



SELF-ESTEEM, SELF-CONTROL, SELF-COMPASSION AND SOCIAL SUPPORT
AS PSYCHOLOGICAL PREDICTORS OF INTERNET ADDICTION IN SELECTED
HIGH SCHOOL STUDENTS IN BANGKOK

Ting Lu (Doris)

I.D. No. 6019537

An Independent Study Report Submitted in Partial Fulfillment of the

Requirements for the Degree of

MASTER OF SCIENCE

in COUNSELING PSYCHOLOGY

Graduate School of Human Sciences

ASSUMPTION UNIVERSITY OF THAILAND

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Title: SELF-ESTEEM, SELF-CONTROL, SELF-COMPASSION AND SOCIAL SUPPORT AS PSYCHOLOGICAL PREDICTORS OF INTERNET ADDICTION IN SELECTED HIGH SCHOOL STUDENTS IN BANGKOK.

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ABSTRACT

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Key Words: SELF-ESTEEM, SELF-CONTROL, SELF-COMPASSION, SOCIAL SUPPORT,
AND INTERNET ADDICTION.

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SUPPORT AS PSYCHOLOGICAL PREDICTORS OF INTERNET
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Thesis Advisor: DR. SANTHOSH AYATHUPADY MOHANAN

With the rapid development of the Internet, its functions have spread to various fields, becoming an important platform for minors to learn daily and broaden their horizons. Internet use is trending younger, and more and more students are experiencing Internet addiction. This research explores the relationship between self-esteem, self-control, self-compassion, and social support, and Internet addiction. The purpose of the research is to investigate whether self-esteem, self-control, self-compassion, and social support can be used as effective factors to predict Internet addiction. The study uses quantitative methods and multiple regression analysis to analyze the relationship between self-esteem and Internet addiction, self-control and Internet addiction, self-compassion, and Internet addiction, and social support and Internet addiction. This study took 133 high

school students from Bangkok International School as the research participants, 71 boys and 62 girls, who filled out Internet Addiction Test (IAT), Rosenberg Self-Esteem Scale (RSES), Brief self-control scale (BSCS), Neff's Self-Compassion Scale (NSCS Short-form) and Multidimensional Scale of Perceived Social Support (MSPSS). According to the results, self-esteem and self-control are significant negative predictors, which have direct effects on Internet addiction. However, self-compassion and social support have no significant direct effects on Internet addiction. Therefore, for students who already present Internet addiction, improving their self-esteem and self-control abilities can effectively lower their Internet addiction.



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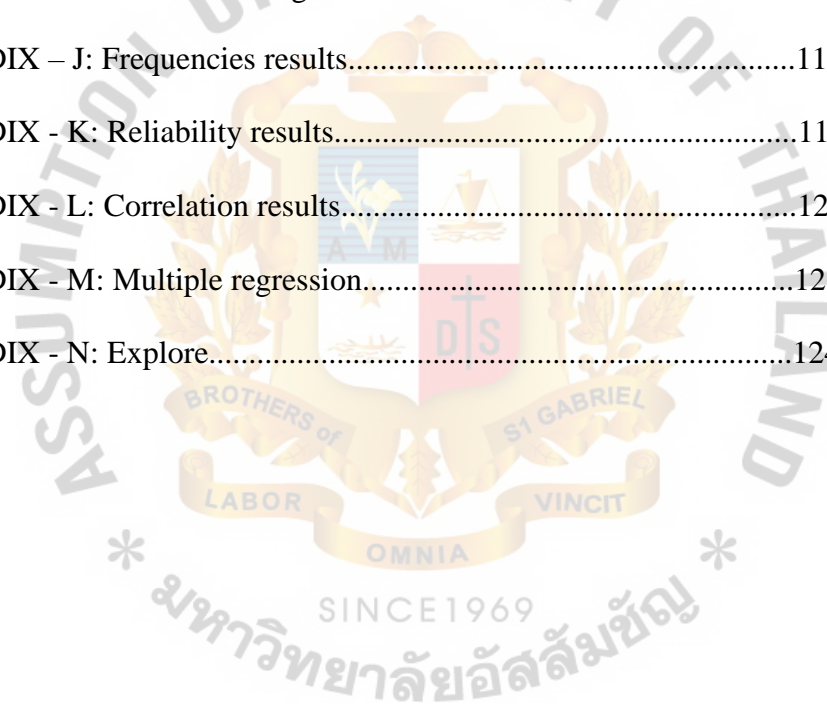
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CHAPTER I

Introduction

Since the 1960s, when the first message was sent over the APPANET until now, 50 years later, with approximately 1.97 billion internet users in 2010, 2.7 billion in 2013, 3.1 billion in 2015, 3.6 billion in 2017, and according to statistics from Internetworldstats.com, as of March 31, 2019, the number of Internet users have reached 4.346 billion. Global Users include 2.19 billion (50.4%) Asian Internet users, 718 million (16.5%) European Internet users, 474 million African Internet users (10.9%), 438 million (10.1%) Latin American netizens, 326 million (7.5%) North American netizens including the United States, 170 million (3.9%) Internet users in the Middle East, and 280 million (0.7%) of Internet users in Oceania. These numbers indicate that global internet usage and access have been proliferating exponentially in the past two decades particularly largely due to improved internet access. Today the World Wide Web is a base for the dissemination of information and the largest platform for people to communicate with each other. It brings tremendous convenience to work and leisure (Jibrin, Musa & Shittu, 2017). Consequently, the revolutionary transformation of every facet of human society has brought scrutiny to the internet's influence on human psychological development attracting a groundswell of attention and research from psychologists (Hur, 2012).

Nowadays, the Internet is becoming more and more popular and is profoundly changing individuals' lifestyles by allowing people to easily access valuable information resources anywhere and anytime they want, such as communication methods, commercial affairs, and entertainment activities have totally differed these days (Shirinkam, Shahsavarani, Toroghi, Mahmoodabadi, Mohammadi & Sattari, 2016, p. 143). However, a variety of network information resources makes people's lives convenient and also place certain negative impacts

on people's ideas and behavior patterns. Problems involving its excessive use of the internet or internet addiction have emerged and become more prevalent (Kuss, Shorter, van Rooij, Griffiths, & Schoenmakers, 2013).

Increasingly, people have become psychologically dependent on the Internet to the point of addiction, namely Internet addiction. It is a new addiction which results from the misuse and abuse of the internet (Hur, 2012, p. 514). Like bad habits such as alcoholism, drug abuse and gambling, internet addiction can have a devastating effect on people's work, study and life. The concept of "Internet addiction" was firstly introduced by Young in a pioneer study in 1998. According to Young and Rogers (1998) Internet addiction is pathological, it is essentially an impulse control disorder similar to pathological gambling, which is the cause of the internet addict's inability to control their internet use resulting in frustration or damage to physical, psychological, interpersonal, marital, economic or social functions, it is all caused by excessive use of the Internet. Young (1998) also defined averaging 38 hours or more per week when an individual has internet addiction, the more time on the internet, the more satisfaction will get.

In this globalized era, children and adolescents are greatly affected by internet (Kurniasanti, Assandi, Ismail, Nasrun & Wiguna, 2019). In America, 8-10 years old children spend an average of 8 hours per day using various kinds of electronic media, with the internet increasingly dominating that time and that statistic increases to more than 11 hours per day using electronic media among 10-18 aged children (Hull & Rroulx, 2019). A survey reported that although the 20- to 29-year-old category were the heaviest Internet users in Thailand. Moreover, under 20-year-olds are reported to be the fastest growing group in Internet users (Michelet, 2003, p. 3). In 2009 a survey by the National Electronics and Computer Technology Center (NECTEC) found that from 2004, internet users increased from 6.9 million to 18.3

million by 2009 (NECTEC surveys of internet users in 2009). The survey also indicated that the majority of internet users were adolescents aged between 10-19 years. Meanwhile, in 2012, Gencer and Koc stated that the popularity of digital technology among adolescents is higher than that of adults in Turkey.

While promoting the rapid growth and development of young people, the internet has also brought many adverse effects upon them. The problem of internet addiction has created great concern from all walks of life. In a publication on the National Center for Biotechnology Information website, the study, which was conducted by the Department of Adult Psychiatry in the Poland Medical University, stated that Internet addiction was seen to be very popular among young people, especially with children. According to their collection every fourth child is addicted to the Internet. This is an alarming statistic that needs to be solved as soon as possible.

Background of the Study

Although the rates of computer and Internet use have been increasing both in China and worldwide at all ages, the internet usage shows a particularly strong growth among adolescents. It has been widely popularized in the daily life of young people, and has an important impact on young people's learning styles and thinking styles (Liu & Kuo, 2007). As adolescents experience major developments as they grow up, they are more likely to be carried away by the rich and fascinating environment of the Internet and begin to suffer from social, mental and physical problems. Therefore, adolescents can be regarded as the most at-risk online age group (Sasmaz, Oner., *et al.*, 2014). Many countries have seen Internet addiction as a potential threat to public health. In China it has gained increased concern from the public (Cao & Su 2007). Adiele and Olatokun (2014) suggest that there is prevalence of internet addiction among the

adolescent population. The prevalence rate is 3.3% in a male to female ratio of almost 3:1. The at-risk population is high and calls for concern (Adiele & Olatokun, 2014). A high prevalence (15.1%) of Internet addiction among adolescents was determined by Sasmaz, Oner, and colleagues in 2013.

Meanwhile, various factors that may induce Internet addiction have been analyzed, such as personality traits, mental health, parenting styles, economic factors, psychosocial factors, temptation situations, etc (Kuss, Shorter, Rooij, Griffiths & Schoenmakers, 2013). On the other hand, there are many self-related variables, among them, the influence of “self-esteem” (Aydm & San, 2011), “self-control ability” (Koo, & Kwon, 2014), and “self-compassion (Zahra, Saeid & Sanaz, 2017), three self-related elements on Internet addiction. From previous research, many researchers found a negative correlation between self-esteem and Internet addiction (Burger, 2006), self-control and Internet addiction (Ahmet, Serhat, et al., 2015). Compared with the research on self-esteem and self-control, there is limited research study on internet addiction and self-compassion. Nevertheless, a negative relationship has been observed between them (Akin & iskender, 2011).

Overall, there is still a lack of scientific empirical analysis in the world research report on the relationship between self-esteem, self-control, self-compassion, and Internet addiction. Therefore, this study focuses on the self-esteem, self-control, and self-compassion as three independent variables, detecting high school students' self-esteem, self-control, self-compassion, and their Internet addiction tendency.

On the other hand, some social perspective research indicates that social support can well predict the tendency of Internet addiction (Wang & Wang, 2013). In many cases, individuals with Internet addiction have weak social relationships and mental health, have little

interaction with family members and friends, and prefer to build social relationships through the Internet (Wang & Wang, 2013).

High school students and internet addiction

High school students are those who are in secondary schools typically grades 9, 10, 11 and 12 (Boyer, 1985). Generally, students start high school at the age of 14 and get graduated at the age of 18. A person who falls within the ages of 10 to 19 years old is in adolescence (Byrne, 2007). High school students are at a period during the process of human development between childhood and adulthood (Boyer, 1985). During this time, the individual will experience a period of puberty that is a time of rapid cognitive, biological and social change (Byrne, Davenport & Mazanov, 2007). High school students gradually form a stable personality and shape their unique worldview and problem solving in adolescence period, their will and judgment are weaker than those of the adult because they are immature. When high school students are tempted by unhealthy information, like porn movie or violence, they are easy to get lost and may choose the wrong way (Zheng, Guan, Li & Qin, 2015).

With the changes in the modern culture, parents are busier and lack of control over their children. However, they give their kids higher academic, job expectation, exposure to the marvelous technological developments that meet their needs and help them to escape their problems which causes high school students and young adults are more impressionable to internet addiction (Kurniasanti, Assandi, Ismail, Nasrun & Wiguna, 2019). Karacis and Oreskovic (2017) mentioned that adolescents aged 15-16 years are prone to the development of Internet addiction while the adolescents aged 11-12 years show the lowest level of Internet addiction.

Now young people's preference for cyberspace and social networks has soared, children between ages of 8 and 19 spend an average of 10 hours and 45 minutes a day on the Internet (Rideout, 2007). According to a study by the Kaiser Family Foundation in January 2010, this is equivalent to 75 hours and 15 minutes per week and in turn psychological and social harm caused by Internet addiction has increased significantly. Adolescents spend hours on the Internet for a variety of purposes which seriously affects their health and social relationships (Liu, & Kuo, 2007). In many other regions of the world, such as in Taiwan, it is reported that a large percentage of young people spend so much time in cyberspace that they miss formal learning or school-related activities (Liu, & Kuo, 2007).

High school students and internet use in Thailand

The internet has become a necessary part of Thai people's daily life (Sirikarn, 2017). Thai government recently introduced the "Digital Economy" policy to stimulate the Thai economy and society (Wayuphap, 2015). The Internet has also been installed in homes and has become a new toy for young children. Internet cafes have sprung up, in the beginning, people use the internet mostly for work, and now, more and more children are familiar with email, chat rooms, computer games or other entertainments (Sirikarn, 2017).

Like other children around the world, young Thais are also interested in the quality of entertainment and education of the Internet and related communication tools, and they are more attracted than adults (Wayuphap, 2015). A paper by the Ramachitti Institution presented on "The Living Conditions of Children during 2004 - 2005" argued that high school students spent 163.04 minutes daily "suffering" the internet. Meanwhile, in rural communities of Thailand, there is a high prevalence of internet addiction among secondary school students (Mahamontri, Piyaraj, Koolsriroj, Pattanaporn, & Hempatawee, 2018). These show that young people have

become one of the fastest growing internet user groups and internet addiction become a particularly common problem among them.

Subsequently, Scientists have recently discovered its psychological effects (AlKandary & AlKashaan, 2001). One study indicated that Internet addiction is related to some social and psychological variables, such as self-esteem and social support, self-control and self-compassion which are strongly related to Internet addiction (Błachnio, Przepiorka, Benvenuti, Mazzoni & Seidman, 2018). According to İskender and Akin (2011), the improvement of social support can help reduce the internet addiction.

Internet addiction and self-control

Self-control is the ability of self to surpass a response to replace a more adaptive alternative without external supervision and restrictions, individuals constrain and managing one's own cognition, emotions, and behaviors in accordance with the expectations and requirements of society (Li, Guo, & Yu, 2019). Many factors are suggested to predict internet addiction, an increasing number of studies have shown that in the majority of addictive behaviors, there is a lack of self-control over the addiction and habitual behavior (Pour-Razavi, Allahverdi-Pour, & Toupchian, 2015). To study the extremely high frequency of impulsive behavior of Internet addicts, self-control may be a potential intermediary for this process (Li, Guo, & Yu, 2019). The role of self-control has been evaluated in many studies. A study found that the individual who can enhance their ability to self-control would be able to ameliorate Internet addiction (Ahmet, Serhat, et al., 2015). In Ismail and Zawahreh's (2017) research, results showed that the participants' self-control was low while the Internet Addiction was high. Therefore, the poor level of self-control was an effective factor that accounts for internet addicts' higher frequency of impulsive behavior in inter-temporal decision making (Li, Guo &

Yu, 2019). It is noted that most studies showed self-control negatively related to internet addiction. In line with the existing literature, in this study self-control is considered to be a predictor of internet addiction.

Internet addiction and self-esteem

Self-esteem is a kind of positive or negative attitude and self-feeling against the self. It reflects the difference between the actual self-state and the ideal self-state perceived by the individual. It is both an important part of the self and an important dependent variable of the self-regulation process (Rosenberg, 1965). Adolescents' perceptions and beliefs about themselves are reflected in their behavior characteristics when using the Internet, those with low self-esteem have a negative self-perception and believe that they can only experience a sense of dignity online, which is difficult to satisfy in real life (Gordon & Caltabiano, 1996). At this point, the importance of self-esteem has emerged. Self-esteem refers to a person's perception of oneself. In other words, this is related to how the individuals evaluate their own self-concepts (Burger, 2006). It is thought that the existence of a relationship is likely between Internet addiction and self-esteem. In addition, the research has been conducted to reveal the relationship between addiction and self-esteem (Aydm & San, 2011).

In fact, various studies on this issue have concluded that there is a strong relationship between these two variables. A study by Aydm & San (2011) found that the adolescents with lower self-esteem were more easily addicted to the Internet. In 2018, some participants from high school who showed a high risk of Internet addiction, had significantly lower self-esteem scores ($t=-5.89$; $p<0.001$) than participants who do not meet Internet addiction criteria (Yildirim, Sevincer, Andeger & Afacan, 2018, p. 187). It could be argued that self-esteem was significantly and negatively correlated with Internet addiction among adolescents. It was found

to be a significant predictor of Internet addiction (Aydm & San, 2011). In line with the existing literature, in this study self-esteem is considered to be a predictor of internet addiction.

Internet addiction and self-compassion

Neff proposed a new concept of "self-compassion" in 2003, and at the same time made a detailed definition of this concept and its constituents. The psychology community began to study and explore this new concept. Self-compassion refers to being friendly and gentle to self in the face of negative experiences and perceived deficiencies. It requires acceptance of failure, and that distress and deficiency are part of the human condition which plays an important role in the process of coping with negative body imagery. When individuals face pain and failure, self-compassion usually has three basic components: self-kindness, common humanity and mindfulness, these three components are positive, and the self-judgment, isolation & over-identification shown by the individual is the negative side corresponding to them (Neff, Kirkpatrick & Rude, 2007).

Literature suggests that encouraging self-compassion may be very beneficial in reducing internet addiction. It was found that positive self-compassion (self-kindness, common humanity, and mindfulness) has negative correlation with internet addiction, but negative self-compassion (self-judgment, isolated and over-identified) was reported as a positive factor leading to Internet addiction. Meanwhile, this study stated that students with high self-kindness and mindfulness were not easy susceptible to internet addiction than those has self-judgment or isolation, self-compassion directly affects the development of Internet addiction (İskender & Akin, 2011). Additionally, another research also reported that self-compassion demonstrated importance and power in the process of predicting internet addiction (Zahra, Saeid & Sanaz, 2017). In line with

the existing literature, in this study self-compassion is considered to be a predictor of internet addiction.

