td>41.38</td>
</tr>
<tr>
<td>Play &gt;4 times a week</td>
<td>29</td>
<td>31</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>42.65</td>
<td>57.41</td>
<td>58.62</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>54</td>
<td>29</td>
</tr>
<tr>
<td>Frequency Missing = 106</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square: 0.1773

Table 22: Crosstab Zynga Average Usage and better performance at work
**Distracts from Work**

A very weak correlation was found between the need to spend a lot of time playing in order to excel in the game and “playing distracts from work” (r= 0.2). The correlation is not strong enough to suggest support for H1. With the three measures showing no or very little support for H1, the hypothesis is rejected. Light Zynga game usage is not associated with a belief that playing positively affects well-being (Table 24).

<table>
<thead>
<tr>
<th>Correlations</th>
<th>In order to excel in games, I need to spend a lot of time playing.</th>
<th>Playing Zynga games distracts me from work.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In order to excel in games, I need to spend a lot of time playing.</strong></td>
<td>Pearson Correlation</td>
<td>.203**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>250</td>
</tr>
<tr>
<td><strong>Playing Zynga games distracts me from work.</strong></td>
<td>Pearson Correlation</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>250</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

Table 23: Correlation of spending a lot of time playing and distracting from work
**Hypothesis 2 stated:** Heavy game usage will be associated with a belief that playing Zynga Games negatively affects relationships with family and friends.

Hypothesis 2 predicted that Heavy Zynga game playing would be associated with a belief that playing Zynga games negatively affects relationships with friends and family. This thought came up from the idea that spending a lot of time playing will decrease communication with family and friends. A significant relationship was not found, however, and the hypothesis was not supported. Playing Zynga games for long hours does not appear to cause sampled players to believe their relationships are being negatively affected by gaming.

<table>
<thead>
<tr>
<th>On Average, how often do you play Zynga games?</th>
<th>Playing Zynga games does not negatively affect my personal relationships with friends and loved ones Crosstabulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Average, how often do you play Zynga games?</strong></td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>once a week</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>2-3 times a week</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>4-6 times a week</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>Daily</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
</tbody>
</table>

Chi Square: $X^2 = 20.096$  \( P = 0.065 \)
Chapter 6

Discussion and Conclusion

Discussion

This study analyzed Egyptian adults’ usage patterns of Zynga online video games on Facebook. The main purpose of this study, which employed a uses-and-gratifications approach (Katz E., 1974), was to explore how and why Egyptian Adults use Facebook Zynga games and what uses are gratified from gaming.

Findings analyzed from the content of 250 questionnaires and some structured interviews showed unique usage habits and playing motivations among Egyptian adults. The Egyptian habits and motivations are similar to usage patterns in other countries studied previously by other researchers. There are also key differences, however, between Egyptian users and users in other countries.

Egyptian adults’ main motives are the need to pass time when bored and the need to be entertained, which match up with most of the studies that were conducted in the same field. Also, escapism – especially from daily stress – ranked 3rd place with 32.3% of the study sample indicating escapism as a motivation for playing. This is also consistent with findings from other foreign studies. “Exploring the game” ranked as the 4th most popular motive (30.8%).

Moreover, the study showed that players who play more than twice per week tend to perceive that Zynga Games relieve stress, while those who play only once per week don’t think that gaming relieves stress.
The results indicated that the main reason that motivate sampled players to continue playing Zynga Games include “Seeing the growth status of their game,” the fact that “ongoing games that have no end,” and that games represent a “different fantasy world” than reality.

Surprisingly, the need to establish new relationships or make new friends scored low throughout the survey. Only 5.6% reported that their motive for playing online games is “to make new friends”, while just 4.5% reported that they continue playing for the purpose of “Establishing new relationships.” Also, the majority of the sample tended to disagree with the statement “Zynga Games helped them establish new relationships”. These findings represent a major difference between Egyptian Adults and results from previous studies conducted on other foreign communities, many of which reported the importance of relationships that are formed through online video gaming in comparison to those formed in real life. For instance, Yee concluded that players' social relationships formed during gaming are as important and meaningful as their real-life relationships (Yee, 2006). These relationships provide players with a highly pleasurable feeling while playing. In addition, Yee found that players expressed themselves more easily in their virtual worlds than in real life.

