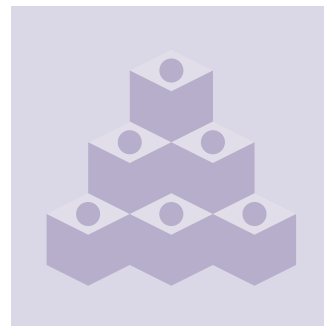
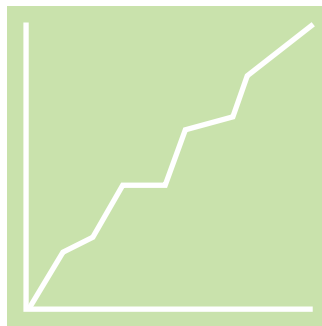


# Users Guide to Universal Screening Tools Chart



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National Center on Response to Intervention  
<http://www.rti4success.org>



U.S. Office of Special  
Education Programs

## About the National Center on Response to Intervention

Through funding from the U.S. Department of Education's Office of Special Education Programs, the American Institutes for Research and researchers from Vanderbilt University and the University of Kansas have established the National Center on Response to Intervention. The Center provides technical assistance to states and districts and builds the capacity of states to assist districts in implementing proven response to intervention frameworks.



**National Center on Response to Intervention**

<http://www.rti4success.org>

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## The Basics of the Chart

### **What Is the Tools Chart?**

The tools chart is a list of commercially available screening tools. Each tool has been reviewed by the National Center on Response to Intervention's (NCRTI's) Technical Review Committee (TRC) on screening. The chart offers information about the technical rigor, efficiency, cost, and implementation requirements of the tools. The tools chart can be viewed online at <http://www.rti4success.org/chart/screeningTools/screeningtoolschart.html>.

### **What Is the Purpose of the Tools Chart?**

The tools chart assists educators and families in becoming informed consumers who can select screening tools that best meet their individual needs. The tools chart is not intended to endorse any of the tools or to compare tools to each other. Each tool was rated against a standard set of criteria regarding the technical adequacy of the tool.

### **Who Rated the Tools on the Chart?**

Ratings were made by the TRC on screening. The TRC on screening is a group of 10 national experts on measurement and screening. To be selected to the TRC, members had to have a background in (a) measurement or strong methodological skills and (b) screening. Special attention was paid to including experts on culturally and linguistically diverse groups. A list of members of the TRC on screening can be found online at: [http://www.rti4success.org/index.php?option=com\\_content&task=view&id=513&Itemid=2](http://www.rti4success.org/index.php?option=com_content&task=view&id=513&Itemid=2).



## Tips for Using the Chart

The tools chart includes a large amount of information designed to assist you in selecting a tool that is most appropriate for use in your classroom, school, or district. The “best” tool is not going to be the same for every user and is not determined by any single element on the chart. Users of the chart should review all of the different elements of the chart when making a decision.



### **We recommend a six-step process for using the chart:**

1. Gather a team
2. Determine your needs
3. Determine your priorities
4. Familiarize yourself with the content and language of the chart
5. Review the data
6. Ask for more information

## **1. Gather a Team**

Often, decisions about appropriate screening tools will involve the input of multiple teachers and staff. When using the tools chart, a team of key constituents in your school and district should review the information together.



### **Before you begin, ask yourself:**

- Who should be involved in selecting a screening tool?
- What types of expertise and what perspectives should be involved in selecting a tool?



## 2. Determine Your Needs

The most appropriate screening tool for you will depend on your specific needs.



### Questions to think about, as a team, include:

- For what skills do I need a screening tool?
- For which specific academic outcome or measure am I interested in screening?
- For what grades do I need a screening tool?
- Will this screening tool be used with all students or only a specific subgroup(s) of students? Which subgroup(s)?

## 3. Determine Your Priorities

In addition to determining your needs for a screening tool, your team should also consider its priorities.



### What is the most important thing to look for in a screening tool?

- Is it a tool that can be purchased for a reasonable cost?
- Is it a tool that does not take long to administer and score?
- Is it a tool that offers ready access to training and technical support for staff?
- Is it a tool that meets the highest standards for technical rigor?
- Is it a tool whose effectiveness has been studied and demonstrated in my district or state?

Although you may want a tool that meets all of these criteria, such a tool may not exist. You will need to weigh your priorities carefully when making your selection.



## 4. Familiarize Yourself With the Content and Language of the Chart

The tools chart includes information about three aspects of tool quality: technical rigor, efficiency, and implementation requirements.

