

Selma IMPRAIM

**THE RELATIONSHIP AMONG INTERNET ADDICTION, USE OF
FACEBOOK AND ACADEMIC PERFORMANCE**

Thesis submitted to the
Institute of Social Sciences
in partial fulfillment of the requirements

for the degree of

Master of Arts

in

Psychology

by

Selma IMPRAIM

Fatih University

June 2012

M.A. Thesis in Psychology

June - 2012

THE RELATIONSHIP AMONG INTERNET ADDICTION, USE
OF FACEBOOK AND ACADEMIC PERFORMANCE

Thesis submitted to the

Institute of Social Sciences

in partial fulfillment of the requirements

for the degree of

Master of Arts

in

Psychology

by

Selma IMPRAIM

Fatih University

June 2012

© Selma IMPRAIM

All Rights Reserved, 2012

DEDICATION

The completion of my dissertation is dedicated to my late grandfather, Salih akır. He gave me unconditioned love and support through my educational journey.

APPROVAL PAGE

Student : Selma IMPRAIM
Institute : Institute of Social Sciences
Department : Psychology
Thesis Subject : The Relationship Among Internet Addiction, Use of
Facebook and Academic Performance
Thesis Date : June 2012

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Arts.

Assoc.Prof.Dr. Osman Tolga ARICAK

Head of Department

This is to certify that I have read this thesis and that in my opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts.

Assist. Prof. Dr. Hasan UĞUR

Supervisor

Examining Committee Members

Prof.Dr. Ömer Mücahit ÖZTÜRK

Assoc. Prof. Dr. Hasan UĞUR

Assoc. Prof.Dr. Şengül ÇELİK

It is approved that this thesis has been written in compliance with the formatting rules laid down by the Graduate Institute of Social Sciences.

Assoc.Prof. Mehmet KARAKUYU

Director

AUTHOR DECLARATIONS

1. The material included in this thesis has not been submitted wholly or in part for any academic award or qualification other than that for which it is now submitted.

2. The program of advanced study of which this thesis is part has consisted of:

i) Research Methods course during the undergraduate study

ii) Examination of several thesis guides of particular universities both in Turkey and abroad as well as a professional book on this subject.

Selma IMPRAIM

June, 2012

ABSTRACT

Selma IMPRAIM

June, 2012

THE RELATIONSHIP AMONG INTERNET ADDICTION, USE OF FACEBOOK AND ACADEMIC PERFORMANCE

The use of Internet is an integral part of daily activities of adolescents in many parts of the world. Recently, the online social network sites have become an essential part of the cyber world. Although, it has varieties of benefits for a number of applications and services, the emergence of the Internet also created a new problem called 'Internet Addiction' in which individuals experiences personal, social, academic and occupational problems due to the its excessive usage. The purpose of this thesis is to study Internet addiction levels of adolescents and its effects on their academic performance. The relationship between the Internet addiction levels and the time spent on Facebook is also examined.

The data of this thesis consist of 370 students between the ages of 15 – 17 year-old from two distinct high schools from Beylikdüzü-İstanbul. These participants have completed the Internet Addiction Scale and the Facebook Use Questionnaire.

According to the findings of the study, 77.8 percent of the participants have internet addiction in the lower level, 20.5 percent have it in moderates and only 1.6 percent of the participants have high level of internet addiction. In terms of gender differences, the male addiction in total scores is relatively high compared to the addiction of females. Furthermore, the statistics do not provide us with a meaningful connection between the Internet addiction levels and the academic performance of adolescents. Another result of the study is that

statistics are significantly helpful in understanding the relationship between the Internet addiction levels and time spent on Facebook.

Key words: Internet Addiction, Online Social Network Sites, Use of Facebook, Academic Performance, Adolescents.

KISA ÖZET

Selma IMPRAIM
Haziran,2012

İNTERNET BAĞIMLILIĞI, FACEBOOK KULLANIMI VE AKADEMİK PERFORMANS ARASINDAKİ İLİŞKİ

İnternet, dünyanın pek çok yerinde gençlerin günlük yaşamlarının ayrılmaz bir parçasıdır. Son zamanlarda online sosyal ağ siteleri de siber dünyanın bir parçası haline gelmiştir. İnternetin bir çok faydalı uygulamaları ve servisleri olmasına rağmen, aşırı İnternet kullanımıyla birlikte bireylerin kişisel, sosyal, akademik ve mesleki sorunlar yaşamasını tanımlayan yeni bir kavram olan 'İnternet Bağımlılığı' problemi ortaya çıktı. Bu tezin amacı ergenlerin İnternet bağımlılığı seviyelerini ve bunun akademik performans üzerine olan etkilerini araştırmaktadır. Ayrıca internet bağımlılığı seviyeleri ile Facebook'ta harcanan zaman arasındaki ilişki incelenmiştir.

Bu tezin örneklem grubu İstanbul-Beylikdüzü ilçesinden iki farklı okuldan seçilen 15-17 yaş arası 370 lise öğrencisinden oluşmaktadır.

Çalışmanın sonuçlarına göre, katılımcıların yüzde 77.8'inde düşük seviyede İnternet bağımlılığı, yüzde 20.5'i orta derecede İnternet bağımlılığı ve sadece yüzde 1.6'sı yüksek seviyede İnternet bağımlılığı oranlarına sahiptirler. Cinsiyet farklılığı açısından bakıldığında ise erkek katılımcıların İnternet bağımlılığı düzeylerinin kadın katılımcılara oranla nispeten daha yüksek olduğu bulunmuştur. Ayrıca, İnternet bağımlılığı seviyesi ve akademik performans arasında anlamlı bir ilişki bulunmamaktadır. Çalışmanın diğer bir sonucu ise

Internet bağımlılığı seviyesi ve Facebook'ta harcanan zaman arasında istatistiksel olarak anlamlı bir ilişki bulunmasıdır.

Anahtar Kelimeler: Internet Bağımlılığı, Online Sosyal Ağlar, Facebook Kullanımı, Akademik Performans, Ergenler.

LIST OF CONTENTS

DEDICATION.....	iv
APPROVAL PAGE.....	v
ABSTRACT.....	vii
KISA ÖZET.....	ix
LIST OF CONTENTS.....	xi
LIST OF TABLES.....	xiii
LIST OF APPENDICES.....	xiv
LIST OF ABBREVIATIONS.....	xv
ACKNOWLEDGEMENTS.....	xvi
CHAPTER I : INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.2. Significance of the Study.....	5
1.3. Purpose of the Study.....	7
1.4. Statement of the Problem.....	7
1.5. Research Questions.....	8
1.6. Theoretical Framework.....	9
1.6.1. Time Displacement Theory.....	9
1.7. Definitions of Terms.....	10
1.7.1 Internet addiction.....	10
1.7.2 Online Social Networking Sites (OSNs).....	10
1.7.3 Facebook.....	10
1.7.4 Academic performance.....	10
1.8. Limitations of the Study.....	11

1.9. Assumptions	11
CHAPTER II : LITERATURE REVIEW	12
2.1. Internet Addiction	12
2.1.1. Internet Addiction versus Excessive Internet Use	14
2.1.2. Studies about the Internet Addiction and Psychological Effects	15
2.2. Adolescents Internet Use	18
2.2.1. Adolescents' Internet Addiction and Academic Performance	19
2.3. Online Social Networking	23
2.4. Facebook	26
2.4.1 Reasons of the Facebook's Popularity	28
2.4.2. Facebook Addiction.....	29
2.5. Gender Differences	32
CHAPTER III : METHOD	33
3.1. Participants	33
3.2. Materials.....	33
3.2.1. Internet Addiction Scale.....	33
3.2.2. Facebook Use Questionnaire	34
3.3. Procedure.....	35
3.4. Statistical Analyses.....	35
CHAPTER IV : RESULTS	36
CHAPTER V: DISCUSSION	44
CHAPTER VI : CONCLUSION	48
REFERENCES	49
APPENDICES	58

LIST OF TABLES

Table.1	Demographic Data and Academic Performance
Table.2	The Result of Facebook Use Questionnaire
Table.3	Adolescents' Internet Addiction Levels
Table.4	Internet Addiction Levels and Time Spend on Facebook
Table.5	Internet Addiction Levels and Academic Performance
Table.6	Time Spend on Facebook and Academic Performance
Table.7	Gender Differences in Internet Addiction Level
Table.8	Internet Addiction Levels and Academic Performance –ANOVA
Table.9	Tests of Between-Subjects Effects for Academic Performance
Table.10	Internet Addiction Levels and Time Spend on Facebook-ANOVA
Table.11	Tests of Between Subjects Effects for Time Spend on Facebook

LIST OF APPENDICES

- | | |
|------------|----------------------------|
| Appendix A | Study Information Form |
| Appendix B | Internet Addiction Scale |
| Appendix C | Facebook Use Questionnaire |

LIST OF ABBREVIATIONS

OSNs: Online Social Network Sites

IAS: Internet Addiction Scale

DSM: Diagnostic and Statistical Manual of Mental Disorders

UCLA: University of California Los Angeles Loneliness Scale

ACKNOWLEDGEMENTS

I wish to thank those whose inspiration and support enabled me to complete this dissertation. My advisor, Assist. Prof. Dr. Hasan Uğur, consistently encouraged and supported me throughout the most stressful of circumstances. His encouragement, sense of humor and guidance made completing this study pleasurable. To my committee members, Prof. Dr. Ömer Mücahit Öztürk and Assoc.Prof.Dr. Şengül Çelik, thank you all for taking time to read my dissertation and gave contribution. Most importantly, I would like to special thanks to Assoc. Prof.Dr. Osman Tolga Arıcak, his ability to read my work and give me feedback within just a few hours or minutes was awesome. The task of completing this research project could never have been accomplished without the help of my friends who assisted, encouraged, enlightened, questioned and contributed to the process. Vilntan and Günay Chraloglou, generously read my dissertation and provided feedbacks. Züleyha and Ümit Yılmaz, they gave me unconditional support and encouragement. For this, I am thankful. I want to express appreciation to my family who inspired me to learn, grow, dream and live. My deepest love and respect go to my father and mother who have always been very supportive in every possible way. Although I can not fully express my gratefulness to them, I dedicate this dissertation to my parent. Also, I would like to thank my sister for being so nice to me. Like any valuable thing in the world, the dissertation journey has not been easy. In the midst of the study, life still carries on and the birth of my son brought me much joy as well as parenthood responsibilities. I specially thank to my beloved son Talha Eymen for his laughs and love throughout this experience. The loving presence of God had transformed the journey into a fulfilling adventure.

Finally, I would like to thank my wonderful husband, Gürkan, thank you for always believing in me and giving me the encouragement I needed when I wanted to stop. He believed in me when I was uncertain I could believe in

myself. Gürkan has supported (financially, emotionally and spiritually) all of my dreams from first day of my master journey. I could not have completed this journey without his help. My gratitude and my love to him are beyond words.

CHAPTER I : INTRODUCTION

1.1 Background of the Study

There have been many changes in every part of life with the advent of the technological developments. The Internet is the greatest invention of the last century and no one can ignore the significant impact of it in people's lives. Today 2.267.233.742 people all around the world are using the Internet (internetworldstats.com, retrieved February 15, 2012). Just like what happens when a new form of media is invented and brought into people's daily life such as, telephone and television, the potential negative effects of the Internet are also present for the social scientists (Bargh and Mc Kenna, 2004).

