

Using NWEA Assessments in APPR Plans

Approved Options for Education Law §3012-d for the 2018-19 School Year

April 2019

Overview

In 2015, the New York State Education Department (NYSED) approved NWEA™ proposals for inclusion on the Education Law §3012-d “Approved List of Assessments to be Used with SLOs” and “Approved List of Supplemental Assessments to be used with Growth Models.” The NWEA proposals included MAP® Growth and MAP Growth K-2 assessments.

Under the growth models option, NWEA recommends that districts use value-added results to quantify the extent to which educators affected student growth over the course of a year. NYSED requires districts to set goals for students that are equivalent to a year’s worth of academic growth; for this purpose, NWEA recommends that schools use the 2015 student growth norms from NWEA as the basis for measuring a year of growth, with a reasonable confidence band included around each student’s individualized growth norm. Each of these approaches will be described in greater detail in the following sections.

NWEA is partnering with Education Analytics, Inc. (EA), a non-profit organization based in Madison, Wisconsin, that works with educators across the country to help make decisions based on student testing data that are fair, rigorous, and technically defensible. EA has provided growth model results using NWEA assessment data to approximately 50 New York districts per year since 2012.

Districts that elect to participate and follow EA’s process will receive both the growth model and SLO results, as well as translations of those results to a default 0-20 HEDI scale. These results will be available for teachers who teach students in grades K – 10 in mathematics, reading, and language usage, and for the 2018-19 school year are included in your MAP subscription.

EA will provide growth model and SLO results, translated into 0-20 point HEDI scores, at the following levels of aggregation:

Teacher-level

- Results for all subjects combined
- Results for individual subjects
- Results for reading and language usage combined

Grade-level

- Results for all subjects combined
- Results for individual subjects
- Results for reading and language usage combined

School-level

- Results for all subjects combined
- Results for individual subjects
- Results for reading and language usage

NWEA Assessments in Student Learning Objectives

To adhere to NYSED’s SLO guidelines, student growth goals need to be equivalent to a year’s worth of growth, and aggregations of student performance relative to those year-long goals must adhere to the State’s 0-20 point HEDI translation framework. These two conditions present some challenges to establishing fair and reasonable growth goals for students and educators. However, based on data from prior years, NWEA recommends the following approach.

The NWEA nationally representative fall-to-spring student growth norms should be used as the basis for growth goals for educator SLOs. This normative data provides educators with information about the average growth observed for students based on their grade, subject, starting RIT score, and the number of instructional weeks between test events, and provides realistic growth expectations for students over the course of the year. Upon completion of fall testing, each student receives a fall-to-spring growth projection that is based on the norming data; these projections are available to all educators in standard NWEA reports, so educators will know at the start of the year what the individualized growth goal is for each of their students.

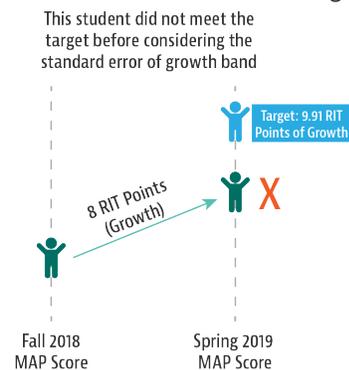
However, if we simply computed the percentage of students in a classroom whose fall-to-spring growth met or surpassed the growth norms, a significant percentage of teachers would receive an Ineffective APPR rating. This is because NYSED has established that an Ineffective rating equates to 0-59% of students meeting their year-long growth goals, but we know that on average, approximately 50% of students will show growth greater than or equal to the growth norms.

To address this, NWEA recommends that a student’s growth goal be based on the growth norms, but that the standard error of growth be considered when interpreting student growth relative to the growth norms. Specifically, NWEA has recommended the use of a “band” around the growth norms equivalent to 1.6 standard errors of growth. For most students, 1.6 standard errors of growth will be approximately 6.8 RIT points, though the exact magnitude of the standard error of growth will depend on the specific standard errors of measurement associated with a student’s

The standard error of growth is calculated based on the standard error of measurement (SEM) associated with a student’s starting (fall) and ending (spring) RIT score. For most students, the SEM for individual test events will be approximately 3.0 RIT. If the SEMs for both test events were 3.0 RIT, then the standard error of growth would be 4.2 RIT (the calculation for the standard error of growth is to square the SEMs for both test events, sum those squared SEMs, and then calculate the square root of that summed value). If the standard error of growth is 4.2, then 1.6 standard errors of growth is equal to 6.8 RIT (4.2×1.6).

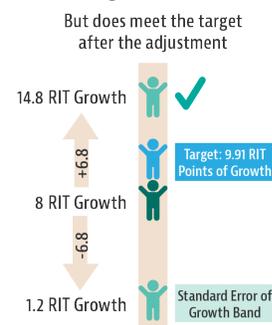
fall and spring score.¹ By using this standard error of growth band, students will only fail to meet their growth goal if their growth is statistically different from the growth norm.

To illustrate, the fall-to-spring growth norm for a 5th grade student in mathematics is 9.91 RIT points. If the student showed 8 RIT points of growth over the year, his actual growth would fall short of the growth norm.



However, if we consider the band of 1.6 standard errors of growth (which is approximately 6.8 RIT), then this student will have met his growth goal for APPR purposes.

An educator’s SLO will be based on the percentage of students in his or her classroom whose growth exceeds their growth goals.



