

## The relationship between Cyber-Loafing and internet addiction\*

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### Abstract

The goal of this study was to investigate the relationship between preservice teachers' internet addiction level and cyber-loafing activities. This study was conducted as a survey study. Participants of the study was Computer Education and Instructional Technology department students (n=139) at Ankara University. "Cyber loafing activity Scale" originally developed by Blanchard and Henle (2008), adopted to Turkish by Kalayci (2010) and updated by Yasar (2013) and "Internet Addiction Scale" developed by Sahin and Korkmaz (2011) was used as data collection instruments. To analyze the data descriptive statistics, Mann Whitney U, Kruskal Wallis H, and Spearman Rho Correlation coefficients was used. There were significant differences between the gender groups both in cyber-loafing activities and internet addiction levels. Male preservice teacher had higher internet addiction levels and cyber-loafing activity scores in average. However there were not significant differences between different groups based on grade level, period of internet usage, perceived internet ability, both for cyber-loafing activities and internet addiction levels. There were a moderate positive relationships between internet addiction and individual cyber-loafing, and search cyber-loafing. There were also a small positive relationships between internet addiction and social cyber-loafing. There was not a significant relationship between internet addiction and news cyber-loafing.

Keywords: cyber-loafing, internet addiction, preservice teachers

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## 1. Introduction

Internet became part of our daily life and fulfilled lots of our needs as the technology improved. However, studies suggests that too much use of internet can have negative impact on individuals' social behaviors, health, habits, and skills (Keser, 2005; Brubaker, 2006; Chang & Law, 2008). In educational settings internet became an essential tool for providing lifelong learning skills, as information resource, and activity resource for the classrooms. As internet connections were setup at school computer labs, there were a need for internet use guidelines for students; however, this did not prevent students to spend time on unrelated activities in these free environments. Brubaker (2006) reported that, during the class, students using internet connected computers spent time on unrelated activities without the knowledge of the teachers and this causes other problems. One of these problems is "Cyber-Loafing". Cyber-Loafing first used in work environments, for private and deviant loafing behaviors that are unproductive, and unimportant using work computers (Kalayci, 2010; Robinson & Bennett, 1995: 565, by: Yildiz, Yildiz & Ates, 2014). In international literature Cyber-Loafing concept was described by terms such as "cyber-slacking" (Lavoie & Pychyl, 2001; Blanchard & Henle, 2008) "cyber deviance" (Vitak etc., 2011), and "cyber-loafing" (Lim, 2002) "cyber-budging" (Mills etc., 2001). In Turkey cyber-slacking and cyber-loafing equivalents ("sanal kaytarma" and "siber aylaklik) were used (Kaplan & Ogut, 2012: 591, Kose etc., 2012, Ozkalp etc., 2012, by: Yildiz, Yildiz, 2013; Kurt, 2011).

When we look at the Cyber-Loafing studies, Blanchard and Henle (2008) described cyber-loafing as, use of e-mail and internet for non-work related purposes; Lim (2002) described cyber-loafing as, employees use of internet access in their own recognizance for their personal use; Ugrin, Pearson and Odom (2008) described cyber-loafing as spending time on internet unproductively. Kalayci (2010) defined cyber-loafing in her educational study as students' tendencies or behaviors to use internet for things unrelated to class during the class time. Yasar (2013) described four different types of cyber-loafing activities. These are individual (shopping, travel, job search, carrier, online banking), social (social networking sites, discussion boards, instant messaging, e-mail), search (searching, pictures, video etc. on search engines), and news (news, sport, weather sites etc. and bulletin boards) cyber-loafing behaviors.

Literature points out that, some individuals experience problems because of intense, fast, constant, excessive internet use. One of these problems is internet addiction. Internet addiction is a definition for uncontrolled harmful internet use (Sahin & Korkmaz, 2011). In the literature, there were studies about the personality dimensions related to internet addiction (Dalbudak & Evren, 2013; Morsunbul, 2014; Ayas & Tas, 2015); age, gender, parents age, parents education level, sibling number, internet access at home, school and grade levels (Uneri & Tanidir, 2011; Sarikaya & Seferoglu, 2013; Tas, Eker & Anli, 2014; Yilmaz etc., 2014); psycho-social variables such as loneliness, perceived social support, life satisfaction, romantic relationship with opposite gender (Esen & Siyez, 2011). In addition, students occupying themselves with other activities such as browsing on social media sites, checking email, reading news, instant messaging, photo sharing etc. beside the assigned work in computer labs and in classrooms with mobile tools is a common occurrence. Some students, use internet at an addiction level at any environment or context. For these reasons, determining the relationship between cyber-loafing and internet addiction deemed to be important.

