The Impact of SNS Addiction Tendency on Educational Satisfaction

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Abstract

The use of SNS facilitate online communication, but excessive use can bring negative side effects. Recently, SNS addiction has been shown to have a significant impact on students' academic performance and time management ability. The findings of this study can be summarized as follows. First, information ethics education significantly affected students' lack of self-control, immersion and tolerance, aversion to negative emotions, and virtual world orientation. Second, information ethics education had a significant influence on educational satisfaction.

Keywords: Lack of self-control, Immersion and tolerance, Aversion to negative emotions, Virtual world orientation, Information ethics education

1. Introduction

SNS addiction, caused by the overuse of SNS, hinders personal adjustment and daily life. It not only brings about withdrawal symptoms and a continually increasing desire to use SNS (i.e., tolerance), but also leads to physical illness as well as mental problems, such as stress, depression, dependency, impaired concentration, and obsession [1],[2]. As the number of SNS users increases, research on SNS addiction is also gradually increasing. Addiction refers to excessive mental and physical immersion in specific objects or activities in order to satisfy one's desire, leading to withdrawal symptoms and the loss of self-control. Since the side effects of SNS overuse has just begun to be revealed, a clear concept of SNS addiction has not been established. Therefore, this study uses the term "SNS addiction tendency," which has been used in previous studies.

This study empirically analyzed the impact on information ethics education on SNS addiction tendency (i.e., lack of self-control, immersion and tolerance, aversion to negative emotions, and virtual world orientation) and educational satisfaction. In order to examine the relationships between the above factors, a structural equation model was used.

2. Theoretical background

2.1. SNS addiction

SNS addiction tendency brings about problems with personal adaptation and daily life due to withdrawal and tolerance, physical illness, and mental problems, such as stress, depression, dependency, impaired concentration, and obsession caused by the overuse of SNS [3]. With an increase in the number of SNS users, more studies have begun to focus on SNS addiction. Addiction refers to excessive mental and physical immersion in particular objects or activities to meet one's needs, which causes withdrawal symptoms and the loss of self-control. Little attention has been given to the side effects of SNS addiction until recently, and as such a clear concept of SNS addiction has not yet been established. Therefore, the term SNS addiction tendency has been used instead of SNS addiction in previous studies.

2.2. Information ethics education

Cyberspace has the potential to severely weaken human morality, which means the combined characteristics of information technology, communication, and network users can weaken human morality. In order to cope with this decline in morality in cyberspace, information ethics education is needed. This education should be practiced based on the following fundamental directions: education that emphasizes the importance of body; education that emphasizes the moral meaning of interdependence; education that prevents identity crises; and education that develops ethical thinking about problems in an information society [4].

2.3. Educational satisfaction

Educational satisfaction refers to the learner's awareness of rewards and achievements gained through learning activities, and it can also be regarded as a personal psychological characteristic or emotion of the learner [5]. This educational satisfaction is used as a yardstick for measuring the effectiveness of education and as an important measure of one's level of education. The evaluation of learners' educational satisfaction can be used as a basis to justify education since it enables the collection of information necessary to establish educational direction and allows students to contribute to achieving institutional goals through courses.

3. Research model

3.1. Research model

This study focuses on the impact on information ethics education on SNS addiction tendency and educational outcomes. As can be seen in [Figure 1], the research model was developed based on previous studies. In this model, SNS addiction tendency consisted of four factors: lack of self-control, immersion and tolerance, aversion to negative emotions, and virtual world orientation.
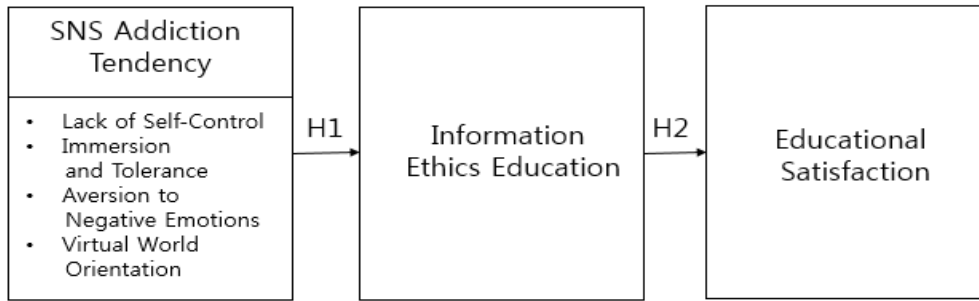
Figure 1. Research model

