

On the Effect of College Students' Attitude towards computer on their Academic Procrastination

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Abstract

Background/Objectives: The central goal of the present research is to identify how college students' attitude towards computer affects their studying/learning and academic procrastination.

Methods/Statistical analysis: The subject group consisted of a group of 209 students taking general education courses at N University located in Choongnam, Korea. The collected data from a survey questionnaire was analyzed by using a set of statistical methods: a frequency analysis for demographic characteristics, a correlation analysis as well as a regression analysis.

Findings: It was found that the subfactors of the attitude under discussion - confidence, usefulness and desire to learn - showed a significant positive correlation among one another, while the negative feeling of anxiety or fear was not significantly correlated with other subfactors. Overall, however, the attitude toward computer was closely correlated with academic procrastination: the higher the attitude toward computer, the lower academic procrastination.

Improvements/Applications: The findings of the current research are expected to help us recognize the importance of the attitude towards computer and to help students improve their learning capacity.

Key Words : College Students, Attitude Towards Computer, Academic Procrastination, Confidence, Usefulness, Learning Capacity.

1 Introduction

There is no doubt that modern society can be characterized as an era of mass media information. In particular, computer is considered as a typical media of the present times that helps college students perform their academic activities, search information, enjoy their leisure time and do shopping. And the list of the things they can do with a computer can include much more than these.

Elementary and secondary school students in Korea live a very tight life: they stay at school from very early in the morning to very late in the evening. Even in this structured schedule, some adolescents struggle with a serious problem of addiction to games or internet. The current research started with a question of how college students are now utilizing computer (Soonhee Kweon et al, 2008)¹.

In reality, college students are considered as a grown-up adult and/or as an intellectual individual. That is perhaps partly responsible for the fact that not much research has been conducted into college students' addiction to internet games or smart phones or into their psychological problems. Also, very few researches have been reported into their attitude toward computer.

College students may control their everyday schedule for weekdays by choosing their classes and also plan for their free time during the weekend and vacation times. It might be meaningful to examine how they use computer in their everyday life and also what attitude toward computer they have, partly because it might be closely related with their academic learning.

Dukran Park et al (2015)² reported that students' and ordinary people's perception of computer exerted an influence in a way or another on their performance and effect of learning and considered it as a core element for learning. The definition of the attitude towards varies from scholar to scholar and it may also differ depending on measurement tools. However, it might be generally defined as one's feelings and utilization of computer, which clearly affect his or her everyday life.

A positive attitude towards is expected to help college students gain much knowledge and abilities that might contribute to the development of society(Ami Cho, 1999)³ It is also expected that sound and solid culture of computer utilization would help adolescents and students lead desirable lives.

2 Theoretical Backgrounds

2.1 Understanding the attitude towards computer

Computer has long been used as an essential tool in modern society. At present, it may not be dispensable in every aspect of our everyday lives. In particular, computer has greatly changed the scene of education: the education paradigm solely based on off-line has long disappeared. The so-called cyber learning or e-learning has been a great portion of education and training for students at every level(Bona Kim et al, 2010)⁴ Thus, it should be natural that students' attitude toward computer would impact their learning (Hyunjin Kim, 2013)⁵.

Utilization of computer could be the two sides of the same coin: it might result in both positive and negative results. Of the negative aspects of computer, addiction to games and entertainment, formation of mistaken values and being misled to crimes have often been cited(Chisun Oh, 1999)⁶.

In short, the attitude towards computer refers to one's attitude of how he or she would use computer. An attitude literally means the way in which an individual feels or thinks about a certain thing or phenomenon. Thus, the attitude towards computer means an individual's feeling about the use and effect of computer(Hyekyung Suh et al, 2004)⁷

Now a days, even toddlers learn to use computer and adolescents use it for entertainment, music and shopping as well as for learning and information-searching. It might be safe to say that computer is now being used nationwide by everybody including seniors.

College students are naturally expected to be good at using computer. Thus, there seems to be little interest in the influence of their attitude towards computer on their learning and studying.

However, it is a very meaningful question to ask how their perception and utilization of computer affects their college life. Above all, college students are at the last stage of education getting prepared to enter the real world. Thus, any factor leading to academic procrastination would be a big obstacle for them in their preparation for their careers(Jiwon You, 2013)⁸ The present study, thus, attempts to see whether and how their attitude towards computer affects academic procrastination.

2.2 Understanding Academic Procrastination

Academic procrastination of college students might result from a variety of reasons. It might happen partly because they need to do various things in addition to studying: club activities, voluntary service, leisure activities, and overseas traveling. Meeock Suh(2014)⁹, for example, classified the reasons into two categories: internal and external. The former includes lack of desire for studying, lack of confidence in learning, intentional procrastination, failure in information processing and psychological problems such as perfectionism.

The external causes for academic procrastination can be exemplified by difficulty in handling learning materials and projects, excessive amount of assignments, team projects and various extracurricular activities. As mentioned above, very few researches have tackled the issue of the effect of the attitude towards computer on academic procrastination. In reality, college students use computer for other activities than studying: listening to music, watching video files, playing games and shopping. It can be easily assumed that these nonacademic activities would, in turn, turn out to be major hindrances to learning and studying. The results of the current analysis are expected to offer suggestions or guidelines to help them use computer in a desirable way.

3 Research Methods

3.1 Scale for Computer Attitude

This research adopted Chisun Oh & Youngbae Kang's(1999)¹⁰ model used in their paper 'Adolescents' Attitude toward Computer and

their Experiences' to measure computer attitude. It consists of 17 items belonging to four categories: confidence in computer use (4 items), usefulness (5 items), desire to learn computer (5 items) and negative emotions against (3 items). Each item was measured on a five-point Likert scale, a higher score meaning a better attitude toward computer (Cronbach' a= .603).

