

# STUDENT ASSESSMENTS FOR TEACHER AND PRINCIPAL EVALUATION

### **PUBLICLY AVAILABLE SERVICES SUMMARY**

This form will be posted on the New York State Education Department's Web site and distributed through other means for all applications that are approved in conjunction with this RFQ to allow LEAs to understand proposed offerings in advance of directly contacting Assessment Providers regarding potential further procurements.

Assessment Provider Information				
NAME OF ASSESSMENT PROVIDER:	Greenburgh-Graham UFSD			
ASSESSMENT PROVIDER CONTACT	Ms. Dara Joseph, Acting Superintendent			
Information:	1 South Broadway			
	Hastings-on-Hudson, NY 10706			
NAME OF ASSESSMENT:	Greenburgh Graham Local Assessment			
NATURE OF ASSESSMENT (SELECT ALL THAT	REQUIRED STUDENT PERFORMANCE SUBCOMPONENT (STUDENT			
APPLY):	LEARNING OBJECTIVES [SLOS])			
	OPTIONAL STUDENT PERFORMANCE SUBCOMPONENT			
	PLEASE SPECIFY:			
	A SECOND SLO, PROVIDED THAT THIS SLO IS DIFFERENT			
	THAN THAT USED IN THE REQUIRED STUDENT PERFORMANCE			
	SUBCOMPONENT			
	A GROWTH SCORE BASED ON A STATISTICAL GROWTH MODEL			
	A MEASURE OF STUDENT GROWTH, OTHER THAN AN SLO			
	A PERFORMANCE INDEX			
	AN ACHIEVEMENT BENCHMARK			
	ANY OTHER COLLECTIVELY BARGAINED MEASURE OF			
	STUDENT GROWTH OR ACHIEVEMENT			
*	PLEASE SPECIFY:			
What is the grade(s) and subject area(s)	K-5 Common Branch; 6-8 ELA/Math (and/or i-Ready); 6-8			
FOR WHICH THE ASSESSMENT CAN BE USED TO	Science, Social Studies; 9-12 courses not ending in NYS			
GENERATE A 0-20 STUDENT PERFORMANCE	Regents. All K-12 non-core elective courses (Physical			
SCORE?	Education, Art, Music, Health, Foreign Language, Technology)			
What are the technology requirements	Student technology devices as appropriate, calculators as			
ASSOCIATED WITH THE ASSESSMENT (E.G.,	appropriate.			
CALCULATORS, ETC.; IF APPLICABLE)?				
IS THE ASSESSMENT AVAILABLE, EITHER FOR	YES			
FREE OR THROUGH PURCHASE, TO OTHER				
LEAS IN NEW YORK STATE?	⊠ No			

PLEASE PROVIDE AN OVERVIEW OF THE ASSESSMENT FOR LEAS. (3 PAGES MAX) PLEASE INCLUDE:

- A DESCRIPTION OF THE ASSESSMENT;
- A DESCRIPTION OF HOW THE ASSESSMENT IS ADMINISTERED;
- A DESCRIPTION OF HOW SCORES ARE REPORTED (INCLUDE LINKS TO SAMPLE REPORTS AS APPROPRIATE);
- A DESCRIPTION OF HOW THE ASSESSMENT PROVIDER SUPPORTS IMPLEMENTATION OF THE ASSESSMENT,
   INCLUDING ANY TECHNICAL ASSISTANCE.

#### **GGUFSD Local Assessment Overview**

The Greenburgh-Graham Union Free School District Local Assessments are a K-12 performance-based system. The GGUFSD Local Assessments incorporate the appropriate NYS Standards for each course and is vertically aligned according to learning progressions that measure academic growth over time. The GGUFSD Local Assessments measure content acquisition, skill development, critical thinking, and problem-solving through consistent routine tasks and hands-on activities that are embedded into regular instruction. This instructional process includes relevant, actionable feedback. The questions designed are aligned with instructional objectives and modeled after the NYS assessments when applicable and appropriate. They are reviewed each year by teachers in the specific content area in collaboration with the building administrators utilizing the data received from administering the assessments.