The concerns of the scientists about the positive and negative consequences of new technology applications are usually similar. For instance, the invention of the telephone raised many criticisms at that time. Proponents of this new technology supported the idea that using the telephone developed social relationships since people started to contact with their families, relatives, friends more often, and that business relations became easier despite long distances. On the contrary, opponents claimed that people found themselves less likely to visit each other in their homes, which resulted in decline in the quality of social relationships.

As seen in the advent of the telephone and the invention of the TV, these new technological developments have been criticized by many social scientists from past to present. For more than a century researchers have been interested in the effects of the mass media on our lives. After having measured the effects of the radio and television on people's lives for many years, the investigators today are focused on the Internet with the same objectives. People all around the world spend many hours a week watching television. Although television is often seen as an entertainment tool, it is usually more than that. Television is loaded with

almost everything about the life- news, information, messages and so on. It could have both positive and negative influences depending on how people use it. . Whether television serves as a source of information or as a tool for entertainment depends on how individuals choose to use it.

Studies about the television addiction inquire the psychological effects and negative consequences of TV addiction. In a study of Horvath about television addiction (2004), he asked typical questions of addiction research to participants with various problems associated with television viewing such as heavy viewing, craving for viewing, withdrawal from viewing. The results suggest that people scoring high on the television addiction scale have a tendency to turn on the television just as they wake up, feel guilty about the amount of time they watch, feel they should lower their viewing time and are annoyed by criticism about their television watching. Those who watch a lot of television are also very likely to feel the need to withdraw from watching television when going without it. Some feel withdrawal when going without television viewing and some become violent. One thing happens for sure to everybody with TV addiction: they become dependent on television. Likewise television, Internet also has the potential to make its users become dependent on it.

Since its emergence in 1960s, the Internet related technologies, applications and services have become an important part of many people's lives. Consequently, the Internet has affected almost all individuals in the world. People can communicate on online social network sites by exchanging e-mails, chatting, blogging. At the same time, various informational and educational opportunities are available as online services such as e-books, e-libraries, encyclopedias, newspapers, and so on. The potential of the internet-related services and applications seems to be limitless, as the internet increasingly becomes an inseparable and integral part of individuals' daily lives.

The Internet can be described as the net of nets that connects all computers in the world to each other or the net of connections that covers the entire world (Ersoy and Yaşar, 2003,cited by Tutkun,2011). The Internet is the most

important development of the information age. Using computers and the internet has become a daily routine and inevitable part of in today's modern world. In response to almost every inquiry, the internet is able to produce desired information easily and smoothly (Kılıç and Karaaslan, 2004, cited by Tutkun, 2011).

The changes in the way people live and work caused by the Internet have brought many positive and negative arguments in the society. Just as the telephone, television and other technological developments did, the Internet will also shape the 21st century. As a result, it is crucial for the researchers to investigate its profound effects and implications in people's daily and work lives. Like almost in all technological innovations and developments, the Internet could have great and essential influences on people's life, some of which might be positive and some others negative, depending on people's personal usage.

The growth of the Internet has impacted almost every aspect of life in the world. This technology has changed the way people interact with one another, work and spend their leisure time. As such, a countless number of other ways in which the Internet has changed people's lives could be included in the list. In most cases, the utilization of the Internet has improved people's lives with its simplicity of use and the growing amount of its content. However, in some cases the excessive use of the Internet has been linked to significant impairment in critical areas of functioning including social, academic, business life and physical health (Young, 1998). Therefore, the pathological Internet use has become a growing area of concern, interest, research and debate.

Therefore, like other technological tools, problematic human behavior regarding the internet use has also started to accompany the opportunities and facilities provided by the internet. Such negative behaviors of the internet users tend to increase in future due to the increases in the variety of its use, its duration and to the decrease in user age (Ceyhan,2011).

More than half of a decade, technology has become an agent of socialization through the development of online social networking sites. In 1990s, the primary purpose of the Internet usage was for entertainment. However with the start of the 21st century, the primary purpose has shifted to social interaction. According to Gross (2004), online social networks are online environments where people can present themselves on their individual profiles, makes links to other users and communicate with them. Ellison, Steinfield and Lampe also state that these sites can be oriented towards work-related contexts (e.g., LinkedIn.com), romantic relationship initiation (the original goal of Friendster.com), communion of those with shared interests such as music or politics (e.g., MySpace.com) or the college student population (the original incarnation of Facebook.com) (Ellison et al., 2007). Boyd and Ellison (2007) view the self presentation as a central element of online social networking participation.

Online social networking sites (OSNs) are increasingly popular among adolescents .They use different online communication tools, especially Facebook, to communicate with their families, high school friends and other social groups (Holtgten, 2007). There is an increasing tendency among the adolescents' participation in OSNs and inherently their psychological well being and academic performances are inevitably affected through the excessive interaction with each other via OSNs. OSNs have an increasing trend in the last decade. The OSNs are online communities which are one of the major examples of Web 2.0 applications. Sites such as Facebook have exploded in membership. In a short period of 2007 – 2011, Facebook estimates that its membership has grown from 50 million to over 647 million users (checkfacebook.com, retrieved November 19, 2011).

Turkey has about 30 million users and with this number it has the fourth largest population of internet users in the world. About 20% of them are children aged between 9 and 16 (socialbakers.com, retrieved February 20, 2012). Online social networks which are integrated parts of our daily lives bring up the questions of how these media platforms affect human development, relationships, and interaction. Due to the increasing rate in using OSNs, researchers in the area of social sciences have began to be interested in the

potential online risks such as cyber bullying, cyber harassment, privacy issues and internet addiction.

According to Holden (2001), the Internet abuse is the country's fastest growing addiction among various types of chemical and non-chemical addictions. Young (1996) conducted a study of 596 people and their levels of recreational (surfing the net for pleasure or personal interest) rather than academic or employment related purposes. The study classified dependent versus non-dependent Internet users based on responses to a number of questions previously used in gambling addiction research. The results revealed that dependent users spend a mean of 38.5 hours a week online; nearly eight times more than those of non-dependents. Dependents also gradually increased their Internet use as they became more familiar with the Internet, a tolerance level similar among alcoholics who increase consumption in order to achieve desired effect.

Most of the social network site studies conducted so far have focused on the social impact of Facebook and MySpace (Boyd and Ellison, 2007). However, there is a lack of research on the possible relationship between social network site use and academic performance. The first study of college students' Facebook use and academics indicated that Facebook users study less and earn lower grades than non-Facebook users (Karpinski and Duberstein, 2010). Other researchers have found positive and/or null relationships between Facebook use and grades (Pasek, More and Hargittai, 2009). Therefore, further investigation is necessary in order to determine whether adolescents' use of Facebook and/or other Internet sites is an issue of concern for higher education professionals.

1.2. Significance of the Study

The importance of this study is as follows: First, the Internet today is pervasive in the lives of individuals, institutions, and societies in Turkey. In the last few decades a dramatic increase in the use of the Internet and a computer-based technology has been witnessed. The most important reason for the spread of the Internet can be its easy and cheap accessibility. According to the statistical

research, the total number of the Internet users is 35 million and the total number of Facebook users is 30 million in Turkey (comScore.com, retrieved October 31, 2011). The sudden increase in Facebook use over the last several years may bring about an increase in time spent online and therefore the prevalence of the Internet related difficulties. Recently, there have been references to “Facebook addiction” in scholarly articles. (Kuss and Griffiths, 2011). However, researchers have yet to determine whether heavy Facebook use leads to social, psychological, academic or occupational problems.

Second, adolescents are more involved in the Internet activities than adults. The Internet users are most likely students and employees, followed by wagers and the jobless. People between the ages of 16-24 are found to use the internet more often than others, which includes high school as well as university students. However, this finding does not necessarily indicate a higher use of the internet in teaching-learning processes. Most high school and university students use the internet for chatting (51.7%) and other types of communication (45.6%) (Şahin, 2011). They are more involved in the communicative aspects of the Internet than adults and spend more time. Therefore, it is important to investigate the possible effects of the internet usage on adolescents and its effect on their academic performance.

Third, adolescents are more vulnerable than adults to the negative impacts of the Internet world. Teens may be trapped in their own cyber world, suffer from psychological pains and finally destroy their own personal and social networks due to the Internet addiction or excessive Internet use. Since they are immature, both physically and psychologically, they may develop more serious complications than other age groups regarding the negative impact of the Internet world (Orzack, 1999). Other challenges associated with excessive usage of the Internet include lowered concentration, lack of sleep, poor school attendance and performance, vision problems and a wide range of behavioral problems (Block, 2008).

In summary, although teenagers make greater use of the Internet than adults, there has been a little research specifically addressing the adolescents. The current study is intended to make a contribution to the literature on adolescent use of Facebook, Internet addiction levels and its effects on academic performance.

1.3. Purpose of the Study

The purpose of this study is to: 1) describe the Internet addiction levels and academic performance of adolescents 2) explore gender differences in terms of the Internet addiction levels 3) determine relationship between the Internet addiction levels and time spent on Facebook.

1.4. Statement of the Problem

The Internet has become an essential part of almost all people across the world. Although it has many advantages within its many useful applications and services, it also created a new problem called 'internet addiction' or 'problematic internet use'. However, since problematic Internet use is a relatively new phenomenon, research in this field has only produced a limited number of research studies.

An unprecedented growth has been witnessed on the Internet usage, specifically on social networking sites, with tens of millions of users now logging on to the Internet as a daily routine. For many adolescents, the Internet is an essential part of their lives. A research shows that adolescents largely use the Internet for social networking (Gross, 2004).

According to the data from comScore, 23.4 million people aged 15 or older in Turkey in August 2011 were accessing the Internet from home and/or work locations, and those users spent on average 32.7 hours online during the month, viewing an average of 3,706 pages. In Turkey, 23.4 million consumers spent a

total of 45.3 billion minutes on the Internet during the January 2012. While the number of wide band internet users in Turkey was 18.604 in 2003, it reached 8.7 million by the end of 2010 (Information Technology and Communication Institution, 2011: cited by Şahin, 2011).

Facebook was the most engaging site with 13.1 billion minutes spent on the site, accounting for 28.8 percent of all time spent online during the month (comScore.com, retrieved October 31, 2011). Despite the increasing number of users in OSNs in Turkey there is a little research in this area, so the aim of this survey is to make a great contribution to this field of research.

The main purpose of the study is examining the relationship between the adolescents' Internet addiction levels and their academic performance. This relationship will also be explained from the point of gender differences. Furthermore, the relationship between adolescents' Internet addiction levels and the time spent on Facebook will also be explored.

1.5. Research Questions

Based on the previous research discussed above, the study tries to answer the following research questions:

- 1) What are the internet addiction levels of adolescents'?
- 2) Is there a significant relationship between internet addiction levels and time spent on Facebook?
- 3) Is there a significant relationship between internet addiction levels and academic performance?
- 4) Is there a significant relationship between time spent on Facebook and academic performance?
- 5) Are there any gender differences in terms of internet addiction levels?

- 6) Are there any significant differences between adolescents' internet addiction levels according to their academic performance?
- 7) Are there significant differences between adolescents' internet addiction levels according to time spent on Facebook?

1.6. Theoretical Framework

1.6.1. Time Displacement Theory

The time people spend on the electronic media and the impacts of those electronic communication tools on people's activities and daily lives has been of interest to policy makers and researchers since the advent of television (Altheide, 1997). Young children and adolescents are seen as particularly vulnerable to the influence of electronic media and the internet as well.

The time displacement theory assumes that adolescents have a limited amount of time (Mutz, Roberts and van Vuuren, 1993). Therefore increased amounts of time spent on non-educational use of the Internet may negatively affect the adolescents' academic achievement. This displacement may happen because the Internet, which entertains adolescents with stimulating images as well as visual and auditory effects, is more attractive and immediately gratifying than are school-related activities. Researchers have also reported that problematic Internet use among adolescents brings negative outcomes in school performance, as well as to social skills (Caplan, 2005).

