



National Center  
on Response to  
Intervention

# RTI and Universal Screening: Establishing Direct Benchmarks

## Questions and Answers by Dr. Dave Heistad

**Question:** Is universal screening the same as the pre-screening we used to do for kindergarten back in the 60s? Are there standard screeners for each grade level?

**Answer:** Really, it's very similar. The preschool screeners that are required in most states from ages 3 to the time kids start school also have to be validated against accepted measures, usually with beginning kindergarten measures. In Minneapolis what we want to do is identify students who aren't candidates to be referred to special education but who need a high quality preschool program that develops literacy skills. In that sense, the preschool screeners are very similar to a RTI screening measure that you might use K-12.

**Question:** At our school we are using AIMSweb for universal screening. When we correlated our state assessment cut score for "proficiency" with the AIMSweb Oral Reading Fluency score, the state benchmark is much lower than the AIMSweb benchmark. We know that our state assessment has one of the lowest standards for proficiency. If we stick to the AIMSweb cut scores (which are set at the 50th percentile), 50% of students will be identified as needing an intervention (either in the red or the yellow). Therefore, we are not sure what benchmark target we should be using to screen for students who need an intervention?

**Answer:** This is an excellent question that really points to the fact that we have to do some local setting of benchmarks at a level that's realistic for providing services. It is true that as mentioned before, state tests are widely different. For example, if you set the screening benchmark at the proficiency level based on the Massachusetts state test, you might have 70% of the students who would not be on track for proficiency, so you'd have to set a more realistic criterion. For this reason, you might conduct an equal percentile linking study to establish a benchmark at partially proficient.

**Question:** What do you use for data analysis software?

**Answer:** What we use here in Minneapolis is SPSS, the statistical package for social sciences. Another familiar one is SAS. Both of those software packages give you the capacity to do the equal percentile linking. Any stats package will give you a correlation, but you want to make sure to use the Pearson correlation coefficient. There are different bells and whistles with different packages, but the basic features are present in all the packages.

**Question:** What is the RIT scale?

**Answer:** The RIT scale is the scale score for the MAP test; the RIT is technical term for a raw score. It's a scale score that links all the assessment scores from second grade all the way up through ninth and tenth grade, so it's a vertically linked scale. While most state tests have scale scores only for a particular grade level this scale score works through the whole construct of reading and math.



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**Question:** What do you recommend for a screener for K-1?

**Answer:** We have a beginning kindergarten assessment. We call it the "Beginning of Kindergarten Assessment." It has picture vocabulary, oral comprehension (e.g. reading a simple story to a student and asking questions), letter recognition, and letter sounds, etc.. The score is very predictive of future reading. We've linked the assessment to first grade reading and third grade proficiency and have very high correlation.

To conduct our kindergarten and first grade assessments we hire a cadre of retired teachers to go into each of our schools and they sit for 10 or 15 minutes with each student to administer an individualized assessment.

**Question:** How long did the process take from start to finish?

**Answer:** We tend to renorm every time the State standards change. And in Minnesota they change the standards every four or five years, so we'll go in and recalibrate our instruments to the new standards. Even if your State standards stay the same, you still will want to recalibrate as your population changes. The general rule of thumb is every three to five years to recalibrate to make sure that your screening cut-off score is still working.

**Question:** Is the MAP appropriate for middle and high school aged students. If not, what would you recommend as screeners and progress monitoring tools for those levels?

**Answer:** Yes. The MAP test we use in Minneapolis is good for middle school and up through ninth grade. I don't know of any schools in Minnesota that are using it in tenth grade but I think there are some schools nationally that are using the assessment in tenth grade as well. You tend to be out a little bit on some of the math measures. There are not enough college level questions and so if a student gets all the answers correct, then it's basically an invalid score, so you have to have enough high level items for the bank to be used at those upper grades.

**Question:** What is the content of the MAP screening?

**Answer:** The domains are mapped on to our state test, so there are five areas of mathematics, algebra concepts, geometric concepts, computation, probability and statistics, and basic number sets. In reading we have the three domains of vocabulary, literal and inferential comprehension. What you want is to have a screener that maps onto your state test as much as possible, if you're using the state test as your criterion measure.

**Question:** What other universal screenings do you recommend besides MAP?

**Answer:** I don't want to go through a laundry list of potential screeners. It's just important to see that they've been reviewed and found to meet the standards of the National Center on Response to Intervention. The reading screening tool chart can be accessed at:

[http://www.rti4success.org/index.php?option=com\\_content&task=view&id=1091&Itemid=139](http://www.rti4success.org/index.php?option=com_content&task=view&id=1091&Itemid=139)

**Question:** What are some valid high school screeners?

**Answer:** The MAP test does go up through tenth grade, so it is possible to use the MAP reading or math assessments. We find that there aren't very many assessments that have been validated for high school use. I know that Read 180 has an assessment that is a computer adaptive assessment that can be used in high school; hopefully we'll have some high school measures submitted to the National Center on Response to Intervention so that we can review them. We definitely do need to get more high school measures.