The GGUFSD Local Assessments will be administered to students over a period of days (as needed) with specific instructions that are presented to students based on their developmental level in accordance with each student's IEP. Students can complete the required tasks by following the checklists and instructions provided. They are administered at least two times per year and questions from the assessments are often woven into the traditional classroom assessments as teachers see fit.

The GGUFSD Local Assessments will be scored during dedicated scoring and reporting times each spring. Individual assessments are scored against a rubric that is vertically aligned by content area and aligned to appropriate NYS Standards. The rubrics used are designed and developed by our teachers in accordance to our local standards of instruction and learning. They are consistent across grade levels and demonstrate appropriate progression vertically among grade levels. Rubrics are reviewed regularly (at least yearly) to accommodate trends in instruction and learning. Teachers will not score the assessments of their students. Scores are then uploaded and converted to a teacher rating for APPR purposes. Administration of the GGUFSD Local Assessment is supported by school administrators and district-wide staff developers. Annual training and instruction is provided to teachers prior to the administration of the local assessment. School administrators ensure proper security for the storage of local assessments prior to and following the administration.

How is the selected assessment already being integrated/going to be integrated into the curriculum of the grade level/course? How does the selected assessment support the day-to-day academic goals of the educator?

GGUFSD Local Assessments are aligned to the appropriate NYS Standards per course. Our students are provided access to the curriculum via Specially Designed Instruction aligned to their individually and thoughtfully created IEP goals and objectives. The assessments are designed collaboratively by our teachers and are reinforced through teaching practices and instructional methodologies. Student Learning Objectives help to drive the needs of the daily practice. Consistent data based on the individualized SLOs help to shape the nature of instructional goals for each class and of course, each student. Instructional objectives and central ideas stemming from the assessments for each course develop the scope and sequence of the courses. Teachers use the assessments regularly throughout the course as the instructional needs of the students dictate in a variety of ways including daily assessments, short-term assessments and end of unit assessments, which all correlate to the larger assessment given twice a year.

HOW DO YOU ENSURE THAT THE ASSESSMENT ACCURATELY CAPTURES IF STUDENTS HAVE MASTERED THE KEY CONCEPTS FOR THE GRADE LEVEL/COURSE? HOW IS THE ASSESSMENT ALIGNED WITH THE GRADE LEVEL/COURSE-RELEVANT LEARNING STANDARDS/NEXT GENERATION ASSESSMENT PRIORITIES?

We ensure that the assessment accurately captures if students mastered key concepts for the grade and course by using rubrics to support teaching practices and progress monitoring of benchmarks as well as individualized IEP goals. The rubrics are designed collaboratively among our teachers to support appropriate growth, content acquisition and support continued modification of instructional objectives based on performance and the unique instructional needs of our students. The measures used to accurately measure student performance are designed specifically for the needs of our students while ensuring rigorous content is being presented. Throughout the year, our teachers also use both formative and summative assessments to progress through the mastery of the content presented through the standards.

Alignment from the NYS Common Core Standards to the NextGen standards is ongoing, developed and designed with the supportive guidance of NYSED and reviewed twice a year. Teachers have the opportunity to work collaboratively to utilize crosswalks to make the necessary modifications. Teachers have the opportunity to do this through collaboration periods as well as conference days built into our school calendar.

