



RTI Roundtable - Issue # 5

Screening for “At-Risk” Students

What is Screening?

Screening is a type of assessment that is characterized by providing quick, low-cost, repeatable testing of age-appropriate critical skills (e.g., identifying letters of the alphabet or reading a list of high frequency words) or behaviors (e.g., tardiness, aggression, or hyperactivity).

The basic question in a screening measure is whether or not the student should be judged as “at risk.” For example, the school nurse who uses the Snellen eye chart (Snellen, 1862) wants a quick indicator of students who might have difficulty seeing from a distance. If a student has difficulty reading the eye chart, a referral is made for a more in-depth assessment. In a similar way, the classroom teacher uses a screening measure to identify students who meet the screening criteria for possible at-risk status. These students are then considered for a more in-depth assessment, such as monitoring their progress during the next six weeks with specific assessments.

For a screening measure to be useful, it should satisfy three criteria (Jenkins, 2003):

1. It needs to identify students who require further assessment
2. It needs to be practical
3. It needs to generate positive outcomes (accurately identifies students without consuming resources that could be put to better use)

What Considerations Are Part of the Selection of Appropriate Screening Measures?

Accuracy

The main purpose of a screening instrument is to identify students whose performance on the measure warrants further investigation. Because screening does not directly result in diagnosis, it is better for a screening instrument to err on the side of false positives (students identified as at risk, who through more intense assessment are found to have been misidentified) than on the side of false negatives (students not identified through screening who later turn out to be at risk). Therefore, a wider net with which to capture potentially at-risk students can be cast with screening measures. A potential drawback of having more false positives is the added expense of the additional testing and the provisions of services to more students, while a drawback of having more false negatives is that those students miss the opportunity to benefit from early intervention services. Ultimately, however, a school will want to find a measure that reaches an acceptable balance of efficiency and accuracy. To do this, schools will need to maintain data on how well the measure identifies students as at risk (e.g., track the number of false positives and false negatives). Such fine-tuning can help save resources.

One way to attempt to establish an acceptable balance is to use a decision-making model, which displays the distribution of true positives and true negatives, as well as the false positives and false negatives. A decision-making model also provides a mechanism for calculating the sensitivity and specificity of your screening tool. Sensitivity is the probability that the screening tool identifies those students who do have SLD, and specificity is the probability that the tool does not incorrectly identify those students who do not have SLD.

Cut Score

Accuracy of screening also is determined by what cut scores are used. A cut score, also called cut point, is the score that represents the dividing line between students who are not at risk and those who are potentially at risk. The goal of school-wide screening is to identify those students who may be at risk for not acquiring the relevant skill and who may require further intervention. Schools will need to consider the emphasis given to particular levels of criteria performance when establishing cut scores. Additionally, some students perform on the “edge” of either side of the cut score, and guidelines will need to be established for determining when a student’s performance warrants further investigation.

Criterion versus Norm Referenced Measures

Screening measures can use either a criterion referenced or normative comparison standard of performance. In the former, a specific criterion level of skills is specified as indicating an acceptable level of proficiency or mastery. In the normative comparison, the screening results are compared to an appropriate peer group (e.g., other students in first grade). Criterion measures are preferred because they give more accurate information about performance on relevant skills. In selecting an appropriate criterion measure, the school should attempt to link the measures at each grade level to appropriate existing performance measures, including existing performance standards in the school’s curriculum. The content will need to be relevant to age/grade level and the skill in question.

Efficiency

A screening procedure must be brief as well as simple enough to be implemented reliably by teachers. Teachers must view the procedures as reasonable and important, or they may not reliably implement them (Jenkins, 2003). School-wide training on implementation and school-wide scheduling of screening procedures may be helpful in ensuring they are completed reliably.

How is School-Wide Screening Done Within an RTI Model?

In the RTI model, screening is used to designate students who might be in need of closer monitoring in their general education curriculum or of a more intense intervention.

Screening is important as it represents the first gate or point of entry into subsequent tiers of RTI instruction. Screening is not a one-time process but an iterative system during the school year and across grade levels. During the course of primary instruction (Tier 1), the school uses school-wide screening (consistency) in essential academic areas to identify each student's level of proficiency (usually three times per year). The screening data are organized to allow for comparison of both group and individual performance on specific skills (National Association of State Directors of Special Education [NASDSE], 2005).

In this way, the screening can serve three purposes:

1. Identify individuals in need of further assessment and possible movement to Tier 2 intervention
2. Provide feedback about class performance to help school leadership identify when a teacher might require support
3. If implemented on a regular basis across grade levels, identify false negatives, students who slip through the screening at one level but are then identified at later points in their school years.

The following excerpt from Fuchs & Fuchs (2006) summarizes the recommendations for best practice of school-wide screening within an RTI model:

How to target students for preventative intervention. Regardless of the number of tiers employed within the RTI system, a second procedural dimension concerns how students are targeted to enter the RTI process and receive preventative intervention. Some RTI systems employ one-time school-wide screening, whereby all children in a school are assessed on a brief measure at the beginning of the school year. Students who score below a norm-referenced cut point (e.g., less than 25th percentile on the Woodcock Reading Mastery Tests – Word Identification) or below a performance benchmark associated with poor long-term outcome (e.g., less than 15 on curriculum-based measurement word identification fluency at the beginning of first grade) enter preventative intervention. In systems that rely on one-time school-wide screening to identify students who enter preventative intervention, the assumption is that low performance relative to the normative cut point or the performance benchmark at the beginning of a school year constitutes evidence that the child has failed to respond to Tier 1 general education during previous school years and therefore requires preventative intervention.

In other versions of RTI, school-wide screening is conducted to identify a subset of students whose response to Tier 1 general education is then monitored for a relatively short period of time to (dis)confirm the risk status indicated via school-wide screening. Only the subset of students who (a) first meet the school-wide screening cut point and (b) then evidence poor rates of improvement over five to eight weeks of Tier 1 general education are deemed in need of a preventative intervention.

Our recommendation is that schools use school-wide screening in combination with at least five weeks of weekly progress monitoring in response to general education to identify students who require preventative intervention. Our rationale is that one-time universal screening at the beginning of the year can over-identify students who require preventative intervention. For example, in our research (Compton, Fuchs, Fuchs & Bryant, 2006), conducted in reading at first grade, 50 percent of students identified on the basis of one-time screening spontaneously “recovered,” i.e., made good progress over the course of first grade without preventative intervention. Identifying students for preventative intervention based on one-time screening means that schools are pressed to deliver costly preventative intervention to large numbers of students who do not need those services, thereby watering down the nature of preventative intervention. By contrast, our research (Compton et al., 2006) shows that five weeks of weekly progress monitoring can reduce or even eliminate the provision of preventative intervention to these “false positives”; hence, our recommendation to incorporate short-term progress monitoring in response to general education for determining students who require preventative intervention.