**Question:** In Minneapolis, did you create curriculum based measures for the entire state or does each school district create their own CBMs?

**Answer:** In Minneapolis, we created our own curriculum based measures before some of these other companies were in existence. Our work in Minneapolis actually predates the work done on DIBELS and predates our colleagues' work with the other measures in other states. We found that it was helpful initially to have it linked to our reading series. Whenever we switched reading series we came up with new curriculum-based indicators, but we really found that universal screeners need not be tied directly to any one particular reading series. So, now we're using more generalized measures.

**Question:** Is the assessment data integrated in your student information system?

**Answer:** Yes. The assessment data is part of our student information system, and that data is exported to our website every night so that the reports shown during the webinar are just one of many views where you could see assessment data, attendance, suspension and a whole host of indicators on school success that are available to the teachers.

**Question:** In regards to time for individual assessment, what would you recommend? Can you describe what you mean by brief? We have been told time could range from 3-15 minutes? We are a grade 3-5 school.

**Answer:** Well, the CBM measures we do are three one minute measures and with the comprehension, it takes about 10-15 minutes to go the whole assessment. There are short versions of the MAP, which I think is like 20 minutes. I would say anything that takes about half an hour might be considered brief. In general we recommend efficiency and that's why we use a cadre of retired teachers to do our screening so that the teacher's time away from instruction is minimized as much as possible.

**Question:** Are the reports that you give to teachers with red, green, yellow something that we could access?

**Answer:** No. The classroom teacher can see their own students but not another classroom. The teacher leaders are given access by the principal. The principal can see the scores for the whole school. The district administrator can see the whole district, so there are different levels of access and there's a firewall around the data so that no one can access the data from outside. We keep high security on individual student names and their test scores.

**Question:** If you worked in a small district, about 80 to 100 students per grade, would you be able to obtain good predictive validity data on a screener from just one year's testing?

**Answer:** Yes. In Minnesota, they've put together a version of the MAP that's good for the whole state and the calibration has been done in enough different districts so it could be used in small, medium and large districts in the state. It has a diverse enough population, so if a group, a consortium of small districts get together they could do a screening assessment. You'd need about 100-200 students per grade level to really do an adequate classification study which is why it is nice to combine with other districts. Whenever possible it's good to have something that's aligned directly to your state that could be used by all districts in the state.

**Question:** Can you say a little more about accommodations for special education and speech/language/ELL students?

**Answer:** With our MAP testing, we have accommodations using paper-and-pencil where necessary, large print, separate environment. We do have the capacity for reading the math questions. We have translations available in four different languages in Minneapolis, so we want to make sure accommodations for the State test are also available for the screener. We do have some sites which are native literacy sites and so we translated our CBM passages into the native language as well.

**Question:** What comprises your "Beginning of Kindergarten Assessment"(BKA)? Do you use different tools or is this one particular tool?

**Answer:** It's all combined into one tool called the "Beginning of Kindergarten Assessment". We have a cadre of retired teachers that are trained in how to do it. They have cards they show children for the identification of vocabulary and then they have a standard CBM of letter sounds and letter names and then we use some other items from state tests around the country that were in the public domain. It is different instruments put into a 10-15 minute time frame, and we do send it out to districts if they agree to be trained and use the instrument appropriately and people can e-mail me if they're interested.

**Question:** When you talk about MAP tests do you include the NWEA tests?

**Answer:** Yes, the Measures of Academic Progress are equated with the other versions of the NWEA level tests that we called the NALT when the tests were paper and pencil and then the CALT when they were on computer.

**Question:** Do you have a recommendation of which program is the best to use for benchmarking?

**Answer:** The program I use is SPSS (Statistical Package for the Social Sciences). The other most used stats package is SAS (Statistical Analysis Software).

**Question:** We are thinking of using AIMSweb for progress monitoring. What are your thoughts?

**Answer:** The National Center on Response to Intervention will be releasing their review of progress monitoring tools in May 2009 and so information about AIMSweb and other vendors will be available shortly.

**Question:** When using the MAP test are you able to look at the student specifically and identify the rate of growth in a particular area?

**Answer:** Yes, we can look at individual student growth, classroom growth, and school level growth. For individual growth we usually look at the total math or reading scale score and whether it meets or exceeds the district benchmarks for growth. We can look at reading and math strand (subtest) growth for groups of students, but these scores are not reliable enough to calculate a gain score by strand. Instead, we see if an individual student is below proficiency on a particular strand (the red, yellow, green on our web site) and monitor this status across time.

