Missouri
DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION™

USE OF STUDENT GROWTH MEASURES IN EDUCATOR EVALUATION

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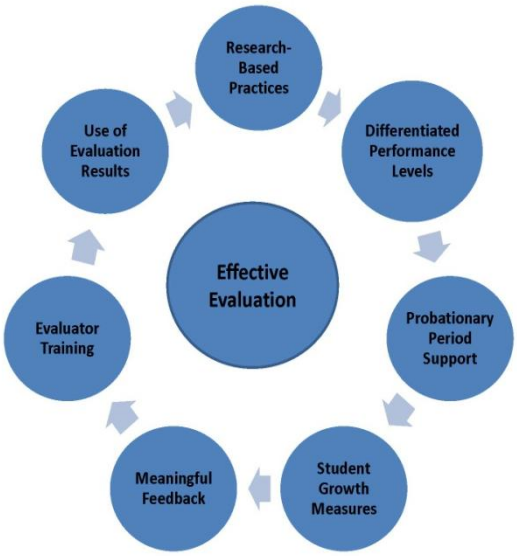
Guidelines on the Use of Measures of Growth in Student Learning

Introduction

An educator's primary responsibility is the learning of his or her students. Engaging in a process of continual growth and improvement of practice is a professional obligation to ensure the continued growth and improvement of student learning. The accurate assessment of educator performance is integral to any process of improving practice.

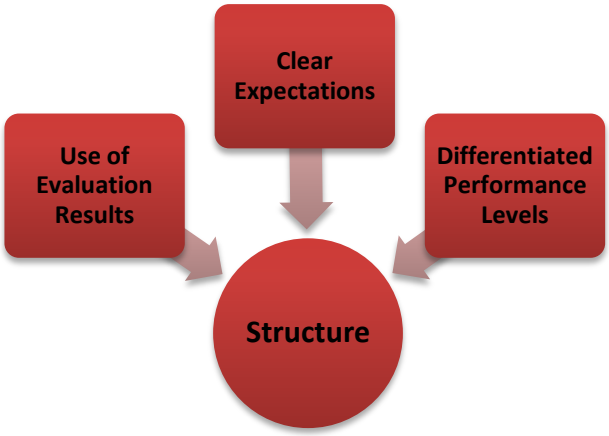
The state of Missouri has a long history of implementing various processes designed to improve the practice of teachers and leaders. In 1983, the Missouri legislature adopted statute 168.128 RSMo directing the board of education of each school district to cause a comprehensive performance-based evaluation for each teacher employed by the district and the Department to provide suggested procedures for such an evaluation. This led to the creation of performance-based evaluation models for educators at all levels and marked the beginning of an intentional effort to link together the evaluation and the development of an educator's practice.

More recently, on June 29, 2012 the U.S. Department of Education approved Missouri's Elementary and Secondary Education Act (ESEA) waiver giving the state flexibility with respect to No Child Left Behind (NCLB) requirements. Missouri's ESEA flexibility request addressed three principles: (1) college and career ready expectations for all students; (2) state developed differentiated recognition, accountability and support; and (3) structures for the support of effective instruction and leadership. In addressing the support of effective instruction and leadership, Missouri used current research to identify seven principles of effective evaluation. The research was in response to articles such as *The Widget Effect* (NTP, 2009) which challenged the effectiveness of current processes used to evaluate educators. It called for developing and implementing an evaluation system that not only accurately and reliably rates an educator's performance but also promotes growth and improvement in practice. Missouri's seven Essential Principles of Effective Evaluation which summarize this research include:



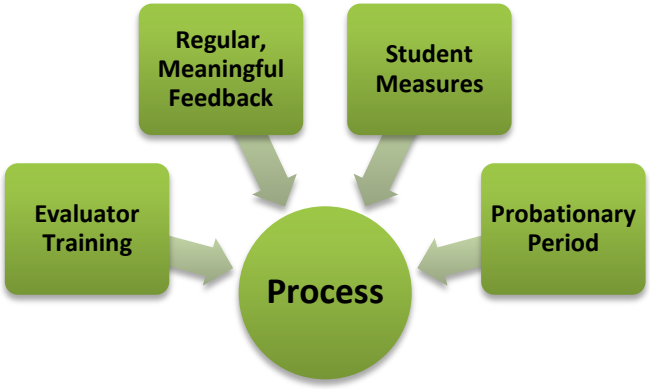
- Making determinations about an educator's performance using research-based expectations and targets
- Using differentiated, developmental and discrete levels of performance
- Including a process to offer intensive support guiding the development of the novice educator during the probationary period
- Using measures of growth in student learning as a significant contributing factor when determining an educator's effectiveness
- Developing and using strategies for providing regular and meaningful feedback
- Providing initial and periodic training for evaluators as well as those being evaluated
- Ensuring the use of evaluation results to guide employment policies and decisions

As articulated in Missouri's Waiver Request and approved by the U.S. Department of Education, the local educator evaluation process for all district/LEAs will be guided by the research that supports these seven Essential Principles of Effective Evaluation by the 2014 – 2015 school year.



Three of the seven principles primarily address the structure of an effective evaluation process while the other four principles address implementation of effective educator evaluation.

The principles of structure in an effective evaluation system are: (1) clear, research-based expectations, (2) differentiated performance levels, and (3) the use of evaluation results for the development of policies and to inform employment decisions.



The other four principles reflect research about how an effective process is implemented. The principles of process are (1) support for novice educators during the probationary period, (2) measures of growth in student learning are incorporated into the evaluation of educators, (3) the inclusion of regular and meaningful feedback to all educators, and (4) systematic training of those doing the evaluation as well as those being evaluated.

Purpose

A group of stakeholders from Missouri's professional organizations were organized into focus groups to provide clarification and identify areas of technical assistance for the four principles of process. Pilot districts across the state provided feedback to these focus groups as these guidelines were developed.

This guide is designed to assist Missouri LEAs in determining their approach to implementing one of the four principles of process: the incorporation of measures of growth in student learning into the evaluation of educators. Specifically, this guide will help LEAs identify appropriate measures of student growth and a process for using those measures to contribute to the determination of the overall effectiveness of the educator. The critical components of this essential principle include the following:

- Student growth measures are a significant contributing factor in educator evaluation
- Uses multiple measures including formative and summative assessments
- Includes multiple years of comparable student data

- Highlights student growth across two points in time
- Includes the state assessment where available and appropriate and additional district and school determined assessments

This guide will not answer every question or address every issue, but it will provide LEAs with a starting point. As districts/LEAs work to incorporate the research represented by the seven Essential Principles of Effective Evaluation and in particular the use of student growth measures in the determination of an educator's effectiveness, a great deal of collective learning will occur. This ongoing learning and development will be used as a means of providing ongoing updates and revisions to these guidelines as Missouri approaches its full implementation year in 2014 – 2015.

A full scale pilot project of Missouri's model Educator Evaluation System was conducted in the 2012 – 2013 school year. More than 100 districts and several charter schools participated. These districts included both the largest and smallest school communities, and a broad representation of urban, suburban and rural districts. They represented low and high concentrations of minority students, free and reduced-lunch students, and low and high achieving students. These pilot districts represent 20,872 or just over 30%, of the state's teachers. These teachers are responsible for educating 236,842 or nearly 27% of Missouri's students. These pilot districts provided input and feedback on the content of