HOW IS THE SELECTED ASSESSMENT SCORED? HOW ARE THE ASSESSMENT RESULTS EFFECTIVELY COMMUNICATED TO RELEVANT STAKEHOLDERS (STUDENTS, PARENTS, TEACHERS, ADMINISTRATORS, ETC.)? WHAT ARE THE ASSESSMENT SCORES THAT REFLECT THAT A STUDENT IS:

- 1. BELOW PROFICIENCY
- 2. APPROACHING PROFICIENCY
- 3. MEETING PROFICIENCY
- 4. DEMONSTRATING MASTERY

The results of the assessments are shared among peer educators (common among grade levels/subjects) and the data is analyzed at the start of the school year with the baseline assessment. The goals of the courses, in addition to the individual student goals and objectives (including SLOs) are developed based on the results of the baseline assessments. Continuous meetings and discussions with teachers and administrators regarding student progress (on smaller benchmarks) are measured and goals/objectives are adjusted as needed. Results are shared with families via regular communication from teachers as well as parent teacher conferences and CSE meetings as necessary.

Proficiency Levels are as follows for all K-12 assessments.

1. Below Proficiency: 0 – 59%

2. Approaching Proficiency: 60 – 69%

3. Meeting Proficiency: 70 – 89%

4. Demonstrating Mastery: 90 – 100%

IF THE SELECTED ASSESSMENT(S) ARE NOT STANDARDIZED, PLEASE DESCRIBE HOW THE ASSESSMENT PROCESS IS COMPARABLE ACROSS GRADE LEVELS/COURSE-ALIKE CLASSROOMS?

GGUFSD Local Assessments are standard in course-alike classrooms and are vertically aligned to the course-specific standards. Curricular goals are mapped (specifically using Atlas at the HS Level) and revisited throughout the year to ensure alignment to standards, scope and sequence of course and of course, to the assessments. Teachers are trained in the rubrics, which are consistent across grade levels when appropriate, to support appropriate grade level development and progress. Vertical discussions among teachers in course-alike classrooms work collaboratively to determine benchmark standards (and sometimes samples) to identify the levels of proficiency among the grade levels, and vertically, identifying areas of expected growth and proficiency.

HOW IS THE SELECTED ASSESSMENT ABLE TO MAXIMIZE THE EFFICIENCY WITH WHICH STUDENT PERFORMANCE DATA IS GATHERED TO ALLOW FOR MORE CLASSROOM INSTRUCTIONAL TIME?

GGUFSD Local Assessments are reviewed annually and modified as needed. Teachers modify teaching goals based on the data received from the assessments, and adjust teaching and learning objectives as necessary in an attempt to meet desired achievement levels on assessments throughout the year. Additionally, individual student performance supports the development of both Student Learning Objectives to support 1 year's growth in addition to individualized IEP goals which aid in Specially Designed Instruction for each student. These practices ensure optimal instructional practices and more instructional time. Data from assessments is reviewed and used to help make instructional decisions about courses and set instructional targeted goals in each subject.

IF APPLICABLE, HOW WILL TECHNOLOGY BE UTILIZED DURING THE ADMINISTRATION OF THE SELECTED ASSESSMENT TO PROVIDE TIMELY AND ACTIONABLE INFORMATION?

Technology may be used to administer some of the GGUFSD Local Assessments as prescribed by accommodations on students IEPs. Additionally, age/skill level may dictate the administration of some GGUFSD Local Assessments through technology. The use of technology can aid in a timely administration of the assessments as well as accurate results presented in a manner to analyze the data more efficiently. In both cases, results are presented through the use of technology to aid in more sufficient analysis.

PLEASE PROVIDE ANY ADDITIONAL INFORMATION THAT MAY BE USEFUL WHEN REVIEWING YOUR APPLICATION:

Please complete the following section if the selected assessment is being used for the Required Student Performance subcomponent (SLOs) and/or is being used with Optional Student Performance subcomponent as an SLO:

#### **Process for Measuring Student Growth:**

Consistent with Department regulations and guidance, an SLO is an instructional planning tool developed at the start of an educator's course or building principal's school year that includes expectations for student growth. It should represent the most important learning aligned to national or state standards, as well as any other school and LEA priorities. The goals included in the SLO must be specific and measurable, based on available prior student learning data. Before setting targets for expected growth, educators will determine students' levels of preparedness at the start of the course by reviewing relevant baseline data. This baseline data may come from a variety of sources which include, but are not limited to, a student's prior academic history, pre-tests, or end of course assessments from the prior year.