This SLO approach has been approved for use for teachers who teach students in grades K – 10 in mathematics, reading, and language usage. EA will calculate the percentage of students who meet their growth goals at the teacher, grade, and school level, and will translate those percentages into 0-20 point HEDI scores. Similar to their growth model approach, EA will use student-teacher linkage data from a subset of a district’s SIRS data for SLO calculations.

NWEA Assessments in a Growth Model (Value-Added Model)

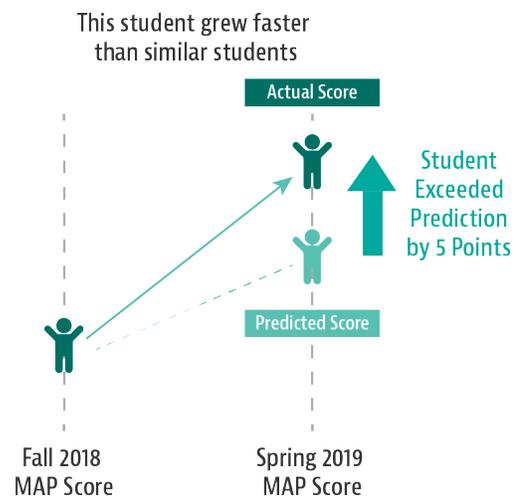
NWEA recommends the use of a fall-to-spring growth model for APPR purposes, because this type of approach specifically accounts for student factors such as a student’s prior test history, special education status, poverty status, English language learner (ELL) status, the amount of instructional time between test events, etc., that are related to (or can affect) the amount of growth students show on standardized assessments. These student factors are outside of a teacher’s direct control, and as such, should be considered in any evaluation of an educator’s work with their students over the course of the year. Failing to consider these student factors in the evaluation of educator performance may put some educators at an advantage or disadvantage based on the types of students with whom they work—that is something we want to avoid. To provide districts with growth model results, EA will need to collect certain types of data directly from RICs and districts, including student demographic and course information and student-teacherlinkage data. These data are available in the Student Information Repository System(SIRS) data files. EA will work with partners to collect the specific SIRS files needed for this work.

Growth model results are available at the teacher, grade, and school level for teachers who teach students in grades K – 10 in mathematics, reading, and language usage. These growth model results reflect how the growth of an educator’s students compares to the growth of similar students, expressed as a standardized value-added score. For each student, EA compares actual growth to a predicted amount of growth based on similar students from across the state (see graphic to the right).

These individual student growth outcomes are then aggregated up to the teacher level and translated to 0-20 using the method determined by the Advisory Committee. For example, if on average a teacher’s students grew at a rate equal to similar students, that teacher would receive a score of 16 (or “Effective”) using this method (see graphic below).



For more technical information about growth modeling in general, as well as details about the joint work of NWEA and EA in New York in previous years, please visit: <https://edanalytics.org/projects/ny-map-1>



Translation to HEDI Scale

The following HEDI translation tables have been approved by NYSED for use in New York. EA will work with NWEA to revise these translations in the future should the need arise, based on how educators are distributed to HEDI categories or from feedback from the New York Advisory Committee or participating New York districts.

SLO Translation Table

Effectiveness Rating	Points Awarded	% Students Meeting Growth Targets
Highly Effective	20 points	97% to 100%
	19 points	93% to 96%
	18 points	90% to 92%
Effective	17 points	85% to 89%
	16 points	80% to 84%
	15 points	75% to 79%
Developing	14 points	67% to 74%
	13 points	60% to 66%
Ineffective	12 points	55% to 59%
	11 points	49% to 54%
	10 points	44% to 48%
	9 points	39% to 43%
	8 points	34% to 38%
	7 points	29% to 33%
	6 points	25% to 28%
	5 points	21% to 24%
	4 points	17% to 20%
	3 points	13% to 16%
	2 points	9% to 12%
	1 point	5% to 8%
	0 points	0% to 4%

Growth Model (Value-Added) Translation Table

Effectiveness Rating	Points Awarded	Range of Standardized Value-Added Scores
Highly Effective	20 points	2.47 and up
	19 points	1.93 to 2.46
	18 points	1.40 to 1.92
Effective	17 points	0.58 to 1.39
	16 points	-0.23 to 0.57
	15 points	-1.05 to -0.24
Developing	14 points	-1.36 to -1.06
	13 points	-1.68 to -1.37
Ineffective	12 points	-1.78 to -1.69
	11 points	-1.88 to -1.79
	10 points	-1.98 to -1.89
	9 points	-2.08 to -1.99
	8 points	-2.18 to -2.09
	7 points	-2.29 to -2.19
	6 points	-2.39 to -2.30
	5 points	-2.49 to -2.40
	4 points	-2.59 to -2.50
	3 points	-2.69 to -2.60
	2 points	-2.80 to -2.70
	1 point	-2.90 to -2.81
	0 points	Less than -2.91

Obtaining SLO and Growth Model Results

In order to receive SLO and growth model results that are included in your MAP subscription for the 2018-19 school year, your district must submit a Data Release Agreement to EA for SIRS data. The agreement has been sent to your district MAP System Administrator; please check with them to ensure that the Data Release Agreement was received and signed. If your district has not received the Data Release Agreement, or if you have questions about the sign-up process, please contact EA at newyorkappr@edanalytics.org.

We will be in touch with you about upcoming deadlines, logistics for EA to obtain SIRS data for your district, and information on how we transfer SLO and growth model results back to your district.

For questions related to these APPR approaches, or any other questions related to the use of NWEA assessments for APPR purposes, please contact Education Analytics at: newyorkappr@edanalytics.org.