The findings about relationships might be suggestive of larger socio-cultural factors. Most of the previous studies that stressed on the importance of relationships that are formed within online video game have been conducted in Asia (Young, 2007; Yee, 2006; Chiang & Lin, 2010). In Egypt life, and in much of the Arab world, the social structure is fairly conservative and traditional. Structured interviews emphasized that not forming relationships over online video gaming could sometimes be the result societal traditions and expectations about relationships. Interviewees indicated that it is not recommended to establish relationships with people a person does not know unless the acquaintance was met via a trustworthy source and in a traditional setting – like work, school, or through family and friends.
Teamwork and engaging with people known in real time was mentioned many times in the structured interviews as a motive for continue playing. This is consistent with the findings of Jansz and Tanis (2007) that the social interaction motive is one of the strongest predictors of time spent gaming.

The study found that the three most popular games amongst sampled Egyptian Adults are FarmVille, CityVille and Hidden Chronicles. It is noteworthy that these three games are non-violent, peaceful games, filled with greenery, oceans and luxurious houses and buildings. More research would be needed to investigate whether this trend would hold up in a larger, more representative study of Egyptian gamers and, if so, why Egyptians prefer the nonviolent variety of games in spite of the overwhelming popularity of some violent games.

Egyptian adults sampled here showed no signs of gaming addiction. They did not indicate a decline in their real-life social interactions, or declines in their perception of their psychological well-being. Results show that almost 70% of the sample does not play Zynga games while working -- perhaps some of this may be due to the fact that some companies filter their web access and ban online video games -- and 93% have never purchased online Zynga Credits. Although the population tends to agree that excelling in games means more time is wasted, they disagree that playing Zynga Games distracts them from work, or that they might prefer to play games than to go out with their friends and family. Moreover, most respondents indicated that playing Zynga Games does not negatively affect their personal lives or their social and intimate relationships.

Although the study suggests that gender and marital status do not have a strong impact on the playing patterns of the Egyptian adults studied here, married people did indicate playing Zynga Games more often. Findings pointed out that females tend to play more frequently than males, and married people, many of whom play daily, play more often than single people, most of whom play about once per week. In the structured interviews, some
adults pointed out that due to the responsibilities accompanied with having children, the chances to go out and do entertaining activities declines. Playing Zynga Games has thus become a favorite form of entertainment for them, and an opportunity to relieve stress and pass time when bored.

**Conclusion**

Facebook Zynga-Games is very well known among the Egyptian Adult society that has Facebook accounts.

Egyptian Adults video game playing patterns do resemble those of foreign communities to a great extent like the need to be entertained, the need of social interaction and the need of escapism from daily routine and stress.

On the other hand, when it comes to something that contradicts traditions and customs, such as forming or establishing online relationships through gaming, and the ability to control gaming, the pattern differs. Egyptian Adults claim they don’t take the game to work and that gaming neither negatively affects their personal relationships with friends and family nor their personal finances.

Females Egyptian Adults tend to play more than males, and married people play more often than single or engaged people.

Egyptian Adults prefer peaceful and environmental friendly games, and they love to continue playing as long as they the growth status of their games is increasing, and continue their teamwork with people they know in real life. Egyptian Adults also showed a passion for living a fantasy world they’ve never experienced and dealing with excellent graphics while gaming.
Future studies could examine why some Egyptian Adults do not play online video games and also why those who used to play have stopped playing. In addition, more studies could be conducted on different age groups.
Limitations of the Study

A convenience sampling method was used to obtain participants. The fact that a random sample of Egyptian adults was not taken, means that the results of this study cannot be generalized to the larger population of Egyptian adults. Additionally, some respondents chose not to answer some of the survey questions, which left a fairly sizeable amount of missing data. Finally, the survey did not test the actual “stress level” that players experience already, but simply asked about respondents’ perceptions of associated feelings of stress or distress after playing.
Appendix 1

Zynga Games on Facebook

Visiting Facebook, you can easily identify fifteen of Zynga’s games, as listed below:

1. City Ville:

According to AppData, City Ville is considered the largest used game on Facebook in relation to the amount of monthly active users. This game offers its users the chance of building the city of their dreams from scratch; progressively they do build different styles of homes, creating various businesses, landmarks and public building in order to expand the city. By means of socializing, players do invite other Facebook users such as friends and family members to help expanding their cities; as an example, the one user can ask his friends to take up vacant positions in his police station in order to upgrade it and so forth. Within fifty days of its launch, City Ville accumulated over 61 million MAUs, especially as it was the first of Zynga’s games to be launched in multiple languages, five languages to be precise, English, French, German, Italian and Spanish. Recently, another mobile application called City Ville Home Town has been launched by Zynga, enabling City Ville users to access the game on apple IOS platforms and carrying on with building their virtual cities and connecting with other Facebook users.

