

## **The Impact of Emotional Intelligence and Self-Esteem on Internet and Smart Phone Addiction, Sports Activities, and Reading of Youth**

Kwon, Mee Rhan

*Dept. of Child Studies, Korea Nazarene University*  
*mrkwon@kornu.ac.kr*

### **Abstract**

*In the rapid industrialization and civilization, the material and the life have been enriched, but smart phone and the Internet are spreading and the spirit of Korean modern people is falling into addiction without knowing themselves. In particular, according to the recent Internet addiction reported by the National Statistical Office, "the Internet addiction rate in 2014 is the highest among adolescents to 19 years old." This study empirically analyzed whether internet addiction, smart phone addiction, sports activities and reading affect adolescents' emotional intelligence and self-esteem. Regression analysis showed that internet addiction, smart phone addiction and sports activities affected emotional intelligence and reading did not affect. Also, internet addiction, smart phone addiction and sports activities were found to affect self-esteem and reading did not affect. Reading and emotional intelligence, reading and self-esteem seem to require further study in the future.*

**Keywords:** *Internet Addiction, Smart Phone Addiction, Sports Activities, Reading, Emotional Intelligence, Self-Esteem*

### **1. Introduction**

With the development of information and communication, the spread of the internet has changed the whole of our life while developing the cyber culture. Nowadays, with more than 90% of smartphone penetration rate, there is more concern about the dysfunction than the smartphone smart function, and studies on the problem of smartphone addiction are actively being carried out. In addition, as the accessibility of the Internet has increased due to the spread of smartphones, the range of the age of Internet users has been broadened, According to the recent Internet addiction reported by the National Statistical Office, "the Internet addiction rate in 2014 is the highest among adolescents (10 to 19 years old)."[1]

Adolescence is an important time for cultivating the ability to adapt easily to social activities through proper socialization through correct emotions and education since it is social and physically inexperienced period. [2] It is a crucial time for you to dream your own dreams, find your own growth points, and establish

your self-identity. However, many adolescents accept unnecessary information and distorted information without any boundaries in cyberspace, and only the negative aspects of society are recognized, and identity confusion and role confusion are experienced.

In many media and research, the talents required by future society are said to be creative talents. Emotional intelligence and self-esteem of adolescents are essential factors for progressive and creative talents. The emotional intelligence and self-esteem of these adolescents are empirically verified by examining the effects of smartphone and internet usage, sports activities and reading. It is a very meaningful thing to look at and it will be a basic data to inform the factors necessary for enhancing emotional intelligence and self-esteem in adolescent's growth process.

## **2. Related Works**

The average penetration rate of smartphones in the world is 14%, but Korea is 67%, which is five times higher than the average. Recently, 8 out of 10 teenagers have used smartphones and 18% have been at risk for smartphone poisoning, according to a survey conducted by the Ministry of Gender Equality and Family and the National Statistical Office.[3]

King (1996) uses the virtual relationship of the Internet as a means of satisfying the psychological desires that are unsatisfied in reality and difficult for interpersonal relations, and has a sense of belonging. It is said to be a factor that makes the Internet more attractive.[4] Young people are able to realize things that are not possible in reality online, and because of this, they can feel psychological and mental satisfaction, so they are drawn to the internet.

According to Yong-Don, Yi-Sun, Yang Jae-ho(2014), higher self-esteem has no effect on smartphone addiction, and the lower self-esteem, the higher the frequency of smartphone usage[5]. According to Joe Eun-jung (2010), the lower the emotional intelligence (emotional control and interpersonal abilities), the higher the level of internet game and immersion [6]. Nam, Seon-hee (2009) obtained a study [7] that children with low emotional intelligence and high impulsiveness influenced Internet games and immersion. Kim, Mi-kyung (2007) reported that emotional intelligence is higher when game and immersion levels are higher [8].