Internet addiction and social support

There exist different ways to define social support. It can generally be defined as an objective social interaction that can be perceived by people, this social relationship can provide people with care, acceptance and help (Zimet, Dahlem., *et al.*, 1988). This interactive relationship can come from family members, friends, teachers, internet or other people in society (Sarason, Levine, Basham, & Sarason, 1983). “Emotional, tangible, informational and companionship” were four resources of social support (Taylor, 2011, p.359).

Some studies have shown that negative effects between social support and Internet addiction, that is, the lower the level of social support, the greater the chance of suffering from Internet addiction (Wang & Wang, 2013). Many scholars also emphasize the importance of social support perceived by individuals, in Turkey, a study found that a medium level of negative relationship ($r = -.37$) between perceived social support and Internet addiction. When adolescents' perceived social support scores are low, their internet addiction scores are higher, and it can be seen that there is a negative correlation between them (Gunuc & Dogan, 2013). In line with the existing literature, in this study social support is considered to be a predictor of internet addiction.

Statement of the problem

Internet is used everywhere by almost everyone. In many countries, the government has begun to promote the expansion of Internet use throughout the school system. While the internet is innovating high school student's way of learning, it also brings the temptation of internet

addiction that cannot be ignored. The lower the level of internet addiction influences the academic performance, the higher the tendency to drop out of school and even embark on the path of crime. The high school stage is not only an important juncture for the college entrance examination, but also the key period of gradual formation of the values of life. Internet addiction has already raised concerns among parents, teachers and researchers. Scientists and researchers have begun to take measures to solve the harm caused by Internet addiction. Some people deal with the impact it has on how to communicate with others; as well as its economic, social, family and professional issues, others deal with the psychological effects of overusing it (Ismail & Zawahreh, 2017).

Researchers found these psychological factors and social support were all reported to have some negative correlation with internet addiction in the different ways. According to this hypothesis, students with low self-esteem exhibit self-distrust, loss of control, failure and addictive personality. It significantly affects the intensity of compulsive Internet use (Meerkerk, Van den Eijnden, Franken & Garretsen, 2010). Researches in China indicated that improving self-control abilities can reduce the rate of internet addiction in university students (Li, Guo, & Yu, 2019). Similarly, students high in negative self-compassion are more likely to be vulnerable to internet addiction than are people high in positive self-compassion (İskender & Akin, 2011). Moreover, In the study of the relationship between social support and Internet addiction, researchers showed that social support, especially individual's perceived social support, has a high negative correlation with Internet addiction (Esen & Gündogdu, 2010).

Although some researchers have begun to pay attention to young people's Internet addiction, most of the research is focused on the impacts of internet use, and subjects are college students who are about to become adults. However, few research has focused on the

psychological factors which lead to the development of internet addiction among teenager. When it comes to the subjects of high school students, few researchers have investigated internet addiction and its predictors in high school students. Among the important person variables that predict internet addiction are self-esteem, self-control and self-compassion (self-oriented variables). Similarly, among the environmental variables correlated with internet addiction, social support is reported to play a crucial role. Therefore, this study investigates self-esteem, self-control, self-compassion, and social support as the predictors of internet addiction among high school students.

Purpose of the Study

This paper is designed to examine the role of self-esteem, self-control self-compassion, and social support as the predictors of internet addiction among high school students. In view of the increasingly lowering age of Internet addiction, adolescents becoming addicted to the Internet leading to many negative impacts on their development. The population for study focuses on the high school students from Bangkok international school.

Significance of the Study

There are many reasons for internet addiction among adolescents. The likelihood of addiction is not determined by a single factor, it has a multi-factor mechanism. The results of the study will contribute significantly to explore the psychological predictors: self-esteem, self-control, self-compassion and social support of internet addiction nowadays especially the young people in high schools. The cause of internet addiction is still being discovered and no one can

give an accurate explanation. This study can continue enriching the research content of high school student internet addiction on the basis of previous studies. For adolescents, positive self-esteem, self-control ability, self-compassion and social support are critical factors in their mental health development. When these prerequisites cannot be satisfied, it is easy to have internet addiction. This study helps to understand how self-esteem, self-control, self-compassion and social support are associated with internet addiction, so that we may be able to figure out ways of preventing and treating internet addiction. In addition, counselors can help by improving self-esteem, self-control ability and self-compassion to cure internet addiction. It's an important step in treatment of teenager's internet addiction.

Definitions of Terms

Adolescents – The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19. They are at a period during the process of human development that between childhood and adulthood.

High school students – The definition of high school is an academic institution providing education more advanced than elementary school or middle school but less advanced than college, typically grades 9, 10, 11 and 12. The "high school students" used in this study refer to students studying in the high school section of Bangkok International School in Thailand.

Internet addiction – Internet addiction is described as pathological internet use, having both strong mental and action dependence on it (Young, 1998). It's an impulsive control disorder that does not include the use of anesthetics and a kind of psychological dependence on the Internet. High scores on this dimension signify persons use Internet experience with an increasing

amount of time high level of internet addiction. The averaging 38 hours or more per week means an individual may has an internet addiction (Young & Rogers, 2000).

Self-compassion – Self-compassion is the individual with an open, tolerant attitude to understand and accept oneself, do not avoid failure and pain, put his own encounter and negative emotions as a total experience of mankind, and be able to realize this situation and mood of each experience people are compassionate (Neff, Kirkpatrick, & Rude, 2007). Self-compassion scale was used to measure self-compassion. The higher the score on the scale, the higher the level of self-compassion which means that you honor and accept your humanness (Neff, 2003).

Self-control – Self-control classically is defined as the transcending of unwanted impulses, it is the ability to change or override individual's internal reaction, as well as interrupt undesired behavioral tendencies (such as impulses) and refrain from acting on them (Tangney & Baumeister, 2004). The higher the self-control scale score, the stronger people's ability to control impulses, alter their emotions and thoughts, and interrupt undesired behavioral tendencies, and refrain from acting on them.

Self-esteem – Self-esteem refers to how individuals evaluate their own self-concepts (Burger, 2006). It is totally of the individual's thoughts and feelings with reference to himself as an object (Rosenberg & Owens, 2001). Generally, it is a positive or negative orientation toward oneself; an overall evaluation of one's worth or value. Rosenberg Self-Esteem Scale was used to measure self-esteem. People who lack self-esteem will feel that they are not. They tend to be more sensitive to criticism and focus on how people perceive them.

Social support— social support refers to providing actual help, it is an objective social interaction that can be perceived by people, and this social relationship can provide people with care, acceptance and help (Zimet *et al.*, 1988). This interactive relationship can come from family members, friends, teachers, internet or other people in society (Sarason, Levine, Basham, & Sarason, 1983). “Emotional, tangible, informational and companionship” were four resources of social support (Taylor, 2011). Multidimensional Scale of Perceived Social Support was used to measure social support. The higher the score on the scale, the more supported one feels.



CHAPTER II

REVIEW OF RELATED LITERATURE

In this chapter, a comprehensive review of literature on the topics of self-esteem, self-control, self-compassion, social support, Internet addiction and other related factors is presented. The discussion is organized into these sections:

1. Addiction;
2. Internet addiction;
3. Signs and symptoms of internet addiction;
4. Diagnosis of Internet addiction among high school students;
5. High school students' psychological needs and internet addiction;
6. Self-esteem, Self-control, Self-compassion,
7. Cognitive-behavioral model of pathological Internet use (PIU)
8. Social support
9. Self-esteem and internet addiction, self-control and internet addiction, self-compassion and internet addiction, social support and internet addiction.

Addiction

Addiction is a global problem that costs many millions of lives each year and causes untold suffering (Robinson & Berridge, 2003). The word “addiction” originally comes from the Latin word “addicere”, it means "enslaved by" or “bound to” (Potenza, 2006). The concept of

addiction comes from drug dependence, or drug addiction, based on the traditional view that addiction refers to the physical and psychological dependence of psychoactive substances such as tobacco, heroin, alcohol and other drugs which are taken first because they cause euphoric experiences, but if the drug is used repeatedly, steady-state neurological adaptation leads to tolerance and dependence, so after the cessation of use, it will produce unpleasant withdrawal symptoms. It is the most intuitive explanation that a person who cannot stop taking a particular drug or chemical has a substance dependence (Robinson, & Berridge, 2003). Therefore, many researchers believed the term addiction should be applied only to cases involving the ingestion of a drug, only physical substances ingested into the body could be termed "addictive." (Walker, 1989).

Under the development of addiction, the definition of the term addiction has been changed. The Expert Committee on Addiction-Producing Drugs (WHO, 1957) defined addiction and habituation as part of drug abuse. Researchers found the term addiction does not only refer to dependence on substances such as heroin or cocaine, but that some addictions also involve an inability to stop partaking in activities, such as gambling, eating, or video game playing, in these circumstances, a person has a behavioral addiction (Griffiths, 1990). Currently, addiction is the abnormal psychological dependence on food, sex, pornography, gambling, computers, the internet, sports, work, watching TV or video, shopping, and more. These days, the definition of addiction varies, but all concepts involve repeated powerful motivations to engage in an activity that has no survival value, which is acquired through the experience of the activity, even though it carries the harm or risk of harm (West, & Brown, 2013). The American Society of Addiction Medicine recently released a new definition of addiction as a chronic brain disorder, which is the first official recommendation that addiction is not limited to the use of

drugs. All chemical or behavioral addictions have some common characteristics including salience, compulsive use (loss of control), mood modification and the alleviation of distress, tolerance, and withdrawal, and the continuation despite negative consequences (Cash, Rae, Steel, & Winkler, 2012).

Does internet addiction really exist?

So far, some researchers believe that Internet addiction exists, while others do not. There is no consensus as to whether there is an Internet addiction (Griffiths, 2000). It is undeniable that the Internet does bring a lot of convenience to people, it makes people use it more and more frequently, and in the 21st century, it has become a very powerful tool (Wanajak, 2011). A majority of research focuses on the true aspects of addiction and try to assess whether Internet addiction actually exists (Griffiths, 2000).

There are various opinions on whether internet can cause addiction. A popular saying is that if someone becomes addicted to anything and it is knowledge, then this situation is not addictive (Mental Health Net, 1997). Many scholars agree to the concept of addiction and impulsive control disorders by delaying the change in reward testing, these scholars have seen a link between impulsive control disorders and Internet addiction, but there is still no tangible evidence of Internet addiction (Cabral, 2011). However, by reviewing basic demographics and psychological and behavioral implications, scholars remain concerned about the existence of Internet addiction, but ultimately agree that the new digital age does affect the development of human thinking (Cabral, 2011). Like Young and other psychologists believe that excessive use of the Internet can jeopardize an individual's physical and mental health. Addiction may interfere with normal adaptive function. Therefore, if someone is addicted, his or her function will be maladaptive (Young, 1996). But little is known about the pathophysiology and cognitive

mechanisms that cause Internet addiction, due to the lack of adequate methodological research, no evidence-based treatment for Internet addiction is currently available (Griffiths, 2000).

Therefore, some researchers cannot confirm that excessive Internet use is an addiction, like it might be in case of obsessive-compulsive or impulse-control disorder. In the "Diagnostic and statistical manual of mental disorders (Fifth Edition)" (DSM-five), the "Online Game Disorders" is mentioned in DSM-5's "Part III-Emerging Scales and Models" and is classified as "status requiring further study." The Working Committee considers that there is insufficient evidence to support the inclusion of these recommendations in the second part of the formal diagnostic criteria for mental disorders. These suggested that diagnostic criteria are not intended for clinical to use, only the diagnostic criteria and disorders in DSM-5 Part II are formally recognized and used for clinical purposes and appealed researchers to do much more study of this disorder.

Internet addiction

Internet addiction is defined as "an impulsive control disorder that does not include the use of anesthetics." It implies that the difference between Internet addiction and drug dependence is that it is more likely an impulse control disorder and is also clinically referred to as pathological Internet use. It refers to a kind of psychological dependence on the Internet that is gradually formed by individuals in the Internet experience (Young, 1998). Internet addiction is a new type of addiction that is formed with the development of network technology. At present, there is no standardized unified judgment standard for Internet addiction in academia. Kim (2008) summed internet addiction as "Internet Addiction Disorder", "Excessive Internet Use", and "Compulsive Internet Use". The concept of "Internet addiction" was first proposed by Goldberg in 1990. In 1995, Goldberg borrowed DSM-IV's criteria for drug dependence and

defined it as the time and frequency of surfing the internet beyond one's expectations, that the individual fails to control. After depriving the individual of Internet, they experienced withdrawal symptoms. Till 1997, Gordonberg changed the term "Internet addiction" to "pathological Internet use" and defined it as frustrating or physical, psychological, interpersonal, marital, economic or social functioning caused by excessive Internet use. According to clinical manifestations, internet addiction also supports to be defined as Pathological Internet Use and Internet Behavior Dependence. Pathological network use can trigger a series of symptoms, including mood changes, and generally unpleasant experiences. Guilt and a strong desire for Internet access, the complications of network behavior dependence mainly include depression and low self-esteem (Hall & Parsons, 2000). Davis (2001) argued that Pathological Internet use has a wider scope than Internet addiction so he advocates the use of the term "Pathological network use".

Dissimilar to chemical dependence, the Internet can bring some direct benefits to the technological advancement of our society, rather than a device that has been criticized as "addiction." For people, using the internet properly can provide everything that they are interested in. Some people can use it in a useful and limited way, but some others only use it for pleasure and entertainment. This causes them to spend more and more time using the network to get satisfaction until they can't control or limit their use (Radhamani, 2015). As clinical cases continue to increase, researchers are paying more and more attention to this matter. The American Psychological Association (APA) officially recognized "Internet addiction" in 1997 and it's the academic value of research.

Like other addictions, Internet addiction can change people's mood and behavior. It is a psycho-physiological disorder involving tolerance, withdrawal symptoms, affective

disturbances and interruption of social relationship. According to Griffiths (2000), there are six common core components to internet addiction, which are common to different types of addiction, such as salience (dominate their thinking, feelings, and behavior), mood modification (subjective experience that people feel when participating in a particular activity can be seen as a coping plan), tolerance (in order to achieve the former effect, it is necessary to increase the number of specific activities), withdrawal symptoms (unpleasant sensory state or physical influence that occurs when a particular activity stops or suddenly decreases), conflict (interpersonal conflicts between the addict and those around them or internal conflicts from themselves that related to specific activities), and relapse (tendency toward addictive behavior that tends to fall back to earlier addictive behaviors. This phenomenon reappears, even after years of control or abstinence, even the most extreme behavior typical of addicts can quickly restore).

Under the development of mobile devices and new media consumption avenues, computers, tablets, or smartphones are typically used to access the internet (Yildirim, Sevincer, Aandeger & Afacan, 2018, p. 188). Typically, internet addiction can be for online gaming, social networking, surfing pornographic contents or internet surfing (Kim, 2008). According to the previous research, there also exists gender differences in using the internet, and their ways to approach the internet, for example, a recent study conducted by Htang San (2019) found that female college students in Kachin State, Myanmar, had more access to the internet through (almost exclusively) smartphones, whereas male students more often used computers and laptops.

The earliest systematic research on Internet addiction was Dr. Kimberly Young (1996). Based on the research of 496 cases of excessive Internet users, Young proposed the concept of

"Problematic Internet Use" (PIU) with reference to the identification criteria of gambling addiction in DSM-IV, and her study was presented at the "104th Annual Meeting of the American Psychological Association". She described Internet addiction as "A phenomenon of obvious social and psychological damage caused by excessive use of the Internet, an impulsive control disorder that does not involve the using of narcotic drugs, but much like pathological gambling" (Young, 1996, p.281-282). There are five specific subtypes of Internet addiction:

1. "Cyber-sexual addiction": It's a compulsive use of adult websites for online chatting or watching porn movie;
2. "Cyber-relationship addiction": it means over-involvement in online relationships which will have an impact on the real relationship with family members or friends;
3. Net compulsions: it involves compulsive online gambling, shopping, and obsessive online trading;
4. Information overload: people spending a large amount of time for web surfing or database searches;
5. Computer addiction: being obsessed with computer games (Doom, Myst, Solitaire. etc.).

Signs and symptoms of internet addiction

People who are addicted to internet are discovered to have many symptoms. According Gregory (2019), the signs and symptoms of internet addiction disorder may present themselves in both physical and emotional manifestations. Emotional symptoms of Internet Addiction Disorder include depression, dishonesty, feelings of guilty, isolation, and physical Symptoms of Internet Addiction Disorder may include insomnia, carpal tunnel syndrome, headaches or poor nutrition (failing to eat or eating in excessively to avoid being away from the computer).

Diagnosing of internet addiction for high school students

There is no recognized standard for the diagnosis and identification of Internet addiction. The diagnostic criteria for pathological gambling is closest to the pathological features of excessive network use and has been revised to form a network overuse diagnostic questionnaire that is also deemed suitable for adolescents (Yang, Choe, Baity, Lee, & Cho, 2005). The questionnaire has 8 items. If the answer to the following 8 questions is affirmative, the individual can be diagnosed as having internet addiction. Here is an example of the questions:

1. Are you fascinated by the Internet?
2. Do you feel that you need to extend your online time in order to be satisfied?
3. Do you often have no control over your Internet or stop using the Internet?
4. Do you feel restless when you stop using the Internet?
5. Is the time on the Internet longer than I intended?

6. Is your interpersonal relationship, work, education or career opportunity affected by the Internet?
7. Have you concealed your fascination with the Internet for family members, doctors or others?
8. Do you think of the Internet as a way to escape problems or release anxiety and anxiety?

High school students' psychological needs and internet addiction

A large number of studies have indicated that Internet addiction has a serious impact on people's physical and mental health, social, work, study, and family life, especially the adolescents (Lukoff & Gackenbach, 2004). During this time, individuals will experience a period of puberty. It is a time of rapid cognitive, biological and social change (Byrne et al. 2007). Adolescents gradually form a stable personality and shaped their unique worldview and methodology in adolescence period, though their will and judgment are weaker than those of the adult because they are immature (Zheng, Guan, Li, & Qin, 2015). High school students are in their adolescents, the physical and mental development of high school student is still immature, their physiological characteristics are special, because they are in a period of psychological and behavioral changes, their values and behaviors have not yet been finalized, and their cognitive abilities are limited (Zheng, Guan, Li & Qin 2016). Compared with adults, their self-control and self-discipline are relatively inferior. If psychological needs in this period are not satisfied in real life, they could easily be tempted by the novel and exciting information on the Internet. This could be one of the main reasons leading to the Internet addiction (Zheng, Guan, Li & Qin, 2016).