2012-2013 Pilot Project Districts
Model Educator Evaluation System

Adair Co. R-II	Ferguson-Florissant R-II	Leeton R-X	Southwest R-V
Advance R-IV	Festus R-VI	Lexington R-V	Springfield
Allen Village	Fox C-6	Lift for Life Academy	St. James R-I
Alton R-IV	Francis Howell R-III	Linn Co. R-I	St. Joseph
Arcadia Valley R-II	Ft. Zumwalt R-II	Malta Bend R-V	Ste. Genevieve Co. R-II
Ash Grove R-IV	Gasconade County R-II	Mexico 59	Stoutland R-II
Atlanta C-3	Gorin R-III	Milan C-2	Sturgeon R-V
B. Banneker Academy	Green City R-I	Moberly	Sullivan
Belton 124	Greenville R-II	Morgan County R-I	Summersville R-II
Bevier C-4	Hazelwood	Morgan County R-II	Swedeborg R-III
Braymer C-4	Henry County R-I	Mountain Grove R-III	Valley Park
Brookfield R-III	Hickman Mills C-1	Mountain View-Birch Tree R-III	Valley R-VI
Brunswick R-II	Higbee R-VIII	North Wood R-IV	Van-Far R-I
Campbell R-II	Holden R-III	Oak Grove R-VI	Warrensburg R-VI
Carrollton R-VII	Howell Valley R-I	Palmyra R-I	Webb City R-VII
Central R-III	Hume R-VIII	Paris R-II	Wellsville Middletown R-I
Chilhowee R-IV	Junction Hill C-12	Pattonville R-III	Wentzville R-IV
Clarksburg C-2	Kearney R-I	Pike County R-III	West Plains R-VII
Clearwater R-I	Kelso C-7	Rails Co. R-II	Willow Springs R-IV
Clinton Co. R-III	Keytesville R-III	Renick R-V	Winona R-III
Community R-VI	Kingston 42	Richland R-IV	Worth County R-III
Crawford Co. R-I	Kirksville R-III	Richwoods R-VII	Zalma R-V
Crocker R-II	Laclede County C-5	Scott City R-I	
Drexel R-IV	Lakeland R-III	Sedalia 200	
Fairfax R-3	Laquey R-V	Shawnee R-III	
Farmington R-VI	Lebanon R-III	Southwest Livingston Co. R-I	Updated 11/21/2012

these guidelines in addition to piloting the overall process in the state's model Educator Evaluation System.

Recommendations from Missouri Districts

A specialized sub-pilot group was formed representing 12 of over 100 districts participating in the 2012-2013 pilot. These districts work with the Department's Professional Learning Community (PLC) Project and represent educators familiar with the use of student data to drive decision-making about curriculum, instruction and assessment. Feedback specific to these guidelines was collected from these districts. This Missouri Professional Learning Communities (MO PLC) Project is a state-sponsored initiative for school-improvement which began during the 2003-2004 school year with just a handful of schools and now has expanded to all regions of the State and includes over 600 schools. The state PLC school-improvement model focuses on increasing student achievement by building the capacity of school personnel to create and sustain the conditions that promote high levels of student and adult learning. This is achieved through processes that shift focus from teaching to learning. The policies, instruction, curriculum, programs, professional development, and other functions of the school all support student learning. The schools participating in this sub-pilot group are implementing PLC practices with structures and protocols in place that support collaborative cultures focused on learning.

The twelve districts in the sub-pilot are in three regional cohorts. Each cohort has four schools diverse in size and resources. Aside from the geographical region of the four schools in each cohort, the common thread among all the schools is a high level of implementation of PLC practices. Despite the diversity, several common themes appeared from school leaders in each of these schools.

Common Theme #1: Create a collaborative, trusting culture where teachers are trained to look at data, use quality instructional strategies and construct high quality assessments.

While establishing this type of collaborative culture represents challenging work, the sub-pilot districts found it was essential to create the type of culture necessary to support the appropriate use of

measures of student growth. They recommended that the work of teacher teams, characteristic of a school's collaborative culture, be supported in three significant ways: (1) create protected time during the school day for collaboration, (2) provide high quality, specific training for teachers in the use of data/assessments, and (3) support the establishment of collaborative, trusting learning communities.

Common Theme #2: Develop common benchmark assessments utilizing a pre- and post-assessment structure on important (essential) standards

The sub-pilot districts maintained that responding to the "two points in time" description of growth is best achieved through common benchmark assessments. They felt this was best done using a pre- and post-assessment structure on essential standards and learning outcomes. To be fair and equitable, the sub-pilot districts suggested that consistent protocols be established for both tested and non-state tested content areas, and that all teachers be trained on developing high quality and rigorous assessments locally. It was also suggested that districts/LEAs develop a district-wide calendar for benchmark testing to provide consistency as to when student growth data is to be gathered and reported.

Common Theme #3: Evaluators receive specific training on how to use student growth measures in the evaluation process

There was a common insistence that evaluators receive specific training on how to use student growth measures as both an evaluative component in the evaluation of teacher performance, but also as a means of formative professional growth for the teacher. This suggests a close interdependent relationship of the evaluative and the formative components in the overall development of educator practice. The sub-pilot districts stressed the importance of not only training evaluators on the appropriate use of student growth measures, but the importance of also providing training on the "misuse" of student growth measures as a part of the educator evaluation process.

Key Ideas

- A district's local evaluation process must be structured and operated based on the seven principles of effective evaluation by 2014 – 2015.
- One of the principles of process maintains that the use of measures of growth in student learning is a contributing factor in the determination of an educator's performance and overall effectiveness.
- This guide offers clarification and technical assistance for the responsible and accurate use of measures of growth in student learning in educator evaluation.

Incorporating Measures of Growth in Student Learning

The primary work of schools is the advancement of the academic growth of its students. Using measures of growth in student learning provides multiple opportunities to advance all student achievement, including those students with disabilities and English Language Learners. These opportunities include access to high quality student data for all educators as well as building and improving on districts' already robust assessment practices. To take full advantage of these opportunities, there are several important issues to address:

- What particular measures of student growth are appropriate?
- How do we ensure appropriate rigor of assessments and learning outcomes?
- Why is "comparability" of measures of student growth important?
- What measures are appropriate in non-state tested grades and subjects?

Clarification of these issues becomes the foundation for responsibly and accurately including measures of student growth as a contributing factor in the determination of an educator's effectiveness.

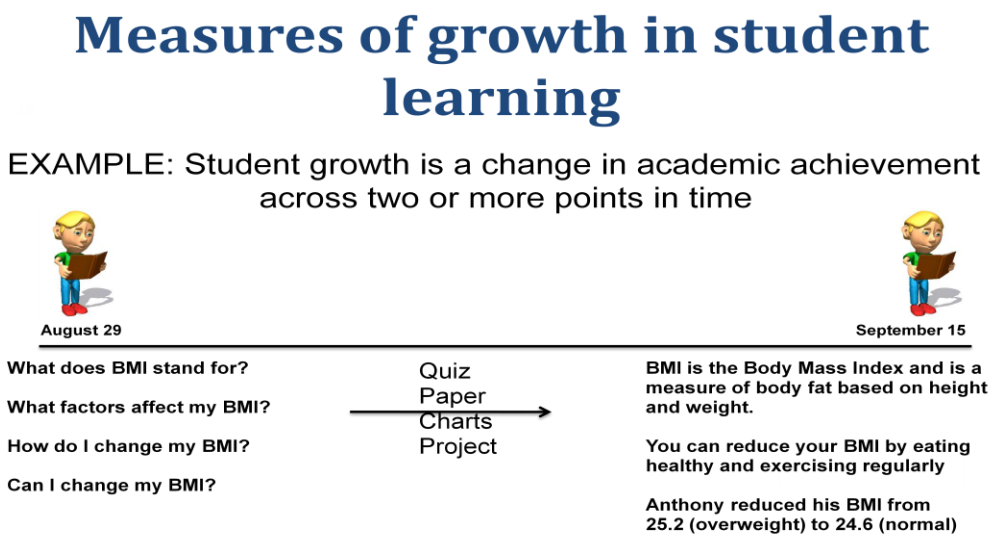
Using Measures of Growth in Student Learning

Schools collect a wide variety of evidence about students. There is behavioral evidence, for example, that indicates how consistently a student comes to school, if they are on time, how long they stay and if they graduate. There is evidence regarding a student's conduct while at school like who

receives awards, the number of office referrals, who is named student of the month, and the number of in-school suspensions. Most importantly, there is evidence about the academic performance of students. There are a variety of ways to measure what the student knows and is able to do. For example, state tests measure what a student knows and is able to do at a particular point in time. This type of achievement data has some use, although it is limited in accounting for factors beyond a teacher's control like students' prior knowledge and level of readiness for the content the teacher will teach. Another way to measure what a student knows and is able to do is using evidence of growth in student learning.