Sports is an activity that requires physical strength or skill, and refers to a physical exercise for enjoyment or competition. Sports can be said to be "an area of education that aims to form an entirely human body physically, mentally, and socially through intentional physical activity." Sports activity is important for youth growth, but Internet development and spread of smart devices have significantly reduced the amount of exercise compared to the past. In addition, the physical fitness of adolescents is sharply decreasing due to the increase of non physical activities due to TV watching, computer games, decrease of school playgrounds, and decrease of physical education time due to entrance examination. Stamina is the ability to perform agile tasks or cope with enough energy when in an emergency situation. [9]

The future of the country depends on the mental and physical ability of the youth. According to Kim, Yeong-Sung, Im, Jeong-Im (2013), adolescents' sports activities have a positive effect on lowering Internet addiction level through self-esteem. [10] On the other hand, in the study of Kwon Mee Rhan (2013), there was no significant difference between sport activity time and emotional intelligence [11], but in the study of Kwon Mee Rhan (2014), it was found that sports activity time had a significant effect on emotional intelligence.[12]

Reading is an activity that acquires knowledge and information through books, helps people understand the relationship, and broadens the frame of thinking about things. Kanaan (1975) conducted a reading

treatment for elementary school students in the fifth grade who had low self-concept and identified with the characters in the book. As a result, the self-concept was significant[13]. Green (1988) reported an improvement in self-concept when reading textbooks were combined with reading in a teacher's book for elementary school students in grade 4. [14] Haag (1990) reported that reading therapy was administered to elementary school students in the fourth grade, with a significantly improved self-concept. [15]

Eun Eun-sun and Tak Jin-kook (2014) investigated whether a coaching program using reading was effective on self-esteem for middle school students. The study showed that self-esteem was improved but not significant.[16]

Emotional intelligence is the ability to objectively judge its own possibilities and limitations. It refers to the ability to maintain good relations with people while well-supervising their emotions, understanding their opponents. Salovey and Mayer (1990), who first studied emotional intelligence academically, defined emotional intelligence as the ability to examine emotions of oneself and others, to distinguish emotional differences, to think and act on such information. [17] Goleman (1999) argues that IQ has 20% influence on rise to a high position and success, while emotional intelligence has an 80% influence. [18] Wong and Law (2002) reported that emotional intelligence is an ability to accurately recognize the emotions of oneself and others, and to utilize and control their emotions. In addition, the sub-factors of emotional intelligence were classified into four categories: self-emotion, understanding of others, use of emotions, and emotional control.[19]

Self-esteem refers to self-respect and love, and self-assurance as a worthy and capable being. This is an important psychological characteristic that can be positively adapted in any environment. Adolescence is an important time to achieve self-identity as well as self-esteem. Low self-esteem can lead to maladjustment and psychological problems in various fields such as school, peer, family, and school. In addition, it is reported to be a major factor in causing maladaptive behaviors such as depression, anxiety, and flight. [20] Thus, achievement of self-esteem in adolescence is a very important factor that should be considered. [21] Those with high self-esteem are active, expressive, and successful in their studies. It also plays a leading role in external activities. [22]

### 3.The research model

The research model of this study is shown in Figure 1.

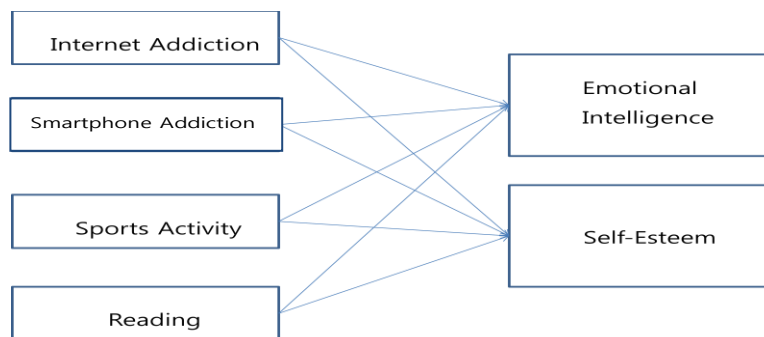


Figure 1. Research Model

Based on the previous studies and the research model, the research hypothesis as shown in Table 1 was derived.

**Table 1. Research Hypothesis**

Hypothesis	content
1	Internet addiction will affect teens ' emotional intelligence.
2	Smartphone addiction will affect teens ' emotional intelligence.
3	Sports activity will affect the emotional intelligence of teenagers.
4	Reading will affect the emotional intelligence of teens.
5	Internet addiction will affect teens ' self-esteem.
6	Smartphone addiction will affect teens ' self-esteem.
7	Sports activity will affect teens ' self-esteem.
8	Reading will affect teens ' self-esteem.

#### 4. Empirical analysis

A total of 367 copies were collected through questionnaires visited in middle schools located in Cheonan, city of Chungnam-do. However, the research hypothesis was verified with a total of 247 copies of data except for those who are missing or doubtful. A demographic analysis was conducted through frequency analysis of respondents in this study. The results are shown in Table 2 below.

