



## **Chapter XI**

# **Comparing Comprehension Speeds and Accuracy of Online Information in Students with and without Dyslexia**

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### **Abstract**

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*This chapter describes some statistics of people with dyslexia. It continues with describing problems people with dyslexia experience with reading online material, and some technological aids available to help them. Three groups of university students participated in the user study of comprehension tasks using five online articles of varying complexity (as measured through Flesch-Kincaid readability grade). The study found that students with dyslexia are not slower in reading than students without dyslexia when the articles are presented in a dyslexia friendly colour scheme, but these students with dyslexia fare worse in answering correctly the questions related to the passages they read when the complexity increases.*

## Introduction

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Dyslexia has been described as a difficulty in processing information that may be linked to a below average short-term memory and poor visual coordination. This weakness in short-term memory, whether visual or auditory, can make it particularly difficult for a person with dyslexia to learn the correspondence between the written symbol and the spoken sound. It is the most common form of learning disability. Approximately 15% to 20% of the population has a learning disability, and 60% to 80% of those with learning disabilities have problems with reading and language skills. People with dyslexia usually have difficulty with receptive oral language skills, expressive oral language skills, reading, spelling, or written expression (IDA, 2004). Fortunately, people with dyslexia respond successfully to timely and appropriate intervention.

University students with dyslexia might have problems in the following areas (Dyslexia Services, 2005):

1. Lectures
  - Taking down information accurately in lectures
  - Carrying out multiple tasks simultaneously (i.e., listening to a lecturer, taking down information from the displayed slides at the same time as synthesising and summarising the information into a written format of notes)
2. Reading
  - Conducting literature searches
  - Skimming and scanning for information when reading
  - Making notes from essential research reading
3. Assignments
  - Putting ideas into words
  - Sequencing ideas/information into sentences and paragraphs
  - Concentrating for long periods of time—they are easily distracted
  - Spelling and/or recognising correct spellings offered by spell checkers
  - Choosing the appropriate word—they tend to substitute less effective words because of worries about spelling
4. General
  - Remembering facts and new terminology
  - Organising work: files, notes, essays, and so forth
  - Organising time effectively

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