Measuring what a student knows and is able to do in the context of growth requires taking into account a beginning status of academic achievement and a change in this level of achievement over time. As a part of the No Child Left Behind waiver process, the U.S. Department of Education defined student growth as "a change in academic achievement across two or more points in time". For example, a growth target can be set and the student's performance measured against the progress towards that target using a pre- and post- test format. In instances where students enter a class with little or no previous knowledge, as in high school elective classes like economics or a foreign language, growth can be determined by assessing the students' mastery of an objective or learning target.

The following example illustrates the concept of student growth. At the beginning of the year, Anthony has very limited knowledge about the Body Mass Index (BMI). He has a vague idea about what the term BMI stands for, the factors that affect it, how to change it or even why he would want to, as evidenced by achieving a 71% on his teacher's initial assessment. Anthony's score of 71% was slightly better than the 68% averaged by his classmates.



Anthony's Physical Education Class – 1st Quarter

Anthony's teacher plans her instruction and learning activities to address the content areas needed by her students that she will deliver over the next three weeks. She defines mastery of this content as being an average score for her students of 80% or better. Following this unit of instruction, Anthony takes his teacher's assessment and scores a 91%, which is better than the 87% averaged by his classmates. It is important to note that Anthony's teacher could have used a wide variety of different assessments to determine mastery of her students (i.e. quiz, paper, chart, project, etc). On this particular measure, there is evidence of a change in academic achievement across two points in time. For Anthony, his achievement grew 20 percentage points compared to the average of his classmates which improved by 19 percentage points. The average of Anthony's class exceeded their teacher's anticipated mastery level (80%) by 7 percentage points. This suggests that Anthony's teacher created and delivered an effective unit of instruction. In this example, student mastery of content was assessed using a district/class generated assessment. State assessments are also used to determine student mastery of content.

Different kinds of models are being used to calculate student growth on state assessments. One statistical model used to calculate a student's growth is the Student Growth Percentile (SGP) which

shows a student's progress by comparing it to his academic peers, or those who performed similarly on previous assessments. The student receives a percentile rank indicating the number of academic peers the student "out-grew". A typical assumption to make would be that the higher the percentile rank, the more growth the student experienced and the greater the effectiveness of the teacher.

Another statistical model is the Value-Added Model (VAM) which predicts the amount of growth a student should have made by calculating the difference between that student's actual results and his/her statistically expected results. These differences are then compared to the amount of growth that similar students make or have made historically. This model attempts to account for a number of variables in determining "similar" students. The impact of the teacher is then measured by averaging together the amount of growth of each of that teacher's students. A typical assumption to make would be that an effective teacher's students would achieve their predicted growth while a highly effective teacher's students would exceed their predicted growth.

Using State Assessment Data

The Missouri Growth Model is a type of VAM which provides a framework for identifying the contributions of districts/LEAs, schools, classrooms and other contexts to student achievement. The purposes of the Department's model for measuring student growth in achievement include:

- Measuring district-level growth against a standard tied to state targets
- Using student-level results to inform classroom practice
- Providing districts with growth data to incorporate into their educator evaluation systems
- Providing growth data for the educator preparation program accreditation process

The basic premise of Missouri's Growth Model is that scale scores from the Missouri Assessment Program (MAP) are somewhat predictable. While it is impossible to know exactly how a student will score, the model makes an educated guess using patterns observed over time across the entire statewide database. The Missouri Growth Model generates performance data using the following steps:

1) **Compile the data** – the four most recent years of MAP scores for grades 3-8 English Language Arts and Mathematics are organized into score pairs, which are 2 consecutive scores for the same student. Students can have up to 3 pairs. These score pairs are grouped by school based on where the student was tested during the current year.

2) **Do the math** – a statistical model is used to predict student test scores based on prior test scores, student mobility, and average prior-year student achievement at the school where the student was tested. The predicted score for each score pair are compared to the actual score to generate a "residual". The residual is the difference between the two scores and is expressed as a normal curve equivalent (NCE), which is similar to a percentile. NCEs around 50 indicate a contribution to student growth that is basically typical, above 50 indicates students outperformed prediction, and an NCE below 50 indicates student performance fell short of prediction.

Student ID	Exam Year	Exam Grade	Previous year math score (NCE units)	Predicted current year math score (NCE units)	Observed current year math score (NCE units)	**Residual (NCE units)**	American Indian (=1)	Asian (=1)	Black (=1)	Hispanic (=1)	Multi-Race (=1)	FRL Eligible (=1)	Female (=1)	IEP Flagged (=1)	English as a Second Language (=1)	Student was in building where tested for less than the full school year (=1)	Super-subgroup (=1)
999487625	2010	04	56.1	55.3	72.5	**67.3**	0	0	0	0	0	0	0	0	0	0	0
999487625	2011	05	72.5	65.8	72.5	**56.7**	0	0	0	0	0	0	0	0	0	0	0
999487625	2012	06	72.7	66.2	55.3	**39.0**	0	0	0	0	0	0	0	0	0	0	0
888487625	2010	05	39.5	35.5	47.5	**62.0**	0	0	0	0	0	1	0	0	0	0	1
888487625	2011	06	47.3	41.2	46.6	**55.5**	0	0	0	0	0	1	0	0	0	0	1
888487625	2012	07	46.6	40.3	42.8	**52.5**	0	0	0	0	0	1	0	0	0	0	1
777487625	2010	06	53.8	48.3	59.3	**61.0**	0	0	0	0	0	1	0	1	0	1	1
777487625	2011	07	59.1	55.5	43.7	**38.2**	0	0	0	0	0	1	0	1	0	0	1
777487625	2012	08	43.5	45.2	44.5	**49.4**	0	0	0	0	0	1	0	1	0	0	1

For purposes of state accountability reporting under the Missouri School Improvement Program, NCEs are averaged by district/LEA or school and the result becomes a component of the Annual Performance Report. For the purposes of educator evaluation, district/LEAs have the flexibility to assign NCEs to any number of contexts based on their individual needs and preferences. Contexts can include schools, departments, teams of teachers or individual teachers. Multiple years of NCEs, in the aggregate, provide one measure of the impact of the context on student learning.

This type of data on student performance is available to all districts/LEAs and should be used as a contributing factor in the evaluation process. Multiple years of data are used as one of multiple measures. When combined with other measures, trends and patterns may become evident allowing general conclusions to be made regarding the impact of contexts within a district/LEA or school. Additional information regarding the Missouri Growth Model, including directions on data distribution and use, detailed explanations regarding calculations and statistical significance, and other guidance is available on the Department of Elementary and Secondary Education website at: http://dese.mo.gov/mogrowthmodel/

Student Learning Objectives (SLO)

One approach to measuring student growth, or growth achieved by groups of students, across a broad spectrum of subjects and grade, including students with disabilities and English Language learners, and in particular in instances where state assessment data is not available, is the use of student learning objectives (SLOs). An SLO is an academic goal, representing the most important learning that is set for students prior to instruction.

It is important to note that this is not a new concept. While SLO might sound like a new term, it is actually a very familiar concept for educators in Missouri. SLOs are an integral part of the work of PLCs and Data Teams and might be more commonly known as a SMART goal or articulated as a part of Assessment for Learning and through the use of common assessments. What is new about the SLO context is the use of student evidence as a contributing factor in the educator evaluation process.

An SLO offers a wide variety of options for assessing learning including projects, portfolios, performance tasks, common formative and summative tests, diagnostic pre- and post- tests, end-of-course exams, large-scale standardized tests or state tests. While SLOs demonstrate great potential for ensuring the use of appropriate, rigorous, comparable measures of student learning as a part of the evaluation process, they also represent a promising strategy for improving instructional practice, including creating a potentially powerful link between professional learning and growth and the

evaluation process. Additionally, the use of SLOs in assessing educator performance can bring a sense of ownership to educators in the evaluation process, adding authenticity and a component of buy-in to the overall process. SLOs are inherent in effective instructional practice as they include the gathering of data, setting goals based on data, and then assessing whether or not those goals have been met.