**Table 2. Properties of Sample**

Sortation		Frequency (number)	Ratio (%)
Gender	Man	134	54.3
	Woman	113	45.7
School year	1st grader	125	50.6
	2nd grade	122	49.4
	3rd grade	0	0
Average Sports Activity Time per week	Less than 1 hour	83	33.6
	Less than 2 hours	81	32.8
	Less than 3 hours	32	13.0
	Less than 4 hours	13	5.3
	Less than 5 hours	13	5.3
	More than 5 hours	25	10.1
A monthly reading of books	Almost never	75	30.4
	1~3 volumes	72	29.1
	3~5 volumes	38	15.4
	5~7 volumes	19	7.7
	7~9 volumes	10	4.0
	More than 9 volumes	33	13.4

In order to verify the validity of the measured variables, factor analysis was conducted on the variables. Principal component analysis was used as a factor extraction method. As suggested in this research model, the independent variable sports activity time and reading were nominal, so no validation was conducted. Factor analysis was performed for internet addiction and smartphone addiction. Internet addiction is one of the factors, and smart phone addiction removes 5 variables with load less than 0.5.

Self-esteem and emotional intelligence were analyzed by factor analysis. Only variables with factor loadings of 0.5 or more were extracted for dependent variables. For the self-esteem, 9 variables with load less than 0.5 were eliminated, and emotional intelligence was measured again after removing 5 variables with load less than 0.5. There were no factors removed because of differences in loadings for other factors.

In addition, Cronbach's  $\alpha$  was measured to verify the reliability of the factors extracted through factor analysis. As a result of the reliability test, all the variables were found to be more than 0.89.

Regression analysis was conducted to investigate whether internet addiction, smartphone addiction, sports activities and reading affect adolescent emotional intelligence. Regression analysis showed that internet addiction, smartphone addiction and sports activities affected emotional intelligence and reading was dismissed.

**Table 3. Regression analysis of emotion intelligence**

Independent variable	Beta	t	sig	adjusted R <sup>2</sup> :
Internet addiction	-0.174	-3.171	0.002	R <sup>2</sup> : 0.130 Adj.R <sup>2</sup> : 0.115
Smartphone addiction	-0.103	-1.750	0.081	
Sports activity	0.055	2.349	0.020	
Reading	-6.2E-5	-0.003	0.998	

Regression analysis was conducted to investigate whether internet addiction, smart phone addiction, sports activities and reading influence adolescents' self-esteem. Regression analysis showed that internet addiction, addiction among the smartphone, and sports activities affected self-esteem and the reading was rejected. Smartphone addiction was found to affect 90% confidence interval.

**Table 4. Regression analysis of self-esteem**

Independent variable	Beta	t	sig	adjusted R <sup>2</sup> :
Internet addiction	-0.263	-5.271	0.000	R <sup>2</sup> : 0.130 Adj.R <sup>2</sup> : 0.115
Smartphone addiction	-0.207	-3.865	0.000	
Sports activity	0.048	2.257	0.025	
Reading	0.009	0.427	0.669	

## 5. Conclusion

This study analyzed emotional intelligence and self-esteem of internet addiction, smart phone addiction, sports activities and reading. A total of 367 copies were collected through questionnaires, but the research

hypothesis was verified with a total of 247 copies of data except for those who responded incorrectly, omissions, or duplicates.

Regression analysis was conducted to examine whether internet addiction, smartphone addiction, sports activities and reading affect adolescents' emotional intelligence. As a result, internet addiction and smartphone addiction had a significant negative effect on emotional intelligence and sports activities had a positive effect on emotional intelligence. On the other hand, reading did not affect emotional intelligence. In addition, internet addiction and smartphone addiction had a significant negative effect on self-esteem and sports activity had a positive effect on self-esteem. On the other hand, reading did not affect self-esteem. Smartphone addiction was found to affect 90% confidence interval.

We found out that Kanaan had a reading treatment that equated to the person in the book, which resulted in a meaningful result in the self concept, and Green said that the self-concept was improved by reading the book combined with the teacher's reading. Haag said that the self-concept was improved significantly by reading therapy, and Eun Eun-sun and Cho Jik-guk said that self-esteem was improved, though reading coaching program did not significantly affect self-esteem. Therefore, reading therapy, not reading, is expected to improve the emotional intelligence and self-esteem of adolescents.

In the study of Kwon Mee Rhan (2013), there was no significant difference between sports activity time and emotional intelligence, but in the study of Kwon Mee Rhan (2014), it was found that sports activity time had a significant effect on emotional intelligence. Therefore, additional research on reading and emotional intelligence, reading and self-esteem seems necessary.