3.2. Research hypotheses

3.2.1. Hypotheses on SNS addiction tendency and information ethics education

Based on the above research model, the following hypotheses were established.

Hypothesis 1-1: Information ethics education has a negative impact on lack of self-control.

Hypothesis 1-2: Information ethics education has a negative impact on immersion and tolerance.

Hypothesis 1-3: Information ethics education has a negative impact on aversion to negative emotions.

Hypothesis 1-4: Information ethics education has a negative impact on virtual world orientation.

3.2.2. Hypotheses on information ethics education and educational satisfaction

Hypothesis 2: Information ethics education has a positive impact on educational satisfaction.

3.3. Empirical analysis and results

3.3.1. Data collection and sample characteristics

A total of 250 students participated in the survey of this study. There were more male students (57%) than female students (43%) among respondents. Most of the respondents were middle (40.7%) and high school (30.3%) students and the average age was 16.8 years. To test the hypotheses, Smart PLS 2.0 was used.

3.3.2. Data analysis

In order to analyze data, SPSS 22.0 and Smart PLS 2.0 were used for basic statistics and structural equation analysis, respectively. Convergent validity is tested based on the factor loading value, composite reliability (CR), and average variance extracted (AVE) from each factor. Since the factor loading value, CR, and AVE were higher than 0.6, 0.7, and 0.5, respectively, convergent validity was verified. Discriminant validity is tested by comparing the square root of AVE and the correlation coefficients. Since the square root

of AVE was greater than the correlation coefficients, discriminant validity was also verified.

Table 1. Reliability and internal consistency

Variable	Factor Loading	AVE	C. R.	Cronbach's α
Lack of Self-Control	0.717	0.644	0.878	0.818
	0.877			
	0.742			
	0.861			
Immersion and Tolerance	0.734	0.659	0.885	0.830
	0.892			
	0.825			
	0.787			
Aversion to Negative Emotions	0.701	0.626	0.833	0.722
	0.830			
	0.835			
Virtual World Orientation	0.830	0.735	0.892	0.818
	0.905			
	0.834			
Information Ethics Education	0.924	0.759	0.926	0.893
	0.892			
	0.840			
	0.825			
Educational Satisfaction	0.909	0.850	0.944	0.912
	0.941			
	0.916			

Table 2. Correlation and discriminant validity

Variable	AVE	1	2	3	4	5	6
Lack of Self-Control	0.644						
Immersion and Tolerance	0.659	0.529					
Aversion to Negative Emotions	0.626	0.606	0.421				
Virtual World Orientation	0.735	0.632	0.645	0.502			
Information Ethics Education	0.759	0.524	0.548	0.493	0.312		
Educational Satisfaction	0.850	0.533	0.571	0.622	0.375	0.703	

