

# NWEA's Measures of Academic Progress (MAP)

## Myths and Truths

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Since its beginnings nearly 40 years ago as a not-for-profit founded by researchers and educators from school districts in the Pacific Northwest, the Northwest Evaluation Association (NWEA) has dedicated its efforts to its mission of Partnering to Help All Kids Learn. NWEA provides nationally recognized, research-based tools to assess learning and progress in more than 5,200 school districts across the United States. In district after district, educators use the data from Measures of Academic Progress® (MAP®) to inform their teaching practice in reading, mathematics and English language usage, tailoring instruction to meet the specific needs of the students in their classrooms.

Developed by researchers, educators, and psychometricians, MAP is a computer-based adaptive assessment that provides precise and immediate feedback so teachers can pinpoint current student learning needs, personalize instructional planning and promote student engagement. For hundreds of thousands of teachers, MAP is a trusted resource for measuring individual student achievement, calculating student growth, projecting proficiency on high-stakes assessments, and comparing a student's growth to that of students across the country. In fact, MAP assessments have been used nationwide by many universities precisely because MAP provides a sensitive metric for measuring and comparing growth among students from differing schools, districts, and states. MAP also offers outcome measures that are important for the development of new educational programs for improving student learning. Institutions utilizing MAP data include Vanderbilt University, The University of Notre Dame, The University of Wisconsin, Teachers College at Columbia University, The University of Oregon, Clemson University, Colorado State University, University of Arkansas, University of Minnesota,

Indiana Wesleyan, Ohio State University, University of Indianapolis, and The Thomas B. Fordham Institute.

In recent months, however, some questions have been raised about MAP and its role in the classroom. As educators are asked to do more with less, student performance data is now being applied to educator evaluation and instructional time is increasingly threatened by high-stakes accountability exams. Many are questioning the validity and value of tests. Interim assessments, such as MAP, have been caught up in such debates.

It is important to understand the different types of tests and their purposes in the ongoing discussion about testing, as each test is used to make different educational decisions. MAP is an interim test typically administered fall, winter, and spring. The purpose of MAP is to measure academic status, irrespective of the grade level at which a student is performing, and to calculate academic growth over time so that these measures can inform instruction during the year. Mandatory state tests, on the other hand, are summative tests, designed to measure the culmination of a student's learning within grade level and typically administered at the end of the school year for accountability purposes (high stakes).

To aid those educators and decision-makers entrusted with ensuring that all students are learning and that valuable tax dollars are being spent wisely, NWEA has provided the following document to clarify the record and to ensure that facts are governing future discussions. As these important debates about accountability and educator evaluations continue, NWEA will continue to update this document to serve as a resource.

## Myth

## Truth

### 1. MAP is just another high-stakes test.

MAP is an interim assessment, designed to be given two or three times per year to measure a student's academic achievement and calculate academic growth. Teachers use the data to guide instruction in the classroom. MAP provides an immediate snapshot of where a student is performing today, irrespective of the grade level, as opposed to the state summative test that only provides a grade level view, annually. With student data and professional development, educators can use MAP results to tailor instruction to meet the needs of each student.

### 2. Teachers don't know what content MAP covers.

MAP is aligned to a state's content standards that are published on each state education agency website. MAP measures progress to the standards. Each district has a curriculum that supports those standards.

### 3. Administration of MAP takes too much time.

The typical MAP assessment is 42 - 50 questions long, completed by most students in about an hour. As a computerized adaptive test, MAP provides instantaneous results that educators can use immediately in the classroom. Moreover, resources included with MAP help educators translate assessment data into actionable plans for instruction at the student and classroom level that close gaps in student learning. When an educator understands what a student knows and doesn't know, valuable instructional time is not wasted on concepts the student already understands.

### 4. Computerized adaptive testing is unfair to students.

MAP adaptive assessments provide a balanced approach for measuring a student's academic status and growth. As students answer questions correctly, they receive more challenging questions related to the state standards. Should a student answer a question incorrectly, he or she will get an easier question aligned to the state standards. This ensures a fairer process for measuring actual student knowledge, with a focus on standards. Additionally, unlike summative exams that only offer a measure of student proficiency at grade level, MAP generates precise estimates of achievement regardless of whether a student is performing at grade level, far above, or far below. In order for a traditional pencil and paper assessment or fixed form test (a static or fixed set of questions administered to all students) to provide the precision that MAP does, the test would have to be exceptionally long. The beauty of the adaptive test is that children who might not know any test answers on a fixed form test will be able to answer what they do know on an adaptive test, and conversely, high performers will be challenged and given an accurate result of their achievement level outside their grade level. By identifying students' true levels of knowledge, teachers can target instruction to each learner's needs.