The goal of this study was to investigate the relationship between cyber-loafing activities and internet addiction levels of preservice teachers. Research questions were: a) Does the internet addiction levels of preservice teachers vary based on gender, grade level, time since internet use started, and perceived inter use skills? b) Does the cyber-loafing activities of preservice teachers vary based on gender, grade level, time since internet use started, and perceived internet use skills? c) Is there a significant relationship between cyber-loafing activities (individual, search, social, and news) and internet addiction levels of preservice teachers?

## 2. Method

83 female (%59.7), and 56 male (%40.3) in total 139 preservice teachers, participated to this relational survey method study. 25 (%18) freshmen, 33 (%23.7) sophomore, 28 (%20.1) juniors and 53 (%38.1) seniors participated to the study. Majority of the preservice teachers (f=131, %94.2) used internet daily, and 8 (%5.8) used few days every week. When we looked at the time since they started using internet; 10 (%7.2) used between 1 and 4 years, 84 (%60.4) used between 5 and 9 years, 33 (%23.7) used between 10 and 13 years, and 12 (%8.6) used more than 14 years. Regarding the perceived internet use skills; 2 (%1.4) regarded themselves as novice; 33 (%23.7) average, 77 (%55.4) advance, and 27 (%19.4) expert. In this study, "Cyber Loafing Activities Scale" (CLAS) developed by Blanhard and Henle (2008); adopted to Turkish by Kalayci (2010); and updated by Yasar (2013); was used with "Internet Addiction Scale" (IAS) developed by Sahin and Korkmaz (2011). CLAS is a 23 item Likert scale instrument with 4 factors (individual, search, social, and news). These factors indicate the type of Cyber Loafing activities. Reliability of CLAS was calculated with Cronbach's Alpha coefficients and for individual factor it was .94; for search factor .77; for social factor .84; for news factor .76. IAS was Likert scale instrument with 3 factors (Loss of control, desire to be online, and difficulties in social relations). Reliability measures for IAS were Cronbach's Alpha (.86), Spearman Brown value (.77), and Guttman Split-Half value (.76). Since the data was not normally distributed non parametric statistics were used. For data analysis of descriptive statistics of uncorrelated measures Mann Whitney U test; and for correlated measures Kruskal Wallis H test and Spearman Brown rank difference correlation coefficients were used.

## 3. Findings

For the first research question, variance of preservice teachers' internet addiction levels based on different variables were investigated. There was a significant difference based on gender between the preservice teachers' internet addiction levels according to Mann Whitney U test results (U=1559, p<.01). Details can be found at Table 1. Male preservice teachers' internet addiction level mean score ( = 83.66) was higher than female preservice teachers' mean score ( = 60.78).

Table 1: Internet addiction level differences based on gender

Group	n	Mean Score	Total	U	p
Male	56	83.66	4685	1559	.001
Female	83	60.78	5045		

Kruskal Wallis H test was conducted to determine whether the internet addiction levels of different groups based on grade levels, time since internet use started, and perceived internet use skills varied or not. There were not any significant differences between grade levels ( $\chi^2=2.353$ , sd=3, f=139, p=0.502); time since internet use started ( $\chi^2=3.285$ , sd=3, f=139, p=0.350); and perceived internet use skills ( $\chi^2=4.334$ , sd=3, f=139, p=0.228).

Mann Whitney U test was used to assess, whether preservice teachers' Cyber-Loafing activities varied based on gender for the second research question. Results are shown in Table 2. As seen on Table 2, there was a significant difference between the male and female students' cyber-loafing activities (U=1672, p<.01). Male preservice teachers cyber-loafing means ( = 81.64) were higher than females ( = 62.14). Male and female preservice teachers individual (U=1654, p<.05), and news (U=1659, p<.05) cyber-loafing activities were significantly different. Individual ( = 81.96) and news ( = 81.88) cyber-loafing activities of male preservice teachers were higher than individual ( = 61.93) and news ( = 61.99) cyber-loafing activities of female preservice teachers. There were not any significant differences for the search and social cyber-loafing activities based on gender.

Table 2. Cyber loafing activities differences based on gender

Cyber Loafing activities	Group	n	Mean	Total	U	p
Individual	Male	56	81.96	4590	1654	.004
	Female	83	61.93	5140		
Search	Male	56	77.07	4316	1928	.088
	Female	83	65.23	5414		
Social	Male	56	75.44	4224	2019	.190
	Female	83	66.33	5505		
News	Male	56	81.88	4585	1659	.004
	Female	83	61.99	5145		
Total	Male	56	81.64	4572	1672	.005
	Female	83	62.14	5158		

Kruskal Wallis H test was conducted to determine whether the cyber-loafing activities of different groups based on grade levels, time since internet use started, and perceived internet use skills varied or not. There were not any significant differences between grade levels ( $\chi^2=1.718$ ,  $sd=3$ ,  $f=139$ ,  $p=0.633$ ); time since internet use started ( $\chi^2=3.616$ ,  $sd=3$ ,  $f=139$ ,  $p=0.306$ ). There were significant differences between perceived internet use skills of preservice teacher in terms of Cyber Loafing activities. Analysis results are shown on Table 3.