SLOs are developed and approved through locally-determined processes consistent with the Commissioner's goal-setting process. SLOs should be based on the best available student data and should be ambitious and rigorous for all students. Superintendents must certify that all individual growth targets used for SLOs represent, at a minimum, one year of expected growth.

WHAT MEASURE(S) OF BASELINE DATA ARE USED IN CONJUNCTION WITH THE SELECTED ASSESSMENT TO MEASURE STUDENT GROWTH (SELECT ALL THAT APPLY):

MISTORICAL DATA		
Current Cohort Previous cohort(s)		
DESCRIBE HOW THE HISTORICAL DATA INFORMS PREPAREDNESS FOR THE COURSE AND IS A GOOD		
PREDICTOR OF STUDENT GROWTH:		
HISTORICAL DATA FROM BOTH THE CURRENT COHORT AS WELL AS PREVIOUS COHORTS AID IN THE		
DEVELOPMENT OF SLOS TO HELP SET TARGETS. IN AN ATTEMPT TO MAKE THE MOST INFORMED		
DECISIONS, WE USE I-READY DATA FROM BOTH INSTRUCTION AND DIAGNOSTIC ASSESSMENTS OVER TIME		
AND STUDENT PERFORMANCE ON LOCAL ASSESSMENTS. NOT ONLY IS INDIVIDUAL STUDENT DATA USED,		
HISTORICAL TRENDS PER GRADE LEVELS, AND INDIVIDUAL CLASSROOMS ARE USED. (THIS INFORMATION		
IS CRITICAL TO IDENTIFY TRENDS AND AREAS OF STRENGTH AND WEAKNESS IN INSTRUCTION. THIS, USED		
IN CONJUNCTION INDIVIDUAL STUDENT DATA INCLUDING HISTORICAL ASSESSMENT DATA, PROGRESS		
MONITORING DATA (BOTH BENCHMARK AND IEP GOAL/OBJECTIVE DATA) AS WELL AS TEACHER		
OBSERVATION AID IN THE DEVELOPMENT OF APPROPRIATE SLO DEVELOPMENT IDENTIFYING 1 YEAR OF		
GROWTH AS THE TARGET.		
Early course formative assessment and/or observational data		
DESCRIBE HOW THE EARLY COURSE FORMATIVE ASSESSMENT AND/OR OBSERVATIONAL DATA INFORMS		
PREPAREDNESS FOR THE COURSE AND IS A GOOD PREDICTOR OF STUDENT GROWTH:		
EARLY COURSE ASSESSMENTS AND OBSERVATIONS SUPPORT THE EVER-CHANGING INSTRUCTIONAL		
NATURE OF THE TEACHING/LEARNING OBJECTIVES THROUGHOUT THE YEAR. THESE DATA POINTS		
SPECIFICALLY SUPPORT THE DEVELOPMENT OF THE SPECIALLY DESIGNED INSTRUCTION FOR EACH		
STUDENT BASED ON THEIR LEARNING STYLES/NEEDS AND THE ATTAINMENT OF THE CONTENT GOALS.		
Pre-assessment		
DESCRIBE HOW THE PRE-ASSESSMENT INFORMS PREPAREDNESS FOR THE COURSE AND IS A GOOD		
PREDICTOR OF STUDENT GROWTH:		
The pre-assessment by nature is designed to be administered at the start of the year and		
PROVIDES TEACHERS WITH VITAL INFORMATION RELATED TO COURSE-SPECIFIC STANDARDS. THIS		
INFORMATION, COMBINED WITH THE ABOVE IS USED TO SET GROWTH TARGETS FOR EACH STUDENT,		
DEVELOP TARGETED INSTRUCTIONAL GROUPINGS AND SPECIALLY DESIGNED INSTRUCTIONAL GOALS. IN		
ADDITION, THE HISTORICAL DATA USED FROM PRIOR YEARS I-READY, LOCAL AND CLASSROOM		
ASSESSMENTS AND INSTRUCTION SUPPORT THE DEVELOPMENT OF APPROPRIATE SLO DESIGNED TO		
SUPPORT STUDENT GROWTH AND MOVEMENT TOWARD MASTERY.		
OTHER		
Please specify:		
DESCRIBE HOW THIS BASELINE DATA INFORMS PREPAREDNESS FOR THE COURSE AND IS A GOOD PREDICTOR OF STUDENT GROWTH:		