The amount of time people spend online could affect the individuals' lives. In a study of Internet addiction of Young (1996) non-dependents report no adverse effects from spending time on the Internet, except they easily lost track of time while online. Dependents, however, reported too much time spent online resulted in personal, family and occupational troubles. It is becoming more and more apparent that overuse of the Internet could lead to problems in people's daily lives. Therefore, it is anticipated that the non-educational use of the Internet will negatively affect adolescents' academic performance.

1.7. Definitions of Terms

1.7.1 Internet addiction

Internet addiction, pathological Internet use, problematic Internet use, Internet dependence, compulsive Internet use and excessive Internet use; all of these terms try to define almost the same concept, that is characteristics of people who have personal, family, or school/work related problems associated with the use of the Internet. Among these terms, Internet addiction is most commonly used (Byun et al., 2009) and for this reason this thesis uses the term Internet addiction. The concept of the Internet addiction refers to the excessive use of the Internet which in turn causes various problems in individuals, social and professional aspects. The Internet addiction recently began to be analyzed as a matter of psychology in association with various psychological problems in the academic world (Şahin, 2011).

1.7.2 Online Social Networking Sites (OSNs)

Web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system (Boyd and Ellison, 2007).

1.7.3 Facebook

“An online social utility that helps people communicate more efficiently with their friends, family and coworkers” (Facebook.com, retrieved November 20th, 2011).

1.7.4 Academic performance

Students are asked to self-report their grades in the last semester (certificate of academic excellence, certificate of merit, no more poor grades, one poor grade, one more than poor grades).

1.8. Limitations of the Study

This study a limitation, that all survey researches: the data are self-reported by the survey participants. Participants may have answered the survey based on what they believed to be the most socially acceptable answer or the answer that they believed the surveyor wanted them to report. The second limitation of the study is that the participants are limited to two public high school students in Beylikdüzü - İstanbul. The students are from the same demographic region and thus the homogenous sample will limit the results. The findings derived from the study of the mentioned samples may not be generalized to other students, schools or other geographical areas in Turkey with different demographics.

1.9. Assumptions

It is assumed that the subjects are representation of grade point averages and demographic data that made them representative of the average adolescent population. It is also assumed that the subjects have reported their answers accurately and honestly.

CHAPTER II : LITERATURE REVIEW

2.1. Internet Addiction

In the literature, several terms have been proposed to describe pathological Internet use: The Internet addiction, cyberspace addiction, Internet addiction disorder, online addiction, net addiction, Internet addicted disorder, pathological Internet use, high Internet dependency, problematic Internet use and others (Frangos, Frangos and Kiohos, 2010). The Internet addiction or excessive use of the Internet with adverse consequences does not appear in any official diagnostic system, including DSM-IV. Block (2008) has argued that Internet addiction is a common disorder that merits inclusion in DSM-V.

Internet addiction is still not defined as a disorder in “Diagnostic and Statistical Manual of Mental Disorders” (also known as “DSM-IV-TR”) published by the American Psychological Association in 2000 (Şahin, 2011). It was suggested that pathological gambling disorder was viewed as most akin to internet addiction (Köroğlu, 2001; Öztürk et al., 2007: cited by Şahin, 2011).

The term “Internet addiction” has been one of the most commonly used terms to describe problematic Internet use. However, it has been argued whether the term “Internet addiction” is an accurate or precise term describing the characteristics of people who have personal, family, or school/work related problems associated with the use of the Internet. Griffith (2000) defined “Internet addiction” as a type of technological addiction involving nonchemical (behavioral) addiction to a human-machine relationship.

Internet addiction has the following 4 components: (1) excessive use, which is often associated with a loss of a sense of time or a neglect of basic drives; (2) withdrawal, including feelings of anger, tension, and / or depression, when the computer is inaccessible; (3) tolerance, including the need for better computer

equipment, more software, or more hours of use; and (4) negative repercussions, including arguments, lying poor achievement, social isolation, and fatigue (Beard and Wolf, 2001).

Young (1996) conducted a study of 596 people and their levels of recreational (surfing the net for pleasure or personal interest) rather than academic or employment related purposes. The study classified dependent versus non-dependent Internet users based on responses to a number of questions previously used in gambling addiction research. The results revealed that dependent users spent a mean of 38.5 hours a week online; nearly eight times more than those of non-dependents. Dependents also gradually increased their Internet use as they became more familiar with the Internet, a tolerance level similar among alcoholics who increase consumption in order to achieve desired effect.

Another study of Young (1998) suggested that Internet addiction is more similar to impulse control disorder than to substance dependency and he recommended an alternative definition for Internet addiction; one based on the DSM-IV criteria for impulse control disorder such as pathological gambling. This definition requires that in order to qualify as an addict, a person needs to meet five of eight criteria. These eight criteria are preoccupation with the Internet, the need to spend increasingly more time online, repeated unsuccessful attempts to reduce time online, withdrawal symptoms, time management issues, environmental distress (family, school, work, and friends), deception about time spent online, and mood modification through Internet use.

Problematic Internet use has been identified as a pathological behavior, but its symptoms may be found in otherwise healthy populations (Chou and Hsiao, 2000). Problematic users spend more time than non problematic users on the Internet, resulting in behavioral and functional effects: they neglect work and other responsibilities, they sleep less, and they feel life is boring without the Internet (Nalwa and Anand, 2003). Other addiction characteristics are compulsive using, withdrawal, tolerance, and problems with school, health,

family, finance, and time management (Tahiroglu, Celik, Uzel, Ozcan and Avci, 2008).

Individuals use the internet for various purposes. The internet use has generally motives such as communication, entertainment, and information gathering (Shaw and Gant, 2002). Pathological users were more likely to use the internet for more reasons such as recreation, non-real-life social contacts, and emotional support (Morahan-Martin and Schumacher, 2000). Therefore, when examining the internet addiction, the content of the internet use should also be taken into account (Hall and Parsons, 2001). The content of Facebook as an OSN site is suitable for investigating internet addiction in this study.

The diagnosis of Internet addiction remains problematic. It does not appear in any official diagnostic system, including DSM-IV, and there are no widely accepted diagnostic criteria. Four components have been suggested as essential to the diagnosis : 1) excessive Internet use, often associated with a loss of sense of time or a neglect of basic drives, 2) withdrawal, including feelings of anger, tension, and/or depression when the computer is inaccessible, 3) tolerance, including the need for better computer equipment, more software or more hours of use and 4) adverse consequences, including arguments, lying, poor school or vocational achievement, social isolation, and fatigue (Weinstein and Lejoyeux, 2010). Internet addiction disorder is being considered for the 2012-2013 editions of the Diagnostic and Statistical Manual of Mental Disorders (dsm5.org, retrieved March 4th, 2012).

2.1.1. Internet Addiction versus Excessive Internet Use

Although the earliest reports on the phenomenon of excessive use of the Internet date back to the 1970s, it was not until the early 1990s that reports began to appear in the medical and psychological literature for what Griffiths called a 'technological addiction', described it as a 'non-chemical addiction involving human-machine interaction' (Chakrabarty, Basu and Kumar, 2010).

Even though there are two distinct meanings, sometimes the terms “Internet addiction” and “excessive Internet use” are used interchangeably in the Internet addiction literature, the latter usually refers to very large amounts of time spent online, while Internet addiction implies that the user has met a set of diagnostic criteria similar to the criteria for substance dependence or pathological gambling (Suhail and Bargees, 2006). Studies have shown that Internet dependents do tend to spend significantly more time online compared to non-dependents (Young, 1996). Internet dependents reported a striking average of 39 hr per week spent online, compared to the 5 hr of non-dependents. In other words, dependents spent the equivalent of a “full-time job” on the Internet and spent nearly 8 times the number of hours per week online than did non-dependents.

However, spending large amounts of time online does not necessarily lead to Internet addiction or other Internet related problems. As Morahan-Martin and Schumacher (2000) suggested, pathological Internet use is not just about how much time people spend on the Internet, but how their Internet use impacts other areas of their lives. When it comes to time spent online there is no clear answer to the question, “How much is too much?”

According to the literature review, Internet use has been associated with problems with maintaining daily routines, school performance, and family relationships. Excessive use of the Internet may bring on Internet Addiction Disorder, which includes problems with daily routines, school performance, and family relationships.

2.1.2. Studies about the Internet Addiction and Psychological Effects

Gross, Juvonen, and Gable (2002) studied 7th graders to examine the effects of Internet use on the well-being of young adolescents aged from 11 to 13. The researchers also asked participants to complete the UCLA loneliness scale, the Social Anxiety Scale for Adolescents, the Child Depression Inventory, and the Student’s Life Satisfaction Scale. The researchers found that the average daily

time spent on various activities by students was divided into six areas: online activities (46 mins.), clubs/lessons (62 mins.), watching television (62 mins.), doing homework (129 mins.), talking on the phone (64 mins.), and hanging out with friends (70 mins.). Time spent online did not correlate with scores on any of the psychological measures including the UCLA loneliness scale, the Social Anxiety Scale for Adolescents, the Child Depression Inventory, and the Student's Life Satisfaction Scale. They found no main effects of the time spent online and measures of the well-being of the participants.

Nalwa and Anand (2003) studied 100 randomly selected 16-18 year-old students from a public school in India employing the Online Cognition Scale (OCS), and the UCLA Loneliness Scale. Comparison of scores on the UCLA Loneliness Scale and items from the semi structured questionnaire found significant differences between dependent and non-dependent students on (1) delaying work to spend time online, (2) losing sleep due to late night use, (3) feeling that life without the Internet would be boring, (4) feeling upset when failing to log on at a predetermined time, (5) loneliness, (6) length of time of Internet use, and (7) length of time since first Internet use. However, there were no statistically significant differences on their ability to control time spent online or applications used (e-mail, chat rooms, search engines, games, gambling, e-cards/jokes, and auction or shopping).

Douglas, Mills, Niang, Stepchenkova, Byun, Ruffini (2008) conducted a meta-synthesis of qualitative Internet addiction research for the decade 1996-2006. The researchers noted that despite a decade of academic research, the concept of Internet addiction remains at its infancy. Nevertheless, Douglas et al. concluded that the problem of Internet addiction can no longer be denied. The researchers asserted that the main antecedents of Internet addiction are loneliness and poor self-esteem. Addiction symptoms include excessive time spent online, problem denial, and moodiness while offline. Internet addicts experienced problems in at least one area of their lives: academic, occupation, interpersonal, financial, and physical.

These include symptoms of internet dependence, such as negative feelings (e.g. depression) when not on the internet, spending excessive time and money when participating in online activities, having a growing tolerance to any effects that may do harm to him/her while online and developing a strong sense of denial about having any sort of problem (Huang et al. 2009).

Addicts may use the Internet for extended periods, isolating themselves from other forms of social contact and focus almost entirely on the Internet rather than broader life events. In a sample of Italian adolescents, 36.7% showed signs of problematic Internet use. They used the Internet for many hours per week, mostly utilized dysfunctional coping strategies and showed worse interpersonal relations than peers who do not show signs of problematic Internet use. Others have suggested that Internet addiction can be explained by a need to escape from oneself and that may account for the excessive playing of Internet games (Weinstein and Lejoyeux, 2010).

