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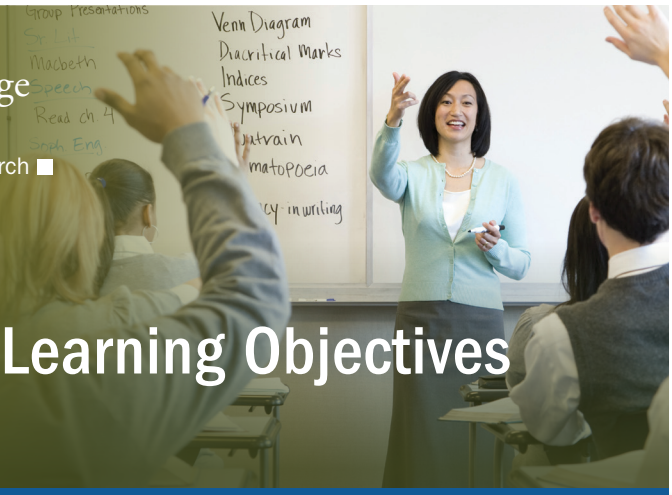

The Art and Science of Student Learning Objectives
A Research Synthesis

APRIL 2015

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What We Have Learned From Early Studies on the Implementation of Student Learning Measures

Student learning measures have rapidly become common in teacher evaluation systems across the United States. Over half of the country's states have required, recommended, or identified "student learning objectives" (SLOs) as a measure of student growth for use in educator evaluation.[1]

This is due in part to the fact that SLOs build on teacher expertise in setting goals for student learning and can be implemented with locally developed and administered assessments—which are the only source of student achievement data for many teachers outside of Grades 4–8 and in subjects other than mathematics and language arts.

Although SLO-type measures vary significantly in terms of scope, stakes, scoring, and use of assessment (see sidebar on page 2), all SLO measures require a combination of analysis and professional judgment. The thoughtful analysis of data to assess student growth trajectories is necessary to create meaningful learning targets. This analysis must then be combined with the complexity of the teaching arena, where unique teaching assignments and contextual factors (e.g., school conditions, student experience) influence student growth. These efforts lead to the art and science of student learning objectives, where all educators aim to develop contextually relevant and accurate goals.

This report provides an overview of key findings from the nearly 20 studies of SLO measures that have been conducted to date, along with considerations for future research and for practice.[2] The highlighted studies largely focus on early implementation, examining implementation challenges, educator perceptions of SLO effects on teacher practice, SLO quality and attainment

[1] Please see Appendix A for a table indicating states' use of student learning objectives in teacher evaluation systems.

[2] For further details on these specific studies, please see the companion to this report, *What We Know About SLOs: An Annotated Bibliography of Research on and Evaluations of Student Learning Objectives.*

About the PERFORMANCE MANAGEMENT ADVANTAGE at AIR

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The Performance Management Advantage service at AIR engages with school districts and states to transform comprehensive evaluation systems for their educators, bridging the art and science of teaching and leading. The service supports district and state efforts to improve teacher and principal performance evaluation as a starting point to enhance comprehensive systems that sustain educator growth and development.

Over the past five years, the Performance Management Advantage service has engaged with educators, policymakers, and others from 17 states and one territory in collaboratively designing and supporting teacher and principal practice measures, student learning objective (SLO) systems, and value-added measurement (VAM). In addition to our state and district clients, we also have served as thought partners to the Bill & Melinda Gates Foundation, School Administrators of Iowa, Public Agenda, National Education Association, American Federation of Teachers, National Association of Elementary School Principals, National Association of Secondary School Principals, and University Council for Educational Administration.

FOR MORE INFORMATION about AIR policy support, technical assistance, and system monitoring, please contact Tino Pania, Senior Business Development Consultant, by e-mail (tpania@air.org) or phone 202.403.5813.