### *Technical rigor*

The TRC has established five standards for technical rigor of screening tools:

Classification Accuracy	Generalizability	Reliability	Validity	Disaggregated Reliability, Validity, and Classification Data for Diverse Groups
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- **Classification Accuracy:** The extent to which a screening tool is able to accurately classify students into two categories: “at risk for reading disability” and “not at risk for reading disability.”
- **Generalizability:** The extent to which results generated from one group can be applied to another group.
- **Reliability:** The consistency with which a screening tool classifies students from one administration to the next.
- **Validity:** The extent to which a screening tool accurately measures the underlying construct that it is intended to measure.
- **Disaggregated data:** Data that are calculated and reported separately for specific subgroups (e.g., race, economic status, special education status, etc.).



For each of these standards, the TRC reviewed data submitted by developers of the tools and gave a rating of “convincing,” “partially convincing,” “unconvincing,” or “no evidence.” Click on the name of the standard in the column heads of the chart to view a definition of the standard and a rubric describing the specific criteria used by the TRC to rate tools on that standard.

The screenshot displays the Universal Screening Tools Chart. A red arrow points to the 'Generalizability' column header. A pop-up window titled 'Generalizability' is open, showing a definition: 'Generalizability refers to the extent to which results generated from one population can be applied to another population. A tool is considered more generalizable if studies have been conducted on larger, more representative samples.' Below the definition is a table for 'Technical Standard 2: Generalizability' with columns for 'Rating' and 'Rating defined'. The 'Rating' is 'Broad' and the 'Rating defined' is 'Large representative national sample with cross-validation'. The main chart table below has columns for TOOLS, AREA, Classification Accuracy, Generalizability, and Rating. The 'AIMSweb' tool is listed with several sub-areas like 'Math - CBM', 'R-CBM Oral Reading', and 'Test of Early Numeracy - Missing Number'. The 'Discovery Education Predictive Assessment' tool is also listed with 'Math' as an area. A 'Chart Legend' at the bottom explains the evidence ratings: Convincing Evidence (solid purple circle), Partially Convincing Evidence (circle with vertical line), Unconvincing Evidence (open circle), and No Evidence Submitted (horizontal line). It also includes footnotes: \* Added in the 2009 review | † Information updated during the 2009 review.

TOOLS	AREA	Classification Accuracy	Generalizability	Rating	Rating defined	Individual	2 Minutes	Yes	Yes	
AIMSweb	* Math - CBM	●	Moderate High	●	●	—	Individual	2 Minutes	Yes	Yes
	R-CBM Oral Reading	●	Moderate High	●	●	—	Individual	2 Minutes	Yes	Yes
	* Test of Early Numeracy - Missing Number	●	Broad	●	●	—	Individual	2 Minutes	Yes	Yes
	* Test of Early Numeracy - Number Identification	●	Broad	●	○	—	Individual	2 Minutes	Yes	Yes
	* Test of Early Numeracy - Oral Counting	●	Broad	●	○	—	Individual	2 Minutes	Yes	Yes
Discovery Education Predictive Assessment	* Math	●	Moderate High	●	●	●	Group	40 Minutes	Yes	Yes

**Chart Legend:**  
 ● Convincing Evidence | ● Partially Convincing Evidence | ○ Unconvincing Evidence | — No Evidence Submitted  
 \* Added in the 2009 review | † Information updated during the 2009 review



## ***Efficiency***

The last four columns of the chart offer information about the efficiency of each screening tool:

<b>Efficiency</b>			
Administration	Administration and Scoring Time	Scoring Key	Benchmarks / Norms

- **Administration:** Is the tool designed to be administered to an individual or to a group or both?
- **Administration and scoring time:** How long does it take to administer and score the tool?
- **Scoring key:** Is a scoring key provided? If not, is it scored by a computer?
- **Benchmarks/norms:** Are benchmarks and/or norms available for reference?



