ICT-related behavioral factors mediate the relationship between adolescents’ ICT interest and their ICT self-efficacy: Evidence from 30 countries

# Details

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## Authors

Chen X.;Hu J.

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201,652 15-year old students

## Implications For Educators About

## Implications For Policy Makers About

Stepping up awareness and empowerment

# Abstract

In this digital era, information and communication technology (ICT) has become an essential
component of school education. Students’ self-efficacy in using ICT has been shown to contribute to their ICT literacy. However, research on the correlates of ICT self-efficacy has been insufficient, resulting in often oversimplified causal statements. This study investigated the relationship between adolescents’ interest in ICT and their ICT self-efficacy at age fifteen based on data from 30 Organization for Economic Co-operation and Development (OECD) countries that participated in the Programme for International Student Assessment (PISA) 2015. Altogether, the participants include 201,652 students from 7708 schools, all of whom completed the ICT Familiarity Questionnaire. Data analysis was performed using multilevel mediation, with interest in ICT as the independent variable, perceived ICT competence at age fifteen as the dependent variable, and several ICT-related behavioral factors, including ICT use at school (USESCH), ICT use outside of school for schoolwork (HOMESCH), ICT use outside of school for leisure (ENTUSE), and ICT use in social interaction (SOIAICT), as the mediating variables. The results showed a significantly positive relationship between adolescents’ interest in ICT and their ICT self-efficacy at age fifteen and that this relationship was partially mediated by behavioral factors. ICT use at home and ICT use at school were not significant mediators for any of the 30 OECD countries while ICT use for recreation and ICT use for social interaction were significant for most countries. The practical implications of these findings are discussed, and suggestions are offered.

# Outcome

The results showed a significantly positive relationship between adolescents’ interest in ICT and their ICT self-efficacy at age fifteen and that this relationship was partially mediated by behavioral factors. ICT use at home and ICT use at school were not significant mediators for any of the 30 OECD countries while ICT use for recreation and ICT use for social interaction were significant for most countries.