Cross-sectional studies on samples of patients report high comorbidity of Internet addiction with psychiatric disorders, such as affective disorders, anxiety disorders (including generalized anxiety disorder, social anxiety disorder) and attention deficit hyperactivity disorder (ADHD). It has been suggested that the relationship between loneliness and preference for online social interaction is spurious and that social anxiety is the confounding variable (Caplan, 2007: cited by Weinstein and Lejoyeux, 2010).

The treatment of choice advocated by proponents of PIU is cognitive-behavioral therapy (Young, 2007). This method helps individuals identify and modify the thoughts and feelings that feed their addiction. Psychopharmacology, specifically selective serotonin-reuptake inhibitors (SSRIs), has also demonstrated some effectiveness in the treatment of PIU (Wieland, 2005).

2.2. Adolescents Internet Use

Adolescence is a formative period of values, life-styles and health behaviours. Due to being in the middle of their personality development and rapid psychological maturation, adolescents are more vulnerable than adults to harmful influence of various addictive agents such as substances or, perhaps, excessive use of the Internet (Heino, Lintonen and Rimpale, 2004).

This generation of Internet users, young people immersed in technology all of their lives, had advanced technical skills and learned differently from their previous generation and had a seemingly unlimited access to information—and to each other (Bennett, Maton and Kervin, 2008). Prensky (2001) described the current generation whose lives are immersed in technology which is surrounded by and using computers, videogames, digital music players, video cams, cell phones and all other toys and tools of the digital age. He argues that children and young adults today, due to their relationship with technology from birth, have an innate technological competence that can be characterized as multitasking.

According to Veen and Vrakking (2003), children belonging to this generation develop – on their own and without instruction – the meta-cognitive skills necessary for enquiry-based learning, discovery based learning, networked learning, experiential learning, collaborative learning, active learning, self organization and self regulation, problem solving, and making their own implicit (i.e., tacit) and explicit knowledge specific to others. In addition, Beastall (2008) stated that the current generation of children and young adults has an advanced relationship with technology that is formed at birth.

Öztürk, Odabaşoğlu, Eraslan, Genç, Kalyoncu (2007) reported that internet addiction turned out to be a serious risk factor particularly for 12-18 age group (Öztürk et.al, cited by Şahin). Hahn and Jerusalem (2001) also reported that the individuals belonging to the age group of 20-29 used the Internet more, while internet addiction scores of the individuals belonging to the group of 19

and below was higher than other groups and that this situation varied according to gender(Hahn and Jerusalem,2001:cited by Şahin,2011). Therefore, adolescents have been chosen as a target population for this study.

Adolescents are in favor of instant messaging, text messaging and social networking websites such as Facebook and Twitter as modes of communication. Some adolescents prefer digital communication over more traditional ways such as face to face interaction particularly because these are more convenient, less expensive, and faster to use than traditional technologies (Jin and Chee, 2008).

According to Erdoğan (2008), Turkish adolescents' loneliness was associated with both increased Internet usage and Internet attitudes. Adolescents who reported excessive uses of the Internet for web surfing, instant messaging, emailing and online games had a significantly higher mean score of loneliness than those who did not. In addition, male adolescents reported a higher frequency of Internet usage and more loneliness than females. Male adolescents reported a higher frequency of web surfing and online games than females. However, females reported a higher frequency of e-mailing.

2.2.1. Adolescents' Internet Addiction and Academic Performance

The Internet gives great opportunities to adolescents about making research about their homework and projects. The Internet is a useful tool to aid in their education. On the other hand, studies reveal that students can suffer from academic problems if they surf on non-academic Web sites for personal enjoyment. Students reported that misuse of the Internet led to difficulty in completing homework, studying for tests and getting enough sleep to be alert for class the next day. In some extreme cases, students who failed to control their Internet use received poor grades, academic probation and expulsion (Young, 1996).

Although the merits of the Internet make it an ideal research tool, students experienced significant academic problems as they surfed on irrelevant web sites, engaged in chat room gossip, conversed with Internet pen-pals, and played interactive games at the cost of productive activity. Students had difficulty in accomplishing their assignments, preparing for exams and getting ready for classes the next morning with enough sleep due to such Internet misuse. Often times, they were unable to control their Internet use which eventually resulted in poor grades, academic probation, and even expulsion from the university (Young, 1996).

Kubey, Lavin and Barrows (2001) conducted an in-class survey with 576 undergraduate students at a university in New Jersey to examine the relationship between Internet use and academic performance. Subjects who self-reported that they were Internet dependent spent nearly three times as much recreational time online per week (11.18 hours) than did students who did not consider themselves Internet dependent (3.84 hours). Thirty out of the 53 dependent users reported Internet-related academic impairment.

Adolescence is an intense time of emotional and physical change in a young person's life. It is a time when rapid developmental changes and transitions occur, and adolescents begin to form and shape into young adults. Adolescents have been depicted as the age group at highest risk for the development of problematic Internet use. Since adolescents are in the process of psychological maturation, they have been cited as being particularly vulnerable to developing addictive behaviors (Kaltiala-Heino, Lintonen and Rimpela, 2004: cited by Czincz and Hechanova, 2009).

Canbaz,S., Sunter, Peksen and Canbaz M.A., (2009) conducted a cross-sectional study in Samsun to investigate excessive use of the Internet among adolescence in 2005. They found that participants of the internet users, 10(1.2%), 161 (19.9%) and 639 (78.9%) were Internet addicts (IAs), possible Internet addicts (PAs), and nonaddicts (NAs), respectively. Also, they found that males were more likely than females to be pathological users in this study.

According to the study of Ceyhan (2011), university students' perceived communication skill levels did not differ with respect to their main internet use purposes but that the levels of their problematic internet use did. In this respect, it was found that in terms of basic internet use purpose, the problematic internet use levels of the university students who "use the internet for entertainment purposes" and of those who "use the internet to establish social relationships with unfamiliar people" were significantly higher than that of those who "use the internet to obtain information." This result points out that the use of the internet for entertainment and social interaction constitutes an important risk factor for the emergence of the problematic internet use symptoms.

Tahiroglu et.al. (2008) investigated Internet use habits and problematic Internet use in Turkish adolescents. Participants were 3,975 undergraduate students, 7.6% of whom used the Internet for more than 12 hours weekly. The Online Cognition Scale (OCS) was used. The most common purpose for using the Internet was playing games, followed by general information search. Female users mostly preferred searching for general information whereas male users preferred playing games. The most preferred type of game was violent games. While preference for strategy and fantasy role-play games increased with age, preference for other games decreased. Participants who used the Internet mostly for general information searches and school-related searches had lower OCS scores. The highest OCS scores were related to violent games, followed by FRP, strategy, and sports and motor racing games. Computers and the Internet are useful, important inventions, but like other inventions, if used improperly, they may be harmful. Risk of harm raises concerns about who should use the Internet and computers, and where, when, and why the Internet and computers should be used.

Özçınar (2011) examined the extent of Internet addiction among adolescents in North Cyprus. Eight hundred and fifty-one participants between the ages of 14 to 26 completed the Internet Use and Addiction questionnaire. Results indicated that 6.6% of the participants were addicted to the Internet. Younger high school students were found to have the highest rate of Internet

addiction, followed by university students. Males were shown to have significantly higher rates of Internet addiction than females for all age groups. Academic, interpersonal and physical problems were all found to be associated with Internet addiction.

In the study of Hunley, Evans, Delgado-Hachey, Krise, Rich and Schell, they found no relation between computer use and academic achievement. For example, no relationship was found between time spent on the computer at home and GPA in a sample of adolescents (Hunley et al, 2005). Other researchers have found that recreational Internet use is strongly correlated with impaired academic performance. Approximately 10-15% of study participants reported feeling not being in complete control of their Internet use, and that it has hurt their schoolwork. Students who reported Internet-caused schoolwork problems were found to have spent five times more hours online than those who did not, and they were also significantly more likely to report that their Internet use caused them to stay up late, get less sleep, and miss classes (Kubey, Lavin and Barrows, 2001).

Facebook use and academic achievement as measured by self-reported GPA and hours spent studying per week and found a correlation between Facebook use and GPA (Karpinski and Duberstein, 2010). On the contrary, Pasek, More and Hargittai (2009) found no relationship between Facebook and GPA. In summary, the overall consensus needs more research about the relationship between OSNs and academic performance.

Chen and Peng (2008) conducted an online survey on 49,609 students from 156 universities in Taiwan. They defined the heavy Internet users as those who used the Internet over 33.9 hours per week and those under this threshold as non-heavy users. Differences in academic grades and learning satisfaction between heavy and non-heavy Internet users were statistically significant. Non-heavy users had better grades and greater learning satisfaction than heavy users.

After a series of 10 cardiopulmonary-related deaths in Internet cafes and a game-related murder, South Korea considers Internet addiction one of its most serious public health issues. Using data from 2006, the South Korean government estimates that approximately 210,000 South Korean children (2.1%; ages 6–19) are afflicted and require treatment. About 80% of those who need treatment may also need psychotropic medications, and perhaps from 20% to 24% of them require hospitalization. Since the average South Korean high school student spends about 23 hours each week gaming, another 1.2 million are believed to be at risk for addiction and to require basic counseling. In particular, therapists worry about the increasing number of individuals dropping out from school or work to spend time on computers. As of June 2007, South Korea has trained 1,043 counselors in the treatment of Internet addiction and enlisted over 190 hospitals and treatment centers (Block, 2008).

In this study, the relationship between Internet addiction and academic performance will be investigated. Based on the literature, it is expected that higher levels of Internet addiction and use of Facebook negatively affect the adolescents' academic performance.

2.3. Online Social Networking

In the 1990's, the Internet was primarily used for entertainment and information gathering (Valkenburg and Soeters, 2001), but the function of the Internet for adolescents has changed considerably. The majority of adolescents today use the Internet intensely to communicate with existing friends and to make new friends (Gross, 2004). With the advent of social networking, the functions of the Internet have started to change and OSNs became more popular. Boyd and Ellison (2007) define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.

OSNs are web based services which consist of online social networks and allow people form their profiles and share interests and activities. According to the online social network research report 'social networking websites are online communities of people who share interests and activities or who are interested in exploring the interests and activities of others (Gross, 2004). They typically provide a variety of ways for users to interact, through chatting, messaging and emailing.

Das and Sahoo (2011) defined the online social networking as a type of virtual communication that allows people to connect with each other. This concept arises from basic need of human beings to stay together in groups forming a community. Michael Wesch, cultural anthropologist at Kansas State University, compared the tribal societies to online social networking. Like the tribal culture, in Facebook people project their identity by demonstrating their relationships to each other. You define yourself in terms of who your friends are (Das and Sahoo, 2011).

OSNs create a new area for social interaction. They provide a new environment for people to initiate and develop relationships in a way that is different from the offline or real world. Although there are many OSNs, the most popular ones among them are Facebook, Twitter, LinkedIn, MySpace and Ning respectively (comScore.com, retrieved October 31, 2011). The sample of this study is high school students in Turkey and the most widely used online social network site is Facebook for this population. Accordingly, the emphasis will be much more on Facebook in the study due to its frequency of use and its target population at first.

People communicate for different kinds of purposes and needs. The traditional form of communication is based on face to face communication but in today's technological world, the online communication has become as the major one among the communicative tools. With the arrival of OSNs, the norms of friendship formation have changed. OSNs allow people to establish and maintain social networks both in online and offline environment in a known identity rather than anonymity.

Studies defined that OSNs consist of personal home pages which have profiles with private information about the owners. Moreover, these sites offer text messages and members can upload photos and videos to share it with their friends and any one on the friend list can post comments. After establishing the profiles, members are asked to send invitations to their friends by submitting their email addresses. Looking to other's profiles is another way to add friends. The majority of social network sites require other's approval to be added as friend. When friendship has confirmed, they can surf the sites from friend to other, and they can communicate and share their information with each other (Boyd and Ellison, 2007).

