Research Article

Investigating the Relationships between Adolescents' Levels of Cognitive Absorption and Cyberloafing Activities according to Demographic Characteristics[*]

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Abstract

Technology today has become a tool that takes place in countless areas of our lives and has users of all ages. Students, especially during adolescence, have been using technology intensely in recent years. The purpose of this research is to determine according to adolescents' demographic characteristics the states of differentiation between their cognitive absorption levels (a socio-psychological variable) and cyberloafing activities they do during class or while studying. The research has been conducted in this direction with a total of 527 students (241 girls and 286 boys) being educated in 6 state schools in Istanbul during the 2016-2017 school year. This study, which uses the relational screening model, employs the Cognitive Acquisition Scale, Cyberloafing Activities Scale, and a personal information form as data collection tools. The study intends to be able to investigate the effect of multiple independent variables on multiple dependent variables by examining the participants' demographic characteristics through the results of the multivariate analysis of variance (MANOVA). Examining the research results shows a significant difference to exist for the levels of cyberloafing activities with cognitive absorption in accordance with the interaction of the variables of computer/smartphone devices. However, as no significant difference was able to be found in the levels of cognitive absorption and cyberloafing according to the interactions of the variables of gender and grade or daily Internet use and parental restrictions, each variable has been examined separately using the independent group t-test and one-way ANOVA testing. The study is also original in that it aims at detecting adolescent students' levels of cognitive absorption, investigating its effect on cyberloafing, and develops suggestions in line with this for resolving the current in-class problems. The result of the obtained findings will guide researchers, teachers, school administrators, and parents on the topic of what can be done to reduce adolescents' levels of cyberloafing activities and cognitive absorption.

Keywords

Cyberloafing • Cognitive absorption • Adolescents • Internet addiction • Technology addiction

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Today, internet technology has become an instrument that has users of all ages and countless places in our lives. Internet technologies are used to access, organize, evaluate, and share information. Individuals visit shopping, vacation, news, and sports sites for information and use social media tools such as Facebook, Twitter, YouTube, Instagram, Snapchat, Whatsapp and Swarm to share information. By receiving Internet technologies into education, students have become more comfortable configuring learning processes and more active in their learning environments. Thus, students integrate with Internet technologies through a variety of classroom activities where these technologies converge, thus increasing their technology use. Examples of adolescents' Internet technology usage are using the Internet for being provided with current and up-to-date materials, participating in online exams and events, and being provided access to these materials (Galluch & Thatcher, 2006). In this context, the Internet is very beneficial when used in a controlled and conscious manner according to specific purposes. Uncontrolled use of Internet technologies can cause adolescents in all age groups to experience problems with the education process and their families. Problems when using Internet technologies are: wanting to use it excessively, not being able to understand how much time has passed, and exhibiting aggressive attitudes when use is restricted. People experience problems this way in their social life, at work, and in educational environments (Young, 1996). Many studies have shown these problems in young people while using Internet technologies (Işık, 2007; Young & Case, 2004). The popularity of social networks such as Facebook and Instagram has recently made the concept of Internet addiction among youths even more important. In this context, studies and projects undertaken to integrate Internet technologies into education have led students to use technology more. All kinds of scientific research on controlling students' technology use in order to reduce dependency levels are expected to contribute to the literature.

The concept of cyberloafing was first defined by Lim (2002). Lim (2002) identified the concept of cyberloafing in the workplace as employees defining objectives on the Internet for personal use in accordance with their wishes during working hours, while Ugrin, Pearson, and Odom (2008) briefly defined it as factors that cause yield losses. Cyberloafing behaviors in daily life have been identified in online activities such as reading books, instant messaging, online gaming, banking transactions, and activities that cause productivity losses. In addition to these situations, cyberloafing activities cause problems and delays for planned activities.

In order to be able to reduce/prevent cyberloafing activities in educational environments, an important research area is determining how students' cognitive absorption levels (a socio-psychological factor) affect their cyberloafing activities. Cognitive absorption is defined conceptually as of the artistic state of deep devotion people experience during use (Agarwal & Karahann, 2000). This study identifies cognitive absorption as the time when students are interested in the actions they make while doing activities.

The purpose of this research is to determine according to adolescents' demographic characteristics the states of differentiation between their cognitive absorption levels (a socio-psychological variable) and the cyberloafing activities they do during class or while studying. This study uses the relational scanning model. The universe of the research consists of all middle-school students in the province of Istanbul. The sample of the study is composed of 527 students: 241 (45.8%) female and 286 (54.2%) male students studying in six state schools in Istanbul during the 2016-2017 school year. The Cyberloafing Activities Scale (Yaşar, 2013) and Cognitive Absorption Scale (Kurt-Vural, 2007) have been used as data collection tools in the study. In addition, a personal information form created by the researchers has been used to identify participants' demographic characteristics. This study aims to examine the effect of multiple independent variables on multiple dependent variables through participants' demographic characteristics using the results of multivariate analysis of variance (MANOVA). Firstly, the findings show no significant differentiation between cyberloafing activities and cognitive absorption based on gender and grade level.

When considering the variable of gender by itself, male students are understood to have higher levels of cognitive absorption than female students. Furthermore, when handling the variables one at a time, 8th-grade students' cognitive absorption levels are higher than 7th- and 6th-grade students' levels. Sixth graders have more cyberloafing activities than 7th and 8th graders.

Meanwhile, the research examined which platform adolescents most prefer. This has been shown as Facebook (62.6%), followed by music/TV series/movie sites (54.6%) then game sites (40.5%).

Smart mobile devices, which have become an integral part of everyday life, have begun being widely used in educational settings. This type of technology enhances learners' motivations, increases their in-class participation, and helps students easily perform activities in the field (Fitch, 2004; Lauricella & Kay, 2010). Yılmaz (2005) found technological devices such as smart mobile devices and computers to be able to be used to improve the quality of the education process. However, this research has determined that adolescents with computers and smart mobile devices perform more cyberloafing activities using cognitive absorption than those without computers or smart mobile devices.

Parents have the primary responsibility of showing children the difference between proper and improper behaviors (Yalçın, 2006). Parents feel that using the Internet for lessons in the educational process will benefit their children. However, this research has shown that children spend a lot of time doing other activities (i..e., listening to music, watching videos, playing online games, and instant messaging) while studying using the Internet. Using the Internet becomes a serious problem over time for children who haven't developed sufficient self-control.

The findings of the study show a significant difference to exist for the levels of cyberloafing activities they do during class or while studying with their cognitive absorption levels. When examining the literature, many studies are seen indicating that adolescents have online gaming addictions (Horzum, 2011; Jeong & Kim, 2011).

In recent years, students, particularly adolescent, have been determined to use technology intensely and to have Internet dependencies and problematic Internet usage. When examining the literature, studies on cyberloafing and cognitive absorption are generally seen directed towards adolescents, while studies investigating both concepts are seen to be not very common. Unlike many studies, this one has been conducted in the field and identified a strong universe that covers adolescent students. The research is also unique in that it aims to examine the adolescent students' cognitive absorption levels and its resultant effect on cognitive behavior and cyberloafing in order to address existing in-class problems. The result of the obtained findings will guide researchers, teachers, school administrators, and parents on the topic of what can be done to reduce adolescents' levels of cyberloafing activities and cognitive absorption.

Finally, the research results were obtained from the quantitative data collected in the study. The obtained research data is limited to the scales used and the size of the sample. In order to determine the causes of cognitive absorption and cyberloafing activities, supporting studies can be carried out using qualitative data.

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