While SLOs offer potential advantages as a means of including student evidence as a part of educator evaluation, there are also challenges as well. The use of SLOs will require an investment of time and resources by the state and districts to provide guidance, training, support and monitoring. Individual educators will also have to dedicate time and resources to the process. Although the SLO process is embedded in effective teaching, educators will need assistance in learning how to develop realistic and rigorous SLOs, which include an assessment capable of providing an objective measure of student performance. Without high enough rigor, the SLO can actually lower expectations for students. For example, an SLO with a low growth target for a population of students might show a high percentage of mastery and yet does little to stretch the student's learning. Ideally, to ensure consistency and comparability of student achievement, the SLOs should be applied in multiple classrooms and settings. Comparability should not be used to rank educators, but rather to ensure alignment of an SLO with Core Academic Standards, other state or national standards, district standards, Grade Level Expectations (GLEs), model curricula, and so forth.

Creating the SLO

The quality of the SLO is critical to ensuring that the target set for students is both realistic and attainable and yet represents real growth in learning. A high quality SLO clearly identifies a student population and the particular learning content. It establishes a specific growth target including the amount of time students have to achieve the target and a rationale for why this target is important. It includes a clear description of the instructional strategies to be used to facilitate the learning of the students, and perhaps most importantly, a designation of the assessment that will be used to determine

whether the target was achieved. The table below represents the key components necessary for creating a high quality SLO:

Key Component	Description	Example
Population	✓ Identifies the specific population ✓ Includes a majority of the students ✓ Specifies any agreed upon exceptions	➢ 32 third grade students ➢ All 9 students in Algebra II
Learning Content	✓ Identifies the essential content area ✓ States the academic concept or skills to be taught ✓ Aligns with district/state curriculum standards ✓ Includes supplementary resources where appropriate	➢ Specific contributing factors to the Civil War ➢ Impact on the settlement and development of Missouri
Time Interval	✓ Clearly states the time students have to reach the goal ✓ Is appropriate to content complexity ✓ Is realistic and attainable	➢ Semester (12 weeks) ➢ Formative assessment cycle ➢ 2 to 4 week unit
Growth Target	✓ Includes baseline data ✓ Predicts expectation or gain anticipated ✓ Is rigorous yet realistic for at least ¾ of the identified population ✓ Might be expressed as a SMART goal	➢ Pre-assessment on Civil War concepts ➢ Students will score 10-15% higher than the pre-assessment
Rationale	✓ Includes how the objective is connected to student needs ✓ States how and why it is appropriate and rigorous ✓ Is tied to district and/or state curriculum standards ✓ Connects to an educator standard and quality indicator ✓ Aligns to and supports the goals of the improvement plan	➢ To address low reading scores ➢ Supports CSIP goal #... ➢ Based on student proficiency scores, students will…
Instructional Strategies	✓ Method of instruction or key strategies ✓ Includes specific interventions where needed ✓ Specific approach to be used in the classroom	➢ Small group instruction ➢ Peer to peer teaching ➢ Progress monitoring
Assessment	✓ Measures growth, gain, or change expected ✓ Connects teacher, student, & expectations ✓ Is fair, credible, reliable and comparable	➢ End-of-course exam ➢ District-developed written test ➢ End of unit project

SLOs are developed collaboratively by the teacher and principal. This ensures its connection to the overall learning priorities of the building and district as articulated in their respective improvement plans. While SLOs are most often developed by individual teachers, they can also be developed by groups of teachers, a department or even whole faculty. This provides opportunity to collectively set expectations for student achievement that can be shared by all teachers and school staff.

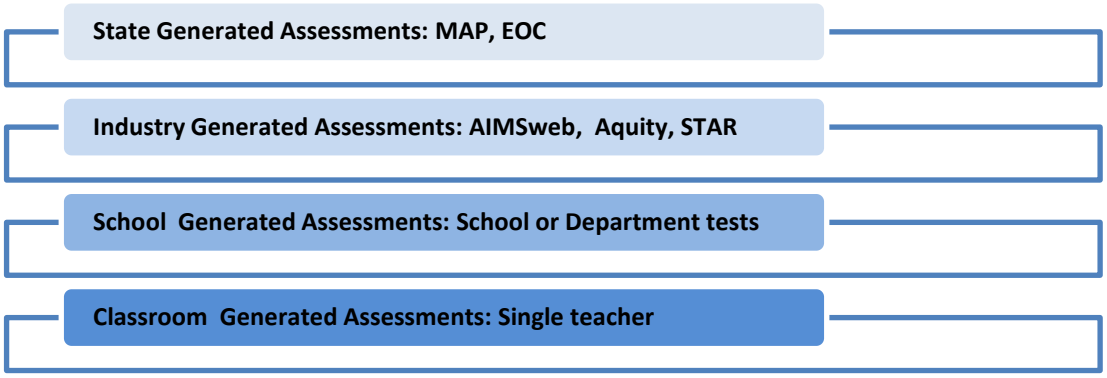
Assessing Mastery of SLOs in the Classroom

SLOs should be determined in order to improve student learning as measured by a credible assessment. SLOs are not about improving performance on an assessment. The assessment is used to gather data on the extent to which the objectives for student learning have been met. This requires

intentional planning to make a determination of what evidence will satisfy the teacher and administrator that students have achieved the objective. There are important considerations that should be included in the selection process to ensure a high quality assessment. Both teacher and administrator must select and agree on assessments that:

- Are aligned to course content standards and district and/or state standards
- Are appropriately rigorous for the grade and/or content level
- Include questions requiring critical thinking
- Are organized in a way that is free from bias

In selecting assessments to use to accurately gather data on the extent the learning objective has been met, it is important to consider the confidence it has in terms of alignment, rigor and format, and the extent of its comparability to similar teachers and content. In general, the rank of confidence of assessments can be summarized as follows:



Since the learning objectives set by teachers are a goal set for entire groups of students working on content aligned to state standards, the assessments highest on the confidence ranking are most comparable to other groups of students working on the same content.

In establishing a higher level of confidence, state and industry generated assessments tend to address the following:

- **Reliability** – is the assessment consistent?

    - The assessment should yield similar results under varying conditions such as morning vs. afternoon or Tuesday vs. Thursday
    - There should be an internal consistency of the items on the assessment meaning students who answer a particular item correctly are likely to get other similar items correct as well
- **Validity –** does the assessment measure what it is intended to measure?
    - Content validity means the assessment matches the instructional objectives
    - Predictive validity means the score on the assessment is predictive of what the score would be on a similar assessment of the same content
    - Construct validity means the results of the assessment correspond to other related variables
- **Bias –** does the assessment favor any particular group of students over others?
    - Assessment items and/or format should not unfairly offend or penalize students based on their gender, ethnicity, language or disability?
- **Training –** is there training associated with the assessment?
    - Training provides clarity and preparation on how to correctly administer and rate the assessment
- **Impact –** does the assessment contribute to the improvement of student learning?
    - The assessment results are used to direct what students need to know next

The primary intent of an assessment is to accurately determine the amount of growth in learning that has occurred regarding a particular learning objective. Engaging in this process not only contributes to available student learning data, but also provides opportunity for the improvement of a teacher's instructional practice.

Key Ideas

- Student growth is defined as a change in academic achievement across two or more points in time.
- The Missouri Growth Model is a type of VAM which provides a framework for indentifying the contributions of districts/LEAs and schools to student achievement.
- Student Learning Objectives (SLO) represents an approach for using student growth data in the educator evaluation process.
- A high quality, rigorous SLO is a learning goal that clearly states the population, content, timeframe, growth target, rationale, instructional strategies and assessment.

Evaluating educator performance using an SLO

Student growth data generated from the use of SLOs is one indicator used to determine the overall effectiveness of an educator. While traditionally most data about an educator's performance is collected through classroom observation, other sources of data are appropriate for consideration. Data in an educator's personnel files and records provide evidence of appropriate licensing and credentials. Data collected through analysis of the educator's professional growth plan can be used to determine the extent of ongoing learning and how the application of new professional learning is used to generate improvements in instruction and student learning. Data gathered through surveys of students, families and colleagues can provide additional insight regarding performance. SLOs offer the opportunity to consider impact on student growth as a contributing factor to overall effectiveness. Multiple sources of integrated information should be used in making a determination about an educator's performance; rather than relying on isolated unrelated observations or data. Where and how student growth data is used in the evaluation process will depend on the particular model and process used by the district/LEA.

