

Role of Gender and Computer Skills in Measuring the Reading Literacy of European Primary School Students by Paper and Computer-based Assessments

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Abstract

Girls demonstrate higher reading literacy than boys but boys are in general more confident in using computers, reports The Progress in International Reading Literacy Study (PIRLS) from 2016. The study shows the gap between reading literacy measured by paper tests (PIRLS score) and computer-based tests (ePIRLS score) across countries where the same students were assessed by both tests and the gender gap in each assessment. Since higher computer skills of students could change the patterns of the gender gap from paper to computer-based assessment, our main research question is the role of gender in reading literacy measured by paper and computer-based assessment with relation to computer skills of students and their devotion to reading. We compare achievement from both assessments across 5 higher and lower-achieving European countries, Norway, Ireland, Italy, Slovenia, and Portugal. We study its relations with students' estimated self-efficacy in computer use, liking of reading, and confidence in reading between girls and boys. Unexpected, regression models show that self-efficacy of computer use is positively related to reading literacy measured by both assessments, although weaker than student confidence in reading. Correlations between confidence in reading and self-efficacy in computer use are in general significant and moderate. Differences among countries are high, also in relations across gender. Results of the study reveal the importance of understanding the relations of students feeling confident in reading and in computer use with their reading skills inside each country to effectively support students to achieve higher literacy.

Keywords: reading literacy, gender gap, computer-based assessment, self-efficacy in computer use, confidence in reading, liking reading