3.3.3. Verification of research model

In order to verify the structural model of this study, Smart PLS 2.0 was used and path coefficients and coefficients of determination (R2) were derived. The coefficients of

determination for information ethics education (0.458) and educational satisfaction (0.494) factors were found to be high.
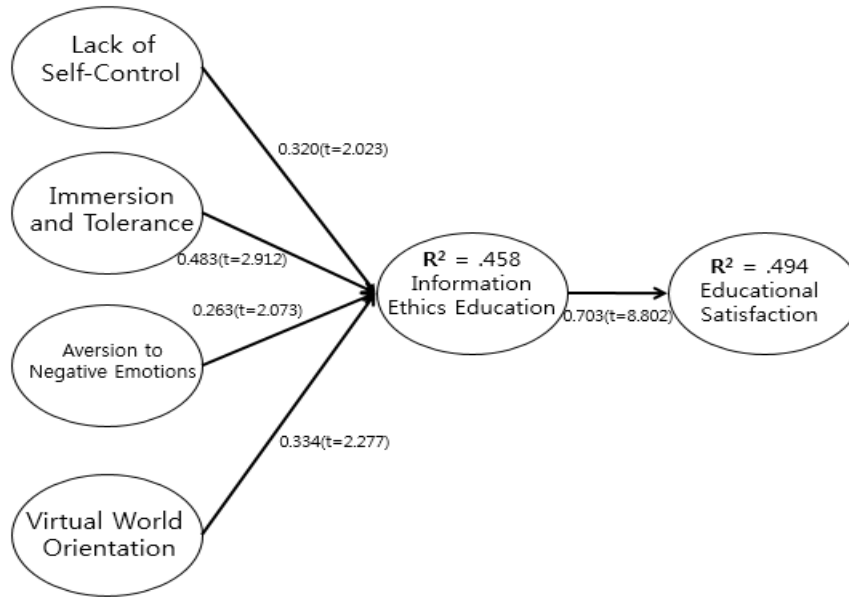

Figure 2. Verification of research model

All components of hypothesis 1 were accepted. For hypothesis 1-1, information ethics education was found to have a significant impact on lack of self-control (β=0.320, t=2.023, p<0.05). This result indicates that lack of self-control, a factor of SNS addiction tendency, can be alleviated by information ethics education. For hypothesis 1-2, information ethics education significantly affected immersion and tolerance (β=0.483, t=2.912, p<0.05). This indicates that immersion/tolerance, a factor of SNS addiction tendency, can be addressed by information ethics education. For hypothesis 1-3, information ethics education was found to have a significant impact on aversion to negative emotions (β=0.263, t=2.073, p<0.05). This means that aversion to negative emotions, a factor of SNS addiction tendency, can also be reduced by information ethics education. For hypothesis 1-4, information ethics education was found to have a significant influence on virtual world orientation (β=0.334, t=2.277, p<0.05). Consequently, information ethics education can also help virtual world orientation, a factor of SNS addiction tendency. Hypothesis 2 was also accepted. Information ethics education was found to have a significant effect on educational satisfaction (β=0.703, t=8.802, p<0.05). This shows that information ethics education can lead to educational satisfaction.

4. Conclusion

The findings of this study about the impact on information ethics education on SNS addiction tendency and educational satisfaction are as follows. Information ethics education had a significant impact on lack of self-control, immersion and tolerance, aversion to negative emotions, and virtual world orientation. Information ethics education also significantly affected educational satisfaction.

This study carries implications for individuals and institutions (i.e., schools) in resolving SNS addiction tendency as follows. First, there should be more studies focusing on SNS addiction tendency [6]. In order to resolve SNS addiction tendency, individuals and institutions need to expand information ethics education. Second, information ethics education was found to affect SNS addiction tendency (i.e., lack of self-control, immersion and tolerance, aversion to negative emotions, and virtual world orientation). Studies on SNS addiction tendency should be continued focusing on the role of information ethics education in resolving related problems [7],[8].

A new research model for the relationship between SNS addiction tendency, information ethics education, and educational satisfaction was proposed and an empirical analysis was conducted in this study. This study is significant in that the empirical analysis of the relationship between SNS addiction tendency, information ethics education, and educational satisfaction were conducted regardless of the lack of previous theoretical studies on the same topic. In addition, this study also offers real-world significance in that it can help in resolving SNS addiction tendency by emphasizing the role of information ethics education and educational satisfaction.

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