While the district/LEA has the choice of what model and process they use to evaluate educator performance, student growth data must be a significant contributing factor in that determination. Educators in the district/LEA system cannot be highly rated on performance without evidence of student

growth. How this is accomplished in the state's model Educator Evaluation System is offered as an example for district/LEA consideration.

The state's model Educator Evaluation System uses multiple sources of evidence to evaluate an educator's performance such as observations on the strategies used to manage the classroom and to guide students through learning activities. Evidence of a teacher's commitment examines the ability and preparation of the teacher. Sources of evidence are based on a teacher's impact on student learning and provide indication of their effectiveness.

In Missouri's Educator Evaluation System model, the expectations of what the educator should know and be able to do is articulated across a professional continuum and categorized through standards and quality indicators. The Quality Indicators are used to create a Growth Guide that directs the improvement of the educator. The indicators combine evidence of educators' commitment, practice and their impact at various stages of their professional career.

For example, in Growth Guide 1.1, a determination about the teacher's performance might be as illustrated below. There is Commitment evidence that the teacher is well prepared, that their lesson design includes current content and there is use of supplementary sources. There is also observable Practice evidence reflecting the accuracy and complexity of content knowledge in instruction as indicated. While evidence at the Impact level reveals that students are generally familiar with academic language, student data does not support that a majority of students are able to use academic language.

Alignment Of Evidence

Teacher Growth Guide 1.1

Standard 1: Content knowledge aligned with appropriate instruction.

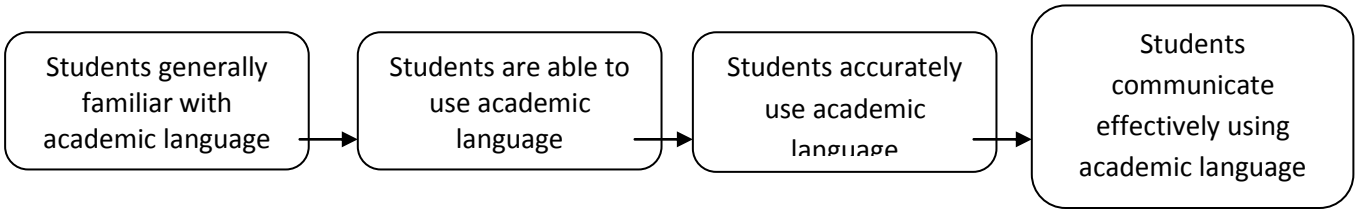
Quality Indicator 1: Content knowledge and academic language

Emerging	Developing	Proficient	Distinguished
1E1) The emerging teacher… Knows and can demonstrate breadth and depth of content knowledge and communicates the meaning of academic language.	1D1) The developing teacher also… Delivers accurate content learning experiences using supplemental resources and incorporates academic language into learning activities.	1P1) The proficient teacher also… Infuses new information into instructional units and lessons displaying solid knowledge of the important concepts of the discipline.	1S1) The distinguished teacher also… Has mastery of taught subjects and continually infuses new research-based content knowledge into instruction.
Professional Frames			
Evidence of Commitment *Is well prepared to guide students to a deeper understanding of content*	*Evidence of Commitment* *Stays current on new content and incorporates it into lessons*	*Evidence of Commitment* *Use of supplemental primary sources that are aligned to local standards*	*Evidence of Commitment* *Continually expands knowledge base on content and infuses into content*
Evidence of Practice *Instruction reflects accuracy of content knowledge*	*Evidence of Practice* *Instruction indicates an appreciation of the complexity and ever evolving nature of the content*	*Evidence of Practice* *Instructional focus is on the most important concepts of the content and includes new content as appropriate*	*Evidence of Practice* *Continually seeks out new information and applies it to learning in their classroom*
Evidence of Impact *Students are generally familiar with academic language*	*Evidence of Impact* *Students are able to use academic language*	*Evidence of Impact* *Students accurately use academic language related to their discipline*	*Evidence of Impact* *Students communicate effectively using academic language from a variety of sources*

Score = 0	1	2	3	4	5	6	7

In this illustration, the highlighted areas reflect the evidence of the teacher's performance. As noted by the highlighted text, there are examples of evidence in three different columns, Emerging, Developing and Proficient. However, it is only in the Emerging column where there is an alignment, or evidence in all three professional frames. This alignment of evidence supports that the teacher is fully rated at the Emerging level. In this particular example, student's ability to use academic language would be required in order for the teacher to be rated at the Developing level.

State assessments as well as SLOs can be designed and used to collect evidence of the teacher's impact on their students' learning. As noted in the Evidence of Impact on Growth Guide 1.1, student growth is expressed as a progression that correlates with teacher performance. The growth target in the SLO provides evidence regarding the progression of student knowledge and skills as articulated at the impact level.



SLO Example: Science

SLO: Determine the meaning of symbols, key terms, and other domain specific-words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics (CCSS.ELA-Literacy.RST.9-10.4)

Local Curriculum Standard: Determine the similarities and differences in pure substances and mixtures from Unit 1 Vocabulary

Population: 75 ninth grade students

Learning Content: Use of academic language related to the properties of pure substances and mixtures

Time Interval: First Semester (12 weeks)

Growth Target: 75% of the students will demonstrate improved performance by 20% or more on the 9th grade Physical Science final as compared to the pre-test

Rationale: 9th grade Physical Science is a required high school course and aligned to district curriculum standard 3.2

Instructional Strategies: Academic language (density, conductivity, hardness, properties of alloys, superconductors, and semiconductors) will be taught to students using peer to peer teaching and through a culminating end of unit project

Assessment: The 9th grade Physical Science exam aligned to the district curriculum standards

For example, a high school physical science teacher is currently rated as "Emerging" on the state's model as illustrated above. This is because there is an alignment of evidence at that level. This teacher could use an SLO to establish student growth evidence at the "Developing" level. This would require evidence of students using academic language. The SLO establishes a growth target of students demonstrating a use of academic language as evidenced by 75% of the students scoring 80% or higher on the final exam. The language of this growth target aligns with the language of Growth Guide 1.1 which identifies students' accurate use of academic language as evidence contributing to a rating of "Developing". By achieving the growth target of the SLO, the physical science teacher is establishing evidence that their rating has improved from "Emerging" to "Developing" on the performance articulated in Growth Guide 1.1.

In addition, this SLO provides information regarding the teacher's use of instructional strategies. The strategies listed in the SLO (facilitating peer to peer teaching and an end of unit project) would provide Evidence of Practice. The actual development of the SLO provides Evidence of Commitment as noted on the Growth Guide. Here is another example of an SLO for 4th grade Science:

Key Component	Description	Examples
Population	✓ Identifies the specific population ✓ Includes a majority of the students ✓ Specifies any agreed upon exceptions	➢ 25 fourth-grade science students in Ms. Jones class-room
Learning Content	✓ Identifies the essential content area ✓ States the academic concept or skills to be taught ✓ Aligns with curriculum standards	➢ 1. Describe plant structures ➢ 2. Describe and define photosynthesis ➢ 3. Describe the role of plants in the ecosystem
Time Interval	✓ Clearly states the time students have to reach the goal ✓ Is appropriate to content complexity ✓ Is realistic and attainable	➢ Unit of instruction to begin September 23 & be completed by October 11. ➢ Five instructional days allocated to each of the three learning objectives
Growth Target	✓ Includes baseline data ✓ Predicts expectation or gain anticipated ✓ Is rigorous yet realistic for at least ¾ of the identified population	➢ Unit builds on students' knowledge from third grade: parts of plants, pollination, and types of plants. ➢ Student data from district-wide pre-assessment ➢ Students achieving 70%-80% on pre-assessment will improve to 80-85%; Students achieving 80-90% on pre-assessment will improve to 90-95%; Students achieving 90-100% on pre-assessment will improve to 95-100%, or maintain pre-assessment scores.
Rationale	✓ Includes how the objective is connected to student needs ✓ States how and why it is appropriate and rigorous ✓ Is tied to district and/or state curriculum standards ✓ Connects to an educator standard and quality indicator ✓ Aligns to and supports the goals of the improvement plan	➢ Supports Missouri Science GLE Standards 3 & 4 ➢ Aligns to National Science Education
Instructional Strategies	✓ Method of instruction or key strategies ✓ Includes specific interventions where needed ✓ Specific approach to be used in the classroom	➢ District-selected fourth-grade science textbook ➢ Class experiments on plant growth using various amount of water and types of plants ➢ Class experiment on plant growth using various forms of light and types of plants ➢ Students who do not achieve at least 75% on formative assessments to receive remediation
Assessment	✓ Measures growth, gain, or change expected ✓ Connects teacher, student, & expectations ✓ Is reliable, valid, rigorous and credible	➢ Formative assessments at the end of each week of instruction on 1. Plant structures; 2. Photosynthesis, 3. Plants in the ecosystem ➢ End-of-unit exam ➢ District-developed written test

**Additional sample SLOs and links to resources offered by other states are provided in the References and Resources section of this document beginning on page 29.*
***A sample SLO is provided for on page 35 for students with disabilities.*

The District SLO Process

The development and use of SLOs occurs with all educators across the district/LEA as they are inherent in effective instructional practice. The guidelines and examples provided will help to ensure consistency across the state and promote the improvement of practice of teachers and leaders. The following represents necessary steps to be taken to establish, monitor and assess SLOs, and incorporate the student growth evidence they generate into the educator's performance evaluation.