Spending time for entertainment, communication with friends and trend following may be reasons for increase tendency on using OSNs among adolescents. Due to the popularity and importance of the OSNs in adolescents' lives, it is essential to understand and identify the factors influencing OSNs' use and their effects on adolescents' internet addiction levels and academic performance.

The members of OSNs have increased all around the world. As an OSN site Facebook is the second most visited site in the world and the most visited one in Turkey, surpassing even Google (Alexa.com, received by February 8th 2012). Social network sites such as MySpace, Facebook, Windows Live Spaces, Orkut and Hi5 have attracted millions of users and are used for many different purposes (Bicen and Cavus, 2010). Facebook is one of the most popular among the adolescents created by Mark Zuckenberg in 2004 at Harvard University. Many high school students have OSNs accounts and check their account multiple times a day. Surfing the OSNs became a daily routine for majority of them. Therefore, it is important to recognize the effects of using OSNs for the scholars.

Teenagers are among the most avid users of technology in general and social network sites in particular (Lenhart, Madden, Macgill and Smith, 2007). According to many research in the area of social media today's youth are increasingly connected to the world through OSNs. While teenagers are engaged with technology, they may more disengage from another major component of

their lives – school. Adolescents may tend to be unaware of just how much time they really spend on Facebook, and the effect this might have on their academic performance.

Based on the time displacement hypothesis, increased amounts of time in non-educational use of the Internet may sacrifice time in educational activities, such as studying, reading, and doing homework. Consequently, using social use of the Internet will result in the displacement of academic activities and will eventually decrease the adolescent's academic achievement. The key question of this thesis is: What is the relationship between Facebook use and academic achievement among adolescents in Turkey?

2.4. Facebook

In today's world, many people spend much more time on the internet and social network sites; it became quite influential in our lives. Back in 2007, social networking represented about 1 out of every 12 minutes spent online, while today it accounts for 1 out of every 6 minutes are spent online (comScore.com, retrieved in October 31, 2011). There were 22,768,000 people aged 15 or older in Turkey in March 2011 accessing the internet from home and/or work locations, according to comScore and those users spent on average 29.4 hours online during the month, viewing an average of 3,098 pages.

Facebook was created by Mark Zuckerberg in 2004, who was a Harvard University undergraduate at the time. Initially, membership was restricted to Harvard students, but by 2006 anyone 13 or older with a valid email address was permitted to join. Currently, Facebook is estimated to have more than 500 million members, who altogether spend over 700 billion minutes each month on the site (Facebookstatistics.com, retrieved November 20, 2011). At the time of writing this thesis, Facebook is the most popular OSN site in Turkey (comScore.com, retrieved from October 31, 2011). With more than 500 million active users, it is the fourth largest country after China and India. People spend over 700 billion minutes per month on Facebook and 70 percent of users are

from outside United States. Interestingly, an average user has 130 friends on Facebook (Facebookstatistics.com, retrieved November 20, 2011).

Facebook's mission is "to give people the power to share and make the world more open and connected" .The official Facebook description reads, "millions of people use Facebook everyday to keep up with friends, upload an unlimited number of photos, share links and videos, and learn more about the people they meet" (Facebook.com, retrieved November 20,2011). Like other social network sites, Facebook allows users to create a profile, add friends, post pictures and videos, send and receive messages, make comments, join groups and networks, and advertise events.

Facebook has a variety of privacy settings that permit users to control the type of content other Facebook users can see or an option for limited profile that users can block particular people from seeing their profile and/or sending them a friend request. Facebook users can choose appropriate privacy setting and control the content other users can see. For instance, users can block particular people from seeing their profile or allow certain people to see a limited profile. However, from the beginning Facebook has been questioned about the privacy issue. It is no doubt that many private aspects of people's lives have become public with the emergence of Facebook,.

Many employers have banned Facebook in their work places to discourage employees from wasting time during working hours. There were more than 150 million users who accessed Facebook through their mobile devices (Facebookstatistics.com, retrieved November 20, 2011). Many new smart phones offer access to the Facebook services either through their web-browsers or an application, thus giving users' 24-hour access to Facebook.

Nowadays, almost every social place is providing Wi-Fi service and this technology gives an opportunity to be online in every time and everywhere. Currently, people can use their phones to update their OSN site accounts, check other people and share everything. People have become to know everything

about their friends through the monitors of their computers and cell phones. Although, the purpose of OSNs is to keep in touch with family, friends, and old friends that one may have lost touch with. Addiction to these internet websites becomes a problem once it starts to interfere with daily life.

2.4.1 Reasons of the Facebook's Popularity

The convenience of networking, interacting, sharing, and chatting all became possible at the same time, which is indeed the most attractive and addictive feature of online social networking. Sheldon (2008) found many people use the social network site Facebook to meet similar needs including relationship maintenance, entertainment, and passing time. The user-friendly, multi-tasking, and social networking capacity of Facebook has made it a popular site for teens. Facebook has a number of features that made it user friendly and the most preferred OSN site for people (comScore.com, retrieved October 31, 2011).

Facebook is an interactive platform where people get to see the profile of their friends, know their likes and dislikes, their relationship status, views and interest and they can also get the opportunity to find and become a member of groups under common interest. Photos section allows users to post their photos which can also be seen by other members. The photos feature of Facebook allows its members to upload photos, unlike other photo management websites; this network limits the number of photos which can be uploaded. The feature of 'Status' allows an individual to show his or her actions and their location to all their friends.

Commend an instant messaging service and 'Chat' feature of Facebook enables communication among online members. News feed, a feature of Facebook enables users get updates on changes in profile information, a note on upcoming happenings and birthdays. It gives opportunity to follow upcoming events and organizations. The 'Gift' feature of Facebook enables the user to send

virtual gift at a cost of \$1 together with message. All of these features make the Facebook attractive for adolescents.

2.4.2. Facebook Addiction

While several studies in last decade focused on Internet addiction, the next decade will see a growth of a new addiction related to all manner of social networking sites which could be identified as a 'social network addict' (Karaiskos, Tzavellas, Balta and Paparrigopoulos, 2010). As OSN site, Facebook is currently very popular and people become habitual of it. The number of Facebook users boosts up day by day. Apart from the positive sides of Facebook, it also has some negative effects. People, especially teenagers make their routine according to Facebook without realizing the negative effects of Facebook. Some studies have suggested that Facebook may have many negative matters.

Nowadays almost everyone has a Facebook account some of which are used for personal, business, advertisement and some others to keep in touch with their old and new friends and so on. The users' decision causes either positive or negative aspect, so people need to know how to manage, maintain and use their own account. If users cannot keep control over this habit then it may turn against them.

Online activities can widen and strengthen the social networks of adolescents and adults but it also increases the risk of Internet addiction. Findings from the current investigation suggest that youth who are most prone to Internet addiction do display distinctive patterns of Internet activity related to their source and pursuit of friendships (Smahel, Brown and Blinka, 2012). According to the more recent study assessing the relationship between Facebook usage and academic performance, Facebook users had lower grades and spent less time on studying than students who did not use this SNS. 26% of them reported an impact of their usage on their lives; three quarters (74%) claimed that it had a negative impact, including procrastination, distraction and poor time management (Karpinski, 2010).

Researchers have claimed that highly interactive Internet applications may be more “addictive” and time-consuming than others (Young, 1998). Facebook is the most popular social network site among adolescents and it is a dynamic online application with various interactive features including the wall, news feed, chat, and multiple user games. The sudden rise in Facebook use over the last several years may bring about an increase in time spent online and the prevalence of Internet related difficulties. Recently, there have been references to “Facebook addiction” in scholarly articles, newspapers, books, and blogs (Charnigo and Barnett-Ellis, 2007) However, researchers have not agreed on whether using too much Facebook leads to social, psychological, academic, or occupational problems.

Social networking users face severe health risk because they reduce face-to-face contact and become addicted in a virtual world of relationships. Instant gratification of needs become their goal (Das and Sahoo, 2011). According to the U.S. Internet activity Nielsen Online says, users spent an average of 7 hours a month on Facebook. This makes Facebook Internet’s maximum time waster. In U.S. 53 percent of people check their Facebook profile before getting out of bed in the morning and 35 percent check their accounts several times in a day (Das and Sahoo, 2011).

In a recent study from the University of Athens, Greek psychiatrists argued that a woman who had gone as far as losing her job on account of her compulsion to check and update her Facebook, could be identified as a “social network addict” (Kuss and Griffiths, 2011). On the other hand, it has been noted that there may be a correlation between low self-esteem and a sense of social inadequacy and social network addiction. It seems that many types of social interaction which would present great challenges in the real world for certain types of individuals have been rendered much easier for them in the virtual world, thus putting them at a higher risk of becoming addicted to Facebook and the like (Kuss and Griffiths, 2011).

According to Young (2009), from psychological perspective, it may be plausible to speak of 'Facebook Addiction Disorder' (or more generally 'Social Networking Site Addiction Disorder') because addiction criteria, such as neglect of personal life, mental preoccupation, escapism, mood modifying experiences, tolerance and concealing the addictive behavior, appear to be present in some people who use SNSs excessively.

Stern and Taylor (2007) surveyed a convenience sample of 364 college students about their Facebook use and found that 49% of Facebook users logged on for less than 10 minutes per day, 21% spent between 10 and 30 minutes each day, 15% spent 30 to 60 minutes, 11% spent one to two hours, and 3% spent more than two hours. Most common uses of Facebook included 'sending messages to friends, viewing photos, keeping in touch with old friends, making plans, checking out people, checking up on their current boyfriend/girlfriend, entertainment, and distraction/procrastination'. When asked about negative experiences with Facebook, 56% of the sample indicated that they had none. On the other hand, some students reported being 'addicted to checking their Facebook accounts, to the extent that they felt an urge to check several times a day and therefore could waste a lot of time.

In the study of Mohd (2011), a total of 50 students Facebook users were chosen randomly. The findings showed that a high level of addiction to Facebook is about 54.0%. The boys have hooked up to higher levels than girls. Total time consumption up by the students was the most dominant of two hours a day at 38%. Consequently, there has not been an indication proving any kind of relationship between the level of addiction to Facebook and academic achievement. ($r = 0.103$, $p = 0.475$).

From academic perspective, diminished performance at schools due to the spending more time OSNs and concentration problems should be taken into account. Facebook attracts adolescents by allowing them to do time pass with entertaining applications and it may reduce the time for studying. In this study,

intensity of Facebook use and its relation to academic performance is being explored.

2.5. Gender Differences

Internet addiction has been reported to be more prevalent among male than female adolescents. Internet addiction was associated with self-esteem for male, but not for female students (Chih-Hung, Ju-Yu, Cheng-Fang, Chung-Sheng and Shing-Yaw, 2008). According to the study of Üneri and Tanidir (2011) among high school students, the likelihood of internet addiction is higher in males. Level of depression and the time spent on the Internet were found to be possible risk factors that affect internet addiction.

In a similar study, Sheldon (2008) surveyed a convenience sample of 172 students about their Facebook use. Students with Facebook accounts ($n = 160$) reported spending an average of 47 minutes per day on the site. Additionally, 54% of the sample reported logging on to Facebook several times each day, while 27% reported checking Facebook only once a day. The most common uses of Facebook included passing time ($M = 3.88, SD = 1.23$), relationship maintenance ($M = 3.64, SD = 1.24$), and entertainment ($M = 3.23, SD = 1.19$).