First, adolescents are eager to be understood, need friends and want to venting emotions, but they are reluctant to share their feelings with parents or teachers in this stage (Goossens, Beyers, Emme, & van Aken, 2002). Actually, it is difficult to find places to talk in the real life, especially so for the introverted adolescents. Because of shyness and not having a good grasp at socializing, their needs to find someone to communicate with will not be met. Interestingly, this form of communication in the online world avoids the embarrassment caused by poor communication skills during face-to-face communication, as well as the adverse consequences of damaging their own image. Therefore, it can make adolescents speak freely and their desire to resonate in real life is constantly being fulfilled (Li Lei, 2010).

Second, there is a need for self-realization as a teenager (Li Lei, 2010). Hope for love and respect is a common psychological need of all young people (Soloman, Warin, Lewis, & Langford, 2002). At this stage, young people are eager to express themselves, they feel that they are no longer children but adults, and have developed a strong sense of independence. They do not want to rely on adults for everything, hoping to fully reflect their abilities and values. However, in real life, appearance, performance, and abilities are often important factors for obtaining affirmation, which limits the opportunities for some students to express themselves and causes their self-confidence to decline. Due to the deviation of home and school education, many students lack care and respect in home and school (Soloman, Warin, Lewis, & Langford, 2002). A virtual space like the Internet is just a great space for them to display their talents and give full play to their imagination, so that they can more openly present their true selves, or redesign and shape a new self to gain what they lack in real life (Li Lei, 2010).

Third, Chinese researcher Lei li (2010) had mentioned adolescent sexual psychology is beginning to mature, and their curiosity can easily become dependent on the Internet. The

Internet can bring them a wealth of information, novelty, including erotic content. When their sexual and psychological development needs are not met in their lives, they shift all their energy to the pornographic content of the Internet and rely on the virtual world of the Internet to satisfy their instinctual desires that cannot be recognized by society. Due to poor self-control ability of some students, it can be difficult for students to extricate themselves from obscenity or even obsession (Li Lei, 2010).

Finally, adolescents also need to relieve stress (Romeo, 2013), these stresses may come from home, school or society. When they can't find a way to relieve stress in real life, some people will escape to avoid facing the stress. In this way, the online world becomes the best way to remedy that need (Li Lei, 2010).

Self-esteem

Self-esteem is a very popular and important concept in both social sciences and everyday life. The term self-esteem was proposed by James in 1963, a representative of the functionalist genre, who defined it as an individual's perception of self-worth, and first expressed the level of self-esteem with a functional formula: $\text{Self-esteem} = \frac{\text{Successes}}{\text{Pretensions}}$ and the description can end up being more like self-efficacy (Alpert-Gillis, & Connell, 1989). The debate about it has never stopped since James coined the term self-esteem. Rosenberg (1965) argues that "self-esteem is a positive or negative attitude towards a particular thing called the self." So, in Rosenberg's view, respect for self-esteem is an attitude towards self-worth, which originates from acceptance and recognition under certain social standards. Just as these two points of view were being debated in academia, a third view emerged. Branden (1969) believed that self-esteem should not be a single component and it should be included with competency and worth of complex psychological traits, and therefore the proposition of

this viewpoint integrates the previous two viewpoints. In any case, the controversy over self-esteem in academia has never stopped. This research tends to adopt Rosenberg's (1965) definition of self-esteem, that is to say, self-esteem is an individual's subjective perception of self-worth. This study believes that self-esteem should be reasonably distinguished from self-efficacy. Although the two are highly related, they are not the same thing. The definition of self-esteem proposed by James is closer to the definition of self-efficacy. Therefore, this research adopts Rosenberg's point of view.

According to the literature on self-esteem, different types of self-esteem have been proposed.

1. Ideal self-esteem and real or actual self-esteem are proposed and distinguished according to the content of self-esteem. Some studies suggest that the successful experience of individuals forms realistic self-esteem, and the individual's expectations of the future form ideal self-esteem (Norton, Morgan & Thomas, 1995). When the gap between ideal self-esteem and real self-esteem is large and very inconsistent, individuals will experience anxiety, if the two self-esteems cannot be unified, they will have different degrees of psychological disorders (Norton, Morgan & Thomas, 1995).

2. Explicit self-esteem and implicit self-esteem. These two types of self-esteem have different meanings. The former self-esteem affects the inference and behavior of individual consciousness, while the latter affects the active behavior brought by individual emotional experience (Greenwald, & Farnham, 2000). For instance, when faced with negative evaluation or threat of failure, low explicit self-esteem tends to choose low difficulty tasks, the purpose of which is to protect itself. In the same situation, people with high explicit self-esteem tends to choose difficult tasks. The goal is to use difficulty as an excuse after failure to achieve self-esteem maintenance.

3. Global self-esteem and specific or differentiated self-esteem are distinguished according to different self-esteem deconstructions. Overall self-esteem specifically refers to the positive or negative attitudes that individuals form towards themselves. Specific self-esteem refers to part or part of overall self-esteem, such as social self-esteem and academic self-esteem (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995).

In defining self-esteem, this article adopts the theory of Rosenberg (1965), which regards self-esteem as his own positive evaluation and personal feelings. In this sense, we can begin to study the relevant influence mechanisms and problems of self-esteem. There are many factors that affect adolescents' self-esteem, which can be analyzed in three aspects: individuals, families, and schools (Han, & Kim, 2006). Harter (1999) once said that if a teenager has a poor appearance, has obesity, or has a physical disability, he will not be confident and cannot integrate into the surrounding environment, therefore, his self-esteem level will be lower. Numerous studies have shown that the impact of parenting styles on children is significant in a family. If a parent is too authoritative, and has been criticizing or denying the child, it is not conducive to the development of self-esteem; on the contrary, if parents are more democratic, understands and tolerates their children, and encourages them in a timely manner, that is conducive to the development of youth self-esteem. The quality of the school has a certain effect on the self-esteem of the students attending it (Ryan, Stiller, & Lynch, 1994). For example, students in excellent schools have a higher sense of self-efficacy, and their overall psychological status is more positive, willing to realize self-worth in their studies, and their self-achievement orientation is stronger. Conversely, in poor schools, or in schools that are predominantly non-cultural, students are significantly weaker at this point (Greenberg, Solomon & Pyszczynski, 1997).

Self-esteem, as the core link in the individual's self-system, plays an important role in the maintenance of physical and mental health, because it can resist the pressure and invasion of the individual's meaningful and valued life on the one hand, and also through effective self-regulation reduce and alleviate the pressure of anxiety and fear, so that individuals form a flexible psychological space and maintain a good physical and mental state.

Self-control

Self-control has always been considered one of the most important abilities in a person. Many psychological studies have shown that a person's lack of self-control is the biggest obstacle to his inability to achieve his goals (Carver & Scheier, 1998). Good self-control can help manage time and regulate emotions effectively, and it has a positive impact on academic achievement and success (Feldman, Martinez-Pons & Shaham, 1995). Moreover, adolescents with higher self-control ability have been shown to be better at building and maintaining social relationships (Maszk, Eisenberg & Guthrie, 1999). It's hard to imagine that a person loses his basic self-control and his life will look bad because whether it is physical and mental health, interpersonal relationships, success or failure, or even financial security can be related to self-control (Maszk, Eisenberg & Guthrie, 1999). Furthermore, research has shown that low levels of self-control were associated with a number of complications, for example: substance abuse, internet addiction, violence, obesity or aggressive behaviors (Nebioglu, Eroglu & Konuk, 2012).

Self-control is a complex concept, and there is no uniform definition until today. Different psychologists have different views on the concept of self-control. The main difference is that the structural interpretation of self-control is not completely consistent. In the initial research, psychologists mostly used self-control ability as a substitute for willpower to explore the concept of self-control from a theoretical perspective. In 1982, Kopp argued that self-control

refers to the ability of individuals to act in accordance with social expectations when they follow rules, delay satisfaction, even when lacking external supervision. Later, psychologists examined self-control from different aspects in empirical research and proposed the concept of self-control accordingly. For example, Baumeister and Heatherton (1998) define self-control as the ability of individuals to change their self-behavior to achieve long-term goals in order to satisfy ideals, values, ethics, and social expectations. It refers to the ability to restrain behavioral trends that are not welcomed by society and to control one's impulsive behavior. It has been argued that self-control is the ability to regulate an individual's impulsive thoughts, emotions, and behaviors (Tangney, Boone & Baumeister, 2004). From the above three definitions, self-control is self-conscious, and this self-control involves behavioral, cognitive, and emotional control, and is controlled by self (Telzer, Masten, Berkman, Lieberman & Fuligni, 2011)

Similarly, the division of its structure is not the same for each scholar. Some researchers believe that self-control mainly includes five aspects: overall self-discipline, impulsive control, healthy habits, work or learning performance, and reliability (Tangney, Baumeister, & Boone, 2004). At present, most psychologists distinguish self-control into state self-control and trait self-control. State self-control refers to the control of the self in a specific situation, which is affected by the loss of environment, motivation, belief, and self-control resources (Muraven & Baumeister, 2000). Trait self-control refers to the ability of individuals to change or overcome their internal responses and adjust their thinking, emotions, and behaviors over a long period of time, with certain stability. Although the majority of research on self-control focus on state self-control, research shows that state self-control is related to trait self-control (Schmeichel & Zell, 2007). Individuals with high trait self-control have stable state-based self-control (Guan & He, 2018).

Many studies have shown that self-esteem affects self-control. The level of self-esteem can significantly predict the level of self-control. Parenting styles can also influence the development of individual self-control capabilities. Parents who are too protective or often reject their children can cause them to develop low self-control. In addition, the school environment also has an impact on the development of self-control in that a positive self-control atmosphere, teachers' expectations and acceptance by peers have a positive impact on the development of self-control.

Self-compassion

Self-compassion is derived from ancient Buddhist thought (Anālayo, 2015). In Buddhism, the starting point of their doctrine and self-cultivation is the need to comply with the most basic norms of Mercy View that equality compassion, altruism, compassion, and mercy is with everyone, love everyone, everyone sympathetic to the hardships faced (Anālayo, 2015). The concept was first introduced by Neff in 2003. Self-compassion does not mean selfishness or self-centeredness, nor does it mean that individual needs are better than others. Self-compassion means accepting pain, personal failure, and undesirable qualities are part of a person's existence. The inherent nature should be strongly sympathetic to promote individual growth and change.

Self-compassion is to be open to yourself, to be able to feel your own pain, to experience caring for yourself, to be kind and understanding when it comes to yourself, to not judge your own shortcomings and failures, and to recognize that your own experience is part of the common human experience (Neff, 2003). Neff believes there are three basic components of self-compassion:

1. “Self-kindness”: namely tolerance and understanding your deficiencies and shortcomings rather than self-criticism.
2. “Common humanity”: that is, recognizing that each person will fail, make mistakes, etc., this is normal behavior and what they are facing is shared, and emphasizing the link among individuals rather than isolation.
3. “Mindfulness”: an objective looks at everything, there is a clear understanding of things, neither to ignore the negative aspects of self or life is not to indulge too much rather than over-identification.

These three components are the contradictory union that is both different from each other and promotes each other, resulting in self-compassion. People need a certain level of mindfulness, so that they can have some psychological distances between the individual and their negative experience, and produce self-kindness and common humanity. Mindfulness also has a direct impact on self-kindness and common humanity. First of all, mindfulness is to take a transcendental stand and look at things without prejudice. It reduces self-criticism and increases self-understanding while increasing individual self-kindness. And also, being mindful of the balance that empathy can be directly refuted leads to a sense of isolation of individual egoism, which generally increases the feeling of individual contact with the outside world. Similarly, self-kindness and common humanity also help to increase mindfulness (Neff, 2003).

Neff's study showed that self-compassion can reduce depression and anxiety, increase life satisfaction, it also has a close relationship with positive mental health. In order to measure self-compassion, Neff (2003) subdivided that into six dimensions in the process of compiling the self-compassion scale, namely self-kindness, self-criticism, common humanity, isolation,

over-identification, and mindfulness. Muris, Otgaar and Petacchi (2016) have mentioned that common humanity, self-kindness and mindfulness, are the three positive dimensions, while self-criticism, isolation and over-identification are the three dimensions to explore a negative self-compassion. The results showed that positive self-compassion negatively predicted mental disorders and negative self-compassion positively predicted psychological disorders. It provides a new perspective on the study of self-compassion.

Research by American scientists on 500 college students, showed that high levels of chaotic family function were associated with low psychological flexibility and low levels of self-compassion. psychological flexibility and self-compassion played an intermediary role between chaotic family functions and college students' anxiety, and considers self-compassion and psychological flexibility as difficult ideas and emotional adjustment strategies (Berryhill, Hayes, & Lloyd 2018).

Wren (2012) and colleagues studied the regulating effect of self-compassion on patients with persistent pain. This study conducted a paper-and-pen test on 88 obese patients with persistent pain. Through hierarchical linear regression analysis, the results showed that self-compassion was effective for severe pain and persistent pain. Self-compassion explains the changes in persistent muscle pain in obese patients (Wren *et al.*, 2012).

Leary (2007) studied the relationship between self-compassion and response to unpleasant self-events, and the results showed that self-compassion weakened people's response to negative events. Self-compassion has been shown to be significantly associated with well-being and life satisfaction (Leary, Tate, Adams, Allen, & Hancock, 2007). Muris and Petrocchi (2016) explored the relationship between the positive and negative components of self-compassion and psychopathology through meta-analysis. The results showed that positive

indicators of self-compassion are significantly negatively correlated with psychopathology, negative indicators are positively correlated with psychopathology, and mental illness. Confucianism shows that the negative indicators of self-compassion and mental health problems are significantly stronger than the positive indicators. Therefore, for future research, using the total score of self-compassion scale and the total score of the negative vector table may increase the relationship with psychopathology (Muris & Petrocchi, 2016).

Cognitive - behavioral model of pathological Internet use (PIU)

The cognitive-behavioral model was proposed by Davis for pathological Internet use, it is one of the most comprehensive studies on the subject (Enormanc, Konkan, & Zihni, 2012). He believes that "Maladaptive-Cognition" is a key factor in the development of addictive behaviors. His research shows that pathological Internet users often have poor cognition in terms of personal qualities or perceptions of external things. The former often cannot make proper estimates of their abilities and roles, such as low self-esteem, etc. The latter often manifests as ignoring reality and overly identifying with the network. These are important risk factors for Internet addiction. At the same time, the model divides the factors that contribute to Internet addiction into proximal and distal causes. The remote cause refers to external factors. Proximal causes refer to the subjective factors of the individual. The most important influencing factor is the individual's non-adaptive cognition. It mainly includes two aspects: the self-cognition and the world's cognition. The former are mainly poor self-identity, low self-esteem, and low self-ability. It is a very important risk factor leading to addictive behaviors. These bad cognitions, especially the suspicion of their own value, make individuals turn to virtual teachers and sisters to seek the satisfaction and recognition of value, and to show their ability to self.

Therefore, such groups can only experience satisfaction and value with the help of virtualization tools. Self-esteem, self-control, and self-compassion are all important components of the self.

At the same time, the problem of Internet addiction is that the cognition of Internet addiction is generated first, and then the problem of emotion or behavior is generated. When individuals are stressed and stimulated by life events, they will be more prone to Internet addiction. Whether an individual is prone to develop Internet addiction is also associated with social support. Therefore, the low-level self-esteem, self-control, or self-compassion and social support is inseparable from their Internet addiction (Davis, 2001).

Social support

Since 1970s, sociologists, psychiatrists and epidemiologists have had an increased attention to social support (Zimet *et al.*, 1988). The proposed definitions of social support have been different, but in a general, social support refers to individuals receiving the material and spiritual support from social relationships such as with family members, friends, colleagues or social organizations, they will feel loved, esteemed and cared for when they are in trouble (Zimet *et al.*, 1988).

Cobb (1976) believes that social support refers to a behavior or information that an individual feels, it contains three levels of information: information that individuals believe they are concerned and loved; information that individuals believe that they have dignity and value; information that individuals are convinced that they belong to group members. Social support is a useful way to protect people from the adverse effects of stressful events. As an individual's cognitive evaluation of the closeness and quality of their interpersonal relationships, it is an

important factor affecting people's adaptation to various interpersonal environments (Esen & Gündogdu, 2010).

Although there are differences in the definition of social support, the division of social support content is relatively the same. Four common functions are “Emotional Support”, “Peer Support”, “Tangible Support” and “Informative Support” (Taylor, 2011). Tangible support refers to providing material assistance or related services to individuals to solve their actual problems; emotional support refers to emotions such as concern, trust, and understanding shown to individuals; informative support refers to providing some information, advice or guidance to individuals to help them solve problems; peer support means that individuals can reduce stress when engaging in activities with others, including joking and talking about personal interests (Taylor, 2011). In summary, social support can be understood as information support, tangible support, and emotional support that individuals receive in social relationships such as family, friends, and colleagues.

Many researchers have seen that social support positively affects individuals or organizations (Zimet *et al.*, 1988). Individuals can reduce psychological stress, relieve tension, and improve social adaptability from social support, it also is important to our physical and psychological health. The lack of social support is likely to lead to physical and psychological illness and make maintenance of daily life difficult. In addition, social support can help reduce people's dissatisfaction with society and buffer conflicts between individuals and society (Yıldırım, 2004).

Esen and Gündogdu (2010) reported adolescents' social support which comes from parents, friends or teachers can be a coping skill when they face a stressful situation. It protects an adolescent affected by stress and increases adequate social support which is beneficial for

mental health. Ybarra (2004) also discovered that social support plays an important role between depressive symptomatology and Internet addiction among young regular internet users, young user with insufficient social support may develop depression, which may increase the possible of Internet addiction. Furthermore, research has emphasized the importance of individual's perceived social support. In individual's adolescence period, perceived social support help people cope with stress, loneliness, illness, and addiction behavior (Esen & Gündogdu, 2010).