**Question:** You mentioned that the Woodcock reading mastery would be too long. What is a good example of such a screener, the DIBELS? And how about screening writing?

**Answer:** I am going to refer you to the reading screening measures that have been reviewed by the National Center on Response to Intervention: [http://www.rti4success.org/index.php?option=com\\_content&task=view&id=1091&Itemid=139](http://www.rti4success.org/index.php?option=com_content&task=view&id=1091&Itemid=139). We haven't reviewed any writing assessments yet.

**Question:** When using the MAP test are you able to look at the student specifically and identify the rate of growth in a particular area? For instance, if a student is below performance in fluency and the student receives interventions, does the MAP test show that the student has made progress in the specific area year to year?

**Answer:** The MAP measures individual student vocabulary and comprehension skills. We use CBM to measure fluency, phonemic awareness, alphabetic principle, and oral reading expression.

**Question:** Can school districts outside of Minnesota use the MAP to aid in screening students in other states?

**Answer:** Yes, the MAP is being used throughout the county. A list of all districts using MAP can be found at: <http://www.nwea.org/>

**Question:** What universal screeners would be applicable at the HS level (behaviorally and academically)?

**Answer:** State test scores can be used for secondary screening or an adaptive test like the MAP. There are a number of behavior screeners commercially available or you can develop your own. The National Center on Response to Intervention has not yet reviewed instruments targeted to secondary students.

**Question:** Since Pupil Appraisal may be called upon to assess in other areas besides reading and math, do you have any suggestions on what to use or how to do universal screening in the areas of written expression, oral language or listening comprehension?

**Answer:** I am hopeful that the National Center on Response to Intervention will be able to review screeners in other subjects after the reading and math reviews are complete. Minneapolis created its own listening comprehension screener within the beginning and end of Kindergarten assessments which also measure alphabetic principle, phonemic awareness, vocabulary, concepts of print and oral reading fluency. We do not have a screener for written expression yet.

**Question:** What are the high schools using as a screener? How long does it take to give? Who gives the test?

**Answer:** Currently our high schools use information from the MAP, State Tests, the ACT EXPLORE and ACT PLAN for screening.

**Question:** We are investigating research based universal screeners and progress monitoring assessments for math K-2. We are looking at AIMSweb early numeracy and math and Monitoring Basic Skills Progress (MBSP). Is there anything that supports standards based math at this level?

**Answer:** Minneapolis is creating its own K-2 math assessments in collaboration with our math curriculum experts. Most of our measures will be in the number sense domain similar to what AIMSweb does.

**Question:** I am looking for instructions on the best way to benchmark or norm our school data at the end of this school year. I have collected universal screening data in reading, math and vocabulary in grades K to 5, as well as progress monitored select students monthly. Do you have suggestions?

**Answer:** Just use the screening scores for benchmarking. Put together a file in Excel for each grade level with each student's scores on a separate line. Include all the screening scores and the outcome measure score (e.g., state test score) like this:

- Student 1 reading screener score, state reading test score, math screener score, math state test score, etc.
  - Student 2 reading screener score, state reading test score, math screener score, math state test score, etc.
- Send this file to someone who knows statistics and can do equal percentile linking or ROC analysis, but leave off the student names or identifying information.

**Question:** Is it appropriate to use universal screeners through 12th grade? If we already have district standards with descriptors in place, how do we "normalize/standardize" these into universal screeners? Would it be by 'standard met' or 'standard not met'?

**Answer:** I usually set up two levels of benchmark at "partially proficient" and "proficient" as defined by the state test score. The universal screening scores all the way up to grade 12 need to be linked with a high quality assessment that measures the standard.

**Question:** We are moving toward RTI system wide. I am interested in the Kindergarten assessment. Would you point me in the right direction to find that resource?

**Answer:** If you are interested in obtaining a copy of protocols for our MPS Beginning and End of Kindergarten Assessment, please contact Judy Allgood at: [Judy.Allgood@mpls.k12.mn.us](mailto:Judy.Allgood@mpls.k12.mn.us)

**Question:** What assessment/screening tools do you recommend for Pre-K students? We use DIBELS for Grades K-5. What are the benchmarks Pre-K?

**Answer:** You will need to contact the DIBELS folks to see if they have set pre-K benchmarks for your state. Other assessments reviewed so far by the National Center on Response to Intervention can be found at: [http://www.rti4success.org/index.php?option=com\\_content&task=view&id=1091&Itemid=139](http://www.rti4success.org/index.php?option=com_content&task=view&id=1091&Itemid=139)

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Please visit our website [www.rti4success.org](http://www.rti4success.org) or contact The National Center on Response to Intervention at [rticenter@air.org](mailto:rticenter@air.org), if you have questions or comments.

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