Sheldon (2008) also found significant gender differences in the way participants used Facebook. Women are more likely to use Facebook to maintain existing relationships, pass time, and be entertained compared to men. Alternatively, men are more likely than women to use Facebook to meet new people. In this study, the gender differences in terms of Internet addiction levels and use of Facebook is being explored.

CHAPTER III : METHOD

3.1. Participants

This is a descriptive study involving high students from two high schools in İstanbul, Turkey. These schools were located in Beylikdüzü district. The sample of the study consisted of a total of 370 individuals from different ages, 200 (54.1 %) of the adolescents in the study group were female, and 170 (45.9 %) were male. Their ages ranged between 15 and 17. Total of 152 (41.1 %) of these adolescents were 15 years old; 194 (52.4 %) of them were 16 years old; 24 (6.5 %) of them 17 years old. A total of 370 students voluntarily filled out the Internet Addiction Scale and Facebook Questionnaire during their classes with the permission of their teachers.

3.2. Materials

3.2.1. Internet Addiction Scale

The data of this descriptive study were collected by a structured questionnaire and Internet Addiction Scale (IAS). The Internet Addiction Scale (IAS), which was designed by Hahn and Jerusalem (2001), aims to determine internet addiction levels of the individuals. The original title of the scale is "*Skala zur Erfassung der Internetsucht*". The scale was adapted into Turkish by Şahin and Korkmaz (2011). The scale contains 19 items and 3 factors. The first factor is "Loss of Control-LC"; the second factor is "Tolerance Development-TD" and the third factor is "Negative Consequences for Social Relationships-NCSR"(Şahin, 2011).

Each of the items in internet addiction scale was scaled as Never (1), Rarely (2) Sometimes (3), Generally (4) and Always (5). In parallel with the structure of the scale, for three sub-factors, averages of the response of the individuals to five-item Likert type scale were calculated severally. High averages indicate high level of internet addiction while low averages indicate low addiction levels. The levels corresponding to the scores obtained from sub-scales can be summarized as follows: low internet addiction (20-51), mean internet addiction (52-67), high internet addiction (68-100) (Şahin, 2011).

3.2.2. Facebook Use Questionnaire

The correlation between Facebook and grades has been the focus of several recent studies (Pasek et al., 2009). However, researchers have not yet explored exactly how the use of Facebook in particular or the Internet in general, affect academic performance. The questionnaire created for this study includes multiple questions designed to investigate the relationship between time spent and size of network on Facebook and academic performance. The questions of this questionnaire have been formed, depending on the studies in literature.

The items were developed based on the previous research. Lenhart et al. (2010), as part of the Pew Internet and American Life Project, studied the social networking behaviors of teenagers, aged 12 to 17. Results from their national telephone survey revealed that daily Internet users were significantly more likely to have at least one social network site account compared to participants who used the Internet less frequently. The authors suggested that social network sites may encourage teens to go online more often.

The survey created for this study includes 6 multiple questions designed to investigate the specific ways in which Facebook use relates to the academic performance. The 6 item questionnaire consists of as follows: 1) demographic data 2) academic performance of last semester 3) time spent on Internet use 4)

Whether having a Facebook membership 5) visiting Facebook during a week 6) time spent on Facebook

3.3. Procedure

The voluntary male and female participants (N=387) in the 9th-12th grades had been involved in the study from the two high schools located in Beylikdüzü, Istanbul. A total of 370 subjects were analyzed after excluding the subjects who provided incomplete data.

This study adopts a quantitative research method, using survey method. Participants were briefly informed about the aim of the study and told them how to answer the questions before they filled out the questionnaires. A battery of measures including Internet Addiction Scale (IAS) and Facebook Use Questionnaire was given. The demographic questions are participant's gender and age included in Facebook Use Questionnaire. Brief information about the study and how to answer the questions was given. Each student answered the questions in about 15 minutes (30 seconds/per question).

3.4. Statistical Analyses

The collected data were uploaded into the Statistical Package for the Social Sciences (SPSS) computer software program and prepared for analysis. Descriptive statistical methods (frequency, percentage, mean, standard deviation) were used when evaluating the data. Results were evaluated at bi-directional with 95% confidence interval and significance at $p < 0.05$ level.

CHAPTER IV : RESULTS

Table-1: Demographic Data and Academic Performance (N = 370).

		N	%
Gender	Female	200	54,1
	Male	170	45,9
Age	15	152	41,1
	16	194	52,4
	17	24	6,5
Academic Performance	Certificate of academic excellence	16	4,3
	Certificate of Merit	65	17,6
	No poor grades	43	11,6
	One poor grade	76	20,5
	More than one poor grades	170	45,9

200 (54.1 %) of the participants of the study were female, and 170 (45.9 %) of them were male. Their ages ranged between 15 and 17. Out of the total of 152 (41.1 %) of these adolescents were 15 years old; 194 (52.4 %) of them were 16 years old; 24 (6.5 %) of them 17 years old.

In the analysis of adolescents' academic performance, a total of 16 (4.3%) reported to give certificate of academic excellence, 65 (17.6%) of them certificate of merit, 43(11.6%) of them no more poor grades, 76 (20.5%) of them one poor grade and 170(45.9%) ones more than one poor grades in last semester.

Table-2: The Result of Facebook Use Questionnaire (**N = 370**).

		N	%
Using the Internet in a typical day	Not using	56	15,1
	Less than 1 hour	137	37,0
	1-3 hours	126	34,1
	4-6 hours	41	11,1
	More than 7 hours	10	2,7
Having Facebook account	Yes	319	86,2
	No	51	13,8
Spending time on Facebook	No account	51	13,8
	Less than 1 hour	206	55,7
	1-3 hours	78	21,1
	4-6 hours	24	6,5
	More than 7 hours	11	3,0

According to the result of Facebook Use Questionnaire, a total of 56 (15.1%) reported not to use the Internet, 137(37.0%) of them use the Internet less than one hour, 126(34.1%) of them use it between 1 and 3 hours, 41(11.1%) of them between 4 and 6 hours, 10(2.6%) of them more than 7 hours a day.

Participants of the study reported that, 319(86.2%) of them have Facebook accounts, 51(13.8%) of them do not have Facebook account. This indicates that, most of the study participants have Facebook accounts. A total of 206(55.7%) of participants who have Facebook account, spend less than one hour, 78(21.1%) of them spend between 1 and 3 hours, 24(6.55) of them spend between 4 and 6 hours and 11 (3.0%) spend more than 7 hours.

Table-3: Adolescents' Internet Addiction Levels (N = 370).

	N	Mean	SD	Min.	Max.
Loss of Control	370	14,141	6,094	6	33
Tolerance Development	370	7,381	3,731	4	20
Negative Consequences for Social Relationships	370	12,549	5,745	8	40
Total Mean Score of Internet Addiction	370	34,070	14,060	19	93

The mean scores of three subtests of Internet Addiction Scale are respectively; loss of control (M = 14.141, SD = 6.094), tolerance development (M = 7.381, SD = 3.731), negative consequences for social relationships (M = 12.549, SD = 5.745). High averages indicate high level of internet addiction while low averages indicate low addiction levels. The levels corresponding to the scores obtained from sub-scales can be summarized as follows: low internet addiction (20-51), mean internet addiction (52-67), high internet addiction (68-100) (Şahin, 2011). The total mean score of Internet Addiction is M = 34.070, SD = 14.060. The findings indicate that participants of the have low level of Internet addiction.

Table-4: Internet Addiction Levels and Time Spend on Facebook (N = 370).

		Internet Addiction Levels	Time Spend on Facebook
Internet Addiction Levels	R	1,000	0,504
	P	0,000	0,000
	N	319	319

According to the Spearman correlation test results, there is a positive correlation between internet addiction levels and time spend on Facebook ($r=0,504$; $p=0,000<0,05$).

Table-5: Internet Addiction Levels and Academic Performance (N = 370).

		Internet Addiction Levels	Academic Performance
Internet Addiction Levels	r	1,000	0,059
	p	0,000	0,258
	N	370	370

According to the Spearman correlation test results, there is no statistical significance between internet addiction levels and academic performance ($r=0,059$; $p=0,258>0,05$).

Table-6: Time Spend on Facebook and Academic Performance (N = 370).

		Academic Performance	Time Spend on Facebook
Academic Performance	r	1,000	0,013
	p	0,000	0,822
	N	319	319

According to the Spearman correlation test results, there is no statistical significance between time spend on Facebook and academic performance ($r=0,013$; $p=0,822>0,05$).

Table-7: Gender Differences in Internet Addiction Level (N = 370).

	Gender	N	M	SD	T	P
Internet addiction levels	Female	200	31,470	12,351	-3,866	0,000
	Male	170	37,129	15,316		

According to the independent sample t test results, there is a significant difference between internet addiction levels of male and female adolescents. ($t=-3,87$; $p=0,000<0,05$). Internet addiction level of male adolescents ($M = 37.129$) is greater than female adolescents ($M= 31.470$).

Table-8: Internet Addiction Levels and Academic Performance (**N = 370**).

		N	M	SD	F	P
Internet Addiction levels	Certificate of academic Excellence	16	27,563	9,605	2,259	0,062
	Certificate of Merit	65	31,508	11,671		
	No poor grades	43	35,093	12,863		
	One poor grades	76	36,908	16,806		
	More than one poor grades	170	34,135	13,963		

According to the results of one way analysis of variance (ANOVA), there is no statistically significant difference between the means of internet addiction levels and academic performance ($F=2,259$; $p=0,062>0,05$).

Table-9: Tests of Between-Subjects Effects for Academic Performance (**N = 370**).

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1762,118 ^a	4	440,529	2,259	,062	,024
Intercept	227101,034	1	227101,034	1164,505	,000	,761
Academic Performance	1762,118	4	440,529	2,259	,062	,024
Error	71182,055	365	195,019			
Total	502434,000	370				
Corrected Total	72944,173	369				

According to the partial eta squared test results, effect on academic performance level of Internet addiction was found nonsignificant (R Squared = ,024, Adjusted R Squared = ,013).

Table-10: Internet Addiction Levels and Time Spend on Facebook (N = 370).

		N	M	SD	F	P
Internet Addiction Levels	Less than one hour	206	30,675	11,161	34,872	0,000
	1-3 hours	78	42,436	13,882		
	4-6 hours	24	49,625	14,364		
	More than 7 hours	11	51,091	17,484		

According to the results of one way analysis of variance (ANOVA), there is a statistically significant difference between the means of internet addiction levels and academic performance (F=34,872; p=0,000<0,05).

Table-11: Tests of Between Subjects Effects for Time Spend on Facebook (N = 370).

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	16000,463 ^a	3	5333,488	34,872	,000	,249
Intercept	201101,802	1	201101,802	1314,884	,000	,807
Time Spend on Facebook	16000,463	3	5333,488	34,872	,000	,249
Error	48176,922	315	152,943			
Total	470290,000	319				
Corrected Total	64177,386	318				

According to the partial eta squared test results, effect of time spend on Facebook has significant effect on Internet addiction level (R Squared = ,249 , Adjusted R Squared = ,242).

CHAPTER V: DISCUSSION

This study examined the Internet addiction, use of Facebook and its effect on academic performance among high school students. In fact, numerous definitions of problematic Internet use and different instruments that have been independently developed made difficult researching in this area.

According to the literature review, people can develop an addiction of number of things ranging from drugs, alcohol to television and gambling. In this study, people's dependency on the Internet was investigated. It has been suggested that the use of Facebook and other social network sites may increase the time spent online (Lenhart et al., 2010). However, research on the relationship between Facebook use and academic performance has been limited. This study investigated Internet addiction levels by examining Facebook use within the context of overall Internet use; taking frequency and duration use into account; exploring specific ways in which Facebook and other Internet usages impact academic performance.