Self-esteem and internet addiction

Research on the relationship between self-esteem and Internet addiction started long ago. Gordon and Caltabiano (1996) found that adolescents with low self-esteem are more prone to having the desire for stimulation, which makes them more likely to become addicted to drugs or certain special behaviors. People with low self-esteem usually show fear of communicating with others in interpersonal communication in the real world. They are timid and cowardly, are often far from the image they want to project, and tend to easily become lonely and humble. When encountering problems, they will choose to face them in a negative way, such as evasion. On the contrary, when they come into contact with the internet, they find that in the virtual environment, they are no longer afraid and that the virtual world provides them with a sense of security, so they will use the network more actively. People with a high level of self-esteem often have a good ability to regulate and control their own behaviors, and have high psychological flexibility and resilience, which can help them effectively overcome frustrations and get through life events (McGregor, Nash & Inzlicht, 2009).

In addition to all the aforementioned factors, the use of the Internet is too widespread. Whether it is dating, chatting, online games, Facebook, or other entertainment functions, they

are all derived from the Internet. It appears to provide the low self-esteem individual with a platform to show themselves so that they can shape a Virtual self, and that helps the individual to not only forget the unhappiness in life, but also to realize the person they always dream of becoming. It is these benefits that lead to low self-esteem people being more prone to Internet addiction.

Aydm and Sari (2011) in a survey analysis of influencing factors of adolescents' Internet addiction showed that the self-esteem level of Internet addicts is generally low, and the level of self-esteem can significantly predict the Internet addiction tendency. That research has also confirmed the correlation between the two, indicating that the higher the degree of adolescent Internet addiction, the lower the corresponding level of self-esteem (Aydm & San, 2011). Yildirim, *et al.* (2018) indicated that low self-esteem is a risk factor for Internet addiction and food addiction. In China, Yu Qiang (2007) mentioned in his article “Studying the influencing factors of online game addiction among adolescent students” that the self-esteem level of adolescents and Internet addiction level also showed a negative correlation, meaning that the lower the self-esteem level, the higher the level of Internet addiction. Other examples include a 244 university students group conducted by Pantic *et al.* (2017), found that there is a significant negative correlation between the tendency of college students to rely on the Internet and their self-esteem level, indicating that the individual self-esteem level in the college student group can be very high. Servidio (2017) mentioned a study of 207 students aged between 19 to 41 in Italy that although participants did not have severe Internet addiction and presented only mild and moderate risks, the higher the score for Internet addiction, the lower was the level of self-esteem. Generally speaking, the relationship between self-esteem and Internet addiction is negatively correlated in different groups and countries.

Based on the previous research, this study explores the relationship between high school students' self-esteem and Internet addiction tendency, and tests whether self-esteem can predict Internet addiction tendency.

Self-control and internet addiction

Self-control is a behavior that the human initiative to control their own physical and mental. In order to complete a certain task, it is necessary to carry out autonomous regulation from cognition, emotion, and behavior. Normally, a high level of self-control feature is considered a long-term result instead of focusing on the immediate temptation (Baumeister & Heatherton, 1996). Stronger self-control ability will help people have higher chances of success, better personal relationships and academic performance. According to the previous research, the higher the self-control, the less likely it is for an individual to get food disorder, substance abuse, or other impulse control problems (Özdemir, Vazsonyi, & Çok, 2013). Conversely, low self-control will have a bad impact on the harmony of individuals' interpersonal relationships and social support. People with low self-control have an impulse to do things, like to accept simple work, have a short-temper and are self-centered. They always feel that they are running into obstacles in their lives, so when they turn to all the goodness and support in the online world, the phenomenon of addiction also arises (Trimmel & Kopke, 2000). The lack of control is because instant gratification is important to these people. Individuals with low self-control are dominated by immediate satisfaction and short-term goals, more willing to stay in the virtual world where they will they strive to make themselves the perfect image easily and quickly, which adds more psychological support and happiness to them (Gottfredson & Hirschi, 1990).

In 1991, Bandura suggested that self-control might be related to Internet addiction. Because self-control can help individuals understand their behavior and its impact on

themselves, others, and the environment. Davis (2001) also affirmed that self-control is one of the key aspects of the addiction problem. Gottfredson and Hirschi's (1990) theory of self-control indicates that low self-control is a major cause of widespread violent, risky behavior and makes one prone to developing Internet addiction, because low self-control is negatively associated with impulsive behavior. Also, Patwardhan and Yang (2003) determined that low levels of self-control are associated with internet addiction.

This research will continue to study the relationship between self-control and addiction and explore whether self-control can be used as a predictor for the tendency of Internet addiction.

Self-compassion and internet addiction

Self-compassion is an important internal factor that affects the informed behavior of individuals. People with high self-compassion are facing their own problems and when there is a more accurate perception of deficiencies, they will use care and sympathy instead of harshly criticizing and condemning themselves. Therefore, self-compassion can mitigate the negative effects of individuals when they encounter negative life events. Individuals with low self-compassion are just the opposite. They are more likely to fall into the cycle of self-criticism. They always feel that they have many shortcomings and that others are better than themselves (Muris, Otgaar & Petacchi, 2016).

Little research has been done on the predictive effect of self-compassion on Internet addiction. It was not until 2011 that Iskender and Akin first studied the relationship between self-compassion and Internet addiction. Their research participant included 261 college students. Researchers used internet addiction as an indicator of psychological maladjustment,

and psychological adjustment's indicator was self-compassion, in order to to verify the relationship between the two and establish a relationship between the two through a structural equation model. The results showed that positive self-compassion (self-friendliness, Common humanity, and mindfulness) can predict Internet addiction negatively, and negative self-compassion (self-criticism, isolation, and over-identification) can predict Internet addiction positively. Positive self-compassion itself has a high adaptability. When individuals encounter negative events temporarily, self-kindness and mindfulness can make individuals treat themselves well (Iskender & Akin 2011).

Subsequently, in 2017, the purpose of the “Predictability of University Students' Internet Addiction based on Self-Compassion and Perceived Social Support” study was to determine the role of self-compassion and social support as predictors in predicting internet addiction among 120 Tehran university students. The results of the study also show that self-compassion can predict 71.9% of Internet addiction ($p < .001$), which is more important and effective than social support. Among the components of self-compassion, mindfulness, self-judgment, and common humanity significantly predict the difference in Internet addiction, and mindfulness played a maximum role in this process (Shahabinejad, Zandi & Azizmohammadi, 2017).

Social support and internet addiction

The emergence of the Internet provides a new way of communication when people have insufficient social relationships in the real world and brings benefits to special groups and allows them to establish social relationships that they are missing in the internet, especially so among young people (Esen & Gündogdu, 2010). When the social support received from family, friends, or others is insufficient, students will increase the time spent on the Internet and use the network to make up for psychological vacancies. However, a problem occurs when people rely

entirely on social relationships on the Internet and ignore social support in reality, the individual may become addicted to internet (Esen and Gündogdu, 2010).

In Davis's (2001) cognitive-behavioral model, social support as a proximal factor of internet addiction is a sufficient condition for Internet addiction. Social support is an objective factor that leads to Internet addiction. Shahabinejad, Zandi, and Azizmohammadi (2017) have studied the relationship between social support and Internet addiction and a negative correlation was found between Internet use and perceived social support, but the correlation was not very strong like self-compassion.

However, Gunnuc and Dogan (2019) noticed that people at high risk of Internet addiction received low social support from society and family, and that it was significantly related to internet addiction. A different correlation analysis of social support and Internet addiction found that college students' social support and Internet addiction were significantly negatively correlated (Naseri, Mohamadi, Sayehmiri & Azizpoor, 2015). In the same vein, Esen and Gündogdu (2010) analysis showed that social support can negatively predict Internet addiction.

Although each report has different results on the correlation between social support and Internet addiction, most of the available data currently shows that there is indeed a negative correlation between social support and Internet addiction. Hence, the aim of this paper is to study the relationship between social support and internet addiction, and examine whether social support can be a predictor of Internet addiction.

To sum up, positive self-compassion can significantly negatively predict Internet addiction, and negative self-compassion can significantly positively predict Internet addiction.

According to literature, self-compassion is divided into positive self-compassion and negative self-compassion. Self-compassion in this article will be assumed to exert a negative predictive effect on Internet addiction, positive self-compassion then will negatively predict Internet addiction, and negative self-compassion could predict Internet addiction positively.

Summary of Reviewed Literature

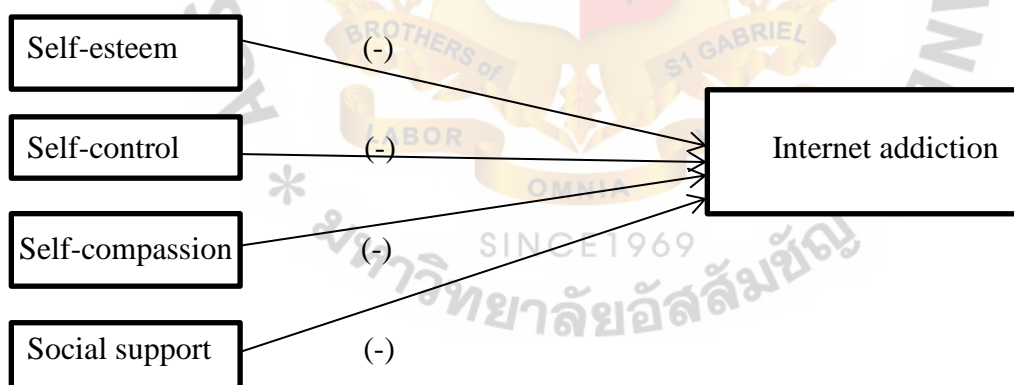
In summary, a person's self-esteem, self-control, self-compassion and social support are closely related to Internet addiction, respectively. There are many kinds of research on self-esteem and Internet addiction. Researchers believe that improving the client's self-esteem is helpful for the treatment of addiction when doing psychotherapy. It is difficult for people with low self-esteem to obtain a sense of dignity in real life, and the Internet gives them a way to self-satisfaction.

Therefore, there may be a negative correlation between self-esteem and Internet addiction. Perhaps self-esteem can be used as a predictor of Internet addiction. Similarly, self-control has a restraining and managing role on one's cognition, behavior, and emotions. Most studies have shown that people with poor self-control are prone to indulging in the happiness brought by the Internet, and this kind of satisfaction will bring a strengthening effect, which promotes the development of Internet addiction. As for the social support, whether it is from family, school classmates, teachers or friends, it can prevent Internet addiction to a certain extent. Among them, young people's perception of social support is found to have a significant relationship with Internet addiction.

Although there are few studies on the relationship between “Internet addiction and self-compassion”, two existing studies have consistently shown that the higher the self-kindness, common humanity and mindfulness score in self-compassion, and vice versa for Internet addiction, self-criticism, isolation, over-identification. Most of the research has been conducted in college student groups. However, this study will select high school students as samples to explore whether these variables also have the same relationship in high school student groups.

Conceptual Framework

Figure 1. Conceptual framework of relationship between internet addiction and self-esteem, self-control and self-compassion.



The conceptual framework presents a model to explain the relationship between self-esteem, self-control, self-compassion, social support and internet addiction (Figure 1). In the model, self-esteem, self-control, self-compassion and social support exert influence on internet addiction, in that people with high self-esteem are less likely to develop Internet addiction,

while lower self-esteem is more likely to cause Internet addiction. Self-esteem and internet addiction are negatively related. Likewise, with self-control and internet addiction, meaning that for people with poor self-control, there is a danger of Internet addiction. Equally, people with low self-compassion will present higher rate of internet addiction. Lastly, low social support is another factor that leads to internet addiction.

Research Questions

1. Self-esteem, self-control, self-compassion and social support; are these variables significant predictors of internet addiction in high school students in Bangkok?

Research Hypothesis

Self-esteem, self-control, self-compassion and social support are significant negative predictors of internet addiction in high school students in Bangkok, such that the higher score of self-esteem, self-control, self-compassion, or social support, lower will be score on Internet addiction.

CHAPTER III

RESEARCH METHODOLOGY

This chapter contains a description of the methodology employed in studying the relationship between self-esteem and internet addiction; self-control and internet addiction; self-compassion and internet addiction; social support and internet addiction of the high school students in selected high school in Bangkok.

Research Design

This study is correlational research, used multiple regression analysis. The study also used descriptive and inferential statistical tools to analyze the data obtained from questionnaires that are self-reported by participants. The predictors in the conceptual framework are self-esteem, self-control, self-compassion, and social support, the dependent variable is Internet addiction among high school students in Bangkok.

Participants

The populations are high school students from three international schools in Bangkok. The statistical program G * Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) was used to determine the required sample size. The program was set with the α error probability level at 0.05, power at 0.95, and effect size at 0.15 for a total of three predictor variables, and the required total sample size was determined to be 89. In order to enhance the reliability and external validity of the findings obtained, it was decided to use a sample of 133 students aged

14 to 18. Convenience sampling was used to collect samples and 133 samples was selected for research in order to enhance the reliability and external validity of the obtained findings,

Research Instruments

This research used the self-report questionnaire survey method to measure internet addiction, self-esteem, self-control, self-compassion, and social support. The information and explanation about each survey questionnaire is explained below.

Part I: Internet Addiction Test (IAT)

Internet Addiction Test (IAT) was designed by Young, in 1998, the test consists of 20 items to assess and identify people as experiencing mild, moderate and severe levels of Internet Addiction. Each item is scored on a five points Likert-scale, ranging from 1 = rarely to 5 = Always, and the total score ranges from 20 to 100. The higher the score, the greater is the level of addiction. Scores of 20 – 49 denote average on-line user; 50-79 points is considered as experiencing occasional or frequent problems because of the Internet; 80-100 shows you are addicted Internet user. The validity and reliability of this test has been established with 470 participants who were all children aged 12-17, and the internal consistency Cronbach's alpha for various samples was 0.9 (Keser, Esgi, Kocadag & Bulu, 2013).

Part II: Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale used to measure global self-worth by measuring both positive and negative feelings about the self. It's a total of 10 items and is a one-dimensional

scale, with items scored on a four points Likert-type scale (0=strongly disagree, 1=disagree, 2=agree, 3=strongly agree), 6 of which are reverse scored. In the calculation, the reverse scoring questions are turned to the positive to add up the total score. The total score range is 10 to 40. The higher final score indicates higher levels of self-esteem. The validity and reliability of this test has been provided by Jamil, analyzed data from 665 male and 665 female students aged 12 – 19 from a stratified sample of four comprehensive schools in England and the Cronbach's alpha values for the 10-item RSES range from 0.81 to 0.88 (2006).

Part III: Brief self-control scale

The Brief Self-Control Scale (BSCS) is a measure of individual differences in self-control designed by Tangney, Baumeister and Boone (2004). The BSCS is a 13-item, single factor scale, based on self-reporting. Individuals rate each item from “not at all true of me” to “totally true of me” points by using a Five-point Likert-type scale. Item 1,3,5,7,9,10 and 12 are reverse scored. The internal consistency estimates (alpha) were 0.83 and 0.85, and the test-retest reliability estimate over a three-week interval was 0.87 of the scale were found by Tangney et al (2004). Later research has confirmed good internal consistency and retest reliability by many researchers (Nebioglu, Eroglu & Konuk, 2012).

Part IV: Neff's Self-Compassion Scale (Short-form)

Self-compassion will be measured with the 12 items consisting of six subscales “self-kindness, common humanity, mindfulness, self-judgment, isolation, and over identification”, from Neff's Self-Compassion Scale-Short Form test (SCS-SF) which was developed by Raes,

Pommier, Neff, and Van Gucht (2011). Every item is scored on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Item 1, 4, 8, 9, 11, and 12 scores are reverse scored. The original self-compassion measure has 26 items, which is too cumbersome or semantically complex for younger participants – especially those with a lower educational level, so SCS-SF was developed (Kemppainen et al., 2013). Although the SCS-SF reduced half of original long form of the SCS, the SCS-SF is reliable and has demonstrated adequate internal consistency cronbach's $\alpha \geq .86$ in all samples (Raes, Pommier, Neff & Van Gucht, 2011). Moreover, the SCS-SF has demonstrated good validity and reliability in non-clinical samples with adolescents between the ages of 12–17 (Muris, Otgaar & Petrocchi, 2016).

Part V: Multidimensional Scale of Perceived Social Support (MSPSS)

Social support measured with “Multidimensional Scale of Perceived Social Support” developed by Zimet (1998) and his partner. It is a self-assessment survey with 12 items measuring the individual's social support from three sources: family, friends, and other important support. The items are rated on a 7-point Likert scale, ranging from “Very Strongly Disagree” to “Very Strongly Agree”. The reliability and validity of this scale has been established via number of different samples including adolescents (Zimet *et al.*, 1988). Also, in non-clinical Zimet *et al.* (1998) revealed MSPSS have a good internal consistency and test-retest reliability, the Cronbach's α is among 0.81 to 0.98, and in clinical samples, the Cronbach's α is 0.92 to 0.94. Notably, this article only studies the relationship between the total score of social support (not multi-dimensions) and Internet addiction.

Data Collection and Procedure

This researcher originally intended to collect data from four international schools. However, under the influence of the first wave of the COVID-19 epidemic, the schools started online learning that caused data collection to be interrupted. After five months, the schools reopened which allowed the researcher to be able to collect data smoothly from three schools. Consequently, the data was collected with the permission of the leaders of three international schools in Bangkok. Five questionnaires on high school students' self-esteem, self-control, social support, self-compassion and internet addiction were distributed to three schools. Then all the responses are collected and then scored and interpreted according to prescribed scoring rules. All relevant demographic information is compiled for further analysis. The questionnaires were distributed in three schools; the high school student age ranged from 14 to 18 year. The data was collected by the researcher, and students were well informed about the confidentiality and the respective schools or the guardians of the students were asked to sign the consent form.

Data Analysis

After completing the data collection process, the collected data is encoded, processed, and statistically analyzed. Data analysis was completed by multiple regression analysis and investigated whether self-esteem, self-control, social support and self-compassion are predictors of Internet addiction.

