# Literacy Therapy as an Intervention for Children with ADHD and Reading Difficulty

THE CHILDREN'S HOSPITAL OF THE KING'S DAUGHTER

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# Agenda

Introduction

Assessment determination for Literacy Therapy

Overview of Wilson Reading System (WRS)

WRS Principles of Instruction

WRS and ADHD

## ADHD Assessment Procedure

## Brief review of diagnosing ADHD

- Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or with other activities.
- o Often has trouble holding attention on tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., loses focus, side-tracked).
- Often has trouble organizing tasks and activities.
- Often avoids, dislikes, or is reluctant to do tasks that require mental effort over a long period of time (such as schoolwork or homework).
- Is often easily distracted
- o Is often forgetful in daily activities.

## **ADHD Assessment Procedure**

- Good measure of cognitive functioning
  - o WISC-V, DAS-II, WWJ-IV
- Measure of executive functioning
  - o DKEFS, NEPSY, CPT
- Academic functioning assessment
  - Either through school or educational consultants
- Parent behavior rating scales (adaptive functioning)
  - o Connors, BASC, CBCL
- Teacher behavior rating scales
  - o Connors, BASC, CBCL

## **CHKD** Assessment Procedure

- Literacy evaluation-selected subtests from the following:
  - Reading: WMRT-III
  - Phonological Awareness: CTOPP-2
  - o Spelling: TWS-5
  - Written Expression: CELF-5
- Scores are compared with cognitive and academic assessment

## Overview of the Wilson Reading System

- The Wilson Reading System is a comprehensive intensive program for students in grades 2 and higher, including adults, with significant reading and writing deficits at the word level, and/or poor automaticity and fluency, especially those with a language-based learning disability such as dyslexia.
- The teacher- and student- friendly program is based on phonological-coding research and Orton-Gillingham principles.
- The overriding goal of the Wilson Reading System is to have students independently read grade-level (both narrative and informational) with ease and understanding.
- Instructional goals are to develop:
  - Accurate and speedy word recognition
  - Spelling and proofreading proficiency
  - o Increased vocabulary, background knowledge, and listening comprehension skills
  - o Fluency with an emphasis on expression and meaning
  - o Grade level independent silent reading skills with narrative and informational text

## **WRS** Overview

- The WRS combines both a synthetic and analytic phonics approach with explicit instruction in total word structure so that student learn strategies to independently read and spell words.
- WRS follows a 10 part lesson plan, organized into three Blocks.
  - Block1 (Parts 1-5: Word Study/Foundational Reading Skills)
    - ➤ Phonemic awareness, Decoding, Vocabulary, High Frequency Word Reading, Single Word Accuracy/Automaticity, Phrasing/Prosody, Fluency and Comprehension at the Sentence Level
  - Block 2 (Parts 6-8: Spelling/Foundational Writing Skills)
    - ➤ Phonemic segmentation, Encoding at Single Word Level, English Spelling Rules, High Frequency Word Spelling, Concept Mark up, Sentence-Level Spelling, Punctuation, and Proofreading.
  - Block 3 (Parts 9-10: Fluency and Comprehension)
    - Listening/Silent and Oral Reading Fluency and Comprehension of Narrative and Informational Text

## Wilson Reading System Principles of Instruction

## Direct and Explicit

- Instruction is straight forward, with teacher directly teaching all concepts and skills to students through explanation, modeling, and active listening
- Independent work is only given for previously learned strategies after it is modeled and then carefully monitored.
- Optimal learning is facilitated by scaffolding instruction through a gradual release of responsibility model

## • Structured, Sequential

- o 12 steps guide students through a logical system of word structure
- Connections are made to previous learning

## Integrated

- Word study is organized around six syllable types, with new sounds being introduced as they related to syllable type
- Phonology, morphology, and orthography instruction are systematically taught in organized way

# WRS Principles of Instruction (Continued)

#### Multisensory

- Learning involves active participation
- Skills are taught and reinforced through visual, auditory, tactile, and kinesthetic senses

#### Synthetic and Analytic

- Students learn to both construct words and deconstruct words in order to read and spell them
- Students learn to break down sentence into meaningful parts and then reconstruct them to understand the text as a whole

#### Diagnostic and Prescriptive

• Plan and teach based on student mastery of concepts taught

#### Teaches to Mastery and Automaticity

- Multiple and varied opportunities are provided to practice and reinforce all skills
- Information is presented in different ways and with varying activities within a lesson, and students demonstrate their understanding and application of concepts through a variety of tasks