The present study was designed to investigate the Internet addiction levels, Internet and Facebook usage patterns and its effects on academic performance in the high school student population. Whether or not individuals can become psychologically dependent on the Internet is still an unanswered question. However, the research clearly indicates that some individuals are experiencing negative consequences from their time spent online (Morahan-Martin and Schumacher, 2000).

According to the time displacement theory, adolescents have a limited amount of time (Mutz, Roberts and van Vuuren, 1993). In this study, it was hypothesized that excessive use of the Internet and increase amount of time spent on Facebook would negatively affect the adolescents' academic performance. Furthermore, based on the literature, it was expected that higher

levels of Internet addiction and use of Facebook be associated with lower academic performance. Nevertheless, there was not any determination on statistical significant relationship between Internet addiction levels and academic performance of the adolescents.

The results suggest that Facebook and other Internet use are heavily integrated into students' daily routines. 84.9% of participants of the study use the Internet in a typical day, 86.3% of them have a Facebook account. Even though more time spent on the Internet and Facebook were all significant predictors for low academic performance, there were no significant attachments found between the Internet and Facebook usage patterns and academic performance, which challenge previous claims about the negative relationship between Facebook use and grades (Karpinski and Duberstein, 2010). More research is needed to determine whether Internet and Facebook usage patterns would negatively affect the adolescents' academic performance.

According to the findings of the study, the prevalence rates for Internet addiction are slightly lower, only 1.6% of the participants were categorized as high level Internet addicted. While 77.8% of the participants belong to the low level of Internet addiction group, 20.5% of the participants have a moderate level of Internet addiction which would not be disregarded.

First of all, based on the result scores of the Internet Addiction Scale (IAS), only 1.6 percent of the respondents are diagnosed as high Internet addiction level and 20.5 percent of the respondents are moderate Internet addiction level. When compared to the previous results of Young (1996) (79% general population), Morahan-Martin and Schumacher (2000) (8.1% college students), Özçınar (2011) (6.6% 14 to 24 ages), the addiction levels of the participants (1.6 %) is very low. Judging the Internet addiction levels from this study, it can be concluded that, although the number of students with high Internet addiction level is almost negligible (1.6%), almost one quarter of all students (20.5%) are experiencing moderate level of Internet addiction.

Previous studies also have found that the time spent online is positively related to problematic Internet use (Smahel, Brown and Blinka, 2012). The result of this study also revealed that there is a statistical significance between more time spent on Facebook and Internet Addiction Scale (IAS) scores. According to the findings of the study, participants who have higher Internet addiction scores spend more time on Facebook. This indicates that adolescents who spent more time on Facebook are vulnerable to problematic Internet use.

It is interesting to note that in this study, as other studies have corroborated, male students were found to score higher on the Internet Addiction Scale (IAS) than female students. In terms of gender differences, male students were found to score higher on the Internet Addiction Test than female students. There might be various reasons why male students are more vulnerable to problematic Internet use. Because in-depth discussing the concerns of why male students spend more time-online is beyond the purpose of this study, future studies will be required to examine this issue.

The first limitation of the study is using less diverse sample frame. The participants of the study were limited to the two high school students from the same demographic region. It is plausible that other populations such as adults or university students from different regions might have different characteristics related to Internet use. For this reason, it would not generalize the results of the study for the all adolescent population.

Another limitation of this study is the likelihood of social desirability answer. Despite assurances about anonymity of the survey, some students could likely respond with what they believed to be the more socially acceptable answers to some questions. Future studies would benefit from using multiple methods to assess the constructs measured in this thesis, which may include parental reports, third party observations or software programs.

A third limitation of this study is that the internet addiction was investigated in terms of academic performance thus the use of Facebook did not include social

and psychological consequences. For instance, loneliness and depression could be further investigated to determine their impact on the psychological consequence of Internet addiction. In this thesis, Internet addiction was assessed according to the total score. Further study would investigate the Internet addiction levels into differentiated categories. Each category may have its own features and motives and gives richer insights about the Internet usage motivations and consequences.

Finally, the results of this thesis are based on a survey of school students who are aged between 15 and 17 year-old in Istanbul, Beylikdüzü. The generalization of the results may not be applicable to other cities, rural youths, non-schooling youths, or youths outside of the ages 15 and 17. Nevertheless, despite a number of study limitations, the study contributes important information that helps to understand the Internet addiction, Internet and Facebook usage patterns among adolescents and its effects on the academic performance.

Future studies may focus on the different aspects of Internet use such as social networking sites, blogging and online gaming. Future research could also consider using longitudinal data to investigate the causal relationships between Internet use and addiction. Longitudinal studies might provide a clearer interpretation of the relationships of multiple factors that affect the academic performance, the Internet motives and addiction over time.

Finally, it also should be noted that the characteristics of Internet use are rapidly changing as a network tool. At the time this thesis was conducted, use of the Internet for social networking (especially Facebook) was very popular among the adolescents. Thus, future study is required to examine more trend-following applications among the adolescents as well as other populations. To sum up, the result of this study might reflect current trends about the Internet use among adolescents, not appropriate for future trends. It seems that, as network technology is developing and more services have become available, the trend of Internet use is also changing accordingly.

CHAPTER VI : CONCLUSION

With the advent of new technologies, computers and internet have become an inescapable necessity in people's daily lives. The foremost objective of Internet is facilitating communication and research. However the dramatic increase in use of internet may result in excessive use and therefore lead to Internet addiction problems. Turkey, as a developing country with an increasing rate of internet access and computer use is at high risk for this disorder.

Although the prevalence rates of 'Internet addiction' were in this study much lower than in previously published studies, this problem will be rapidly increasing as the daily use of the Internet increases. All in all, psychologists and school counselors in Turkey need to be aware of the possibility that adolescents can be addicted to the Internet. These people should be trained to recognize Internet addiction symptoms and to treat them.

REFERENCES

- Altheide, D. (1997). The News Media, the Problem Frame, and the Production of Fear. *The Sociological Quarterly*, 38 (4), 647-658.
- Alexa, (2012). Top Sites. Retrieved February 8, 2012, from <http://www.alex.com/siteinfo/facebook.com>
- Bargh, J. A., & McKenna, K. Y. A. (2004). The Internet and social life. *Annual Review of Psychology*, 55, 573-590.
- Beard, K. W., & Wolf, E. M. (2001). Modification in the proposed diagnostic criteria for Internet addiction. *CyberPsychology & Behavior*, 4(3), 377-383.
- Bennett, S., Maton, K. & Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence, *British Journal of Educational Technology* 39 (5), 775–786.
- Beastall, L. (2008). Enchanting a disenchanted child: Revolutionizing the means of education using information and communication technology and e-learning. *British Journal of Sociology of Education*, 27(1), 97–110. <http://dx.doi.org/10.1080/01425690500376758>
- Bicen, H. & Cavus, N. (2010). The most preferred social network sites by students. *Procedia Social and Behavioral Sciences*, 2, 5864-5869.
- Block, J. (2008). Issues for DSM-V: Internet Addiction *American Journal of Psychiatry*, 165 (3), 306-307 doi: 10.1176/appi.ajp.2007.07101556
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.

Byun, S., Ruffini, C., Mills, J. E., Douglas, A. C., Niang, M., Stepchenkova, S., et al. (2009). Internet addiction: Metasynthesis of the 1996-2006 quantitative research. *CyberPsychology & Behavior*, 12(2), 203-207

Canbaz,S., Sunter,T.A., Peksen,Y. & M.A. (2009). Prevalence of the Pathological Internet use in a sample of Turkish school adolescents. *Iranian Journal of Public Health*,38(4),64-71.

Caplan, S. E. (2005). A social skill account of problematic internet use. *Journal of Communication*, 55, 721–736.

Charnigo, L., & Barnett-Ellis, P. (2007). Checking out facebook.com: The impact of a digital trend on academic libraries. *Information Technology & Libraries*, 26(1), 23-34.

Ceyhan, A. (2011). University Students' Problematic Internet Use and Communication Skills According to the Internet Use Purposes. *Educational Sciences: Theory And Practice*, 11(1), 69-77.

Chakrabarty,K., Basu.,D. Vijayana Kumar K.G.,(2010). Internet Addiction: Consensus, Controversies and the way ahead. *East Asian Arch Psychiatry* (20), 123-132.

CheckFacebook (2011). *Facebook Marketing Statistics, Demographics, Reports, and News*. Retrieved 19th November, 2011, from <http://www.checkfacebook.com/htm>

Chen, Y.F., Peng, S.S., (2008), 'University students' internet use and its relationships with academic performance, interpersonal relationships, psychosocial adjustment, and self-evaluation', *CyberPsychology & Behavior*, (11),467-469.

Chih-Hung, K., Ju-Yu, Y., Cheng-Fang, Y., Chung-Sheng, C., & Shing-Yaw, W. (2008). The Association between Internet Addiction and Belief of Frustration Intolerance: The Gender Difference. *Cyberpsychology & Behavior, 11*(3), 273-278. doi:10.1089/cpb.2007.0095

Chou, C., & Hsiao, M. (2000). Internet addiction, usage, gratification, and pleasure experience: the Taiwan college students' case. *Computers & Education, 35*, 65-80

ComScore(2011). *Turkey Has Seventh Largest and Most Engaged Online Audience in Europe*. Retrieved October 31, 2011, from http://www.comscore.com/Press_Events/Press_Releases/2009/5/Turkey_has_Seventh_Largest_Online_Audience_in_Europe.htm

Czincz, J., & Hechanova, R. (2009). Internet Addiction: Debating the Diagnosis. *Journal Of Technology In Human Services, 27*(4), 257-272. doi:10.1080/15228830903329815

Das, B., & Sahoo, J. (2011). Social Networking Sites -- A Critical Analysis of Its Impact on Personal and Social Life. *International Journal Of Business & Social Science, 2*(14), 222-228.

Douglas, A.C., Mills, J.E., Niang, M., Stepchenkova, S., Byun, S., Ruffini, C., Lee, S.K., Loutfi, J., Lee, J.K., Atallah, M., Blanton, M. (2008). Internet Addiction: Meta-Synthesis of Qualitative Research for the Decade 1996-2006, *Computer in Human Behavior, 24*(6), 3027-3044.

DSM-5 Development, American Psychiatric Association. Substance-related disorders. Retrieved March 4th, 2012 from <http://www.dsm5.org/ProposedRevisions/Pages/Substance-RelatedDisorders.aspx>.

Ellison, B. N., Steinfield, C. , & Lampe, C. (2007). The benefits of Facebook “friends”: social capital and college students’ use of online social networking sites. *Journal of Computer-Mediated Communication*, 12, 1143-1168.

Erdoğan, Y. (2008). Exploring the Relationships among Internet Usage, Internet Attitudes and Loneliness of Turkish Adolescents. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2(2), 4.

Facebook. (2011). *Statistics*. Retrieved November 20th , 2011, from <http://www.facebook.com/press/info.php?statistics>

Hall, A. S., & Parsons, J. (2001). Internet addiction: College student case study using best practice in cognitive behavior therapy. *Journal of Mental Health Counseling*, 23(4), 312-327.

Heino, K.R., Lintonen, T. & Rimpela, A. (2004). Internet Addiction? Potentially problematic use of the Internet in a population of 12-18 year-old adolescents. *Addiction Research and Theory*. 12(1),89-96.