1. Teachers, individually and in groups or teams, review data to determine student needs.
2. Teachers, individually and in groups or teams, develop two SLOs that are realistic and rigorous and based on the initial review of study data, are connected to a selected performance standard and quality indicator(s), and include a credible assessment.
3. Administrators (or peers, coaches, mentors, etc.) review the SLO and provide feedback and/or approval.
4. The SLO is progress monitored, checking for advancement towards the growth target and to inform adjustments, if necessary.
5. A final assessment occurs on the progress made toward the growth target.
6. The results of the final assessment on the growth target are included with other measures identified through the appropriate Growth Guide to determine the educator's performance rating.
7. The evaluator and teacher discuss the overall performance rating, including selecting new performance indicators and setting new SLOs.

Key Ideas

- Student evidence generated from an SLO can be appropriately used in making determinations about the effectiveness of the educator.
- Student growth evidence must be a significant contributing factor in the evaluation process, regardless of the particular model used by a district/LEA.
- In the state's model Educator Evaluation System, evidence from the SLO would be used as a part of the Professional Impact frame of the Growth Guide.
- The growth target and instructional strategies articulated in the SLO provide evidence on the growth guide resulting in a determination about the educator's performance level.

References and Resources

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State Resources

Information on writing SLOs from the Rhode Island Department of Education:

- Main SLO page: http://www.ride.ri.gov/EducatorQuality/EducatorEvaluation/SLO.aspx
- This document highlights the three main criteria, and corresponding elements and descriptors, included in strong SLOs: http://www.ride.ri.gov/educatorquality/educatorevaluation/Docs/Indicators_of_a_Strong_SLO.pdf
- This document represents RIDE's current thinking on best practices for writing and revising Student Learning Objectives (SLOs): http://www.ride.ri.gov/EducatorQuality/EducatorEvaluation/Docs/Guide_For_Teachers_Writing_Student_Learning_Objectives.pdf
- SLO quality check tool: http://www.ride.ri.gov/EducatorQuality/EducatorEvaluation/Docs/SLO_quality_check_tool.pdf

Information on writing SLOs from the New York State Education Department:

- Main SLO page: http://engageny.org/resource/student-learning-objectives/
- SLO Guidance Document: http://engageny.org/resource/student-learning-objective-guidance-document/
- SLO template: http://engageny.org/resource/new-york-state-student-learning-objective-template/
- Assessment options for SLOs: Reference guide: http://engageny.org/wp-content/uploads/2012/03/Assessment-Options-for-SLOs.pdf

Information on writing SLOs from the Ohio Department of Education:

- General information on student growth measures, including SLOS: http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1230&ContentID=125742
- Student Learning Objectives Guidebook: http://www.ode.state.oh.us/GD/DocumentManagement/DocumentDownload.aspx?DocumentID=134104

Information on writing SLOs from the Indiana Department of Education:

- General Evaluation system page: http://www.riseindiana.org/
- Student Learning Objectives Handbook: http://www.riseindiana.org/sites/default/files/files/Student%20Learning%20Objectives%20Handbook%202%200%20final(4).pdf

Information on writing SLOs from the Georgia Department of Education:

- Teacher evaluation system handbook (Part II, pages 25-36 discuss SLOs): http://www.doe.k12.ga.us/School-Improvement/Teacher-and-Leader-Effectiveness/Documents/TKES%20Handbook%207-18-2012.pdf

Additional Sample SLOs from other states (Georgia, New York, Maryland, Indiana, Rhode Island)

Georgia Department of Education
Phase II District Student Learning Objective (SLO) Form

	SLO CONTEXT AND STATEMENT
1. Selected Standards	**ELACC2RF4:** Read with sufficient accuracy and fluency to support comprehension. **ELACC2L3:** Use knowledge of language and its conventions when writing, speaking, reading, or listening.
2. Pre and Post Assessment Indicate level of proficiency.	The pre and post assessment will be the administration of the AIMSweb RCBM (oral reading fluency) instrument. This assessment is also administered mid-year to ascertain student progress mid-year. A student is proficient if they meet the 50th percentile or greater than or equal to 85 words read correctly (WRC).
3. Baseline Data or Historical Data/Trends	The average 2nd grade student in _____ County grew approximately .92 words per week or 32 words from Fall to Spring. Nationally students grew 60 words from the Fall to the Spring.
4. SLO Statement	During 2012-2013, all 2nd grade students will increase their words read correctly as measured by AIMSweb. Students will make growth as stated below: ***Please note the following before using this SLO:*** ***SLO is based on solid baseline data and sets targets to exceed last year's totals. While this grade level does not meet national levels of WRC, it does push beyond last year's totals.*** • Students who score less than or equal to 51 WRC in the fall will increase WRC by 37-42. Students who score 43 WRC or higher will exceed their target. • Students who score greater than 51 WRC in the fall will increase WRC by 42-47. Students who score 48 WRC or greater will exceed their target.
5. Strategies for Attaining Objective	✓ Required: - Standards-based Instruction - Research-based best practices as a result of professional learning ***Please note the following before using this SLO:*** ***This district would be advised to be more specific about best practices that are required.*** Recommended
6. Mid-year Review	AIMSweb mid-year results are reviewed.

Georgia Department of Education
Phase II District Student Learning Objective (SLO) Form

	SLO CONTEXT AND STATEMENT
1. Selected Standards	This is a pre/post assessment that covers the following standards: Adoption of Constitution, Checks and Balances, Citizen's Beliefs about Government, Civil Rights and Liberties, Election Laws, Executive Branch, Federalism, Influences of Political Beliefs, Interest Groups, Judicial Branch, Legislative Branch, Mass Media, Political Action Committees, Political Participation, Political Parties, Political socialization, Separation of Powers, Theories of Government *Please note the following before using this SLO:* *It is recommended that standards be stated verbatim instead of a topical representation.*
2. Pre and Post Assessment Indicate level of proficiency.	The AP Government pretest is a balanced assessment and is comprised of 39 Multiple Choice Questions and 11 Free Response items. It assesses students' Advanced Placement United States' Government and Politics content and skills. The posttest is a balanced assessment comprised of 39 Multiple Choice items and 11 Free Response items. It assesses students' Advanced Placement United States' Government and Politics content and skills. Proficiency on the post measure is 70 and above.
3. Baseline Data or Historical Data/Trends	The fall 2012 pretest assessment scores were evaluated to yield the following results: | # of Students Scoring between 0 -15 | # of Students Scoring between 16 - 31 | # of Students Scoring between 32 - 47 | # of Students Scoring between 48 - 63 | # of Students Scoring between 64 - 79 | # of Students Scoring between 80 - 95 | # of Students Scoring 95 or Above | | 60 | 76 | 11 | 2 | 0 | 0 | 0 |
4. SLO Statement	From the Fall 2012 Pre-Test to the Spring 2013 Post-Test, all students enrolled in AP Government will demonstrate measurable growth from the pretest score to their posttest score as measured by the _____ School System's pretest and posttest as follows: The minimum expectation for individual student growth is based on the formula which requires each student to grow by increasing his/her score by 40% of his/her potential growth. Pretest score + (100 – pretest score) x .4 = posttest target score. Students scoring more than 10 points higher than their target would be considered exceeding their target. *Please note the following before using this SLO:* *This growth target includes a 40% increase of each student's potential growth.* *This percentage could be higher depending on student pre measure scores.* Example using 40 on a pretest: 40 + (100 – 40) x .4 40 + (60) x .4 40 + 24 64 is the target for the posttest A score of 75 denotes exceeding