PLEASE EXPLAIN HOW GROWTH TARGETS FOR EACH STUDENT ARE SET FOR THE SELECTED ASSESSMENT AND METHOD OF COLLECTING STUDENT LEVEL BASELINE DATA, INCLUDING HOW TARGETS ARE DIFFERENTIATED, AS NECESSARY, BASED ON THE INFORMATION PROVIDED BY THE BASELINE DATA. IN PARTICULAR, PLEASE EXPLAIN HOW THE ASSESSMENT IS USED WITH STUDENTS WHOSE PREPAREDNESS FOR THE COURSE/GRADE LEVEL IS VARIED:

Growth targets are set in accordance to NYSED SLO guidance. Target setting involves the collection and analysis of student specific data. These individual targets are set with historical data in mind (i-Ready diagnostics, classroom experiences, past assessments) and of course pre-assessment data. Teachers collaborate with colleagues and meet with administrators to determine appropriate targets based on current proficiency, identified growth goals in i-Ready (as appropriate) and classroom data. These data points help to develop appropriate differentiated targets for each student. Target are set within the 0-100 scale.



## STUDENT ASSESSMENTS FOR TEACHER AND PRINCIPAL EVALUATION

#### **APPLICANT CERTIFICATION FORM**

Please read each of the items below and check the corresponding box to ensure the fulfillment of the technical criteria.

PLEASE SUBMIT ONE "FORM G" FOR EACH APPLICANT.

The Applicant makes the following assurances:

Assurance		
	box:	
The assessment is rigorous, meaning that it is aligned to the New York State learning standards or,		
in instances where there are no such learning standards that apply to a subject/grade level, alignment to research-based learning standards.		
To the extent practicable, the assessment must be valid and reliable as defined by the Standards of Educational and Psychological Testing.		
If used with a Student Learning Objective, the assessment can be used to measure one year's expected growth for individual students.	$\boxtimes$	
For K-2 assessments, the assessment is not a "Traditional Standardized Assessment" as defined in Section 1.3 of this RFQ.	$\boxtimes$	
For assessments previously used under Education Law §3012-c, Education Law §3012-d under RFQ #15-001, or for purposes other than educator evaluation, the assessment results in differentiated student-level performance. If the assessment has not produced differentiated results in prior school years, the applicant assures that the lack of differentiation is justified by equivalently consistent student results based on other measures of student achievement.	$\boxtimes$	
For assessments not previously used in teacher/principal evaluation, the applicant has a plan for collecting evidence of differentiated student results such that the evidence will be available by the end of each school year.	$\boxtimes$	
At the end of each school year, the applicant will collect evidence demonstrating that the assessment has produced differentiated student-level results and will provide such evidence to the Department upon request. <sup>4</sup>		

<sup>&</sup>lt;sup>4</sup> Please note, pursuant to <u>Section 2.2</u> of this RFQ, an assessment may be removed from the approved list if such assessment does not comply with one or more of the criteria for approval set forth in this RFQ

# To be completed by the Copyright Owner/Assessment Representative of the assessment being proposed and, where necessary, the co-applicant LEA:

1. Name of Organization (PLEASE PRINT/TYPE)	
, , ,	4. Signature of Authorized Representative
2. Name of Authorized Representative (PLEASE	
PRINT/TYPE)	5. Date Signed
3. Title of Authorized Representative (PLEASE	
PRINT/TYPE)	

Greenburgh Graham Union Free School District  1. Name of LEA (PLEASE PRINT/TYPE)	4. Signature of School Representative
Dara Joseph 2. School Representative's Name (PLEASE PRINT/TYPE)	5. Date Signed 4/11/24
Acting Superintendent  3. Title of School Representative (PLEASE PRINT/TYPE)	

### **Appendix B: Types of Assessment Definitions**

Assessment Method <sup>5</sup>	Description		
Capstone Project Assessment	<ul> <li>Culminating project that assesses competency in multiple areas</li> <li>Scoring method: pre-specified rubrics</li> </ul>		
Course-Embedded Assessment	<ul> <li>Assessment procedures that are embedded into a course's curriculum</li> <li>May include test items or projects and may differ between classrooms</li> <li>Usually locally-developed</li> <li>Can be used to assess discipline-specific knowledge</li> <li>Scoring methods: raw scores, answer key or pre-specified rubrics</li> </ul>		
Localized Assessment	<ul> <li>Assessment instruments developed and/or adapted within the LEA for internal use only that are administered across grade level/course</li> <li>Scoring methods: Answer key, internal scoring</li> </ul>		
Performance-Based Assessment	<ul> <li>Uses student activities to assess skills and knowledge</li> <li>Assesses what students can demonstrate or produce</li> <li>Allows for the evaluation of both process and product</li> <li>Scoring methods: pre-specified rubrics</li> </ul>		
Portfolio-Based Assessment	<ul> <li>Purposeful collections of student work over time to demonstrate growth and achievement in one or multiple areas</li> <li>Usually includes a component of self-reflection</li> <li>Scoring methods: pre-specified rubrics</li> </ul>		
Standardized Assessment	<ul> <li>Assessment instruments developed outside of the LEA with standardized administration and scoring</li> <li>Psychometrically tested</li> <li>Content may not always be linked to local curriculum</li> <li>Scoring methods: Answer key, external scoring (i.e., by testing company, other educators)</li> </ul>		

<sup>&</sup>lt;sup>5</sup> Adapted from Stanford University's Institutional Research and Decision Support <u>Assessment Methods publication</u> (2014).

#### Appendix C: Definitions of Growth Models<sup>6</sup>

#### **Gain Score Model**

The Gain Score model is most aligned with what people commonly associate with the idea of growth. The gain score model quantifies changes in student scores on a particular assessment. For example, if a test produces scores on a 100-point scale, and a student received a score of 70 at time 1, and 80 at time 2, then the gain score would be 10 points. That gain is conceptualized as:

$$Gain = X_2 - X_1$$

where  $X_2$  represents that score at time 2, and  $X_1$  represents the score at time 1. The underlying assumption, of course, is that the scores are on the same scale, to make the difference meaningful. This would imply either that the scores are obtained on a single assessment/parallel forms, where the scores are comparable, or there is a vertical scale underlying the scores that are being subtracted.

#### Growth-to-Proficiency Model

The Growth to Proficiency Model defines growth in terms of progress toward proficiency. The growth to proficiency model typically only measures growth for students below proficiency (or any other defined target). The amount of gain required for a student to reach proficiency is calculated, and a target amount of gain for a student to exhibit each year to be on track to proficiency is calculated. A student is said to have exhibited growth if they reach or exceed the target set for them. There are many different ways to operationalize this model, and this model does not inherently require a vertical scale. To aggregate these measures to a teacher level, the percent of students that meet their gain target is typically used.

#### Student Growth Percentiles

The Student Growth Percentile (SGP) is one of the most complex models for computing "growth." This model does not assume a vertical scale. The statistical details of the model can be found in Betebenner (2009). As noted by Goldschmidt et al. (2012) the SGP does *not* measure absolute growth in performance. Instead, it is a conditional status model, rather than a growth measure.

