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## Sensory Preference and Learning Preference in Children with Attention Deficit/Hyperactivity Disorder and Dyslexia

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# SENSORY PREFERENCE AND LEARNING PREFERENCE IN CHILDREN WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER AND DYSLEXIA

Jennifer Gomez, OTS, Lisa Griggs-Stapleton, PhD, OTR, & Hope McCarroll, OTD, OTR, BCP

## BACKGROUND

Sensory Processing Disorders are a heavily researched topic (Dunn, 2007 & Miller et al., 2017). Many children with developmental disorders present with SPDs or sensory differences, and in many cases, learning disabilities, delays, or differences. It is well known that SPD symptoms can significantly impact the capacity to learn (Chandler et al., 2019)

## PROBLEM

There is a gap in the research concerning any connection between sensory processing style and learning preference.

## PURPOSE

**Work towards filling this gap and conduct research on a possible correlation between children’s sensory preferences with their learning preferences.**

### Learning Objectives

- Determine trends between sensory preference and learning preference
- Research SPD presentations in autism, dyslexia, and ADHD
- Observe/research school functioning for children with sensory differences and determine needs

### Outcome objectives:

- Complete observation
- Administer assessments
- Analyze data and determine results
- Determine next steps

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## METHODS

### Theoretical Frameworks

- Sensory Integration Theory (Ayres, 2005)
- Sensory Processing Model (Dunn, 2007)
- STAR Frame of Reference (Miller et al., 2020)

This pilot study was a quantitative case series design, utilizing the Accommodated Academy in Grapevine as the research site. IRB approval was obtained.

The study pulled a sample of 15 students from the research site who were referred for sensory differences.

- 29 invited
- 15 consented

### Assessments Used:

#### Adult/Adolescent Sensory Profile 2

- Provides a child’s sensory preferences in all areas of sensory processing

#### VAK Learning Styles Self-Assessment Questionnaire

- Provides a child’s learning preference from visual, aural, and kinesthetic

### Data Gathering Method:

- Scheduled students according to parent consent given
- Student report
- Researcher transcription

### Data Analysis Techniques:

- Data organization into Excel
- Manipulation of data in tables to find patterns and trends

## RESULTS

### Demographic results

- 11-15 years
- 3 males, 12 females
- Average age: 13.3 years

### Noted Trends

- Kinesthetic preference (Sfrisi et al., 2017)
- Oral/olfactory under responsive
- Visual learning preference and visually under responsive
- Limited auditory preference learner data
- Of kinesthetic learners, none are over responsive to V/P stimuli

Table: Adult/Adolescent Sensory Profile 2 and VAK Learning Styles Self-Assessment Questionnaire Results

Participant	Oral/Olfactory Over-responsive	Oral/Olfactory Under-responsive	Vestibular/Proprioceptive Over-responsive	Vestibular/Proprioceptive Under-responsive	Visual Over-responsive	Visual Under-responsive	Tactile Over-responsive	Tactile Under-responsive	Auditory Over-responsive	Auditory Under-responsive	Learning Preference
1		x		x	x*				x		Visual
2	x			x		x				x*	Visual
3		x		x	x		x			x	Auditory
4		x			x			x		x	Kinesthetic
5		x*			x			x		x*	Kinesthetic
6		x		x		x		x		x	Kinesthetic
7	x					x	x			x	Visual
8		x								x	Kinesthetic
9		x		x					x*		Kinesthetic
10		x		x*	x		x		x		Kinesthetic
11		x		x*			x		x		Kinesthetic
12		x			x		x			x	Kinesthetic
13		x				x			x		Visual
14		x		x		x	x		x		Kinesthetic
15		x		x	x*			x*	x		Auditory

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