The limitation of this study is that the sample of the population is not aimed at the national middle schools but the two middle schools located in Chungnam-do and Cheonan city have problems in the representation of the population. It seems difficult to generalize it.

Finally, in this study, middle school students found that smart devices and media devices were more vulnerable to addiction than any books or impressive articles.

## **Acknowledgment**

This paper has been studied by Korea Nazarene University scholarship fund.

## **References**

- [1] National Statistical Office, "Internet addiction", 2014
- [2] Kim, Hyun-Soo, "A Study on Internet Addiction and Solution for Adolescents", Korean Journal of Addiction and Crime, Vol.2, No.1, 2012
- [3] Ministry of Gender Equality and Family, 2014
- [4] King, S. A., "Is the Internet Addictive, or are Addicts using the Internet?", 1996
- [5] Yong-Don, Yi-Sun, Yang Jae-ho, "A Study on the Actual Situation of Smart Phone Addiction and Social and Social Factors by Region", Journal of Social Science, Vol.40, No.3, 2014
- [6] Jo Eun-jung, "Infant's Internet game addiction tendency, emotional regulation and aggression", Yonsei University graduate school master's thesis, 2010
- [7] Nam, Seon-hee, "A Study on Related Variables Affecting Internet Addiction Tendency of College Students," Journal of Youth Welfare, Vol.11, No.1, 2009
- [8] Kim Mi-kyung, "Relationship between Computer Game Addiction and Emotional Intelligence in Elementary School Students," Master's Thesis, Graduate School of Education, Kumo Institute of Technology, 2007
- [9] Son W. Son, "The Theory and Practice of Early Childhood Physical Education for Leaders", Changji, 2004

- [10] Kim, Yeong-Sung, Im, Jeong-Im, "Exploring the Paths of Adolescent Sports Participation Affecting Internet Addiction Level," Youth Culture Forum, Vol.35, 2013
- [11] Kwon, M. R., "The Impact of the Emotional Intelligence of Elementary School Students by Using Smart Devices", The Institute of Internet, Broadcasting and Communication, Vol. 13, No.1, 2013  
DOI: <http://dx.doi.org/10.7236/JIIBC.2013.13.1.95>
- [12] Kwon, M. R., "Emotional Intelligence of Youth Impacted by the Smart Devices and Sports Activities", The Institute of Internet, Broadcasting and Communication, Vol. 14, No.1, 2014  
DOI: <http://dx.doi.org/10.7236/JIIBC.2014.14.1.211>
- [13] Kanaan, J., "The Application of Adjunct Bibliotherapeutic Techniques in Resolving Peer Acceptance Problems", Dissertation Abstracts International, 3. 5836A, 1975
- [14] Green, D. A., "A Study of the Impact of Bibliotherapy on the Self-Concept of Mexican-American Children Ten and Eleven Years of Age", Dissertation Abstracts International, 50 (5). 1252A, 1988
- [15] Haag, S. K., "A Study on the Effectiveness of A Bibliotherapy Program for Changing Self-Concepts at Fourth-Grade Level", Unpublished DoctoralDissertation, University of Southern Mississippi, 1990
- [16] Eun Eun-sun and Tak Jin-kook (2014), "A Study on the Effectiveness of the Coaching of Career Group of Middle School Students Using Reading: Focusing on Self-Esteem and Career Preparation Behavior", Kwangwoon University Youth Study, Vol.21, No.10, 2014
- [17] Mayer, J. D. and Salovey, P., "Emotional Intelligence: Imagination, Cognition and Personality", Vol.
- [18] Goleman, D., "Working with Emotional Intelligence", London: Bloomsbury Publishing, 1999
- [19] Wong, Chi-Sum, & Law, S. L., "The Effects of Leader and Follower Emotional Intelligence on Performance and Attitude: Exploratory Study", The Leadership Quarterly, 13, 2002
- [20] Lee, S. H., "A Study on Impact of Risk Factors on Juvenile Delinquency", Social Welfare Development Institute, Vol.13, No.1, 2007
- [21] Choi, YS, "A Study on Affection of Children of Alcoholics on Their Adjustment to Society and Their Characterization with Moderating Effects of Self-esteem," Korean Academy of Clinical Social Work, 2009
- [22] Kim Eun Young, "The Effects of Group Art Therapy on Self-Esteem and Sociality of Divorced Children," Master's Thesis, Graduate School of Social Welfare, Catholic University, 2003