CHAPTER IV

RESEARCH RESULTS AND INTERPRETATION

This chapter presents the results of the analysis conducted to test the hypotheses from data collected from three international high schools in Bangkok, Thailand. The research findings of these analyses conducted and the results obtained are presented as follows:

1. Demographic profile of the respondents.
2. Reliability analysis of scales
3. The means and standard deviation for the five modeled factors
4. Correlations among All Study Variables
5. Regression analysis to test the hypothesis:
Self-esteem, self-control, self-compassion and social support are significant negative predictors of internet addiction in high school students in Bangkok

Demographic profile of the respondents

The demographics of the data are based on 133 valid and complete questionnaires from the high school students aged from grade 14 to 18, spread among three different schools. In terms of gender, the descriptive analysis results showed that 62 women participated in the study and 71 men participated. The gender composition of the respondents was 53.4% male and 46.6% female. The results are shown in Table 1, 2.

Table 1: Gender distribution of the sample (N = 133)

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	71	53.4	53.4	53.4
female	62	46.6	46.6	100.0
Total	133	100.0	100.0	

Table 2: Grade distribution of the sample

Grade	Frequency	Percent	Valid Percent	Cumulative Percent
G9	67	50.4	50.4	50.4
G10	29	21.8	21.8	72.2
G11	37	27.8	27.8	100.0
Total	133	100.0	100.0	

Table 3 provides the age distribution of the respondents who participated in the study. It can be seen from the figure that twelve of the participants are 14 years old, sixty-four are 15 years old, thirty-six are 16 years old, and twenty-one are 17 years old.

Table 3: Age distribution of the sample

Age	Frequency	Percent	Valid Percent	Cumulative Percent
14.00	12	9.0	9.0	9.0
15.00	64	48.1	48.1	57.1
16.00	36	27.1	27.1	84.2
17.00	21	15.8	15.8	100.0
Total	133	100.0	100.0	

On a typical day, the time of use internet for school related purposes falls within one of the seven categories. The 0-3 hours of school related use of internet present the highest frequency. The results are shown in Table 4.

Table 4: Use internet for school related purpose on a typical

Hours	Frequency	Percent	Valid Percent	Cumulative Percent
less than 1 hour	57	42.9	42.9	42.9
1-3 hours	41	30.8	30.8	73.7
3-5 hours	17	12.8	12.8	86.5
5-7 hours	8	6.0	6.0	92.5
7-9hours	8	6.0	6.0	98.5
9-11 hours	1	.8	.8	99.2
11 hours up	1	.8	.8	100.0
Total	133	100.0	100.0	

The time of use internet for non-essential purposes falls within one of the seven categories. 68 participants used the Internet for non-essential purposes less than 5 hours a day, 46 participants used 5-11 hours, and 19 participants used more than 11 hours on a typical day. The results are shown in Table 5.

Table 5: Use internet for non-essential purposes

Hours	Frequency	Percent	Valid Percent	Cumulative Percent
less than 1 hour	15	11.3	11.3	11.3
1-3 hours	26	19.5	19.5	30.8
3-5 hours	27	20.3	20.3	51.1
5-7 hours	19	14.3	14.3	65.4
7-9hours	16	12.0	12.0	77.4
9-11 hours	11	8.3	8.3	85.7
11 hours up	19	14.3	14.3	100.0
Total	133	100.0	100.0	

Desktop computer, laptop computer and handheld are the common tools used to access Internet. Hand-held devices such as mobile phones and iPads are the main source of high school students spending longest time on internet use. Results can be found from Table 5.

Table 6: Technologies access to the internet

Tools	Frequency	Percent	Valid Percent	Cumulative Percent
Desktop	11	8.3	8.3	8.3
Laptop	16	12.0	12.0	20.3
Handheld	78	58.6	58.6	78.9
Other	1	.8	.8	79.7
Desktop and laptop	4	3.0	3.0	82.7
desktop and handheld	17	12.8	12.8	95.5
laptop and handheld	3	2.3	2.3	97.7
all of them	3	2.3	2.3	100.0

Reliability Analysis of Scales

The reliability analysis of internet addiction, self-esteem, self-control, self-compassion and social support was conducted through SPSS. Cronbach's alpha can verify whether the designed questionnaire is reliable, whether there is a high correlation between items of the questionnaire, whether the respondent's answers are contradictory, and whether it is reliable. Reliability analysis involves the consistency and stability of the questionnaire test results. Its purpose is how to control and reduce random errors, to ensure that the answer results can truly reflect the expected goals, and the collected data has analytical value. Generally speaking, the reliability of the questionnaire mainly depends on Alpha (α coefficient), $\alpha < 0.7$ indicates that the reliability of the designed questionnaire is unreliable, $0.7 < \alpha < 0.8$ indicates that the questionnaire has a certain degree of reliability, $0.8 < \alpha < 0.9$ indicates that the questionnaire is reliable, and the reliability is very high. The criteria for retaining items are: (1) any item with 'Corrected Item-Total Correlation' (1-T) < 0.33 was deleted if Cronbach's alpha of a scale is lower than 0.7 (as .332 represents approximately 10% of the variance of the total scale accounted for), and (2) deletion of an item did not lower the scale's Cronbach's alpha (Hair, Black, Babin, & Anderson, 2010).

The results of the reliability analysis of all the scales are presented in Table 7-11.

Table 7:

*Retained Items for Internet Addiction Scale With I-T Coefficients and Cronbach's Alpha**(N=133)*

Internet addiction	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. How often do you find that you stay on-line longer than you intended?	.475	.844
2. How often do you neglect household chores to spend more time on-line?	.579	.840
3. How often do you prefer the excitement of the Internet to intimacy with your partner?	.342	.849
4. How often do you form new relationships with fellow on-line users?	.398	.847
5. How often do others in your life complain to you about the amount of time you spend on-line?	.420	.846
6. How often do your grades or school work suffers because of the amount of time you spend on-line?	.455	.844
7. How often do you check your email before something else that you need to do?	.190	.856
8. How often does your job performance or productivity suffer because of the Internet?	.458	.844
9. How often do you become defensive or secretive when anyone asks you what you do on-line?	.420	.846
10. How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?	.486	.843
11. How often do you find yourself anticipating when you will go on-line again?	.459	.844

12. How often do you fear that life without the Internet would be boring, empty, and joyless?	.456	.844
13. How often do you snap, yell, or act annoyed if someone bothers you while you are on-line?	.531	.841
14. How often do you lose sleep due to late-night log-ins?	.413	.847
15. How often do you feel preoccupied with the Internet when off-line, or fantasize about being on-line?	.650	.838
16. How often do you find yourself saying “just a few more minutes” when on-line?	.370	.848
17. How often do you try to cut down the amount of time you spend on-line and fail?	.362	.848
18. How often do you try to hide how long you’ve been on-line?	.329	.850
19. How often do you choose to spend more time on-line over going out with others?	.504	.842
10. How often do you feel depressed, moody or nervous when you are off-line, which goes away once you are back on-line?	.511	.842

Cronbach’s alpha= .852

Table 8:

Retained Items for Self-esteem Scale With I-T Coefficients And Cronbach's Alpha (N=133)

Self-esteem	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. On the whole, I am satisfied with myself.	.546	.849
2. At times, I think I am no good at all. *	.606	.844
3. I feel that I have a number of good qualities.	.634	.842
4. I am able to do things as well as most other people.	.485	.854
5. I feel I do not have much to be proud of. *	.687	.836
6. I certainly feel useless at times. *	.701	.835
7. I feel that I'm a person of worth, at least on an equal plane with others	.455	.856
8. I wish I could have more respect for myself. *	.377	.864
9. All in all, I am inclined to feel that I am a failure. *	.645	.840
10. I take a positive attitude toward myself.	.562	.848

Cronbach's alpha= .860; *reverse scored items

Table 9:

Retained Items for Self-control Scale With I-T Coefficients and Cronbach's Alpha (N=133)

Self-control	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I am good at resisting temptation	.647	.782
2. I have a hard time breaking bad habits*	.421	.799
3. I am lazy*	.495	.793
4. I say inappropriate things*	.391	.802
5. I do certain things that are bad for me, if they are fun*	.502	.792
6. I refuse things that are bad for me	.458	.796
7. I wish I had more self-discipline*	.291	.810
8. people would say that I have iron self- Discipline	.328	.806
9. pleasure and fun sometimes keep me from getting work done*	.434	.798
10. I have trouble concentrating*	.448	.797
11. I am able to work effectively toward long-term goals	.544	.791
12. sometimes I can't stop myself from doing something, even if I know it is wrong*	.445	.797
13. I often act without thinking through all the alternatives*	.427	.799

Cronbach's Alpha= .810; *reverse scored items

Table 10:

Retained Items for self-compassion Scale With I-T Coefficients And Cronbach's Alpha (N=133)

Self-compassion	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. When I fail at something important to me I become consumed by feelings of inadequacy. *	.437	.780
2. I try to be understanding and patient towards those aspects of my personality I don't like	.225	.798
3. When something painful happens I try to take a balanced view of the situation.	.446	.780
4. When I'm feeling down, I tend to feel like most other people are probably happier than I am*	.633	.758
5. I try to see my failings as part of the human condition.	.516	.772
6. When I'm going through a very hard time, I give myself the caring and tenderness I need.	.574	.767
7. When something upsets me, I try to keep my emotions in balance.	.453	.779
8. When I fail at something that's important to me, I tend to feel alone in my failure*	.520	.772
9. When I'm feeling down I tend to obsess and fixate on everything that's wrong*	.375	.786
10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	.369	.787
11. I'm disapproving and judgmental about my own flaws and inadequacies. *	.430	.781
12. I'm intolerant and impatient towards those aspects of my personality I don't like. *	.223	.799

Cronbach's alpha= .795; *reverse scored items

Table 11:

Retained Items for Social support Scale With I-T Coefficients and Cronbach's Alpha (N=133)

Social support	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. I can talk about my problems with my friends.	.416	.845
2. My family is willing to help me make decisions.	.546	.836
3. There is a special person in my life who cares about my feelings.	.577	.833
4. I have friends with whom I can share my joys and sorrows.	.459	.842
5. I can talk about my problems with my family.	.466	.842
6. I can count on my friends when things go wrong.	.365	.847
7. My friends really try to help me.	.505	.839
8. I have a special person who is a real source of comfort to me.	.632	.829
9. I get the emotional help and support I need from my family.	.484	.840
10. My family really tries to help me.	.528	.837
11. There is a special person with whom I can share my joys and sorrows.	.561	.834
12. There is a special person who is around when I am in need.	.672	.827

Cronbach's Alpha= .849

Reliability analysis conducted on internet addiction, self-esteem, self-control, self-compassion and social support indicated that all items of five scales were retained as these met the criteria set for internal consistency. Tables 7 shows all 20 items for Internet addiction, the Cronbach's alpha is 0.852, and their item-total correlation. Table 8 shows 10 self-esteem item-total correlation, the Cronbach's alpha is 0.860. Table 9 shows all thirteen items for Self-control Cronbach's alpha is 0.810, their item-total correlation. Table 10 shows all twelve items for Self-compassion, Cronbach's alpha is 0.795, and Table 11 shows the twelve items of social support scale with their item-total correlation, with a Cronbach's alpha coefficient of 0.849. According to the interpretation criteria of the Alpha values proposed by Devellis (2012), the Cronbach α coefficients of all scales in this study are higher than 0.7, the range is between 0.79 and 0.86. This indicated that Internet addiction, self-esteem, self-control, self-compassion and social support questionnaires have acceptable reliability. Consequently, each factor of Internet addiction, self-esteem, self-control, self-compassion, and social support will then be calculated by summing the items that make up the factor and calculating their average value.

Means and Standard Deviations for the Five Variables

Table 12 shows the means and standard deviation of the five variables: internet addiction, self-esteem, self-control, self-compassion and social support. Table 13 shows that the participant mean score of Internet addiction is 52.3, above the mid-point, and standard deviation was 12.0. The mean score of self-esteem was 16.5, higher than mid-point, and standard deviation was 4.3. The mean of self-control was 40.4, above the mid-point, and standard deviation was 7.9. The mean of self-compassion was 38.4, above the mid-point, and standard deviation was 5.9. The mean of social support was 57.1, above the mid-point, and standard deviation was 11.6. Additionally, it was found that there are four students whose internet

addiction score was higher than 80 (Appendix J). According to Internet addiction questionnaire (Young, 1998), the score between 80 to 100 points means internet usage is causing significant problems in person's life. However, in this study, such interpretation is not considered in this study as the focus of the study is the relationship between the predictors and the criterion variable.

Table 12:

Means And Standard Deviations for The Seven Computed Variables(N=133)

	Mean	Std. Deviation
Internet addiction	52.3910	12.01252
self-esteem	16.5489	4.36492
self-control	40.4812	7.93496
self-compassion	38.4135	5.99132
social support	57.1053	11.65298

Correlations among All Study Variables

The results are shown in Table 13 is Pearson product-moment correlation coefficient. It's computed to reflect the linear relationship between all the variables.

Table 13:

Correlation between All the Variables of the Study (N=133)

Variable	1	2	3	4	5
1. Internet addiction	1				
2. self-esteem	-.897**	1			
3. self-control	-.899**	.844**	1		
4. self-compassion	-.664**	.672**	.673**	1	
5. social support	-.449**	.488**	.448**	.424**	1

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

As can be seen from the data shown in the table of Pearson correlation, there is a significant negative correlation between internet addiction and self-esteem ($r = -.89, p < .001$); self-control and internet addiction ($r = -.89, p < .001$); internet addiction and self-compassion ($r = -.72, p < .001$); internet addiction and social support ($r = -.44, p < .001$). All in all, self-esteem, self-control, self-compassion and social support related negatively to internet addiction.

Data analysis

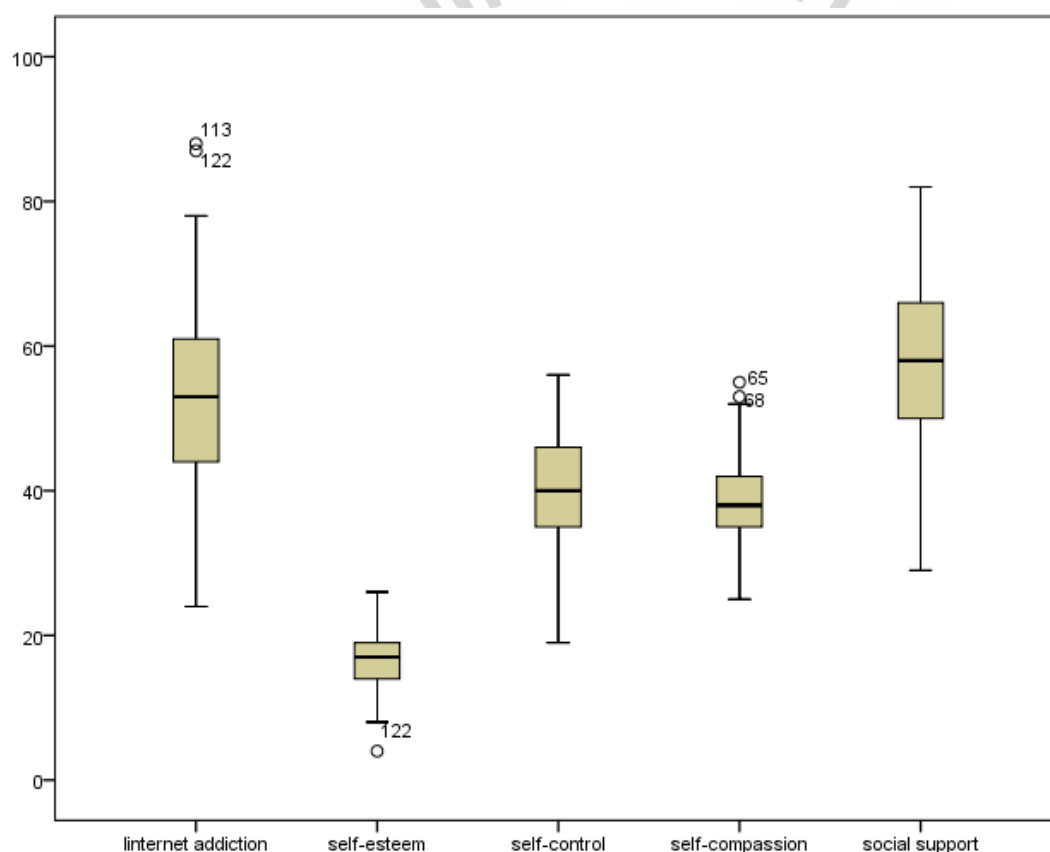
Before performing multiple regression analysis on the collected data, the data needs to satisfy the following 4 assumptions:

- (1) At least 2 independent variables are required, and the independent variables are independent of each other;
- (2) The dependent variable is a continuous variable;
- (3) The data has the characteristics of homogeneity of variance, no outliers and normal distribution;
- (4) There is no multicollinearity between the independent variables.

This study has 4 independent variables, namely self-esteem, self-control, self-compassion and social support, so it satisfies assumption 1. The degree of internet addiction is a continuous variable, so assumption 2 is satisfied. It can be found in Figure 1, that case 113 and 122 in the internet addiction data are significantly higher than the mean value of internet addiction, and the data points are above the error bar, which is an abnormal value, so first remove the No.113 and 122 data, and then find the average value of the internet addiction, and

replace the No.113 and 122 data with the mean value of the internet addiction before multiple regression analysis. No.122 in the self-esteem the data points is outside the error bar, which denotes outliers, so these values need to be removed first, then replace the No.122 data with the mean value of the self-esteem. In the self-compassion data, No. 68 and 65 are significantly higher than the mean value of self-compassion, and the data point is above the error bar, so these values need to be removed and replaced with the mean as well.

Figure 1:



By observing the scatter plot Figure 2-5, it can be approximately seen that the data of internet addiction, self-esteem, self-control, self-compassion, and social support are basically conforms to the linear correlation. Therefore, the data satisfies condition 3.

