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Choosing reading assessments in MTSS

May 2024

The Australian Education Research Organisation (AERO) recommends the use of a multi-tiered system of supports (MTSS) to better assist Years 7 to 9 students struggling with foundational literacy and numeracy skills. If you're unfamiliar with the MTSS framework, we recommend you start with AERO's Introduction to a Multi-Tiered System of Supports explainer.

This practice guide explains universal and diagnostic student reading assessments, and how to best select them for use in an MTSS framework. It's the third part of a series of guidance created in partnership with the Dyslexia-SPELD Foundation (DSF).

AERO's MTSS decision tree covers 3 types of assessment: universal screening, diagnostic, and progress monitoring.

This practice guide provides criteria for selecting and assessing assessments, and points to some example assessments for screening and diagnosis. Progress monitoring is covered separately in AERO's Choosing, Monitoring and Modifying Reading Interventions in MTSS practice guide because it's a critical part of the support provided directly to students through intervention. It's not recommended that teaching staff develop their own progress monitoring tools – not only because the process is time-consuming, but also because it's difficult to maintain quality and consistency.

Universal screening

Universal screening assessments provide objective data about the reading skills of a student population. They're usually administered at the beginning of the school year or upon entry to a school as a new student.

Universal screening assessments are designed to identify students whose reading attainments fall below a minimum benchmark. The results of an individual student are compared to cohort-wide data collected from a large group of students the same age or grade. If a student meets the minimum level expected for their age or grade, they don't need intervention. If they don't reach this level, they would benefit from a diagnostic assessment to inform targeted intervention.

Screening assessments are effective when they're designed to be administered in a short period of time to students individually or in a group, in-person or online. Administration and scoring should be easy (possibly automated) and not require advanced qualifications. However, instruction on how to administer, score and interpret a specific screening assessment is needed to ensure validity and reliability.

Some universal screening assessments suggest benchmarks ('cut-off scores') to identify students who need further diagnostic assessment. A common benchmark used in practice and research is one standard deviation below the expected mean level for a student's age or grade ('-1 SD'). This equates to the 16th percentile.

Universal screening with a single test may run the risk of missing a proportion of students who need help. For example, some students who struggle with word reading can correctly answer questions on a reading comprehension test by simply using their verbal reasoning skills ('logic'). Using a broad universal screener that assesses multiple components of reading (for example, word reading and comprehension) can guard against the collection of unreliable data. Drawing on Category B information (as defined in AERO's MTSS decision tree – NAPLAN data, school reports, written samples) can also provide further data to inform decision-making.

Diagnostic assessments

Universal screening assessments are designed to provide information about students struggling with reading, but often don't give much information about which reading-related skills need developing.

Diagnostic assessments are so-named because they diagnose the nature of a student's difficulties with word reading and/or comprehension. They're designed to provide information about the reading-related skills responsible for a student's reading difficulties. This informs decisions about which interventions are needed to target those skills.

Diagnostic assessments focus on specific skills (such as word reading and decoding), so a student may need to complete a suite ('battery') of diagnostic assessments to accurately profile their reading skills. Diagnostic assessments often take longer to administer than universal screening assessments and are typically administered in a one-to-one or small group setting by someone trained in standardised assessments.

Like universal screening assessments, diagnostic assessments compare a student's results to the average level expected for their age and grade. Ideally, assessments should be specifically designed or adapted for secondary school students. However, some diagnostic assessments designed for upper primary school students may be suitable. For example, if a secondary student scores below the mean level expected for Year 6 students on a word reading test, then their word reading is below that required for secondary school.

It should be noted that diagnostic assessments aren't diagnostic in the sense of being able to diagnose underlying conditions such as specific learning disorders. If a student fails to benefit from targeted intervention at school or is suspected to have a learning disorder, they should ideally be referred for evaluation by a trained specialist in reading or spoken language.

Selecting reading assessment tools in MTSS

Many universal screening or diagnostic assessment tools are available in Australia. When selecting a screening assessment tool (either universal or diagnostic) for use in secondary school, there are several factors to consider. The National Centre on Improving Literacy has created a resource to guide American educators in selecting or assessing a screening assessment for their school context.[1] This information is summarised in Table 1, along with additional considerations related to cost, access and the Australian context. See Example Reading Assessment Tools in MTSS for specific examples.

Table 1: Criteria for selecting an assessment tool (universal and diagnostic)

Consideration	What to look for
What's the student cohort of interest?	The assessment should be designed for students of the same age and grade as the population it will be used with. It's also important to consider whether the test has been designed with Australian students and diverse populations in mind. A test that hasn't been evaluated with students from culturally and linguistically diverse populations may over- or under-estimate student performance.
What's the scope of the assessment?	Assessments may cover a broad range of reading skills (accuracy, rate, comprehension), or only assess one or 2 skills closely. They may evaluate concepts and knowledge ranging from early to advanced or target a narrow set of skills to pinpoint instructional needs and determine short-term response to intervention (e.g., Curriculum Based Measures). Selection of assessment should be based on a clear understanding of how the assessment has been designed and what it is (and isn't) intended to measure.
Is the assessment reliable?	It's essential that the tool consistently yields accurate and stable results over time. The outcomes should not vary notably when administered by different people. A reliable tool minimises measurement error and provides educators with confidence in the data, enhancing the accuracy of screening decisions and subsequent interventions within the MTSS framework.
Is the assessment valid?	The assessment tool should be an accurate, or reasonable, measure of the skill/s it claims to evaluate. Valid assessments offer educators confidence that the data generated reflects students' actual reading proficiency.
Is the assessment sensitive and specific when identifying students whose academic skills are less developed than expected for their age and grade?	The tool should be *sensitive* – that is, able to accurately identify students who need intervention, minimising false negatives (such as students who achieve average-range results despite below-average reading abilities). It must also be *specific* – that is, able to correctly identify students who don't need intervention, reducing false positives. This balance is crucial for effective decision-making within the MTSS framework, preventing both under-identification and over-identification of students needing support.
Is the assessment suitable for the school context in terms of financial, resource and staffing demands, expected reading skills, and the number of students requiring assessment?	This will vary between schools. However, assessment tools that are cost-effective, efficient, and easily scalable have obvious advantages. Consider whether the tool is available in Australia and the tool's alignment with Australian educational standards and curricula to ensure its relevance and suitability for the Australian context.
Is the assessment user-friendly and accessible?	Ease of administration, scoring and data interpretation is another key criterion. Accessibility to test materials is crucial, including whether the assessments are available in multiple formats, such as digital and paper-based, to accommodate various school settings and student needs.

More information

AERO's MTSS resources provide further information about using MTSS to support students, including:

- how to support secondary students struggling with reading using an MTSS decision tree

- example reading assessment tools

- how to choose interventions that target reading skills gaps.

Five from Five's Reading Pledge also contains guidance on reading assessment and intervention for primary school students.

Acknowledgement

AERO would like to acknowledge the contribution of DSF in developing content for this practice guide. AERO would also like to acknowledge Professor Anne Castles, Jessica Colleu Terradas and Melanie Henry for providing expert reviews of this content.

Endnotes

1   Petscher, Y., & Suhr, M. (2022). Considerations for choosing and using screeners for students with disabilities. In C. J. Lemons, S. R. Powell, K. L. Lane, & T. C. Aceves (Eds.), *Handbook of special education research* (Vol. 2, pp. 83–96). Routledge.

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