Georgia Department of Education
Phase II District Student Learning Objective (SLO) Form

	A student at the ceiling level of the growth target may demonstrate exceeding growth (beyond the scope of the measure), by completing a pre-determined project or other measure that has been approved by the evaluator.
5. Strategies for Attaining Objective	☐ Required To enable students to attain established student learning objectives, teachers will utilize a standards-based learning environment, which focuses upon the state standards and frameworks, where standards and essential questions are posted and utilized as a relevant component of instruction, where teachers place an intentional emphasis on content vocabulary in context and provide continuous, ongoing assessment, differentiate instruction and assignments, and extended the use of teacher commentary. Students are also provided opportunities for individualized and collaborative work and self-assessment and revision experiences. Likewise, the driving force for the implementation of this work is the units found within Atlas Curriculum Mapper, and these units are followed with fidelity. ☐ Recommended
6. Mid-year Review	In order to monitor mid-year student progress toward SLO attainment, teachers and principals will review formative assessment data, student work samples, and/or progress from the content area.

New York State Student Learning Objective: Algebra 2

All SLOs MUST include the following basic components:	
Population	*These are the students assigned to the course section(s) in this SLO - all students who are assigned to the course section(s) must be included in the SLO. (Full class rosters of all students must be provided for all included course sections.)* Two sections of Honors Algebra II (60 students total)
Learning Content	*What is being taught over the instructional period covered? Common Core/National/State standards? Will this goal apply to all standards applicable to a course or just to specific priority standards?* The following are based upon Common Core Standards. Students will use their knowledge of functions (linear, quadratic, exponential, polynomial, rational, and radical) algebraically, to solve problems, and to model real-world situations. Students will use their knowledge of trigonometry to model periodic phenomena. Students will build upon their prior knowledge of probability and statistics to draw inferences and conclusions from data.
Interval of Instructional Time	*What is the instructional period covered (if not a year, rationale for semester/quarter/etc)?* 2012-2013 school year
Evidence	*What specific assessment(s) will be used to measure this goal? The assessment must align to the learning content of the course.* Baseline Assessment: NYS Algebra I and Geometry Regents Examination results. Also, in September of each year, students will take a locally developed assessment based on critical Algebra I and Geometry skills needed for Algebra II. Summative Assessment: NYS Regents Examination in Algebra II and Trigonometry.
Baseline	*What is the starting level of students' knowledge of the learning content at the beginning of the instructional period?* On the Geometry Regents from last year: 55 (92%) students were at mastery and 5 (8%) students were below mastery (but passed the exam). On the Algebra I Regents from 2 years ago: 55 (92%) students were at mastery and 5 (8%) students were below mastery (but passed the exam). On the school-developed assessment of critical Algebra I and Geometry skills: 48 (80%) students were at mastery and 12 (20%) students were below mastery (but passed the exam).
Target(s)	*What is the expected outcome (target) of students' level of knowledge of the learning content at the end of the instructional period?* 80% of all students will score 65% or higher on the NYS Algebra II and Trigonometry Regents Examination.
HEDI Scoring	*How will evaluators determine what range of student performance "meets" the goal (effective) versus "well-below" (ineffective), "below" (developing), and "well-above" (highly effective)?* See ranges as specified (scores on the two scales will be averaged for the overall points out of 20):

HIGHLY EFFECTIVE			EFFECTIVE									DEVELOPING						INEFFECTIVE		
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
98-100%	94-97%	90-93%	88-89%	86-87%	84-85%	82-83%	79-81%	76-78%	73-75%	70-72%	67-69%	62-66%	58-62%	54-57%	50-53%	45-49%	40-44%	35-39%	30-34%	<30%

Rationale	*Describe the reasoning behind the choices regarding learning content, evidence, and target and how they will be used together to prepare students for future growth and development in subsequent grades/courses, as well as college and career readiness.* The Learning Content is based upon the CCLS anchor standards. The baseline evidence combines NYS Regents Examination results with a school-developed assessment of skills from Algebra I and Geometry that are crucial for success in Algebra II and are based on CCLS standards in Appendix A. The summative assessment score is calculated by averaging the results from the NYS Algebra II Regents Examination with the results from the locally developed summative assessment which is developed based on CCLS standard in Appendix A.

Student Learning Objective (SLO)
Template for Teachers

Teacher's Name _____ **School** _____ **Date**_____

SLO Component	
Objective Summary Statement	1. **Summarize the long term academic goal for students.** • Develop an understanding of fractions as numbers including being able to locate them on a number line and comparing fractions with like denominators or like numerators.
Data Review & Baseline Evidence	2. **Describe and explain the process and information used to create this SLO.** • Use activity based on 2.G.A.3 as baseline assessment to determine student understanding of partitioning a circle or rectangle into 2, 3, or 4 equal parts
Student Population	3. **Describe and explain the student group(s) selected for this SLO.** • Teacher-selected grade 3 students
Learning Content	4. **Describe the specific content focus for this SLO.** • 3.NF.A.2b – Represent a fraction a/b on a number line diagram by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line. • 3.NF.A.3d – Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model. • SMP 1 – Make sense of problems and persevere in solving them. • SMP 4 – Model with mathematics.
Instructional Interval	5. **Describe the instructional period for this SLO.** • Evaluation completed at end of one quarter of instruction
Target	6. **Describe and explain the expectations for student growth for students included in this SLO.** • Students will use their understanding of the unit fraction to locate various fractions on a number line and compare their value.
Evidence of Growth	7. **Describe what evidence will be used to determine student progress or growth.** Portfolio of student products, including ○ paper-pencil tasks ▪ teacher created formative and summative assessments ▪ School system short-cycle and benchmark assessments ○ student interviews ○ student video and/or pencast

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Student Learning Objective (SLO)
Template for Teachers

	understanding of fractions as numbers develops. Growth will be measured by the student's level of reasoning about fractions as numbers as demonstrated over time.
Strategies	8. **Describe and explain the key instructional strategies selected for implementation to support students in reaching the growth target for this SLO.** • Build on students' prior knowledge of fractions as halves, thirds, and fourths gained through their geometry experiences of partitioning rectangles and circles into equal parts (1.G.3 and 2.G.3). • Connect the fraction words, halves, thirds, and fourths, to counting by unit fractions, such one-half, two-halves, three-halves, etc. Describe and represent fractions by counting by unit fractions, e.g., "This figure is divided into four equal parts called fourths. It represents a number less than one. I can count by fourths to name the number represented by the shaded parts, 1/4, 2/4, 3/4. Three-fourths and one more fourth makes 1." • Provide opportunities for students to partition and iterate to represent fractions as numbers using area, set, and number line models. • Identify and describe equivalent fractions as representing the same number. • Compare fractions by using benchmarks of 0, ½, and 1, and by reasoning about the size of parts (denominator) and number of parts (numerator).
Teacher Professional Development (PD) and Support	9. **Describe and explain the professional development opportunities that will support your instruction for this SLO.** **Describe and explain any additional materials or resources that will support your instruction and assist students in meeting the growth target for this SLO.**

Student Learning Objective (S.L.O.)
Middle School Physical Education
Content Knowledge