In computing SGPs, a student's performance on a test is compared to hypothetical students' performance on the test who are predicted to have scored similarly to that student in the past (commonly referred to as "academic peers," but it is important to note the model *estimates* this student group rather than using an observed student group). A percentile rank is assigned to the student to indicate where in the

<sup>&</sup>lt;sup>6</sup> See also Castellano and Ho (2013) for more complete descriptions of growth models.

distribution of scores of "academic peers" his/her score falls. For example, a student with an SGP of 60 performed better than 60% of his/her hypothetical peers predicted to have similar test score histories. Many students may receive an SGP of 60, but that does not mean that the change in the performance of those students is the same. Some of them may have shown more "growth" than others. Because this model does not measure growth in the sense that is most commonly understood, these results can be confusing. Therefore, it is important for stakeholders to understand the proper interpretation of the measure, and how to use it. As with other models, there are variants to this model (e.g. New York City Residual Gain Model) which are not discussed in detail in this document, since the models are specific to the jurisdictions, and many of the issues that apply to the overarching model (the SGP) remain.

#### **Projection Models**

The projection model (also called a residual gain or conditional status model) uses a linear regression model created from a previous group of students to make a prediction about how a student will do based on his/her previous test scores. That is, for each student, a predicted posttest score (e.g., this year's summative posttest score) is computed based on a regression equation from a prior year and the students' pretest (e.g., last year's summative test score). This predicted score is the "projection" of how the student is expected to do this year. A residual score is calculated for each student by subtracting their projected score from their actual posttest score. These residual scores represent "growth." Students whose actual posttest scores are larger than their projected posttest scores demonstrate positive growth.

#### Value-Added Models

Value-added models are typically used for measuring teacher or school effectiveness, rather than individual student growth. Student achievement data (via test scores) are used as inputs into the model to determine the effect that the teacher (or school) has had on the student. One of the great differentiating factors of value-added models compared to other student growth models is the ability to include student-level covariates, or background variables. By including these variables in the models, we attempt to "level the playing field" for making comparisons among teachers and their effects on student learning.

There is no one value-added model; rather it is a class of models, whose goals are to determine what impact a teacher has on student performance after controlling for student background experience, typically including prior academic achievement. The models are typically hierarchical linear models, with models for the student-level, classroom-level, and teacher level (the model can be extended to school-level as well, of course).

To compute a value-added score, the expected growth (based on previous achievement and background variables) is computed for each student in a classroom. The actual "growth" of the student is compared to the expected growth, and the difference between the two is the "achievement beyond expectation"; this can be a positive or a negative value. The average value of these differences is computed for a teacher.

This is the value-added score for the teacher. It can be conceptualized as the average residual of the students' growth. Value-added models are currently popular, and are being used in North Carolina, Ohio, Pennsylvania, and Tennessee, among other states.

#### References

- Castellano, K. E, & Ho, A. D. (2013). *A practitioner's guide to growth models*. Washington, DC: Council of Chief State School Officers.
- Lee, W. (2010). Classification consistency and accuracy for complex assessments using item response theory. *Journal of Educational Measurement*, 47(1), 1-17.
- Livingston, S. A., & Lewis, C. (1995). Estimating the consistency and accuracy of classifications based on test scores. *Journal of Educational Measurement*, 32(2), 179-97.

#### **Appendix A: New York State Learning Standards**

The New York State Learning Standards are adopted by the New York State Board of Regents for educational purposes including assessment, curriculum, and professional learning.

For the purposes of this RFQ, Applicants must demonstrate that the assessment is aligned with the New York learning standards for applicable content area and grade level the assessment is designed to measure.

In instances in which there are no such standards that apply to the content area / grade level, evidence of alignment must be provided to research-based learning standards.

Please see the <u>NYSED website</u> for further information on current NYS Learning Standards.