Exploring Interface Effect on Skimming Comprehension: Comparing Low-Clutter and No-Clutter Documentation Presentation Environments

Nathan Lowrance and Dr. Heather Lea Moulaison

Information Foraging Theory
Derived from evolutionary biology, this approach assumes people make strategic decisions when looking for information (Sandstrom, 1994).

Research Questions
RQ1: To what extent, if at all, does using a readability application improve skimming comprehension in a low-clutter online environment?
RQ2: What are the perceived benefits or effects of using a readability application to skim articles for meaning?

Method
Twelve participants skimmed two articles of comparable complexity in each of the two documentation presentation environments.

• The low-clutter environment selected was the HTML document interface provided by EBSCO, a journal database.

• The no-clutter, streamlined readability environment was the Safari Browser Reader™ application.


Results
Percent questions answered correctly about each article in each interface

Neither interface provided a strong advantage to skimming compression.

Participant Debriefing
All twelve of the participants liked the reader interface and six thought it improved their ability to skim for meaning.

Discussion & Conclusions
The low-clutter Reader™ interface with its shorter line length had no effect for meaning as compared to the EBSCO document presentation interface and therefore would not aid in information foraging.

• All participants reported preferring the Reader™ environment

• Participants reported reading rather than skimming when in the Reader™ environment

• One participant revealed having a severe learning disability in reading -- this individual’s score was greatly improved by the readability application

Future Research:
• Investigate readability applications and the effects on skimming comprehension in high-clutter environments

• Repeat experiment:
  • with another readability application and optimize the font size, font type, and line length
  • testing instead for reading comprehension

• Investigate uses for readability applications for reading and skimming in users with reading disabilities

Selected References