# WRS Principles of Instruction Continued

## Cumulative, Spirals Back

- Previously taught skills are brought forward cumulatively
- New skills build upon previously taught ones and are presented explicitly
- Each Step builds on the one before it; learning occurs through constant repetition and review

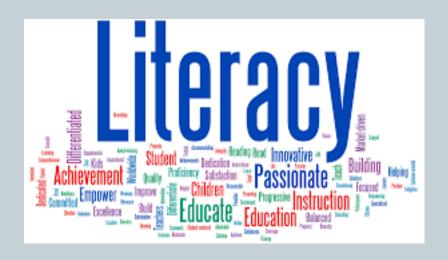
#### Cognitive

• Engaged in metacognitive thinking because it is essential that they understand the underpinnings of word structure and can explain, apply, and generalize the concepts.

## Emotionally Sound

- Expectations are clear and manageable
- Significant opportunities to practice with immediate, specific, and supportive feedback are provided
- Self-efficacy develops as students see that each Step in an increment and that their small successes add up to very measurable achievements

# The Impact of ADHD on Literacy Skills: A Modified Approach



## Attention

- Students with ADHD may demonstrate difficulty sustaining attention during learning sessions
- The constant need to for movement sensory input contribute to fidgeting, sliding off chairs and slouching into positions that interfere with writing and other finemotor activities
- Modifications to facilitate sustained focus
  - Limiting stimuli
  - Adaptive seating/alternative positioning





# Hyperactivity

- Children with ADHD may experience high levels of impulsivity and hyperactivity that contribute to difficulties with literacy development
- Facilitate a student's movement so that they can maintain the level of alertness necessary for cognitive activities
- Involve movement in learning
  - Magnetic board
  - Scooter board
  - Scavenger hunt







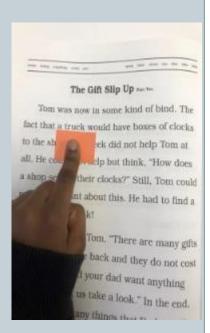


# Reading Accuracy and Fluency

- Inattention may result in missed phrases in the text, omission of words within sentences, and loss of place/tracking difficulty
- Modifications
  - Tapping out of sounds
  - Tracking
  - Scooping or phrasing







# Spelling accuracy

- Inattention may lead to spelling errors related to letter omissions, additions, or substitutions
- A multisensory teaching method is an effective way for children to learn
- Modifications
  - Side walk chalk
  - Easel painting
  - Shaving cream
  - Writing on different surfaces









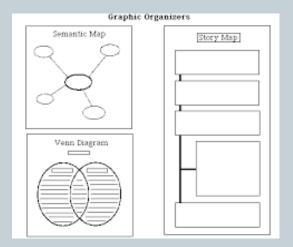


# Comprehension

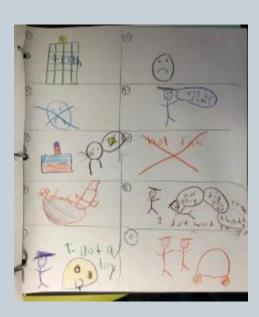
- In order to grasp reading material, a student must be able to recognize and decode words as well as sustain attention and effort.
- Reading Comprehension requires the ability to effectively use working memory and processing information in an efficient and timely manner
- Therefore, reading comprehension may suffer as a result of poor oral language and comprehension, lack of reading exposure/outside experiences, weak executive function (especially working memory, planning, and organization), slower processing speed with verbal information, and ADHD-lack of attention (Cain & Bignell, 2014).

# **Comprehension Modifications**

- Use topics of high interest
  - Easier time maintaining attention on exciting and stimulating passages
- Reduce length of passage
  - Use passages ranging from 50-100 words
  - Visualization strategies







# Written Expression

 The process of writing involves the integration of several skills

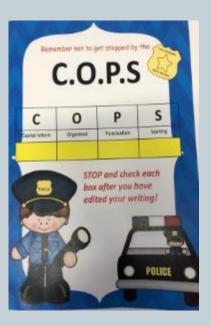
• Children with ADHD may have problems with focus and attention to detail, making it likely to make an error with

spelling and details

Modifications

- Writing on topics of interest
- Graphic organizers
- o COPS









# **Achieving Success**

- Parents are an essential part of the intervention process
- In order to see sufficient results,
  - Dedication to the intervention by attending 2 treatment sessions a week
  - To achieve carryover of skills in other settings (e.g., classroom), activities provided by the therapist must be completed
  - Maintain the student binder which is created as a resource for the student
  - Positive reinforcement
- Collaboration will help the student in reaching his or her full potential