What's all the fuss about dyslexia screening?



Screening in dyslexia supports early identification and intervention for those at risk. The information provided here is intended to help establish and support screening initiatives by clarifying the terminology and approaches.

Dyslexia identification is a *process* that incorporates multiple sources of information and includes screening, assessment, intervention or instruction, and progress monitoring. Learn more at www.PearsonAssessments.com/dyslexia.

Screen Assess Intervene Monitor

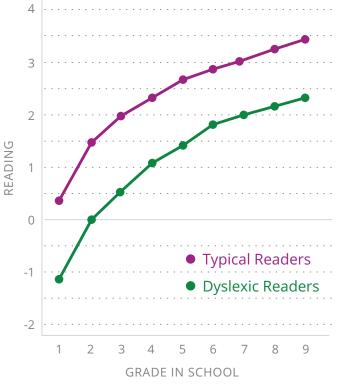
Why screen for dyslexia?

The achievement gap between typical readers and readers with dyslexia is already present as early as first grade. Even more, dyslexia persists and impacts students over time. Early screening combined with high-quality, evidence-based interventions are essential for closing this achievement gap.



Most recent Senate resolution regarding dyslexia: https://congress.gov/bill/115th-congress/ senate-resolution/680/text

Achievement Gap Between Typical & Dyslexic Readers Occurs as Early as First Grade



© Sally Shaywitz after Ferrer, Shaywitz et al. J.Ped 2015

What is a screener?

Screeners are *brief* measures that are intended to sort individuals into two groups—those at risk and those not at risk. Some screeners use a cut score—that is, a "cut-off" score—that divides the two groups.





There are two broad categories of screeners:

(1) **Performance-based measures**, which require the person being screened to complete specific tasks

(2) **Rating scales**, which require a rater, such as a teacher or parent, or the individual being screened to respond to a series of statements or questions by providing each one with a rating.

How good is the screener?

Screeners are evaluated based on the following characteristics:

Evidence-based. Use of the screener is supported by sound scientific evidence, including strong reliability and validity data. Sufficient information about the measure is reported to allow for critical evaluation and replication.

Reliable. The screener's reliability coefficients provide evidence that the items are internally consistent. Studies may also be conducted to determine whether the results are stable over time and across scorers/raters.

Valid. The screener measures what it claims to measure. For example, it may show strong correlations with other established measures in the field. The most important type of validity evidence for a dyslexia screener is *clinical validity*, evidence that the screener will accurately classify children at risk for dyslexia by significantly differentiating between individuals with and without dyslexia.

The clinical validity of a screener is evaluated based on the following characteristics:

Sensitivity: The strength of a screening measure in finding true positives—that is, individuals who have dyslexia.

Specificity: The strength of a screening measure in eliminating true negatives—that is, individuals who do not have dyslexia.

AUC (Area under the Receiver Operating Characteristics curve): AUC estimates range from .50 (chance accuracy) to 1.00 (perfect accuracy). Many of the strongest performing clinical assessment inventories deliver AUC estimates in the 0.7 to 0.8 range.



What is universal screening for dyslexia?

Universal screening is a general education effort that:

- -• Screens *all* students in a specific grade or age
- Identifies quickly and easily whether a student is *at risk* for dyslexia
- Screens young children, so early intervention can occur
- Is easy to use, ideally teacher-administered, and teacher-friendly

Takes just a few minutes to complete

- Involves interprofessional teams—including parents and caregivers—to support students with dyslexia
- Allows for scalable administration, scoring, and disaggregated reporting

Universal dyslexia screening is a **first step** within an overall dyslexia identification process.

Effective universal screening balances the **accuracy** and **power of the measure** (e.g., reliability and validity, clinical sensitivity, and specificity) with **the practical issues** related to the application of the screener in a school environment. These issues can include the time needed to administer, student time away from instruction, and cost.



Common questions in dyslexia screening





Should I look for a dyslexia screener that covers all the areas that may be difficult for someone with dyslexia?

This is more of a diagnostic approach, not a screening approach. An initial screener is typically brief but sensitive, measuring only those key symptoms of dyslexia that help us sort quickly and accurately.



Can I use my reading screener for dyslexia too?

Not all struggling readers have dyslexia, and most reading screeners do not conduct clinical studies with a dyslexia reference group. A screener must provide evidence that the results differentiate between individuals with and without dyslexia. Without clinical validity data, a measure is not considered valid for use as a dyslexia screener.

A dyslexia screener, like all screeners, is not a diagnostic tool. "At risk" status indicates which students require more attention, such as more intensive instruction or further assessment.



