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# Digital Reading Environments and Educational Equity: Effects on Vocabulary of Digital Text Comprehension Tasks in Primary School Students

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## Abstract

This study explores the role of digital reading environments in fostering text comprehension among primary school students. Text comprehension is a key competence for academic success and active participation in society; however, in Italy, significant disparities linked to socio-economic background continue to affect educational equity. Concurrently, the spread of digital and multimodal texts has expanded the concept of literacy: it is important to observe how inferential and metacognitive skills develop in digital environments, as digital texts are part of our everyday lives and involve increasing complexities, including evaluating the reliability of sources.

The intervention consisted of 12 researcher-led sessions centered on narrative texts containing inferential questions placed at cognitively demanding points. This study includes 208 children, the digital and control groups of a larger study.

This contribution presents findings comparing classes working with digital texts and a control group, focusing on vocabulary acquisition. The digital group used a Moodle-based interactive platform. Beyond text delivery, the platform supported metacognitive monitoring by allowing students to revise answers and reflect on their comprehension processes. Each session concluded with teacher-guided group discussions in which feedback was provided through a non-directive form of dialogue aimed at eliciting children's thinking. The control group carried out the usual classroom activities.

The digital group showed a vocabulary increase of +1.54, whereas the control group showed a smaller gain of +0.3. Findings indicate differences in gains relative to initial text comprehension levels, with the digital group showing stronger improvements suggesting potential benefits of interactive digital reading environments.

**Keywords:** Digital Texts, Discussion, Inferencing, Metacognitive Skills, Reading Comprehension