3.2 Scale for Academic Procrastination

The subjects' academic procrastination was measured by adopting Sherer, M(1997)¹¹, Younhee Song's(2012)¹² scale, which was intended to distinguish students with chronic academic procrastination from others. The measurement tool was composed of 19 items including such statements as 'I procrastinate in doing something until the last minute.' and 'I often hurry up frantically to meet the deadline.' A higher score, with 9 reverse items, signified a lower level of academic procrastination. Cronbach a was obtained at .848.

3.3 Analysis Method

The current research proceeded with a set of statistical analyses: a frequency analysis of the subject group's gender, year and major field, and the mean and standard deviation of technical statistics of their attitude toward computer and academic procrastination, a correlation analysis of the two variables of attitude toward computer and procrastination, and, finally a regression analysis to identify the effect of computer attitude on academic procrastination.

4 Research Results

4.1 General Characteristics of Research Subjects

The subjects of the current research consisted of a group of 209 college students who were attending at N University located in Cheonan, Korea, and taking a computer-related class in the academic year of 2016. A questionnaire was handed out to 230 students, but 209 of them were collected for final analysis.

Table 1: General Characteristics of Research Subjects

T o t a l	Gender		Year				major				
	M	F	1	2	3	4	Engine ering	Busi ness	Welfare	Health related	Art s & Sports
N 209	136 (65.1)	73 (34.9)	10 (4.8)	83 (39.7)	69 (33)	47 (22.5)	59 (28.2)	63 (30.1)	28 (13.4)	37 (17.7)	22 (10.5)

As shown in Table 1, 136 (65.1%) subjects of the group were male and the rest (73, 34.9%) were female students. In terms of their grades, sophomores accounted for the largest portion of 83(39.7%), followed by juniors (69, 32.5%), seniors (47, 22.5%) and freshmen (11, 5.3%). As far as their major fields are concerned, it might be assumed that the group showed a nearly even distribution, considering the number of students enrolled at each school of the university: business (63, 30.1%), engineering (59, 28.2%), health sciences (37, 17.7%), welfare (28, 13.4%) and arts & sports (22, 10.5%).

4.2 Attitude towards computer & Academic Procrastination according to their Gender and Grades

The mean and standard deviation of their attitude towards computer and academic procrastination according to their gender and grades are found below.

Table 2: Attitude towards computer & Academic Procrastination depending on their Gender and Grades

Factors	character	M	SD
Attitude towards Computer	Male	3.1032	0.4228
	Female	3.1547	0.3784
Academic procrastination	Male	3.7024	0.5052
	Female	3.8125	0.4546
	Freshmen	3.2412	0.3955

Attitude towards Computer	Sophomore	3.1779	0.47973
	Junior	3.1373	0.3353
	Senior	3.0501	0.3593
Academic procrastination	Freshmen	4.0105	0.2576
	Sophomore	3.7273	0.4795
	Junior	3.7941	. 4747
	Senior	3.6293	0.5441

As illustrated in Table 2, female students were found having a better attitude towards computer and a lower academic procrastination than male students. In terms of grades, in turn, freshmen had a better attitude towards computer and a lower academic procrastination than any other upper class students.

4.3 Attitude towards computer & Academic Procrastination depending on their Major Fields

Table 3 Attitude towards computer & Academic Procrastination depending on their Major Fields

Valuables	Major Fields	M	SD
Attitude towards Computer	Engineering	3.1466	0.4482
	Business	3.0691	0.3571
	Health-related	3.145	0.3147
	Welfare	3.221	0.5063
	Arts and Sports	3.1765	0.3177
procrastination of learning	Engineering	3.7734	0.4722
	Business	3.7226	0.5078
	Health-related	3.6184	0.5296
	Welfare	3.8208	0.4394
	Arts and Sports	3.7273	0.5225

As shown in Table 3, those students majoring in welfare-related fields recorded the most positive attitude towards computer and the least academic procrastination. In contrast, business majors were the last in terms of attitude towards computer, while the students majoring in health-related fields were found having the greatest academic procrastination.

computer students have, the lower their academic procrastination they show.

4.6 A regression analysis of the attitude towards computer and academic procrastination

Table 6: A regression analysis of the attitude towards computer and academic procrastination

Variables	Model	Sum of squares	df	Mean square	F	Sig. p
Confidence In ability to use computer	regression	0.632	1	0.632	2.656	0.105
	residual	49.281	207	0.238		
	Total	49.914	208			
Usefulness of computer	regression	1.004	1	1.004	4.25	0.04
	residual	48.894	207	0.236		
	Total	49.914	208			
Desire to learn computer & computer experience	regression	0.067	1	0.067	0.277	0.599
	residual	49.847	207	0.241		
	Total	49.914	208			
Anxiety or fear of computers	regression	0.001	1	0.001	0.004	0.947
	residual	49.912	207	0.241		
	Total	49.914	208			

As shown in Table 6, among the sub-variables of computer attitude, only the usefulness factor for computer had a significant effect on academic procrastination and other factors had no significant effect. However, when the attitude toward the whole computer has a significant effect on the academic procrastination, the usefulness of the computer is highly related to the academic achievement. A regression analysis found that the attitude toward computer significantly affected academic procrastination, which means that the better attitude towards computer students have, the lower their academic procrastination they show.

5 Concluding Remarks

After being admitted to a college through very tough competition, college students in Korea, then, exert every effort to acquire necessary skills and abilities required by society. Of extensive learning and training for that purpose, computer application skills are a very important and necessary part. The present research attempted to

identify their attitude towards computer and also the impact of the attitude on their academic life at college.

6 Acknowledgment

Funding for this paper was provided by Namseoul University.

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