

## Naming Speed Deficit Frequently Asked Questions

This document was prepared by members of the Center for Reading and Language Research at Tufts University to answer common questions and address misconceptions regarding Naming Speed Deficit, a subtype of dyslexia.

### What is a naming speed deficit?

**A naming speed deficit is a particular subtype of dyslexia** which tends to negatively impact the development students' fluency skills. Naming speed measures students' ability to quickly retrieve the name of a symbol. Some examples of naming speed assessments include naming colors, letter or objects. The speed with which students can retrieve labels of symbols is highly predictive of the automaticity with which they will read words and passages. Retrieval is considered a separate, but related, skill to decoding, sight word knowledge, or comprehension, and students can be screened for characteristics that place them at-risk for a naming speed deficit beginning in kindergarten.

### What behaviors might indicate a naming speed deficit?

- Student appears to read accurately but becomes easily fatigued
- Lack of progress in **fluency** (sometimes despite years of specialized instruction)
- Impaired word retrieval for speaking, reading and/or writing
- Impaired retrieval of rote factual knowledge such as math facts

### I suspect a naming speed deficit, how can I know for sure?

Naming speed deficits are diagnosed through standardized assessments of reading ability by experienced clinicians. Typically an individual with a deficit demonstrates below average performance on timed measures of rapid automatized naming (RAN), sight word naming efficiency, non-word decoding efficiency and/or connected text fluency. Students may have naming speed deficits in addition to a phonological deficit, otherwise considered a double deficit profile, and considered the most severe form of dyslexia. Grade-based measures such as the DIBELS or the AIMS web are helpful screening tools in identifying the need for diagnostic measures.

### My child/student has a weakness in their processing speed does that mean they also have a naming speed deficit?

It is common that students with weaknesses in processing speed will also have naming speed deficits because they are highly interrelated. Naming speed is thought to be "built" on the processing speed architecture, but it is more specifically related to, and predictive of reading ability and should be assessed separately.

### Dyslexia:

Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.

### **How can I improve naming speed? Should I practice with RAN cards?**

No, rote practice of symbol naming is not an evidence-based remediation tool. The RAN task is an index of the efficiency of the underlying processes shared by naming and reading, but the rapid naming of letters or numbers does not play a role in the actual act of reading or completing arithmetic problems.

### **Is there a program that supports the development of naming speed and reading fluency?**

Yes, a multi-componential instructional framework that simultaneously builds multiple sources of word knowledge including phonics, vocabulary, morphology, and grammar supports the activation of the reading circuit and speeds overall retrieval. A multi-componential approach is used in the RAVE-O program, which is considered an evidence-based approach for developing fluency and comprehension skills among students with a naming speed deficit.

### **My school does not recognize dyslexia or naming speed deficits, how should I approach a conversation with team members?**

A naming speed deficit can impact speech, language and the ability to learn to read. Under the guidelines of the Individuals with Disabilities Education Act (IDEA) there are 2 categories of impairment that directly pertain to a deficit in naming speed: 1) Speech and Language Impairment and 2) Specific Learning Disability\* (including dyslexia). If you suspect a naming speed deficit, standardized assessments of naming speed, word reading efficiency and connected text fluency should be included in an evaluation.

#### **Fluency:**

Reading fluency refers to a level of accuracy and rate where decoding is relatively effortless; where oral reading is smooth and accurate with correct prosody; and where attention can be allocated to comprehension. In order to achieve reading fluency students must automatically retrieve and connect multiple sources of information about words including phonological (sounds), orthographic (letter patterns), semantic (vocabulary), syntactic (grammar) and morphological (roots and affixes) information.

#### References:

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- Norton, E. S., & Wolf, M. (2012). Rapid automatized naming (RAN) and reading fluency: Implications for understanding and treatment of reading disabilities. *Annual review of psychology*, 63, 427-452.
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\*Specific Learning Disability is a category of IDEA eligibility that lists dyslexia specifically in the Statute. OSER also issued 2015 Dyslexia Guidance clarifying there is no reason not to use this term.