

Usability News is a free web newsletter that is produced by the Software Usability Research Laboratory (SURL) at Wichita State University. The SURL team specializes in software/website user interface design, usability testing, and research in human-computer interaction.

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Should You Check In Your Textbooks and Check Out an eBook?

By [Paula Selvidge](#), Angie Fryman, & Shannon Riley

The development of the electronic book (eBook) has offered an alternative to the traditional printed text medium. The advantages of the eBook, such as increased storage capacity (10-250 texts per eBook), decreased storage space and weight, and decreased cost of production to the consumer, make it an attractive option for consumers. In addition, previous research has indicated no significant differences exist for reading speed and reading comprehension between paper and eBook presentation (Selvidge & Phillips, 2000). It is therefore not surprising that the University of Michigan and Columbia University have already created and distributed electronic versions of textbooks for some of their major university projects (Epstein, 1999). However, if the eBook is to be considered as a viable alternative to the traditional book, then it is important to explore the usability of the device.



METHODS

Six participants (3 male, 3 female) completed tasks that are typical for traditional book reading, such as annotating, underlining, book marking, and searching. In addition, eBook related tasks, such as changing the size and orientation of the text, checking battery status, adjusting the backlight, and keyboard input were also completed. The Rocket eBook™ from Nuvomedia, which is now known as the Gemstar eBook™, was the brand of eBook used in the evaluation. The dependent measures included task difficulty, task success, and satisfaction with the eBook. The task difficulty items were presented on a 5-point Likert scale with 1 being "Very Difficult" and 5 being "Very Easy" to complete.

RESULTS

Tasks with the highest difficulty levels were:

- Finding how many pages the book consisted of ($M = 1.3$)
- Locating the power button ($M = 1.8$)
- Adding a memo ($M = 1.8$)
- Finding command to add a memo ($M = 2.4$)
- Turning off the eBook ($M = 2.6$)

Tasks with the highest failure rates were:

- Finding a specific page number (83.3%)
- Adding a memo (83.3%)
- Locating the power button (66.6%)
- Finding out how many pages the book consisted of (50%)

GENERAL RECOMMENDATIONS

Based on the findings from the evaluation, the following improvements are suggested to increase the usability of the Rocket eBook:

1. The page number should be displayed on the each page without requiring a user action, since finding how many pages the book consisted of was rated as the most difficult task to complete and had a failure rate of 50%. An option should be provided for users to easily locate the total number of pages, possibly under the "About This Title" menu.
2. The location of the on/off should be moved so that it is visible from the front of the interface rather than on the side of the eBook. The power button label or icon should also be clearly visible.
3. The same button should not control the backlight and power functions. Each function should have a separate control to increase ease of use.
4. The size of the keyboard presented on the memo function should be larger to increase accuracy and visibility. In addition, the accuracy of the handwriting recognition for the keyboard should be improved. Incorporating an interactive game for handwriting practice would also be an improvement.
5. The size of the scroll bar should be increased to improve accuracy, visibility, and control for users.

REFERENCES

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