Figure 2:

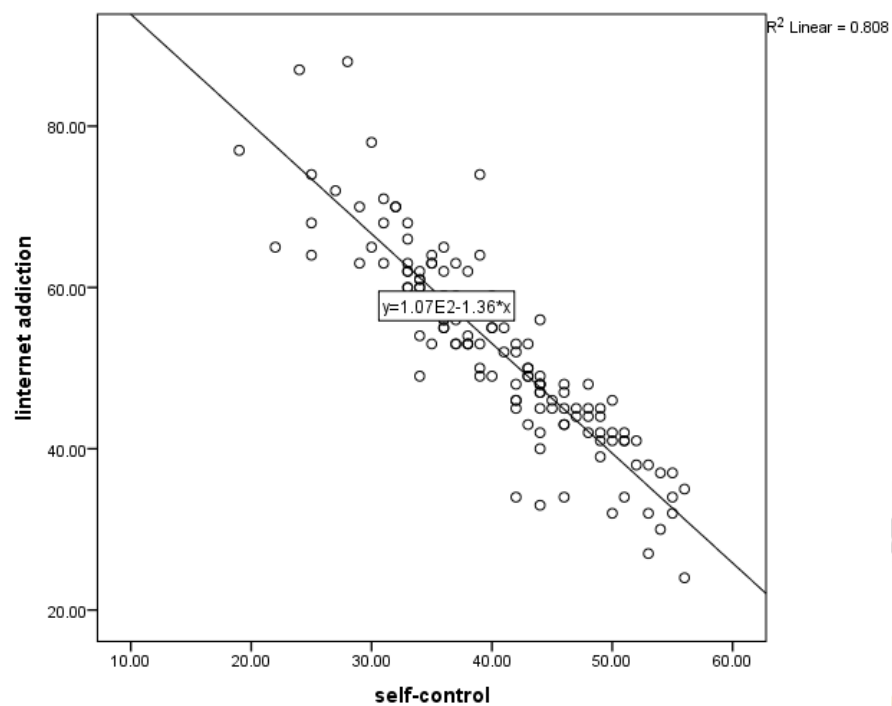


Figure 3:

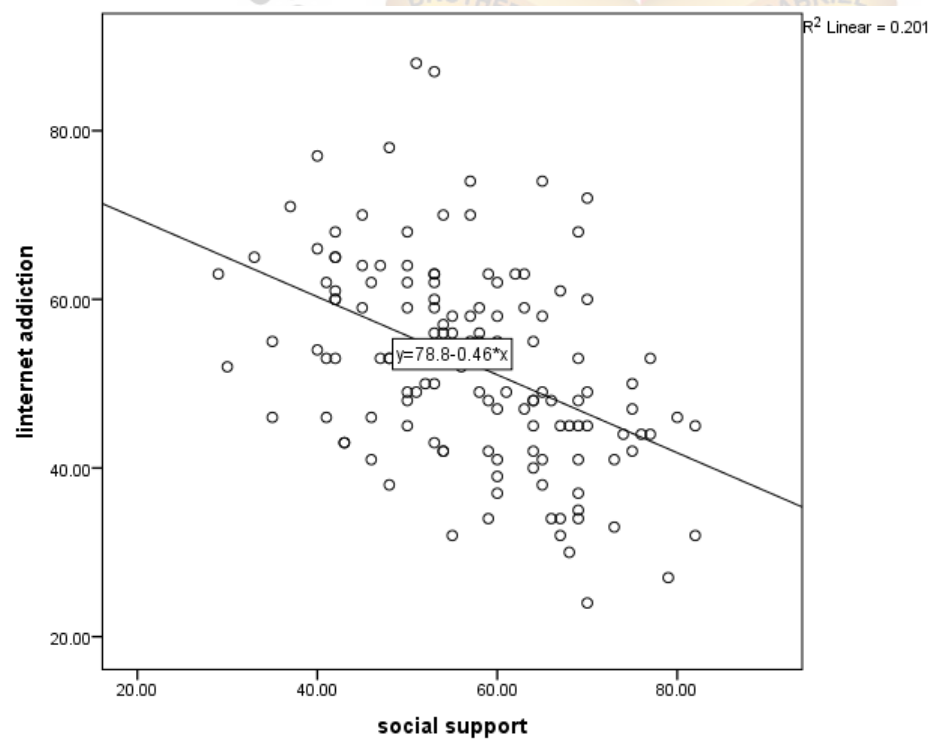


Figure 4:

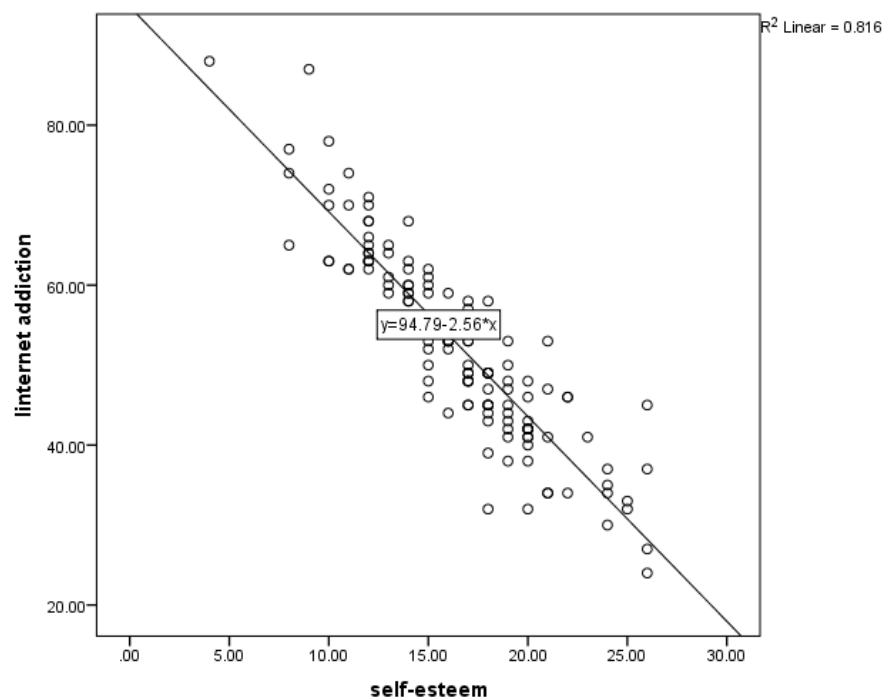
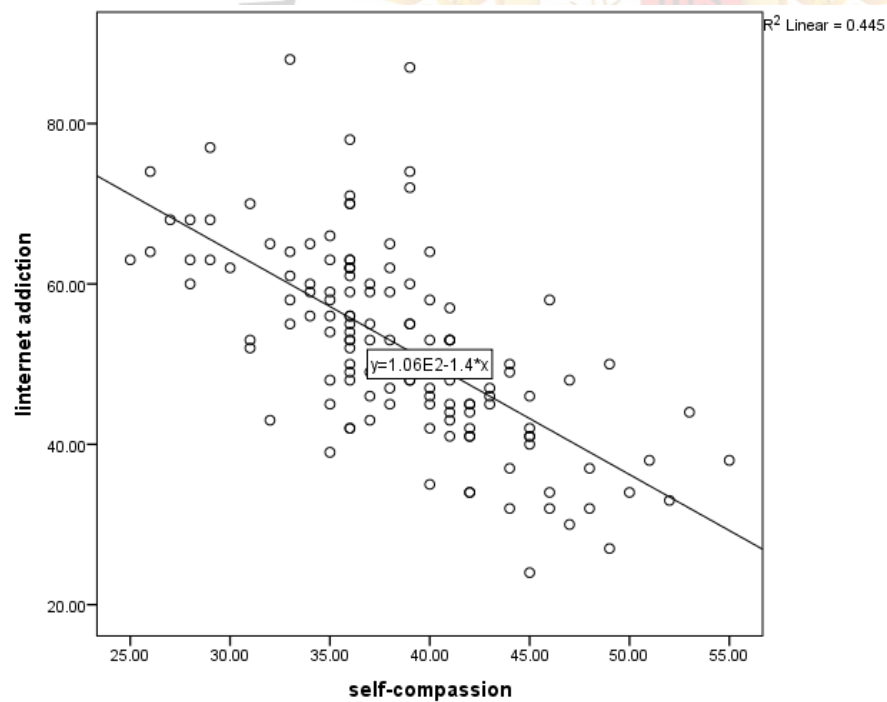


Figure 5:



In table 14, the collinearity diagnosis of SPSS can effectively verify whether the data satisfied the verification assumption 4. The results shows that the *VIF* values are all less than 10, so it can be considered that the data basically meets the assumption 4 of the multivariate linear analysis, that is, there is no multicollinearity problem. In other words, all the data is quite up to the data requirements of multiple regression analysis. Therefore, as the next step multiple regression analysis could be performed.

Table 14:

<i>Coefficient</i>		Collinearity Statistics	
Model		Tolerance	<i>VIF</i>
1	self-esteem	.258	3.874
	self-control	.279	3.590
	self-compassion	.488	2.048
	social support	.724	1.381

Multiple Regression to Test the Hypothesis

The multiple regression analysis was performed through SPSS to describe the linear relationship between one dependent variable of internet addiction and the independent variables of self-esteem, self-control, self-compassion, and social support. Additionally, multiple regression analysis can show the strength of the predictive power of the independent variables on the dependent variable of internet addiction. The analysis includes verifying the following hypothesis:

Self-esteem, self-control, self-compassion and social support are significant negative predictors of internet addiction in high school students in Bangkok.

Regression analysis was used to investigate the hypothesis. The results are shown in Table 15-17.

H: Self-esteem, self-control, self-compassion and social support are significant negative predictors of internet addiction in high school students in Bangkok.

To test this hypothesis first we establish the significance of the predictor variables on the outcome variable, and then we investigate the direction of the prediction.

Table 15:

Model summary (self-esteem, self-control, self-compassion, social support with internet addiction)

Model	<i>R</i>	<i>R</i> ²	Std. Error of the Estimate	Durbin-Watson
1	.921 ^a	.848	4.43129	1.889

Table 16:

ANOVA

Model		Sum of Squares	<i>Df</i>	Mean Square	<i>F</i>	<i>p.</i>
1	Regression	14030.832	4	3507.708	178.633	.000 ^b
	Residual	2513.453	128	19.636		
	Total	16544.286	132			

Table 17:

The relationship between internet addiction with self-esteem, self-control, self-compassion and social support.

Model		<i>B</i>	<i>Se</i>	β	<i>T</i>	<i>P</i>	<i>beta 95% L</i>	<i>beta 95% U</i>	Tolerance	<i>VIF</i>
1	(Constant)	104.37	2.996		34.84	.00*				
	self-esteem	-1.281	.186	-.468	-6.906	.00*	-1.648	-.914	.258	3.874
	self-control	-.601	.092	-.426	-6.527	.00*	-.783	-.419	.279	3.590
	self-compassion	-.191	.102	-.092	-1.872	.063	-.394	.011	.488	2.048
	social support	.008	.039	.008	.207	.836	-.069	.085	.724	1.381

Note: * $p < .001$

From the table 15 and table 16, the overall model is statistically significant ($F(4,128) = 178.633, p < .001$), with an R^2 of .848. In other words, 84.8% of the variance in internet addiction was explained by the four predictor variables (self-esteem, self-control, self-compassion and social support). *DW* is used to test whether the residuals have autocorrelation. In table 15, the value of *DW* is 1.889, According to the *DW* distribution table, the lower critical value *DL* is 1.689, and the upper critical value *DU* is 1.788, $DW > DU$. It means the residuals are independent of each other, there is no first-order positive autocorrelation in the residuals. The closer the *DW* is to 2, the greater the confidence in judging that there is no autocorrelation. As for this, the *DW* value indicates that the observations in this study are mutually independent. Table 17 indicates that the p value of self-esteem and self-control is less than 0.05, and are considered significant predictors of internet addiction. On the other hand, the significance test results of self-compassion and social support are greater than 0.05, indicating that the difference

between the coefficient and zero is not significant, that is, these two independent variables have no significant effect on the dependent variable Internet addiction. Research hypothesis says that self-esteem, self-control, self-compassion and social support are significant predictors of internet addiction in high school students in Bangkok. Ultimately, for hypothesis, we only accept that self-esteem and self-control can be significant predictors of Internet addiction in high school students in Bangkok, but reject self-compassion and social support can be significant predictors of internet addiction. As for this reason, the new regression model will no longer contain self-compassion and social support.

Research hypothesis says that self-esteem, self-control, self-compassion and social support are negatively related to Internet addiction. Through table 17, the results shows that self-esteem, ($\beta = -.46$, $SE = .18$, $p < .00$); self-control ($\beta = -.42$, $SE = .09$, $p < .00$); significantly negatively predict internet addiction, while self-compassion and social support are not significant predictors. From their beta values, beta coefficient of self-esteem with internet addiction ($\beta = -.46$), self-control with internet addiction ($\beta = -.42$) are negative values, which indicates that self-esteem and self-control are negatively correlated to internet addiction. Therefore, the hypothesis is partially retained.

Alternative hypothesis: Self-esteem and self-control as significant negative predictors of internet addiction in high school students in Bangkok.

Table 18: *Model summary of self-esteem and self-control with internet addiction.*

Model	R	R ²	Std. Error of the Estimate
1	.935 ^a	.874	4.28861

Table 19:

Model		<i>B</i>	<i>Se</i>	<i>B</i>	<i>T</i>	<i>p.</i>
1	(Constant)	104.490	1.973		52.948	.000
	self-esteem	-1.325	.160	-.481	-8.296	.000
	self-control	-.745	.088	-.492	-8.487	.000

Table 20:

Analysis of variance ANOVA

Model		Sum of Squares	<i>Df</i>	Mean Square	<i>F</i>	<i>p.</i>
1	Regression	16656.689	2	8328.344	452.820	.000 ^b
	Residual	2390.981	130	18.392		
	Total	19047.669	132			

Table 18 to 20 shows new model (self-esteem and self-control with internet addiction) is statistically significant with an R^2 of .874. In other words, 87.4% of the variance in internet addiction was explained by the two predictor variables. Observed from the above table 19 and 20, results indicated that for the direct effect self-esteem and self-control are stronger significant predictors of internet addiction ($\beta = -.48, p < .001$; $\beta = -.49, p < .001$). For the variance explained by the regression, the value of the calculated F is 452.82. The critical value of F , at the significance level of 0.05. R^2 is .874. Compared the values of P , R^2 and F . This means that in this multiple regression model, the dependent variable self-esteem and self-control significantly negatively affect the occurrence of independent variable Internet addiction. Self-esteem and self-control are significant negative predictors of internet addiction in high school students in Bangkok.

CHAPTER V

DISCUSSION

The purpose of this study was to test whether self-esteem, self-control, self-compassion and social support have a negative impact on the Internet addiction of Bangkok high school students. In view of the fact that a series of psychological and social problems are caused by the use of the Internet by high school students can be extremely troublesome to the family and society, and the psychological, educational and social problems caused by "Internet addiction" are also becoming increasingly serious, thus this quantitative study aimed to study the self-esteem of high school students and to see whether the self-esteem, ability of self-control, self-compassion and social support has a negative impact on Internet addiction. The study involved 133 high school students from three different international schools in Bangkok, aged around 14-18 years. 62 girls and 71 boys participated in the study by filling out a questionnaire designed to study the main variables.

This chapter comprises: (1). A discussion of findings; (2). Limitations of the study; (3). Recommendations; (4). Conclusions.

A discussion of findings

Self-esteem

In this study, the hypothesis that self-esteem has negative effects on the degree of Internet addiction, and can be a significant predictor of internet addiction among high school students in Bangkok was supported by the results. There is a significant negative correlation between self-esteem and Internet addiction tendencies, The higher the score of self-esteem, the lower the score of Internet addiction, which is consistent with previous research (Chiang & Su, 2012). Previous related studies found people with low self-esteem have a bad perception of

themselves and they can easily change this bad perception through using internet. These studies suggest that students' Internet use is related to avoidance problems (Gordon & Caltabiano, 1996). This can be explained by the fact that high school students with low self-esteem can express or present themselves in various ways in the process of using social networking sites for social activities, thereby gaining the positive comments and feedback from others. Therefore, they will feel that they are valued and accepted by others, and these positive feedback from others can cause them to use the Internet as a way to compensate for these negatives, and thus increased Internet use may lead to dependency (Aydm & San, 2011). On the other hand, Internet addicts often use internet to avoid solving relationship problems and problematic school academic performance. High school students with high self-esteem are better able to handle the relationship between themselves and the surrounding environment, have stronger social adaptability, and obtain good interpersonal relationships. Therefore, they do not need to overuse the Internet to obtain self-satisfaction (Nie, Zhang, & Liu, 2017). However, whether self-esteem is the cause or a result of Internet addiction has not yet been determined, due to the fact that internet addiction can be a harmful activity to self-esteem which in turn can actually reduce self-esteem (Aydm & San, 2011). But the general inference we can make is that self-esteem has a strong relationship with internet addiction. Results of this study support a strong relationship between self-esteem and the Internet addiction. The hypothesis testing and the results show that there is a significant negative relationship between self-esteem and Internet addiction.

Self-control

In this study, hypothesis that self-control has negative effects on the degree of Internet addiction, and can be a significant predictor of internet addiction among high school students in Bangkok was supported by the findings. There is a significant negative correlation between self-control and Internet addiction tendencies, The higher the score of self-control, the lower the

score of Internet addiction, which is consistent with previous research results (Ismail, & Zawahreh, 2017). Compared to students in the higher-risk group of Internet addiction, those not addicted are found to have greater self-control. Gottfredson pointed out that the core of all problem behaviors is the lack of self-control. Only by improving self-control ability can problem behaviors be prevented (1990). Internet addiction is also a problem behavior that one indulges in it due to lack of rational control and not being able to extricate oneself (Pour-Razavi, Allahverdi, & Toupchian, 2015). A recent study found that middle school students with poor Internet self-control ability are more susceptible to the influence of Internet content, and will fall into it when they encounter content of interest. Therefore, there will be more recreational and entertainment activities such as chatting and playing games. On the contrary, students with good Internet self-control ability have a clear purpose when surfing the Internet. Although they are also affected by various network information, they know that the Internet is a tool and learning is the main purpose of surfing the Internet (Yang, 2020). Another Chinese research on internet dependence and self-control ability of high school students, found that students with good self-control abilities will not devote more time to the internet, and students with low levels of self-control have serious internet addiction (Li, Dang, Zhang, Zhang, & Guo, 2014). It can be seen from the data that most of the time high school students use the Internet, is spent on non-essential related purpose, therefore, there will be more recreational and entertainment activities such as chatting and playing games. This also allows us to understand that those students with low self-control ability will be out of control if they become dependent on the Internet (Ismail, & Zawahreh, 2017).