Objective Summary Statement	Students will demonstrate mastery of content knowledge in physical education in the curricular areas for skillfulness, bio-mechanical principles, exercise physiology, physical activity and social psychological principles as measured by the district-wide summative assessment.
Data Review & Baseline Evidence ***(Before instructional interval begins)***	The data used to support this SLO include district-wide content knowledge summative assessments administered in Grade 7 during 2011-2012 school year. Mean scores on the district-wide pretest and post test cognitive assessments for 2011-2012 will be used as historical data in the data analysis process to measure student progress. Mean score of students on the 2011-2012 pretest was ____ Mean score of students on the 2011-2012 post test was ____ District-wide content knowledge summative assessment administered in Grade 7 during 2012-2013 school year. Mean score of students on the 2012-2013 pretest was ____
Student Population	All Middle School Physical Education Students in Grade 7 are targeted for this SLO.
Learning Content	The Maryland State Standards for the Physical Education were used to develop this SLO. Seventh grade content knowledge in the curricular areas for skillfulness, bio-mechanical principles, exercise physiology, physical activity and social psychological principles are the focus for this SLO.
Instructional Interval	School year 2012-2013 (one year) Physical education instruction varies by local school system; however instruction usually occurs weekly for the entire school year or weekly for one semester and represents a significant portion of the instructional period. Student must be in attendance for at least 80% of the instructional time.
Target	There is a need for historical data on content knowledge of students at the middle school level to establish student growth measurements. Baseline data will be collected during the pilot year to help identify select groups of students or specific content that needs to be specifically addressed during the next school year. Mean scores on the cognitive tests will be used to determine future grade level targets and identify areas for additional instruction for student subgroups during this pilot phase of the cognitive assessment process. 85% of seventh grade students, who are in attendance 80% of the time, will demonstrate mastery based on the mean score of at least 80% for content knowledge in physical education as measured by the district-wide summative assessment.

Evidence of Growth	Student progress will be based on a district-wide content knowledge summative assessment administered in Grade 7 during 2012-2013 school year. Mean scores on the district-wide cognitive assessments for the 2012-2013 pre and post tests will be used to measure student growth toward the target. District wide or school developed benchmark formative assessments will be used to measure progress toward meeting the student growth target or the use of sample formative assessments listed on www.mdk12.org. Mean score on the district-wide content knowledge summative assessment for the 2012-2013 pretest was ____ Mean score on the district-wide content knowledge summative assessment for the 2012-2013 post test was ____
Strategies	Physical education instructional strategies focused on understanding of the fitness components and ways of improving fitness. Strategies to improve understanding of the learning cues for fundamental movement and object control skills and their reinforcement in the physical education setting. Basic vocabulary instruction connected to physical education content, awareness of the tactical model for development of sport concepts. Emphasis on strategies to improve sportsmanship, personal and equipment safety. Incorporating the use of Universal Design for Learning (UDL) for differentiated instruction. Use of various types of instruction strategies such as peer/reciprocal teaching, group collaboration, and teacher-led instruction. Use of formative skills assessments Use of student portfolios as evidence to document progress.
Teacher Professional Development (PD) and Support	Professional development on appropriate district-wide cognitive assessments that can be used with middle school students. Professional development on the use of data collection tools to analyze student data. Opportunities to collaborate with other professionals on the uses of technology for assessment and collection of student data. Continued professional development on Universal Design for Learning and its application in the physical education setting. Professional development on the use of assessments and scoring rubrics connected to the various standards for physical education. Appropriate instructional strategies on the use of student portfolios. Participation in the State professional organization MAHPERD/AAHPERD through attendance at state/national conventions and use of resources providing by the MAHPERD/AAHPERD organization. Use of a Professional Learning Community (PLC) to review, discuss, and develop additional resources to address student needs.

Sample Student Learning Objectives

Example 1: Kindergarten – 2nd Grade Teacher

Teacher(s): *Kindergarten, 1st Grade, 2nd Grade*

Pre-Work: Step 1	**Approved Assessment**	Assessment: ***mCLASS***		
	Approved Mastery Score	Score:		
Pre-Work: Step 2	**Level of Student Preparedness**	High – ***5 (Green on Fall mCLASS)*** Medium – ***7 (Yellow on Fall mCLASS)*** Low – ***3 (Red on Fall mCLASS)***		
	Highly Effective (4)	**Effective (3)**	**Improvement Necessary (2)**	**Ineffective (1)**
	Exceptional number of students achieve content mastery	*Significant number of students achieve content mastery*	*Less than significant number of students achieve content mastery*	*Few students achieve content mastery*
Step 3: Class Learning Objective	***At least 8 of 10 red or yellow students increase one color level between the fall and spring test. No student's level decreases.***	***At least 6 of 10 red or yellow students increase one color level between the fall and spring test. No student's level decreases.***	***At least 4 or 10 red or yellow students increase one color level between the fall and spring test. Almost no student's level decreases.***	***Fewer than 4 of 10 students increase one color level and/or many students decrease in level between the fall and spring test.***

Pre-Work: Step 1	**Approved Assessment**	Assessment: ***Classroom Reading Assessment***		
Pre-Work: Step 2	**Level of Student Preparedness**	Low (pulled from class above): ***3 Students***		
	Highly Effective (4)	**Effective (3)**	**Improvement Necessary (2)**	**Ineffective (1)**
	Surpassed goal or otherwise demonstrated outstanding student mastery or progress	*Met goal or otherwise demonstrated significant student mastery or progress*	*Did not fully meet goal, but showed some student mastery or progress.*	*Did not meet goal, little to no student mastery or progress.*
Step 3: Targeted Learning Objective	Targeted Population: Students who start the course at the lowest level of preparedness as identified in Step 2 ***3 Students*** Targeted IN Content Standards: ***Standard 1 – Reading: Word Recognition, Fluency and Vocabulary Development*** Growth and/or Mastery Goal: ***All 3 students will increase their reading proficiency by at least one level between the beginning and end of year***			

STUDENT LEARNING OBJECTIVE - TEACHER

Educator Assignment: Severe Intellectual Disability Teacher
Content Area: Functional Skills **Grade Level:** 6

Objective Statement:
Grade 6 students will improve their social and emotional competencies with an emphasis on social and emotional skills, positive attitude about self and others, and appropriate social interactions.

Rationale:
We have school-wide positive behavioral expectations, characterized as the "FAB FOUR": respect, responsibility, achievement, and safety. We believe that a strong set of social emotional skills and attitudes provide a strong foundation for achieving success in school and in life. By increasing their positive social and emotional interactions and skills, our students are better prepared to access the Common Core State Standards and perform at or above grade level expectations.

The RI Health Education Framework describes the rationale for developing interpersonal communication skills to enhance health as the following: "Personal, family and community health are enhanced through effective communication. A responsible individual will use verbal and non-verbal skills in developing and maintaining healthy personal relationships. The ability to organize and to convey information, beliefs, opinions and feelings are skills which strengthen interactions and can reduce or avoid conflict. When communicating, individuals who are health literate demonstrate care, consideration, and respect of self and others."

Standards:
RIDE Health Education Standard 5, Grade 5-8: Students will demonstrate the ability to use interpersonal communication skills to enhance health.

Students:
5 sixth-grade students

Interval of Instruction:
SY2011-2012

Baseline Data:
Students were introduced to an Emotional Identification Checklist the first week of school. We practiced using it throughout the first month and collected a daily record. A rating of a 3 indicates an ability to initiate and demonstrate a coping strategy, describe what caused an emotional reaction, and recognize and label emotions independently, rather than with adult verbal prompts or with visual prompts.

Student 1 and 2 currently achieve a level 3 30% of the time
Student 3 and 4 currently achieve a level 3 20% of the time
Student 5 currently achieves a level 3 15% of the time

Target(s):
The target for all five students is to demonstrate 3's in each of the three targeted behaviors at least 60% of the time by the end of the year (average of May and June chart).

Rationale for Target(s):
These targets were chosen as these five students need additional assistance understanding social interactions and controlling their emotional responses as measured by baseline information from the Emotional identification Checklist administered during the month of September.

Evidence Source(s):
Evidence will be collected using an Emotional Identification Checklist:

- Initiate and demonstrate healthy/conventional ways to cope using strategies from the Incredible 5 Point Rating Scale (5PRS)
- Describe what caused an emotional reaction.
- Recognize and label simple emotions related to the situation using the Incredible 5 Point Rating Scale (5PRS)

1 = with adult verbal prompts 2 = with visual prompts 3 = independently

Administration:
The Incredible 5 PRS will be assessed and documented by the teacher assistant and/or myself along with the student at 4 intervals throughout the school day. The aggregated Emotional Checklist will be charted monthly.

Scoring:
The average of Emotional Checklist data from May and June will be used to determine attainment of targets.