Table 3. Cyber Loafing activities differences based on perceived internet use skills

Perc. Int. use skills	n	Mean	sd	$\chi^2$	p	Significant Difference
(A) Novice	2	67.25	3	8.838	0.032	B-D, C-D
(B) Medium	33	56.48				
(C) Advance	77	69.73				
(D) Expert	27	87.50				

Based on the analysis the highest cyber-loafing scores were for preservice teachers who perceived themselves as experts. Mann Whitney U test was conducted to see the significant differences between groups. Preservice teachers who perceived themselves as experts' cyber-loafing scores ( $= 87.5$ ) were higher than preservice teachers who perceived themselves as advance ( $= 69.73$ ), and medium ( $= 56.48$ ).

For the third research question, Spearman Brown Rank differences correlations were calculated between the internet addiction scores and cyber-loafing activities scores. There were a positive significant moderate size correlation between the preservice teachers internet addiction levels and individual cyber-loafing activities scores ( $r=0.344$ ,  $p<.000$ ); positive significant moderate size correlation with search cyber-loafing activities scores ( $r=0.373$ ,  $p<.000$ ); positive significant low size correlation with social cyber-loafing activities scores ( $r=0.373$ ,  $p<.000$ ). There was not a significant correlation between the preservice teachers' internet addiction levels and news cyber-loafing activities ( $r=0.139$ ,  $p>0.102$ ). It can be said that as the internet addiction increases, individual, search, and social cyber-loafing activities increases but news cyber-loafing activities does not change.

#### 4. Discussion and Conclusion

Following results were deduced from this study, which was conducted to investigate the relationship between cyber-loafing and internet addiction. Male preservice teachers had higher

internet addiction levels than female preservice teachers. Previous studies, conducted by Yilmaz et al. (2014), Sarikaya and Seferoglu (2013), Morsunbul (2014), Esen and Siyez (2011), Gunuc (2009), Balta and Horzum (2008) supports this finding. Internet addiction levels of preservice teachers vary based on grade level, time since internet use started, and perceived internet use skills.

Male preservice teachers had higher cyber-loafing activities scores than female preservice teachers. Male preservice teachers prefer individual and news cyber-loafing more than female preservice teachers. There were not any difference between the genders in terms of search and social cyber loafing. Similar to this study Kalayci (2010) found that male students conducted individual and news cyber-loafing more than female preservice teachers and there were not any difference between the genders in terms of social cyber loafing. Yasar (2013) in her master thesis reported that male students had higher cyber-loafing than female student in all factors. Garrett and Danziger (2008), and Blanchard and Henle (2008) found out that male and female employees differed on cyber-loafing activities and male employees had higher cyber-loafing levels.

There were not a significant difference between different grade levels and time since internet use started in terms of cyber-loafing activities. However Yasar (2013) found out that cyber-loafing activities change through grades. There were significant differences between the groups whom perceive their internet user skills in terms of cyber-loafing activities. Preservice teachers whom perceive themselves as expert user had higher cyber-loafing activities than preservice teachers who perceive themselves as advance and intermediate internet users. This was supported by Yasar's (2013) study findings. However Galluch and Thatcher (2006) found that effective internet users intend to conduct less cyber-loafing activities, in a study they conducted with 128 students. In this study there were not any significant difference among the different factors of cyber-loafing activities and perceived internet use skills. However, Kalayci (2010) found that individual and news cyber-loafing activities differed based on internet use skills; and social cyber-loafing skills did not.

There were a positive relationship between internet addiction levels and individual, search, and social cyber-loafing activities and there was not a relationship between news cyber-loafing activities. It could be said that preservice teachers as their internet addiction levels increase tends to conduct more cyber-loafing activities, that are individual (shopping, vacation, job seeking, carrier, online banking), search (unrelated searches to class activities for picture, video etc.) and social ( social networking sites, discussion boards, instant messaging, email checking).

There were not any previous studies investigating the relationship between internet addiction and cyber-loafing activities. It could be claimed that there was a relationship between internet addiction and cyber-loafing activities from the study findings. There is a need for studies that would investigate the cause and effect relationship between these variables. This study was limited to Computer and Information Technology preservice teachers and similar studies should be conducted with other preservice teachers, in-service teachers, students, employees in different areas. Also there is a need for new studies investigating the relationship between cyber-loafing and other related variables. This could be beneficial for understanding internet users' general profile.

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