Self-compassion

In this study, the results showed that self-compassion was not a significant negative predictor of internet addiction. One statistical reason is self-compassion and internet addiction are negatively correlated as shown in the correlation table. Whereas, in the multiple regression analysis, self-compassion is not a significant predictor. This means the negative association of self-compassion with internet addiction cannot be ruled out. However, in the presence of other significant predictors like self-esteem and self-control, the unique contribution of self-compassion to predict internet addiction is not significant. Therefore, the importance of self-esteem and self-control over self-compassion is supported. On the other hand, Akin and iskender (2011) conducted one of the first studies examining the relationships between self-compassion and internet addiction. They examined how six factors of self-compassion: Self-kindness; Self-judgment; Common humanity; Isolation; Mindfulness and Over-identification affect internet addiction. Their results showed internet addiction was only predicted negatively by self-kindness and mindfulness, thus promoting self-compassion can be very beneficial in reducing internet addiction. The possible explanation found in literature that not all factors of self-compassion are negatively related to Internet addiction (Akin & iskender, 2011). Although previous research has shown that self-compassion predicting 71.9 percent of internet addiction (Shahabinejad, Zandi, & Azizmohammadi, 2017). And Shahabinejad, Zandi collected data from 120 university students. Another possible explanation found in literature is the data collection in this article comes from high school students. The psychological development of high school students is immature compared with that of college students (Zheng, Weili & Li Biqing, 2016).

Social support

In this study, the results showed social support was not a significant negative predictive of internet addiction. One statistical reason is social support and internet addiction are negatively correlated as shown in the correlation table. Whereas, in the multiple regression analysis, social support is not a significant predictor. This means the negative association of social support with internet addiction cannot be ruled out. However, in the presence of other significant predictors like self-esteem and self-control, the unique contribution of social support to predict internet addiction is not significant. Thus, the importance of self-esteem and self-control over social support is supported. Additionally, Zhang, Tian and Sui (2018) stated it is currently unclear whether the relationship between social support and Internet addiction is positive or negative, and whether there are other variables (for example, loneliness) between them. The direct or indirect effects of social support on Internet addiction are not significant (Zhang, Tian, Sui, Shi, Wang, & Meng, 2018). Another possible explanation found is that different dimensions of social support have different effects on internet addiction (Gündoğdu, 2010), and the passage of a causal relationship between them over time is unidirectional (Zhang et al., 2018). According to Gündoğdu's research, parents and teacher support are significantly negatively related to internet addiction, but no relationship was found between internet addiction and peer support (2010). Internet is a very good tool for communication and making new friends. Internet can act as an intermediary to enable people to obtain social support to reduce loneliness, thereby increasing social support (Corinna & William, 2007). When adolescents play different roles in online games, it enables them to obtain social support and satisfy various emotional needs that they cannot obtain in real life (Trepte, Reinecke, & Juechems., 2012). From another point of view, internet is full of deception, falsehood and

violence, and the social support obtained from it is unreliable, and internet addiction could cause lower social support. (Esen and Gündogdu, 2010).

Self-esteem and self-control as stronger predictors of internet addiction.

As expected, analysis findings of this research provide further evidences that self-esteem and self-control present a negative relationship with internet addiction. Moreover, it can be seen that compared to self-compassion and social support, self-esteem and self-control exhibited the strongest association with internet addiction through liner regression results. The results clearly indicates if students have low self-esteem, poor self-control will lead to a greater increase in risk of Internet addiction. Respectively, this is supported by previous studies suggesting that self-esteem is an important risk factor for internet addiction (Yildirim, Sevincer, Aandeger, & Afacan, 2018). Second, the discovery that self-control directly and significantly affects internet addiction shows that increasing self-control is essential to reduce Internet addiction. (Kim, Hong, Lee, & Hyun, 2017).

Summary of Discussion on Results

In this study, self-esteem and self-control were stronger predictors of internet addiction. The relationships between Internet addiction and self-esteem, self-control factors have been demonstrated by many researchers. The findings of this study describe that self-esteem and self-control play an important role in negatively predicting Internet addiction, and that there may be a causal relationship, which is consistent with the literature. When individuals encounter negative factors that affect the development of self-esteem, they will use certain channels to compensate for the needs of self-protection (McGregor, Nash & Inzlicht, 2009). For instance, individuals satisfy their need for respect that they cannot obtain in the real world through online chat, games, etc., and thus become dependent on the Internet (Aydm, & San, 2011). The greater the threat to individual self-esteem, the more likely it is to take problematic or abnormal

behaviors to compensate (Gordon & Caltabiano, 1996). At the same time, Internet addiction is the excessive use of the Internet, and it is also a problem behavior that one indulges in and therefore is unable to extricate oneself due to lack of rational control, that is closely related to the individual's self-control ability (Akin, Arslan, Arslan, Uysal & Sahranç 2015). Therefore, these two psychological factors are worth paying attention to in the research on the diagnosis and prevention of Internet addiction. Overall, this study answered the proposed research questions and concluded that self-esteem and self-control have a significant impact on Internet addiction, while self-compassion and social support were not significant factors of Internet addiction.

Implications of the Study

Over the years, there are relatively few research on internet dependence of high school students and the psychological complications caused by dependence, and thus relatively few theoretical results have been obtained. The innovation of this research was to fill a certain knowledge gap. This study analyzed the correlation between high school students' self-esteem, self-control, self-compassion, social support and Internet addiction. The results of multiple regression analysis provided statistical evidence for the study of self-esteem and self-control as negative predictors of Internet addiction. This research has an impact on research and practice. It not only affirms the results of previous studies on self-esteem and Internet addiction, self-control and Internet addiction, but also provides direction for future research on the generation and treatment of high school students' Internet addiction. Developing self-esteem and self-control of adolescents can help reduce the occurrence of internet addiction and provide a reference for future research (Yeun & Han, 2016).

For parents, the family is the main environment for the growth of young people and has an important influence on the growth of high school students. Parenting style, family atmosphere, parent-child communication, parent-child conflict, etc. are all important factors that affect the healthy development of adolescents (Park, Kang & Kim, 2014). This research can help parents realize the importance of cultivating children's positive self-esteem. Parents should respect and understand their children's decisions, and make the right guidance for their development instead of requiring children to obey (Mei, Yau, Chai & Potenza, 2016). For example, discovering the strengths of a child in daily life and giving more affirmation will help improve the child's self-esteem (Chiang & Su, 2012). At the same time, reasonably help children with poor self-control to arrange their online time reasonably to reduce the incidence of Internet addiction, develop good online habits, and provide supervision and monitoring when necessary (Park, Kang & Kim, 2014).

Family education and school education interact with each other, and timely communication between teachers and parents will help young people develop better. Schools should attach importance to the cultivation of students' positive psychology and create a positive and healthy campus cultural atmosphere, so as to improve students' self-esteem (Mei, Yau, Chai & Potenza, 2016). For example, schools should be equipped with professional psychology teachers, develop mental health courses, and increase group activity courses, so that students can feel the sense of importance and accomplishment in the activities, so as to improve their self-esteem (Yang, 2020). Parents and schools should encourage and correctly guide students to use the Internet. Let students understand the characteristics of the cyber environment and some basic ethical principles that must be followed in internet communication, and establish a healthy way of surfing the Internet (Throuvala, Griffiths, Rennoldson & Kuss, 2019).

Finally, when the counselor helps students with internet addiction, they can understand the reasons for the student's internet addiction by understanding the students' self-esteem and self-control, and then unite with the family and school to enhance the students' self-esteem and self-control and also help find some effective methods for treatment.

Limitations of the study

The 133 samples come from three high schools in Bangkok, and there are certain problems with the representativeness of the sample. Although a sufficient sample size was obtained in this study, due to the Covid-19 pandemic, the sample size is smaller than expected and planned. This sample was collected after the epidemic in Thailand eased, and the school began to teach normally before allowing teachers from outside the school to enter the school for data collection. Due to the impact of the epidemic, students' lifestyles and class patterns have changed. Even in the classroom, students are required to maintain a certain distance between students. Students cannot form small group chats between classes, and there is almost no large-scale chat. In extracurricular activities, in order to prevent the spread of Covid-19, even physical education classes are required not to have physical contact. These reasons may cause changes in the students' psychology, thereby affecting the results of the data.

Secondly, because all information is based on self-report measures, the use of self-rating scales sometimes makes it difficult to rule out the subject's defensive psychology. Even if the principle of confidentiality is repeatedly emphasized during the administration of the test, answering the questionnaire may still be affected by social approval.

The third one is correlational nature of the analysis, and the fact that there was no attempt at modeling any indirect effects. Therefore, this study does not involve manipulating

main variables to study their influence on dependent variables, and the simple fact the correlational analysis cannot establish causation.

Finally, this research has a total of 5 questionnaires, that the number of questionnaires is quite large, and it takes 40-50 minutes for each student to complete. Although this study has certain limitations, it is one of the few studies on Internet addiction and self-esteem, self-control, self-compassion, and social support among high school students. The results will provide researchers with a new way to expand the literature. New found perspectives from the results of this study, could help in enriching the research database of high school students' Internet addiction, it could also help to provide references for the research and treatment of high school students' Internet addiction problems.

Recommendations

This research is the first to study the relationship between Internet addiction and self-esteem, self-control, self-compassion, and social support among high school students in Bangkok. Future research can adopt the following suggestions to deal with the limitations of this research and achieve better results.

First, expand the number of samples. Researchers collect samples from different regions of the world and different cultural backgrounds, which can better represent the overall high school students, thereby obtaining a more accurate mean, reducing errors, and obtaining more effective analysis results.

In terms of research methods, path analysis via SEM can be used to verify whether there is a causal relationship between variables. Perhaps, self-compassion and social support may indirectly influence internet use in a positive way by impacting the other predictors. For example, self-compassion might be a moderator on the relationship between self-control and

internet addiction as it has been tested plays a moderating role in the relationship between self-control and health (Saeedi, Bahrami, & Alipour, 2016). Also, self-compassion might be a moderator on the relationship between self-esteem and internet addiction due to it has been found self-compassion moderated the relationship between self-esteem and depression (Hwang, Kim, Yang, & Yang, 2016). In the same way, social support might be a moderator on the relationship between self-control and Internet addiction since it found social support from parents can be a moderator on the relationship between self-control and deviance (Higgins, & Boyd, 2008). In this view, further researchers might consider self-compassion and social support as moderator variables on the relationship between self-esteem and self-control with internet addiction.

At the same time, future research can use qualitative research methods to collect more detailed data. Longitudinal and experimental studies are also recommended. This will increase the scope of application of research results to different experiences.

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APPENDIX A

Informed consent

Dear participants,

You are about to participate in a study organized by Lu Ting, a Master Degree in Counseling Psychology student at the Assumption University of Thailand. This is for conducting a study on self-esteem, self-control, self-compassion, social support and internet addiction in high school students in Bangkok. You are eligible for the survey, and you are invited to participate in this experiment.

This informed consent will provide some information that will help you decide whether to participate in this research. Your participation in this research is voluntary and this research has been reviewed by our research organization. You have the right to withdraw from participating in this study at any time, without penalty. If you decide to participate in this research, we will keep your personal data in the survey and experiments confidential, and we will not disclose them to third parties unless you have given permission. The attached questionnaire is completely anonymous.

If you have any questions during the process, please do not hesitate to consult me.

Thank you for taking the time to complete this survey in advance.

Sincerely yours,

Ting Lu

APPENDIX B

Personal Information

Please complete the following:

1. What is your gender?_____.
 2. What is your age? _____.
 3. What is your grade in school? _____.
 4. On a typical day, how much time do you spend using internet for school related purposes?
_____hours _____minutes
 5. On a typical day, how much time do you spend on the Internet for non-essential purposes
(just for fun)? _____hours _____minutes.
 6. Which technologies do you use to access the Internet? Circle all that apply.
- ☐ Desktop computer
 - ☐ Laptop computer
 - ☐ Handheld (iPhone, Blackberry, Smartphone, etc),
 - ☐ Other

APPENDIX C

Please circle only one number for each item.

N0	Question	Rating				
		1 Rarely	2 Occasi- - onally	3 Frequ- - ently	4 Often	5 Al- - ways
1	How often do you find that you stay on-line longer than you intended?	1	2	3	4	5
2	How often do you neglect household chores to spend more time on-line?	1	2	3	4	5
3	How often do you prefer the excitement of the Internet to intimacy with your partner?	1	2	3	4	5
4	How often do you form new relationships with fellow on-line users?	1	2	3	4	5
5	How often do others in your life complain to you about the amount of time you spend on-line?	1	2	3	4	5
6	How often do your grades or school work suffers because of the amount of time you spend on-line?	1	2	3	4	5
7	How often do you check your email before something else that you need to do?	1	2	3	4	5
8	How often does your job performance or productivity suffer because of the Internet?	1	2	3	4	5
9	How often do you become defensive or secretive when anyone asks you what you do on-line?	1	2	3	4	5
10	How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?	1	2	3	4	5
11	How often do you find yourself anticipating when you will go on-line again?	1	2	3	4	5
12	How often do you fear that life without the Internet would be boring, empty, and joyless?	1	2	3	4	5
13	How often do you snap, yell, or act annoyed if someone bothers you while you are on-line?	1	2	3	4	5
14	How often do you lose sleep due to late-night log-ins?	1	2	3	4	5
15	How often do you feel preoccupied with the Internet when off-line, or fantasize about being on-line?	1	2	3	4	5
16	How often do you find yourself saying "just a few more minutes" when on-line?	1	2	3	4	5
17	How often do you try to cut down the amount of time you spend on-line and fail?	1	2	3	4	5
18	How often do you try to hide how long you've been on-line?	1	2	3	4	5
19	How often do you choose to spend more time on-line over going out with others?	1	2	3	4	5
20	How often do you feel depressed, moody or nervous when you are off-line, which goes away once you are back on-line?	1	2	3	4	5

APPENDIX D

Below is a list of statements dealing with your general feelings about yourself. If you **strongly agree**, circle **SA**. If you **agree with the statement**, circle **A**. If you **disagree**, circle **D**. If you **strongly disagree**, circle **SD**.

No	Question	Rating			
		Strongly agree	agree	disagree	Strongly Disagree
1	On the whole, I am satisfied with myself.	SA	A	D	SD
2	At times, I think I am no good at all.	SA	A	D	SD
3	I feel that I have a number of good qualities.	SA	A	D	SD
4	I am able to do things as well as most other people.	SA	A	D	SD
5	I feel I do not have much to be proud of.	SA	A	D	SD
6	I certainly feel useless at times.	SA	A	D	SD
7	I feel that I'm a person of worth, at least on an equal plane with others	SA	A	D	SD
8	I wish I could have more respect for myself.	SA	A	D	SD
9	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10	I take a positive attitude toward myself.	SA	A	D	SD

APPENDIX E

Brief self-control scale

Using the 1 to 5 scale below, please indicate how much each of the following statements reflects how you typically are, circle the numbers:

Not at all

very much

1

2

3

4

5

No	type of activity	Frequency				
		1(not at all)	2	3	4	5(very much)
1	I am good at resisting temptation	1	2	3	4	5
2	I have a hard time breaking bad habits	1	2	3	4	5
3	I am lazy	1	2	3	4	5
4	I say inappropriate things	1	2	3	4	5
5	I do certain things that are bad for me, if they are fun	1	2	3	4	5
6	I refuse things that are bad for me	1	2	3	4	5
7	I wish I had more self-discipline	1	2	3	4	5
8	people would say that I have iron self-discipline	1	2	3	4	5
9	pleasure and fun sometimes keep me from getting work done	1	2	3	4	5
10	I have trouble concentrating	1	2	3	4	5
11	I am able to work effectively toward long-term goals	1	2	3	4	5
12	sometimes I can't stop myself from doing something, even if I know it is wrong	1	2	3	4	5
13	I often act without thinking through all the alternatives	1	2	3	4	5

APPENDIX F

Please read each statement carefully before answering. Circle the number that indicates how often you behave in the stated manner, using the following scale:

No	Question	Rating				
		Never	Rarely	Some Times	Often	Always
1	When I fail at something important to me I become consumed by feelings of inadequacy.	5	4	3	2	1
2	I try to be understanding and patient towards those aspects of my personality I don't like	1	2	3	4	5
3	When something painful happens I try to take a balanced view of the situation.	1	2	3	4	5
4	When I'm feeling down, I tend to feel like most other people are probably happier than I am.	5	4	3	2	1
5	I try to see my failings as part of the human condition.	1	2	3	4	5
6	When I'm going through a very hard time, I give myself the caring and tenderness I need.	1	2	3	4	5
7	When something upsets me I try to keep my emotions in balance.	1	2	3	4	5
8	When I fail at something that's important to me, I tend to feel alone in my failure	5	4	3	2	1
9	When I'm feeling down I tend to obsess and fixate on everything that's wrong	5	4	3	2	1
10	When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	1	2	3	4	5
11	I'm disapproving and judgmental about my own flaws and inadequacies.	5	4	3	2	1
12	I'm intolerant and impatient towards those aspects of my personality I don't like.	5	4	3	2	1

APPENDIX G

Please circle only one number for each item.