### 5. MAP is particularly unfair to students of special populations.

Because MAP is computer adaptive each test draws from a test question pool of over 3,000 questions aligned to state standards. Every student receives a different assessment that is appropriately adjusted to that student's performance level. The student has as much time as he/she needs to complete the test.

Note: NWEA's bank of test questions, typically known as test items, has over 32,000 items.

**6. MAP is not an appropriate test for high school students. The margin of error is sometimes larger than student gains.**

MAP is designed to make measurement error as small as possible. As an adaptive test, MAP scores are substantially more precise and reliable than non-adaptive tests of similar length. The accuracy of MAP for measuring student growth at the high school levels is no different than at the other grades. It is an observable fact, however, that the pace of student growth is comparatively more rapid in the early grades than in the upper grades. There are many reasons why the academic growth for individual high school students over a typical school year will be generally smaller relative to the standard error of measurement, than in earlier grades. One reason, for example, is that the skills and concepts at the high school level are far more difficult to learn than at earlier grades, and so slower gains can be expected of students as the curriculum becomes more challenging.

MAP data is especially useful for teachers in identifying students who are entering or progressing through high school materially below or above grade level. By measuring and monitoring the growth that does occur, teachers can become much more effective at designing individualized instruction and at assessing the impact of these instructional interventions.

**7. Students just aren't motivated to take the MAP assessment.**

Student motivation is a challenge that every district, school, and teacher faces, no matter what tools are applied in the classroom. In thousands of school districts across the nation, we see that when MAP is paired with professional development on the use of data and goal setting, students become more engaged in using MAP data as part of a learning contract in setting goals with the teacher. This contract helps students to be self-motivated around their own learning.

To increase motivation, many teachers explain to their students before testing the adaptive design of MAP (it's not a pass/fail test), and how, together, they will use the score to set goals.

Researchers at NWEA have extensively studied the impact of student effort on MAP results and found that as students get older, the test-taking effort of an increasing number of students decreases. Decreased compliance of students as they enter adolescence is not confined only to test taking (as any teenager's parents can attest), but to many areas of their lives.

**8. The use of MAP takes up too much important classroom time.**

MAP was designed to complement and guide instruction, not compete with instructional time. A MAP test is about an hour and is typically administered 2-3 times per year.

MAP is a source of valuable information about each student's academic status and growth. Use of that data by the teacher can be a powerful part of the instructional process, and need not be an add-on to enforce accountability.

**9. Tests like MAP should not be used to evaluate teacher effectiveness.**

NWEA is not in the business of developing teacher effectiveness systems. We are a student assessment and professional development organization that provides excellent research-based data to help teachers in the classroom.

Measuring the effectiveness of a teacher or principal is a complicated endeavor, and it is one that cannot be adequately determined based on any single factor, such as one test. There are many factors that help determine effective teaching. Information from multiple sources, including principal and peer observations, test data taken over multiple time points and drawn from many students, and student input should all be considered in building a comprehensive evaluation portfolio. NWEA aims to work with educators and administrators to offer guidance on how best to use our assessment within such a portfolio that is fair to teachers and that does not impede our mission of partnering to help all kids learn.

While student performance is part of the measure of classroom success, it should not be the determining or predominant factor. Just as we must look at the whole child, we must also look at the whole teacher. And just as we can agree that one exam is not the end-all, be-all measure of an individual student's learning, we must also agree that one student test should also not be the only measure of whether a teacher is doing an effective job or not.

**10. Companies like NWEA are making big profits off of student testing.**

In 1974, a group of educators and researchers in the Pacific Northwest came together to discuss how to create a more efficient method of measuring student achievement in schools. For nearly 40 years, NWEA has greatly increased the toolsets for educators that measure and encourage student learning, and our mission of partnering with educators to help all kids learn has not changed. We serve over 5,200 school districts, and close to 7 million children, across the country.

NWEA is a not-for-profit organization. We are driven by mission, not profits, and our earnings are reinvested in research and product enhancements. Further, all NWEA board members are volunteers and do not receive compensation for serving.

**11. MAP is not a valid test.**

MAP is a valid test for measuring a student's achievement status to state standards, academic growth, and projecting proficiency to state standards. MAP assessments are based on a well-documented and respected established theory of measurement called Item Response Theory (IRT), under which the difficulty of test questions and people's achievement level can be measured using the same scale.

MAP assessments use scales we call the RIT scale, short for Rasch Unit, named after a Danish psychometrician and statistician Georg Rasch whose work contributed profoundly to IRT.

The numerical (RIT) value assigned to a student represents the most difficult question that he or she is capable of answering correctly about 50% of the time. Students taking the MAP test receive a statistically derived RIT score. Teachers can use this RIT score to understand current student achievement levels.

Over the years that the MAP system has been used, a wide variety of studies have shown MAP scores to be accurate for a variety of uses, including prediction of performance on future state assessments.