Assessing reading and online research comprehension: Do difficulties in attention and executive function matter?

# Details

## DOI

10.1016/j.lindif.2021.101985

## Issued

2021

## Language

English

## Volume

87

## Start Page

## End Page

## Authors

Kanniainen L.;Kiili C.;Tolvanen A.;Aro M.;Anmarkrud Ø.;Leppänen P.

## Type

Journal article

## Journal

Learning and Individual Differences

## Publisher

Elsevier BV

## Topics

## Sample

426 sixth-grade students (207 girls and 219 boys) from eight elementary schools in Central Finland.

## Implications For Educators About

Other

# Abstract

This study evaluated the relation between sixth graders' (N = 426) teacher-rated difficulties in attention and executive function (EF) and their comprehension skills. Reading comprehension was assessed with a multiple-choice task and online research and comprehension (ORC) with a problem-solving task. The analyses were controlled for gender, reading fluency and nonverbal reasoning. To investigate differences in students' performance between the tasks, comprehension skills in the multiple-choice task were also controlled for in the ORC task. Structural equation models showed that teacher-rated attention and EF difficulties were related to students' performance more in the problem-solving task than in the multiple-choice task. After controlling for all the background variables, these difficulties explained 9% of the variance of ORC performance in girls and 4% in boys. These results indicate that for students with attention and EF difficulties the ORC task was more challenging than the reading comprehension task.

# Outcome

Online research and comprehension is more challenging than reading comprehension for students with attention and executive function difficulties.
"Difficulties in attention and executive function affected students' online research performance. After controlling for individual differences, such difficulties did not affect reading comprehension. The effect of difficulties on online research performance was different for girls and boys."