Circle the "1" if you Very Strongly Disagree

Circle the "2" if you Strongly Disagree

Circle the "3" if you Mildly Disagree

Circle the "4" if you are Neutral

Circle the "5" if you Mildly Agree

Circle the "6" if you Strongly Agree

Circle the "7" if you Very Strongly Agree

No	Question	Rating						
		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
3	My family really tries to help me.	1	2	3	4	5	6	7
4	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6	My friends really try to help me.	1	2	3	4	5	6	7
7	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8	I can talk about my problems with my family.	1	2	3	4	5	6	7
9	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12	I can talk about my problems with my friends.	1	2	3	4	5	6	7

APPENDIX H

Letter to Dean to seek permission to collect data

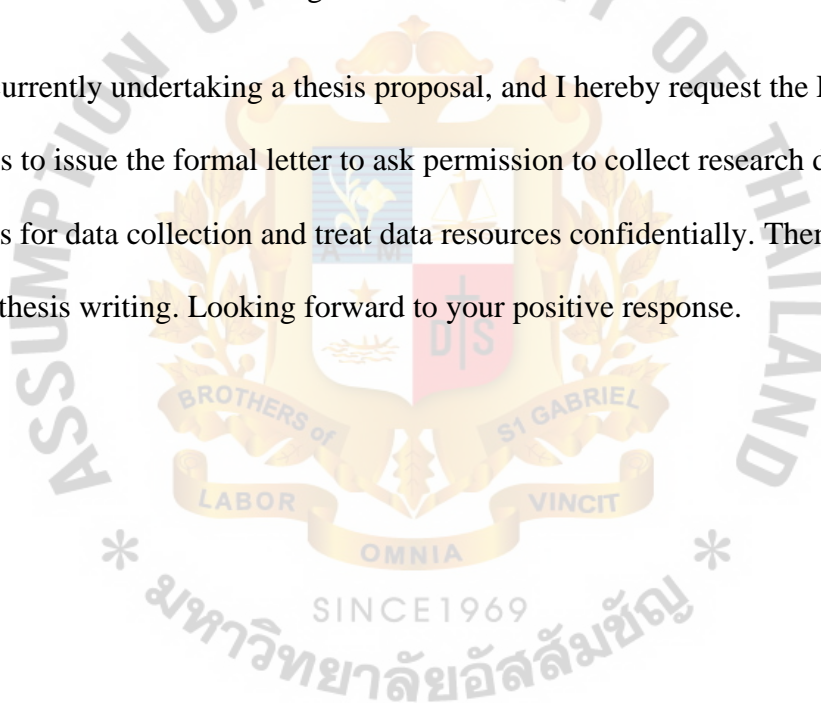
To Dean, Faculty of Graduate Studies,

I am Ting Lu (Doris), students ID number: 6019537. I am a master student in counseling psychology at Assumption University (ABAC), Bangkok. I am currently conducting a study on “Self-esteem, self-control, and self-compassion as psychological predictors of Internet addiction in high school students in Bangkok”.

I am currently undertaking a thesis proposal, and I hereby request the Faculty of Graduate Studies to issue the formal letter to ask permission to collect research data. I will abide by the guidelines for data collection and treat data resources confidentially. Then I can take the next step in my thesis writing. Looking forward to your positive response.

Sincerely

Ting Lu



APPENDIX I

Letter to the high school director

Dear director

My name is Ting Lu. I am a master student in counseling psychology at Assumption University (ABAC), Bangkok. I am currently conducting a study on “Self-esteem, self-control, and self-compassion as psychological predictors of Internet addiction in high school students in Bangkok”. There are four questionnaires prepared: Internet Addiction Test by Dr. Kimberly Young; Rosenberg Self-Esteem Scale (Rosenberg, 1965); Brief self-control scale and Neff’s Self-Compassion Scale (Short-form).

The significance of school is that you will help us understand what factors that cause Internet addiction among your school students and provide relevant information for our future research on how to effectively help students prevent or overcome Internet addiction.

I am required to complete a data collect, hope to get your permission to collect data in your high school students. The research is voluntary and this research has been reviewed by our research organization. You have the right to withdraw from participating in this study at any time, without penalty. I will abide by the guidelines for data collection all information provided will be treated strictly as confidential and purely for academic purpose. I would be grateful if an opportunity could be given to me, looking forward to your positive response.

Sincerely

Ting Lu

Appendix J

Frequencies Results

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	71	53.4	53.4	53.4
	female	62	46.6	46.6	100.0
	Total	133	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14.00	12	9.0	9.0	9.0
	15.00	64	48.1	48.1	57.1
	16.00	36	27.1	27.1	84.2
	17.00	20	15.0	15.0	99.2
	19.00	1	.8	.8	100.0
	Total	133	100.0	100.0	

Grade

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	G9	67	50.4	50.4	50.4
	G10	29	21.8	21.8	72.2
	G11	37	27.8	27.8	100.0
	Total	133	100.0	100.0	

IUNE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 hour	15	11.3	11.3	11.3
	1-3 hours	26	19.5	19.5	30.8
	3-5 hours	27	20.3	20.3	51.1
	5-7 hours	19	14.3	14.3	65.4
	7-9hours	16	12.0	12.0	77.4
	9-11 hours	11	8.3	8.3	85.7
	11 hours up	19	14.3	14.3	100.0
	Total	133	100.0	100.0	

TAI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Desktop	11	8.3	8.3	8.3
	Laptop	16	12.0	12.0	20.3
	Handheld	78	58.6	58.6	78.9
	Other	1	.8	.8	79.7
	Desktop and laptop	4	3.0	3.0	82.7
	desktop and handheld	17	12.8	12.8	95.5
	laptop and handheld	3	2.3	2.3	97.7
	all of them	3	2.3	2.3	100.0
	Total	133	100.0	100.0	

Internet addiction		Self-esteem	Self-control	Self-compassion	Social support
13	87	9	22	39	53
24	88	4	19	33	51
113	80	10	30	36	48
122	81	8	24	29	40

APPENDIX K

Reliability Results

Scale: internet addiction

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.852	.856	20

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
How often do you find that you stay on-line longer than you intended?	49.5414	139.720	.475	.429	.844
How often do you neglect household chores to spend more time on-line?	50.2632	135.862	.579	.436	.840
How often do you prefer the excitement of the Internet to intimacy with your partner?	50.2857	141.842	.342	.274	.849
How often do you form new relationships with fellow on-line users?	50.2632	138.014	.398	.311	.847

How often do others in your life complain to you about the amount of time you spend on-line?	50.0075	139.341	.420	.297	.846
How often do your grades or school work suffers because of the amount of time you spend on-line?	50.4211	138.746	.455	.471	.844
How often do you check your email before something else that you need to do?	50.5639	144.808	.190	.244	.856
How often does your job performance or productivity suffer because of the Internet?	50.3383	139.165	.458	.486	.844
How often do you become defensive or secretive when anyone asks you what you do on-line?	49.9699	138.696	.420	.287	.846
How often do you block out disturbing thoughts about your life with soothing thoughts of the Internet?	50.0226	137.386	.486	.393	.843
How often do you find yourself anticipating when you will go on-line again?	49.9248	138.676	.459	.341	.844
How often do you fear that life without the Internet would be boring, empty, and joyless?	49.7368	136.544	.456	.360	.844
How often do you snap, yell, or act annoyed if someone bothers you while you are on-line?	50.4060	135.879	.531	.407	.841

How often do you lose sleep due to late-night log-ins?	49.9098	136.552	.413	.328	.847
How often do you feel preoccupied with the Internet when off-line, or fantasize about being on-line?	50.2857	135.494	.650	.525	.838
How often do you find yourself saying "just a few more minutes" when on-line?	49.4812	138.721	.370	.290	.848
How often do you try to cut down the amount of time you spend on-line and fail?	49.9398	139.739	.362	.320	.848
How often do you try to hide how long you've been on-line?	50.3534	140.882	.329	.311	.850
How often do you choose to spend more time on-line over going out with others?	50.2331	136.498	.504	.352	.842
How often do you feel depressed, moody or nervous when you are off-line, which goes away once you are back on-line?	50.6241	136.267	.511	.383	.842

Scale: self-esteem**Reliability Statistics**

Cronbach's Alpha	N of Items
.860	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
On the whole, I am satisfied with myself.	14.7727	17.230	.546	.849
At times, I think I am no good at all.	15.0909	16.786	.606	.844
I feel that I have a number of good qualities.	14.7424	17.124	.634	.842
I am able to do things as well as most other people.	14.6212	18.344	.485	.854
I feel I do not have much to be proud of.	15.0758	16.162	.687	.836
I certainly feel useless at times.	15.0682	15.896	.701	.835
I feel that I'm a person of worth, at least on an equal plane with others	14.7045	18.149	.455	.856
I wish I could have more respect for myself.	15.3485	17.969	.377	.864
All in all, I am inclined to feel that I am a failure.	14.7121	16.298	.645	.840
I take a positive attitude toward myself.	14.6364	17.393	.562	.848

Scale: self-control**Reliability Statistics**

Cronbach's Alpha	N of Items
.810	13

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I am good at resisting temptation	36.5263	47.736	.647	.782
I have a hard time breaking bad habits	36.7820	49.687	.421	.799
I am lazy	37.3233	47.796	.495	.793
I say inappropriate things	36.5113	49.585	.391	.802
I do certain things that are bad for me, if they are fun	36.2707	47.684	.502	.792
I refuse things that are bad for me	36.3609	50.081	.458	.796
I wish I had more self-discipline	37.2180	51.293	.291	.810
people would say that I have iron self-discipline	37.1053	51.928	.328	.806
pleasure and fun sometimes keep me from getting work done	37.2105	49.561	.434	.798
I have trouble concentrating	36.4737	49.221	.448	.797
I am able to work effectively toward long-term goals	36.6241	49.721	.544	.791
sometimes I can't stop myself from doing something, even if I know it is wrong	36.4060	48.804	.445	.797
I often act without thinking through all the alternatives	36.4812	49.585	.427	.799

Scale: self-compassion**Reliability Statistics**

Cronbach's Alpha	N of Items
.795	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When I fail at something important to me I become consumed by feelings of inadequacy.	36.0226	33.886	.437	.780
I try to be understanding and patient towards those aspects of my personality I don't like	35.5489	37.007	.225	.798
When something painful happens I try to take a balanced view of the situation.	35.5564	34.734	.446	.780
When I'm feeling down, I tend to feel like most other people are probably happier than I am	35.9925	30.432	.633	.758
I try to see my failings as part of the human condition.	35.7068	32.466	.516	.772
When I'm going through a very hard time, I give myself the caring and tenderness I need.	35.8496	32.765	.574	.767
When something upsets me I try to keep my emotions in balance.	35.4812	33.661	.453	.779

When I fail at something that's important to me, I tend to feel alone in my failure	35.9248	32.222	.520	.772
When I'm feeling down I tend to obsess and fixate on everything that's wrong	35.8872	35.252	.375	.786
When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	35.8722	34.734	.369	.787
I'm disapproving and judgmental about my own flaws and inadequacies.	35.8346	34.169	.430	.781
I'm intolerant and impatient towards those aspects of my personality I don't like.	35.6541	36.713	.223	.799

Scale: social support

Reliability Statistics

Cronbach's Alpha	N of Items
.849	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
I can talk about my problems with my friends.	52.1353	118.497	.416	.845
My family is willing to help me make decisions.	51.7068	115.875	.546	.836
There is a special person in my life who cares about my feelings.	52.1203	112.713	.577	.833
I have friends with whom I can share my joys and sorrows.	51.9173	119.592	.459	.842
I can talk about my problems with my family.	52.1504	115.053	.466	.842
I can count on my friends when things go wrong.	52.1880	123.366	.365	.847
My friends really try to help me.	52.0977	117.634	.505	.839
I have a special person who is a real source of comfort to me.	52.2406	109.608	.632	.829
I get the emotional help and support I need from my family.	51.8647	115.875	.484	.840
My family really tries to help me.	51.6015	114.666	.528	.837
There is a special person with whom I can share my joys and sorrows.	52.2632	113.801	.561	.834
There is a special person who is around when I am in need.	52.5639	111.202	.672	.827

APPENDIX L

Correlation Result

Correlations						
		linternet addiction	self-esteem	self-control	self- compassion	social support
linternet addiction	Pearson Correlation	1	-.897**	-.899**	-.664**	-.449**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	133	133	133	133	133
self-esteem	Pearson Correlation	-.897**	1	.844**	.672**	.488**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	133	133	133	133	133
self-control	Pearson Correlation	-.899**	.844**	1	.673**	.448**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	133	133	133	133	133
self-compassion	Pearson Correlation	-.664**	.672**	.673**	1	.424**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	133	133	133	133	133
social support	Pearson Correlation	-.449**	.488**	.448**	.424**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	133	133	133	133	133

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

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APPENDIX M

Multiple Regression Results

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	social support, self-compassion, self-control, self-esteem ^b		Enter

a. Dependent Variable: Internet addiction

b. All requested variables entered.

Descriptive Statistics

	Mean	Std. Deviation	N
Internet addiction	51.8571	11.19533	133
self-esteem	16.6541	4.09183	133
self-control	40.4812	7.93496	133
self-compassion	38.1880	5.39943	133
social support	57.1053	11.65298	133

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.921 ^a	.848	.843	4.43129	1.889

a. Predictors: (Constant), social support, self-control, self-compassion, self-esteem

b. Dependent Variable: Internet addiction

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14030.832	4	3507.708	178.633	.000 ^b
	Residual	2513.453	128	19.636		
	Total	16544.286	132			

a. Dependent Variable: Internet addiction

b. Predictors: (Constant), social support, self-control, self-compassion, self-esteem

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	104.379	2.996		34.840	.000					
	self-esteem	-.1281	.186	-.468	-6.906	.000	-.885	-.521	-.238	.258	3.874
	self-control	-.601	.092	-.426	-6.527	.000	-.877	-.500	-.225	.279	3.590
	self-compassion	-.191	.102	-.092	-1.872	.063	-.694	-.163	-.065	.488	2.048
	social support	.008	.039	.008	.207	.836	-.460	.018	.007	.724	1.381

a. Dependent Variable: Internet addiction

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	self-control, self-esteem ^b		Enter

a. Dependent Variable: Internet addiction

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935 ^a	.874	.873	4.28861

a. Predictors: (Constant), self-control, self-esteem

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16656.689	2	8328.344	452.820	.000 ^b
	Residual	2390.981	130	18.392		
	Total	19047.669	132			

a. Dependent Variable: Internet addiction

b. Predictors: (Constant), self-control, self-esteem

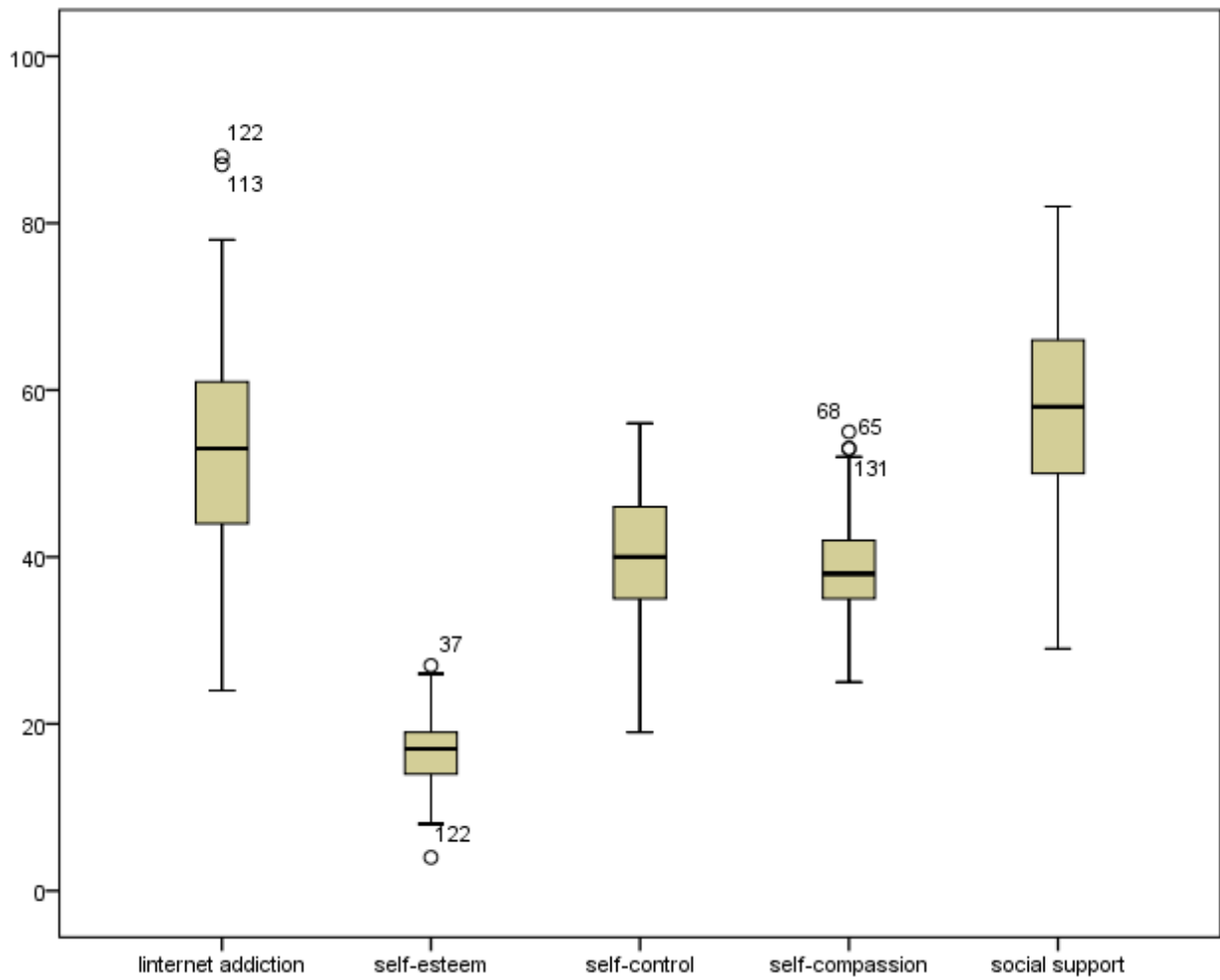
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	104.490	1.973		52.948	.000	100.586	108.394
	self-esteem	-1.325	.160	-.481	-8.296	.000	-1.641	-1.009
	self-control	-.745	.088	-.492	-8.487	.000	-.919	-.572

a. Dependent Variable: Internet addiction

APPENDIX N

Explore



Graph