2. Zynga Poker

Being the largest free on line game worldwide, and according to AppData, Zynga Poker is ranked the fourth to game on Facebook and in a span of only four years after its launch. Zynga Poker was the first social game to be launched by Zynga, a game that allow players to easily interact with other fellow players and exchanging ideas, challenges and
virtual gifts such as poker chips. Via a leader board players are shown how their chip ranking compares to other participating users and allow them to personalize and decorate their seat at the table according to their own taste by using the gift shop. This game is so popular that with the help of Google Android and Apple iOS, Zynga Poker became one of the top 10 grossing games in the Apple App Store.

3. Empires and Allies:

Empires & Allies is ranked no. 2 amongst Facebook games in accordance to the monthly number of active users. In June 2011, Empires & Allies has been launched in 12 languages accumulating more than 21 million MAUs in just the first twenty days. The concept of the game is allowing players build up their island empires, featuring a story based on one single player equipped with his own virtual army with the aim of defending his island against enemies and supporting his allies in the meantime. With a cast of 20 heroes and villains, the player has access to purchase supplies, interacting with his fellow players by communicating, helping or attacking each other.

4. FarmVille

FarmVille lets players cultivate their farms by plowing, planting and harvesting crops and trees. Players also care for their farm animals: milking their cows and collecting eggs from their chickens. FarmVille was the top game by daily active users on Facebook between August 2009 and December 2010, when CityVille claimed the top spot. Zynga continue to enhance the social aspects of the game, including in-game gifting to friends, cooperative crafting jobs and trading goods in the farmer’s market. In March 2011, Zynga released FarmVille English Countryside, which provides players the opportunity to create a second farm styled after an English country farm. In Zynga’s first retail tie-in in May 2010, Zynga
partnered with 7-Eleven to offer FarmVille-branded game cards and items on many of the convenience retailer’s products, including Slurpee and Big Gulp drinks in nearly 7,000 stores. In addition, Zynga partnered with Lady Gaga in May 2011 by creating GagaVille — a Lady Gaga-inspired farm where players could visit and listen to songs from her album Born This Way.

5. Mafia wars

Mafia Wars allows players to build their virtual criminal empires by collaborating with their friends to complete crime jobs, fight and rob other Mafia crews, run underground businesses and purchase criminal must haves like weapons and getaway cars. Set in New York City at launch, the game has added a number of locales for players to expand their criminal empires: Cuba in June 2009, Moscow in September 2009, Bangkok in January 2010, Las Vegas in June 2010, Italy in October 2010 and Brazil in March 2011. These new locales included enhanced features and extended the popularity of Mafia Wars. Mafia Wars is available in eight languages.

6. Pioneer trial

Pioneer Trail (formerly FrontierVille) lets players tame the wilderness and explore the wild west. Players begin with a covered wagon and a plot of land to establish and grow a homestead with friends and family. Zynga believes that FrontierVille was innovative in the industry with a strong, evolving storyline about life on the frontier. It was zynga’s first social game to enable the ability to control multiple avatars on a single screen, raise a virtual family and interact with other players’ game boards. In 2010, FrontierVille released a set of five limited time Thanksgiving missions in November which increased engagement and bookings.
Players planted seasonal fall crops, helped friends with their wish lists, built a feast table and prepared a Thanksgiving meal for their friends.

7. **Word with friends**

Words with Friends is a leading social mobile game challenging players to create the highest-scoring words while playing against family and friends. Players can be engaged in up to 20 games at once and are able to chat with each other in game.

8. **CastleVille**

Castleville Allows players to build their very own Kingdom in a magical land. Banish the Gloom and nasty Beasties while you’re at it.