By Any Other Name

Student learning measures are goals that, through analysis of student data, can be used to measure an educator's progress in supporting students' growth over two or more points in time. These measures vary by data source and process, and are called a variety of names:

- Student learning and growth goals
- Portfolios/projects
- District-determined measures (DDMs)
- Student learning goals (SLGs)
- Pre- and post-tests
- Teacher-specific measureable student achievement goals
- Teacher-developed item banks
- Measurable learning targets
- Student growth goals (SGGs)
- Teacher-developed assessments
- Student achievement goals
- Teacher-assessed student achievement data (TAS)
- Specific measureable achievement goals
- Student learning objectives (SLOs)
- Student learning targets (SLTs)
- Student artifacts

over time, and correlations between SLOs and other educational outcomes. Many were conducted by internal evaluators in a variey of districts and states for the purposes of improving implementation. In some studies, sample sizes, significance levels, and/or clear descriptions of methodology are not available. These factors limit our ability to draw definitive conclusions about the efficacy and implementation of SLOs as measures of student learning; nonetheless, the lessons learned to date can assist policymakers and point researchers to areas for additional investigation.[3]

Educator Perceptions of How the SLO Process Has Affected Instructional Practice

Do Teachers Perceive SLOs as Affecting Their Practice?

Initial reports from teachers new to SLOs are mixed. Over time, some teachers report increased use of SLOs in daily practice, an increased focus on long-term student achievement and data analysis, and a beneficial impact on pedagogy.

Initial reports from teachers new to SLOs are mixed. Teachers, particularly in sites where SLOs are new, had mixed perceptions about the effects of SLOs on their practice. While a majority of teachers in the new SLO system in Connecticut felt that analyzing student data was *valuable*, fewer than half reported that SLOs were *useful* to them as professionals (Donaldson et al., 2014). Similar results were found in Rhode Island, where fewer than half of teachers agreed that SLOs provided "data-based evidence for ongoing improvement of their teaching strategy." In addition, when asked whether they agreed with the statement "SLOs connect to curricular course goals and content," fewer than a third of teachers agreed (Slotnik, Smith, & Liang, 2013).

Yet teachers report increased use of SLOs in daily practice as well as an increased focus on long-term student achievement and data analysis. Interestingly, in one state, teachers did not perceive a change in their pedagogical techniques, but they did report that creating SLOs helped them 1) focus on long-term student achievement, and 2) hone their data analysis skills (Donaldson, 2012). Although teachers spoke of their district's attempts to emphasize data use prior to the implementation of SLOs, they felt that the information became more relevant when they began integrating SLOs into their practice. SLOs were also appreciated as a framework for viewing their short-term and long-term work simultaneously. In one unnamed site studied by Donaldson (2012), teachers in their first year of SLO use were asked which components of the evaluation system they found valuable; the most prevalent response during focus groups related to the "emphasis on teacher-selected goals based on student growth in student performance measures" (p. 16).

[3] Please see Appendix B for additional SLO-related resources.

Some teachers also report a beneficial impact on improved pedagogy as SLOs are implemented over time. Austin Independent School District, in Texas, provides a unique set of results from a series of studies conducted since the district first began piloting SLOs in 2008.

- In the 2008 pilot, teachers perceived the SLO process as time-consuming and difficult (Schmitt, Malerba, Cornetto, & Bush-Richards, 2008).
- Between the 2008–09 school year and the 2009–10 school year, there was a 20-percentage-point increase in teachers who agreed with the statement "Using SLOs has improved my teaching" (Schmitt, Lamb, Cornetto, & Courtemanche, 2013).
- Across four years (between 2009–10 and 2012–13), more than two thirds of participating teachers agreed or strongly agreed that using SLOs had improved their teaching (Schmitt, 2014).
- By 2013–14, the majority of teachers agreed with the following three statements: "Using student learning objectives has improved my teaching," "I often consider my SLOs when planning and conducting my daily work," and "The student achievement results of using an individual SLO are worth the extra work" (Courtemanche, Orr, & Schmitt, 2014).[4]

Considerations for policy and practice:

- Collect data on teacher perceptions over time to examine changes in the value, usefulness, and impact of SLO use. This information can inform policy and influence continuous improvement of the system.
- Communicate about perceptions—and changes in perceptions—with stakeholders. Short-term results highlight teachers' low use of the SLO process, yet teachers seem to appreciate the focus on data analysis and short- and long-term achievement. Over time, results suggest that teachers may further incorporate SLOs into their daily practice and may gain increased appreciation for how SLOs function in improving pedagogy.

