# Pay attention to digital text: The impact of the media on text comprehension and self-monitoring in higher-education students with ADHD



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## Highlights

Larger digital text inferiority in adults with <u>ADHD</u> relative to peers.

Self-monitoring of digital text comprehension was worse in the ADHD group.

The ADHD group was poor at regulating study time, but only for digital text.

Sustained attention correlated with comprehension in both media conditions.

Set-shifting correlated only with printed text comprehension.

### Abstract

#### Background

Higher-education students with attention deficit hyperactivity disorder (ADHD) often face difficulties in self-regulation of learning (SRL). Studies of typical students have shown that SRL is less effective for digitally displayed texts. The current study investigated the influence of the media (digital, print) on reading comprehension and self-monitoring (a component of SRL) in higher-education students with and without ADHD.

#### Methods

Forty-five students with ADHD and 61 matched controls read an expository text displayed digitally or in print. Then, they predicted their performance score and answered comprehension questions. Sustained attention and set-shifting abilities were also assessed.

#### Results

In the digital condition, students with ADHD had significantly lower comprehension scores and were overconfident in their predictions of success relative to controls. In the print condition, the ADHD group spent more time reading the text, but their predictions of performance and comprehension scores were comparable to those of the control group. Poor sustained attention was significantly correlated with lower comprehension scores in both media conditions, whereas setshifting correlated only with comprehension of the printed text.

#### Conclusions

Understanding a digitally displayed text is more challenging for students with ADHD than their peers, particularly when the conditions of the comprehension task favor good SRL skills.



### **Keywords**

ADHD Reading comprehension Digital media Self-regulation of learning Self-monitoring Sustained attention Executive functions

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