9. **Hidden Chronicles**

Embark on your Hidden Chronicles mystery after receiving a letter from Uncle Geoffrey, summoning you to the Ramsey Manor. You arrive only to find that your uncle died under suspicious circumstances and left behind a mystery that only you can solve. Explore beautiful scenes to uncover hidden objects, solve puzzles and unlock the mysteries of the Hidden Chronicles. While uncovering the mystery, it allows players to play with friends by challenging them to a game of Fast Find (find as many hidden objects as possible in 60 seconds) or hide a gift for them to find when they return. It's a fun mix of competition and cooperation. Hidden Chronicles is the most social hidden object game available today.

10. **Mafia wars 2**
Because being bad never felt so good, Zynga launched Mafia Wars 2 with more bad criminals. It makes players ready to rise up and crush, shank, pummel and blow their friends away.

11. Café world

In Café World, players are in charge of their very own restaurant. In this game players can choose from dozens of dishes to cook, then slice, chop, sauté and bake their way to the top of the culinary world!

12. Treasure Isle

In Treasure Isle, players become the world famous adventurers; they dig for rare and valuable treasure with their friends. Earn money, explore strange places, and decorate their very own island as they explore the world of Treasure Isle.

13. YoVille

Players hang out with friends in YoVille. Create a character and decorate their house. Host a party, chat, play games, send messages or gifts, shop, and earn coins.

14. FishVille

Players raise and sell fish in a fun aquarium they can decorate.

15. Indiana Jones Adventure World

Players grab life by the boulders and find fortune with Indiana Jones.

16. Vampire Wars

Players investigate and live the world of vampires.
Appendix 2

The Survey

CONSENT FORM

Date: March 15, 2012
Dear Zynga Game User:

This survey is conducted by Soha Eissa as part of the thesis requirements for obtaining the Master of Arts degree at the American University in Cairo. The purpose of the survey is to learn about usage patterns of Facebook-Zynga games among Adults in Egypt. This survey should not take more than 10 minutes to complete.

This survey is completely anonymous and responses will be handled with strict levels of confidentiality. You will not be asked to provide your name at any point. Taking part in this research study is completely voluntary. If you decide not to fill out this survey, or if you stop participating at any time, you won’t be penalized or lose any benefits for which you would otherwise qualify. Also, if you would like to answer some questions and leave others blank, that is entirely up to you.

There are no known risks from being in this study, and you will not benefit personally. However, I hope that others may benefit in the future from what I learn as a result of this study about Zynga game usage in Egypt.

Your filling out of the survey will indicate your consent to participate in my research study. If you have any questions about the study itself, you may contact me, Soha Eissa, at the email address provided below.

Thank you for taking the time to fill out the survey.

Sincerely,

Soha Eissa
MA Student
Department of Journalism and Mass Communication
The American University in Cairo
eissas@aucegypt.edu
1. How long have you been using Facebook?
   - less than 1 Year
   - between 1 year and 2 Years
   - between 2 years and 3 Years
   - between 3 years and 4 Years
   - between 4 years and 5 Years
   - more than 5 years

2. How many friends do you have on Facebook?
   - 0-100
   - 101-200
   - 201-300
   - 301-400
   - 401-500
   - 501-600
   - More than 600

3. How much time do you spend on Facebook on an average day?
   - Less than an hour
   - 1-2 hours
   - 2-3 hours
   - 4-5 hours
   - 5-6 hours
   - More than 6 hours

4. Have you ever played a game on Facebook?
   - Yes
   - No
5. Have you ever played any of the following Zynga games on Facebook? Please mark all games you've played before or are still playing.

- Zynga Poker
- FarmVille
- CityVille
- Empires & Allies
- Mafia Wars
- Mafia Wars 2
- Cafe World
- Adventure World
- Pioneer Trail
- Yo Ville
- Vampire Wars
- Pet Ville
- Castle Ville
- Hidden Chronicles
- Words with Friends
- Fish Ville
- Never played any of these games

6. How long have you been playing Zynga games in general?

- More than 2 years
- Between 1 year and 2 years
- 9-12 months
- 6-8 months
- 3-5 months
- 1-2 months
- Less than a month
7. Which games are you currently playing? Please mark only the games you're still playing.

