A comparison of the influence of electronic books and paper books on reading comprehension, eye fatigue, and perception

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Abstract
Purpose
This paper aims to assess the usability of electronic books (e-books) and paper books (p-books) with objective measures, including user comprehension, eye fatigue, and perception.

Design/methodology/approach
A total of 56 sixth-year public school students participated in this study. This paper was conducted in the following order: pre-CFF measurement, p-/e-book reading, post-CFF measurement, quiz, and questionnaire. A standard CFF device, a computer with a monitor for reading e-books, p-books, desks, and chairs were provided.

Findings
This paper found that there is a significant "book effect" on quiz scores; compared to e-books, p-books appear to enable better reading comprehension. Regarding eye fatigue, students had significantly greater eye fatigue after reading e-books than after reading p-books. Students were satisfied with the e-book, but they preferred p-books.

Research limitations/implications
Students would show satisfaction with e-books and acknowledge their usefulness, but still prefer p-books. However, a clearer understanding of this paradox in perception is needed. Further studies should try to explore the students' perceptions of e-books.

Practical implications
Surprisingly, though, Korean students studied herein, who have had a higher level of exposure to technology than those in other countries, did not show positive behavioral intentions toward e-books. Overall, the responses from the Korean students suggest that there was general satisfaction with reading e-books on screen. However, this study also found a discordance in the students' perceptions of e-books. In this study, most students grew tired of reading on the screen; this tiredness could have an adverse effect on both reading comprehension and the perception of e-books. In further analyzing user responses, many of the critical remarks were found to refer to the screen/text size or clarity rather than to the e-book itself.

Originality/value
Although this study suggests that students in general are not yet ready to entirely give up p-books, e-books are becoming increasingly common. However, great challenges remain in terms of making e-book content more available and in enabling improved comprehension and reducing eye fatigue.

Keywords
Electronic book | E-books | Paper book | Reading comprehension | Eye fatigue | Students' perception of electronic books | Students | Perception | South Korea

Citation

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Electronic books can cause screen fatigue, which may lead to blurred vision, redness, dryness, and irritation. With print books, you don't have to worry about any of that. 4. you're less likely to get distracted. Students cited fewer distractions and less eye strain as a couple of the reasons why they prefer printed materials, but other explanations were related to how books make them feel. Slovakian students in particular said they enjoy the smell of books. Reading on paper books can enrich the entire experience, but it's not the only amazing feat that paper can pull off. Learn more at howlifeunfolds.com/learn. Sources: The New York Times, PHILabs, The New Republic, GQ, Mic, Good, Wonderopolis, PS Mag, LA Times, Mental Floss, Huffington Post. A comparison of the influence of electronic books and paper books on reading comprehension, eye fatigue, and perception Hanho Jeong Department of Education, Chongshin University, Seoul, South Korea Abstract Purpose – This paper aims to assess the usability of electronic books (e-books) and paper books (p-books) with objective measures, including user comprehension, eye fatigue, and perception. Design/methodology/approach – A total of 56 sixth-year public school students participated in this study. This paper was conducted in the following order: pre-CFF measurement, p-/e-book reading, post-CFF Prefer: … printed books since the electronic books are convenient and easier to purchase than paper books. This trend has resulted in closing down of several traditional libraries. (Mention in the introduction, Explain in the body paragraphs.) One of the main reasons for this preferance of readers is convenience. (No need of this line after making the above changes in the introduction.) That is to say, the reader has does not need to carry heavy paper books, rather he can use his mobile or laptop to read ebooks easily while travelling, or sitting comfortably in his room. This can be exemplifie