

# Are Maine Through Year and MAP Growth RIT Scores Comparable?

## Understanding Maine Through Year and MAP Growth Scores

### WHAT IS COMPARABILITY?

Comparability in assessments means that the scores on one test can be psychometrically related to a score on another “comparable” assessment – allowing users to confidently compare scores from two assessments.<sup>1</sup> Psychometrics is a field of study that helps us measure and understand things that are not directly observable, like a person’s knowledge, skills, or abilities. Comparability does not mean that the scores will be identical, even if students take the same assessment within a short period of time. Comparability refers to how much we can trust that the scores from different assessments tell us the same things about what students know and can do. When we say two assessments are comparable, it means that the results they give us lead to similar conclusions about what students have learned or can do in a particular area of study.

### ARE MAINE THROUGH YEAR AND MAP GROWTH COMPARABLE?

For two assessments to be comparable it is important that what the assessments measure (i.e., their construct) is identical or sufficiently similar to the extent that treating them as identical would not result in any difference of practical significance. Maine Through Year and MAP® Growth™ measure extremely similar constructs, within Reading and Mathematics on both assessments.

**When we say that the Maine Through Year RIT score and MAP Growth RIT score are comparable, it means that through careful and detailed statistical analysis, we have found that these two sets of scores share similar characteristics.**

In order to produce a RIT scale based on a mixture of Maine summative and MAP Growth items, all the Maine summative items should have item parameter estimates on the RIT scale. These estimates provide important information about how each test item performs and contributes to the overall measurement of a trait or ability. The key assumption behind calibrating Maine summative items onto the RIT scale is that the Maine summative and MAP Growth items measure very similar constructs.

<sup>1</sup> [Comparability of Large-Scale Educational Assessments](#)



Through an examination of the assessments using a Dimensionality Evaluation to Enumerate Contributing Traits (DETECT) dimensionality assessment method, indicating that the Maine summative and MAP Growth items measure essentially the same construct in the Maine summative assessment. As can be seen in Table 1, the largest value is 0.19, indicating that the Maine summative and MAP Growth items measure essentially the same construct in the Maine summative assessment.<sup>2</sup>

In the spring of 2023, students participated in the Maine Through Year Assessment with approximately 11% of Maine’s students also participating in the MAP Growth assessment in a similar time frame and at the decision of the SAU. This provides an opportunity to gather valuable data and insights about their learning progress and performance. Combining the results from these assessments can help educators and policymakers make informed decisions regarding curriculum, instruction, and educational interventions.



**TABLE 1 - DETECT VALUES FOR MATH AND READING TESTS**

GRADE	MATH	READING
3	-0.29	-0.54
4	0.19	-0.24
5	-0.21	-0.22
6	0.11	-0.63
7	-0.15	-0.47
8	-0.64	-0.24
HIGH SCHOOL	-0.41	-1.07

<sup>2</sup> Values that are between 0.2 and 0.4 indicate weak multidimensionality, values between 0.4 and 1 indicate moderate multidimensionality, and values greater than 1 indicate strong multidimensionality.



## WHAT MIGHT CAUSE THE DIFFERENCE IN MAP GROWTH AND MAINE THROUGH YEAR SCORES?



The difference between the two sets of RIT scores were likely due to measurement error and test design requirements for through year assessment.



MAP Growth uses mainly stand-alone reading items and only about two reading passages per test, whereas the Spring 2023 Maine Through Year Assessment was composed of reading passages and associated items.



## SHOULD WE EXPECT THESE TYPES OF DIFFERENCES?



Yes. We do not expect assessment scores from the same administration window to be identical, even if the student takes the same assessment twice. Many factors could impact how a student performed across two assessments, including illness, test anxiety, knowledge gaps, environment, and motivation.



## WHAT DOES THIS MEAN ABOUT THE RIT SCORE FROM THE MAINE THROUGH YEAR ASSESSMENT?



There is strong correlation between the two RIT scores and the mean RIT scores are similar.