- Zynga Poker
- Farm Ville
- City Ville
- Empires & Allies
- Mafia Wars
- Mafia Wars 2
- Cafe World
- Adventure World
- Pioneer Trail
- Yo Ville
- Vampire Wars
- Pet Ville
- Castle Ville
- Hidden Chronicles
- Words with Friends
- Fish Ville

8. Are you still playing Zynga Games?

- Yes
- No

9. What is your favorite Zynga game?

- Zynga Poker
- Farm Ville
- City Ville
- Empires & Allies
- Mafia Wars
- Mafia Wars 2
- Cafe World
- Adventure World
- Pioneer Trail
- Yo Ville
- Vampire Wars
- Pet Ville
- Castle Ville
- Hidden Chronicles
- Words with Friends
- Fish Ville
10. How long have you been playing your favorite game?

- More than 2 years
- Between 1 year and 2 years
- 9-12 months
- 6-8 months
- 3-5 months
- 1-2 months
- Less than a month

11. Have you ever purchased online Zynga credits or coins?

- Yes
- No

12. Have you ever joined Facebook Groups dedicated especially for Zynga Games?

- Yes
- No

13. Have you ever added friends that you don't know to increase your game players/Neighbors?

- Yes
- No

14. On average, how often do you play Zynga games?

- Once a week
- 2-3 time a week
- 4-6 times a week
- Daily

15. How often do you play Zynga games at work?

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely

16. Do you talk about game achievements when you are with friends or co-workers?

- Yes, often
- Yes, sometimes
- No, never
17. How much time do you spend in front of a computer on an average work day?

- Less than an hour
- 1-2 hours
- 2-3 hours
- 3-4 hours
- 4-5 hours
- 5-6 hours
- 6-7 hours
- 7-8 hours
- 8+ hours

18. My motives for playing Zynga Games are: (Please mark all that apply)

- To Pass the time (when bored)
- To be entertained
- To do something with others
- To forget about work/ other things
- To escape daily stress
- To feel excited
- To satisfy a habit
- To feel less lonely
- To explore the games
- To beat others
- To relax/relieve stress
- To make new friends
- To engage with my family and friends in an activity

19. Zynga games keep me excited about playing due to: (Please mark all that apply)

- Different fantasy world I've never experienced
- Ongoing games that have no end
- Engagement of my friends in the same game
- Competition with friends I know in real life
- Establishing new relationships
- Taking different roles than in real life
- Seeing the growth status of my (Farm, City, gangster…etc)
- Showing off your abilities in gaming
20. Please indicate your level of agreement with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order to excel in games, I need to increase my game neighbors/friends list.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In order to excel in games, I need to spend a lot of time playing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistent friends’ requests to join the Zynga games influenced me join.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook utilities such as chat, messaging, and tags are needed for success in Zynga games.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checking Zynga Games is part of my daily routine.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel proud posting pictures of my game growth status: (i.e. new buildings, new café, etc.).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would rather play Zynga games than go out with my family and friends.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel sad when I am not able to play Zynga games.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing Zynga games distracts me from work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing Zynga games does not negatively affect my personal relationships with friends and loved ones.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeing branded entertainment and celebrities on Zynga Games (such as McDonald’s, Enrique Iglesias and Lady Gaga) increases my urge to play.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zynga games enhance my knowledge about different cultures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel relieved after playing Zynga Games</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zynga games enhance my relationships with friends and family.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zynga games have helped establish new friendships.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. Demographics:

**Gender:**
Male
Female

**Age:**
Younger than 20 years old
21-25 years old
26-30 years old
31-35 years old
36-40 years old
41-45 years old
More than 45 years old

**Occupation:**
Unemployed
Employed
Business Owner
Housewife
Stay at home Dad

**Education:**
High School
College Degree
Post –Graduate degree

**Marital status:**
Single
Married
Divorced
Widowed

Thank You
Appendix 3

Interviews Questions

1. For how long have you been playing Zynga Games?
2. Why did you start gaming?
3. What is your favorite game?
4. Why do you like playing these games?
5. What do you feel while gaming?
6. Do you feel that gaming distracts your from work? If so, how?
7. How does gaming interfere with your personal life, if at all?
8. Do you view your gaming as time well spent, or a waste of time? Why?
9. Please describe any regrets you currently have, or have had, about your gaming experience(s).
Bibliography


Psychosocial Antecedents of Game Addiction. *International Communication Association*.


