To what extent does Internet use affect academic performance? Using Evidence from the large-scale PISA study

# Details

## Year

2017

## Issued

2017

## Language

English

## Volume

15

## Start Page

## End Page

## Authors

Rozgonjuk D.;Täht K.

## Type

Journal article

## Journal

Annual Review of CyberTherapy and Telemedicine

## Topics

## Sample

The sample was comprised of 5586 15-year-old students, 49.3% of whom were boys.

## Implications For Educators About

Other

# Abstract

Education is an area where various information and communication technologies (ICT), including the Internet, can be applied. Students and teachers often make use of ICTs in order to seek out information online. Students make use of online platforms to complete their homework, and to communicate with one another. ICTs are also used by students and teachers to monitor and share school-related notifications; however, it is unclear how much ICT use is beneficial for academic performance. The aim of this paper is to determine how much Internet use both within and outside of school correlates with higher academic performance. We used the Estonian sample from the Programme for International Student Assessment (PISA). The sample was comprised of 5586 15-year-old students, 49.3% of whom were boys. Participating students were administered several tests to assess their cognitive abilities in math, functional reading, and natural sciences. Several other constructs, such as duration of ICT use within and outside of the school settings, were also surveyed. The results of the analyses showed that the optimal time for Internet use at school was up to 60 minutes per day. Using the Internet at school for a longer period showed a linear decreasing pattern for all of the cognitive ability tests. The use of the Internet for more than six hours per day started to show a negative impact on academic performance. Our results also suggest that the negative effects of excessive Internet use (at school for more than 60 minutes per day) on academic outcomes is apparent even when controlling for students’ socioeconomic status and gender.

# Outcome

"Our analyses showed that excessive use of the Internet while at school had negative relationships with students’ academic outcomes." (Rozgonjuk Täht, 2017, p. 43). "Using the Internet while at school for less than 60 minutes is related to higher academic outcomes, but more frequent use of Internet while at school was related to lower academic achievement." (Rozgonjuk Täht, 2017, p. 43). "The use of the Internet outside of school had no direct negative effect on students’ academic outcomes, but usage times longer than 6 hours did correlate with lower academic outcomes." (Rozgonjuk Täht, 2017, p. 43).