Holden, C. (2001). ‘Behavioral’ addictions: Do they exist? *Science*, 294(5544), 980-982.

Holtgren, S. M. (2007). College students' perceptions of the effects of the Internet on their experiences of community at a Christian liberal arts college. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 68 (4), 1423.

Horvath, C.W. (2004). Measuring television addiction. *Journal of Broadcasting & Electronic Media*. 48, 378-398.

Huang, R. L., Lu, Z. Z., Liu, J. J., You, Y. M., Pan, Z. Q., Wei, Z. Z., & ... Wang, Z. Z. (2009). Features and Predictors of Problematic Internet Use in Chinese College Students. *Behaviour & Information Technology*, 28(5), 485-490.

Hunley, S. A., Evans, J. H., Delgado-Hachey, M., Krise, J., Rich, T., & Schell, C. (2005). Adolescent computer use and academic achievement. *Adolescence*, 40(158), 307-318.

Frangos, C. C., Frangos, C. C., & Kiohos, A. P. (2010). Internet Addiction among Greek University Students: Demographic Associations with the Phenomenon, using the Greek version of Young's Internet Addiction Test. *International Journal Of Economic Sciences & Applied Research*, 3(1), 49-74.

Griffiths, M. (2000). Does Internet and computer "addiction" exist?: Some case study evidence. *CyberPsychology & Behavior*, 3(2), 211-218.

Gross, E., F. (2004). Adolescent Internet Use: What We Expect, What Teens Report. *Applied Developmental Psychology*, 25(6), 633-649.

Gross, E. F., Juvonen, J., & Gable, S. L. (2002). Internet use and well-being in adolescence. *Journal of Social Issues*, 58(1), 75-90.

Internet World Stats. (2012). *Usage and Population Statistics*. Retrieved 15th February, 2012, from <http://internetworldstats.com/stats.htm>

Jin, Y.D. & Chee, F. (2008). Age of New Media Empires: A critical interpretation of the Korean online game industry. *Games and Culture*, 3, 38-58.

Karaïskos, D., Tzavellas, E., Balta, G., & Paparrigopoulos, T. (2010). P02-232 – Social network addiction : a new clinical disorder? *European Psychiatry, 25*, 855-855 doi: 10.1016/S0924-9338(10)70846-4

Karpinski, A. C. & Duberstein, P. A. (2010). Facebook and Academic Performance, *Computers in Human Behavior, 26*(6), doi: 10.1016/j.chb.2010.03.024

Kubey, R. W., Lavin, M.J., & Barrows, J.R. (2001). Internet use and collegiate academic performance decrements: Early findings. *Journal of Communication, 52*(2), 366-382.

Kuss, D. J. & Griffiths, M. D. 2011 Excessive Online Networking: Can adolescents become addicted to Facebook? *Education and Health, 29*. 63-66.

Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). *Social media and mobile Internet use among teens and young adults*. Pew Internet and American Life Project. Retrieved February 5, 2012, from <http://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>

Mutz, D., Roberts, D.F. & van Vuuren, D. P. (1993). Reconsidering the displacement hypothesis: Television's influence on children's time use. *Communication Research, 20*, 51-75.

Mohd., E. (2011). Facebook: The Phenomenon of Bringing Addiction? *Journal of Communication & Computer, 8*(10), 925-930.

Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior, 16*, 13-29.

Nalwa, K., & Anand, A. P. (2003). Internet addiction in students: A cause of concern. *CyberPsychology & Behavior*, 6(6), 653-656.

Orzack, M. H., & Orzark, D. S. (1999). Treatment of computer addicts with complex comorbid psychiatric disorders. *CyberPsychology & Behavior*, 2(5), 465-473

Oztürk, Ö. Odabaşoğlu, G., Eraslan, D., Genç, Y. & Kalyoncu, Ö. A. (2007). Internet addiction: Clinical aspects and treatment strategies. *Journal of Dependence*, 8, 36-41.

Ozcinar, Z. (2011). The Relationship Between Internet Addiction and Communication, Educational and Physical Problems of Adolescents in North Cyprus. *Australian Journal Of Guidance & Counselling*, 21(1), 22-32.
doi:10.1375/ajgc.21.1.22

Pasek, J., More, E., & Hargittai, E. (2009). Facebook and academic performance: Reconciling a media sensation with data. *First Monday*, 14(5). Retrieved 2nd March ,2012, from
<http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2498/2181.htm>

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-6.
Retrieved March 1, 2012
from <http://www.marcprensky.com/writing/default.asp>

Smahel, D., Brown, B. B., & Blinka, L. (2012) Associations between Online Friendship and Internet Addiction among Adolescents and Emerging Adults. *Developmental Psychology*, 48, 2, 381-288. doi: 10.1037/a0027025

Shaw, L. H., & Gant, L. M. (2002). User divided? Exploring the gender gap in Internet use. *CyberPsychology & Behavior*, 5(6), 517-527.

Sheldon, P. (2008). Student favorite: Facebook and motives for its use. *Southwestern Mass Communication Journal*, 23(2), 39-53.

Suhail, K., & Bargees, Z. (2006). Effects of excessive Internet use on undergraduate students in Pakistan. *CyberPsychology & Behavior*, 9(3), 297-309.

Şahin, C., (2011). An analysis of Internet addiction levels of individuals according to the various variables. *TOJET: The Turkish Online Journal of Educational Technology*, 10(4), 60-66.

Socialbakers (2012). *Turkey Facebook Statistics*. Retrieved 20th February, 2012, from <http://www.socialbakers.com/facebook-statistics/turkey.htm>.

Stern, L. A., & Taylor, K. (2007). Social networking on Facebook. *Journal of the Communication, Speech & Theatre Association of North Dakota*, 20, 9-20.

Tahiroğlu, A., Çelik, G., Bahalı, K., & Avcı, A. (2010). Medyanın Çocuk ve Gençler Üzerine Olumsuz Etkileri; Şiddet Eğilimi ve İnternet Bağımlılığı. *Yeni Symposium*, 48(1), 19-30.

Tutkun, Ö.F. (2011). Internet Access, Use and Sharing Levels among Students During the Teaching-Learning Process. *TOJET: The Turkish Online Journal of Educational Technology*, 10(3), 152-160.

Uneri, Ö., & Tanidir, C. (2011). Evaluation of Internet Addiction in a Group of High School Students: A Cross-sectional Study. *Dusunen Adam: Journal Of Psychiatry & Neurological Sciences*, 24(4), 265-272. doi:10.5350/DAJPN2011240402

Valkenburg, P.M., & Soeters, K. (2001). Children's positive and negative experiences with the Internet. *Communication Research*, 28 (5), 653-676.

Veen, W. (2003). A new force for change: Homo Zappiensí. *The Learning Citizen*, 7, 5-7.

Weinstein, A., & Lejoyeux, M. (2010). Internet Addiction or Excessive Internet Use. *American Journal Of Drug & Alcohol Abuse*, 36(5), 277-283. doi:10.3109/00952990.2010.491880

Wieland, D. M. (2005). Computer addiction: Implications for nursing psychotherapy practice. *Perspectives in Psychiatric Care*, 41, 153-161.

Young, K. (2009). Understanding online gaming addiction and treatment issues for adolescents. *American Journal of Family Therapy*, 37, 355-372.

Young, K. (2007). Cognitive behavior therapy with Internet addicts: Treatment outcomes and implications. *Cyberpsychology & Behavior*, 10, 671-679.

Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237-244.

Young, K. S. (1996). Psychology of computer use: XL. Addictive use of the Internet: A case that breaks the stereotype. *Psychological Reports*, 79, 899-902.

APPENDICES

APPENDIX A

BİREYSEL BİLGİ FORMU

Değerli katılımcı,

Bu çalışma Fatih Üniversitesi'nde Yard.Doç.Dr. Hasan Uğur danışmanlığında yüksek lisans tezi olarak hazırlanan bir araştırmanın parçasıdır. Çalışmada amaçlanan İnternet ve Facebook kullanımının akademik performansa olan etkileri araştırılacaktır.

Vereceğiniz cevapların samimi olması araştırmanın doğru sonuçlara ulaşmasına katkıda bulunacaktır. Lütfen her bir maddeyi dikkatlice okuyarak size uygun seçeneği içtenlikle işaretleyin.

Katılımınız için teşekkür ederim.

Selma IMPRAIM

Fatih Üniversitesi

Psikoloji Y.L.

Selma.impraim@gmail.com

APPENDIX B

Aşağıdaki cümleleri dikkatlice okuyup size uygun olan seçeneği işaretleyiniz.

	Hiçbir zaman	Nadiren	Bazen	Genellikle	Her zaman
1. İnternete uzun süreli bağlanmadığımda aklım internetle meşguldür.					
2. İnternete bağlı olup online olmadığımda aklım sürekli internete takılıp kalıyor.					
3. Çok uzun süre internetten uzak kalmışsam, huzursuz ve sinirli oluyorum.					
4. İnternette önceden planladığımdan daha fazla zaman harcıyorum.					
5. İnternette birkaç dakikalığına sörf yapmaya girip, bir türlü bırakamıyorum.					
6. İnternette geçirdiğim zamanı azaltmayı denedim ama bir türlü başarılı olamadım.					
7. İnternet için harçayabileceğim paradan çok daha fazlasını harcıyorum.					
8. İnternette geçirdiğim zaman, başlangıçtaki dönemle karşılaştırılınca gitgide artıyor.					
9. İnternete daha fazla zaman ayırma istediğim, geçmişe göre gitgide artıyor.					
10. Başlangıçta sadece yapmam gereken işler için online etkinliklere zaman ayırırken, şimdi internete daha fazla zaman ayırıyorum.					
11. İnternet etkinlikleri günlük yaşamımı giderek daha fazla yönlendiriyor.					
12. İnternet kullanmaya başladığımdan beri bazı arkadaşlarım benden uzaklaştı.					
13. Çok değer verdiğim kişiler, internette çok fazla zaman harcadığımdan benden şikâyetçi oluyorlar.					
14. Okul/meslek/aile ve benzeri yaşamımdaki verimliliğim internet kullanmam yüzünden azalıyor.					
15. Çok değer verdiğim kişiler bende internet kullanmaya başladığımdan beri olumsuz yönde değişiklikler olduğunu söylüyorlar.					
16. İnternette daha fazla zaman geçirmek için sık sık sorumluluklarımı azaltıyorum.					
17. İnternet yüzünden bazen randevularımı kaçırıyorum.					
18. Online dünyasını keşfettiğim andan itibaren başkalarıyla daha az zaman geçiriyorum.					
19. İnternette öylesine sık ve meşgul oluyorum ki bazen işverenimle/okulla/aile bireyleri ve benzeri ile sorunlarım oluyor.					

APPENDIX C

1. Cinsiyetiniz?

Kadın

Erkek

2. Yaşınız?

a) 15

b) 16

c) 17

d) 18

3. Geçen dönemki karne notunuz nedir?

a) Takdir aldım

b) Teşekkür aldım

c) Zayıf notum yok

d) Bir zayıf notum var

e) Birden fazla zayıf notum var

4. Bir günde kaç saat internet kullanıyorsunuz?

a) Kullanmıyorum

b) 1 saat ve altı

c) 1-3 saat

d) 4-6 saat

e) 7 saat ve üstü

5. Online sosyal ağlardan Facebook'a üyeliğiniz var mı?

a) Evet

b) Hayır

6. Bir günde kaç saat Facebook'ta vakit geçiriyorsunuz?

a) Üye değilim
saat ve üstü

b) 1 saat ve altı

c) 1-3 saat

d) 4-6 saat

e) 7