## Implementation requirements

The tools chart offers an “implementation table” for each tool. The implementation table can be accessed by clicking on the name of the tool. The implementation table includes the following information:

- Cost of the tool
- Training required to implement the tool
- Level of staff expertise required to administer the tool
- Where to go for training and technical support
- How scores are reported

The screenshot shows a table of screening tools with a detailed pop-up window for the 'Math - CBM' tool. The pop-up window provides the following information:

TOOLS	AREA	Cost	Technology, Human Resources, and Accommodations for Special Needs	Service & Support	Purpose & Other Implementation Information	Usage & Reporting
AIMSweb	* Math - CBM	Annual cost per student: AIMSweb assessment materials are included with an AIMSweb System software subscription:	Internet access is required for full use of product services. Testers will require 4 - 8 hours of training. Paraprofessionals can administer the test. Alternate forms available in Spanish for benchmarking.	Pearson 19500 Bulverde Road San Antonio, TX 78259 Phone: 210-339-5247 Visit <a href="http://AIMSweb.com">AIMSweb.com</a> Tech support: <a href="mailto:aimswesupport@pearson.com">aimswesupport@pearson.com</a>	As a reading screening tool, Reading-CBM is utilized to identify children at-risk of reading failures and those students significantly below grade-level expectations.	Raw score, percentile score, development benchmark scores (cut points and benchmarks) probability scores, and error analysis scores are available.
	R-CBM Oral Reading	AIMSweb Systems Grades K - 8: \$3.00-\$5.00 per student per year.	Included in the price are manuals and test materials, directions for administration, test forms, technical manuals, and protocol per student.	AIMSweb Training sessions are available. Ongoing technical support is provided.	As a progress monitoring tool, additional standardized, equivalent, and graded alternate forms are used to frequently measure student progress towards specific goals and monitor the effects of instructional changes.	Raw scores are computed by computing the total number of words read correctly within the 1 minute time period. A raw score is also reported for the total number of errors (word: read incorrectly). These data can be interpreted in a norm-referenced way via
	* Test of Early Numeracy - Missing Number					
	* Test of Early Numeracy - Number Identification					
	* Test of Early Numeracy - Oral Counting					
	* Test of Early Numeracy - Quantity Discrimination	*all materials are provided via download in PDF format				

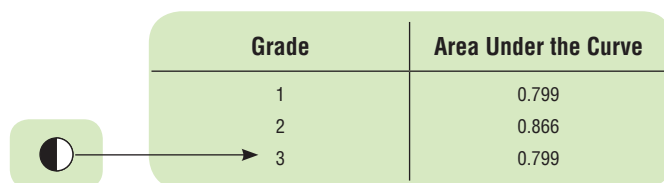
The main table also includes columns for 'Efficiency' (Administration & Scoring Time, Scoring Key, Benchmarks / Norms) and a 'Chart Legend' at the bottom.

**Chart Legend:**  
 ● Convincing Evidence | ◐ Partially Convincing Evidence | ○ Unconvincing Evidence | — No Evidence Submitted  
 \* Added in the 2009 review | i Information updated during the 2009 review



## 5. Review the Data

In addition to the technical ratings, the tools chart includes details about the actual data that were submitted to the TRC for review. To view these data, click on any of the ratings bubbles in the cells of the chart.



Grade	Area Under the Curve
1	0.799
2	0.866
3	0.799

Examining these data can be useful for a number of reasons. You may see two or more tools that received the same rating for a particular standard. But in these cases, how do you know which one really best meets your needs? By clicking on the rating and viewing the actual data, you have more information to help you determine which tool is most appropriate.

For example, for classification accuracy, the chart includes statistics about how well a tool classifies students, as well as the outcome measure and details about the sample that was used to generate such statistics. You may want to look for tools that conducted classification studies with outcome measures and samples similar to your group and outcome of interest.

The detailed data can also help you determine the tools that are most appropriate for certain subgroups of students. For example, your district or subgroup of interest may be comprised mostly of English language learners (ELLs). Therefore, you may be interested in how accurately the tool classifies students into risk categories, how reliable it is, and how valid it is, for only the ELL subgroup. By clicking on the bubble in the disaggregated data column, you will be able to see detailed data about how well the tool works among various subgroups.



## 6. Ask for More Information

You may find that the tools chart does not provide you with all the information you need. For example, what if a tool in which you are interested does not have disaggregated data for a particular subgroup that is important to you? Ask the vendor or developer. Developers who have chosen to submit their tools for review and publish them on the chart are interested in meeting the needs of their customers. As such, they are interested in doing more research to provide the data that you need.

Similarly, if a tool that you currently use or are interested in learning about is not on the chart, call the developer of that tool. Let them know about the TRC review process and the tools chart, and ask them to consider submitting the tool for review.



**Finally, if you are unsure about what a technical standard means or how to interpret any of the information on the chart, contact the National Center on Response to Intervention at 877-RTI-4ALL or [rticenter@air.org](mailto:rticenter@air.org).**



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