Name(s)	**Project Number**
Shubha S. Raghvendra	**J0631**

Project Title

Studying the Effects of Contextual Information on the Analysis of Words

Abstract

Objectives/Goals

The objective is to compare the effect of different types of contextual clues on the analysis of words.

Methods/Materials

Thirteen people aged 40-50 were asked to unscramble words in nine different circumstances (different contextual clues). These trials were (1) the words scrambled with the first phoneme (sound) intact, (2) the first and last phonemes intact, (3) the first letter intact, (4) the first and last letters intact, (5) the word scrambled as part of a sentence, (6) a structurally incorrect sentence, (7) a paragraph, (8) a structurally incorrect paragraph, (9) and the control - the word scrambled completely randomly.

Results

Subjects performed fastest and most accurately on the "Phonemes Intact" trials (trials 1 & 2). These trials also had the fastest average time per word. The next fastest trials were the "In Context" trials (trials 5 & 7).The slowest and least accurate responses occurred on the control trial, which had no contextual clues. Also, accuracy increased and the average speed went down by almost 20 seconds on the "Phonemes Intact" trials compared to the "Letters Intact" trials (trials 3 & 4).

Conclusions/Discussion

My results showed that while contextual information does have an effect in the word analysis process, phonemes play an even greater role in it. The poor accuracy and speed my subjects showed in the "Letters Intact" trials as compared to the "Phonemes Intact" trials only reinforced the importance of phonemes, leading me to believe that in learning to read and write, placing emphasis on phonetics is crucial.

Summary Statement

This study is about how different contextual clues affect the brain's analysis of words.

Help Received

My father helped my with my Excel spreadsheet and board; my mother helped me find subjects; my sister let me do a dry run on her.