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The Influence of Rate and Lexical Organization on Decoding Skills in Children with Reading Disorders

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INTRODUCTION

For decades, researchers have studied the anatomical and behavioral correlates of reading disorders. Subtypes of reading disorders have been controversial; however based on the double-deficit hypothesis, poor readers may be grouped into one of three various categories of decoding weaknesses, which include deficits in lexical access, phonological access, or both.

In the present study, two aspects of this RD subtyping are investigated which include: **Rapid Automatized Naming** and the **Acceleration Phenomenon**.

Purpose: To investigate the influence of decoding rate and lexical organization on word reading strategies used by children with normal and disordered reading patterns in the completion of lexical and semantic decision tasks.

PARTICIPANTS

- 60 children, (10-13 years) will be involved in this study.
- There are 30 participants each in the control and experimental groups. The experimental group will be further divided into:
 - 15 Dysphonetic
 - 15 Dyseidetic

Thesis Committee Members:

- Dr. Marianna Walker
- Dr. Michael Rastatter
- Dr. John Heilmann
- Dr. Kevin O'Brien

MATERIALS AND PROCEDURES

Pre-experimental tasks:

- Woodcock Reading Mastery Test-Revised
- Peabody Picture Vocabulary Test
- Test of Word Reading Efficiency
- Rapid Automatic Naming
- Word/Exception Word/Nonword Test (Coltheart and Leahy, 1996)

Experimental tasks: (2 tasks)

1. Set of words (content/function) and nonwords presented tachistoscopically at 2 different rates: 50 and 150 ms.
2. Set of words (phonetic/nonphonetic) and nonwords presented tachistoscopically at 2 different rates: 50 and 150 ms.

ANALYSES

Individual ANOVA procedures for repeated measures will be conducted for each dependent variable (reaction time, accuracy and error type) for experiments 1 and 2, to test for significance and interaction among the independent variables (lexical category, stimulus duration, and group).