According to Teachers, What Are the Benefits of the SLO Process?

In multiple studies, teachers reported how the SLO process affected their use of student data, influenced their level of collaboration, and supported the building of new assessments.

Multiple studies suggest that teachers using SLOs spent more time analyzing student data than they did prior to using SLOs. Teachers new to SLO use in Connecticut reported that they spent more time analyzing student data in 2012–13 than in previous years, with

[4] For specific percentages, sample sizes, and other details of each study, consult the references in the *What We Know About SLOs: An Annotated Bibliography of Research on and Evaluations of Student Learning Objectives.*

over a third reporting spending "a lot more time" analyzing student data (Donaldson et al., 2014). Studies in the Charlotte-Mecklenburg school district suggest similar results. Teachers and principals found value in the SLO process with regard to analyzing data, setting growth targets, and collaborating with colleagues (Slotnik, Smith, Helms, & Qiao, 2013). "Interviewees consistently remark on the SLO baseline data analysis step as one that was informative, beneficial, and frequently enlightening, in the conduct of their instructional planning" (Slotnik, Smith, Helms, & Qiao, 2013, p. 86).

In Austin, teachers reported that using SLOs encouraged teachers, especially new teachers, to analyze student data, and felt that SLOs provided a beneficial framework for addressing student needs, promoted goal setting, and promoted teamwork (Lamb, Schmitt, Gross, & Cornetto, 2013). In Indiana, teachers who had time to collaborate with others during the SLO process were 25 percentage points more likely to agree that the "new evaluation system encouraged data-driven instruction in their school" (TNTP, 2012, p. 12) and were more likely to report satisfaction with the evaluation system than teachers who did not collaborate during the SLO process.

Considerations for policy and practice:

- Highlight the value of data-driven instruction within the SLO process. Teachers may feel overwhelmed by the SLO process if connections are not made to current data use. Leverage current data practices and communicate plans for integration of SLOs to reduce anxiety and moderate expectations.
- Avoid re-creating the wheel. Align the SLO process with existing structures. Many districts already have processes that focus on data-driven instruction and closely align with the SLO process (e.g., response to intervention, professional learning communities, data teams). Integrate the SLO process into those practices to avoid redundancy and unnecessary paperwork.

SLO Implementation Challenges

What Challenges Do Teachers Encounter in Analyzing Data and Setting Goals as Part of the SLO Process?

Teachers frequently cite accessing and analyzing data as the most challenging aspects of writing SLOs, and cite the need for more support.

Analyzing student data is an essential part of the SLO process, yet teachers in multiple studies have noted how difficult it was to obtain data to use in writing SLOs. In Indiana, teachers were asked to rate how challenging it was to obtain data on students' previous academic achievement. On a scale of 1 to 7 (with 7 being very challenging), their modal response was 7 (TNTP, 2012). In two annual statewide surveys in Maryland, over half of surveyed teachers reported needing support to gain timely access to data (Slotnik, Bugler, & Liang, 2013).

Teachers also highlight the need for support in analyzing student data. In Rhode Island, fewer than half of teachers reported confidence in their ability to access the most current student achievement data and ability to use student data to determine student needs in planning instruction as part of the SLOs (Slotnik, Smith, & Liang, 2013). Similarly, in Maryland in both 2012–13 and 2013–14, over 50 percent of teachers and nearly 50 percent of principals reported needing support in analyzing student data for action (Slotnik, Bugler, & Liang, 2014).

Considerations for policy and practice:

- Make data readily available to teachers and administrators. Data analysis plays a fundamental role in the development of quality SLOs. Teachers and administrators need timely access to data to determine student strengths and weakness as well as to make insightful changes to instruction.
- Develop teacher and administrator skill and confidence in data use. Provide data literacy training that highlights the process of collecting, sorting, prioritizing, and analyzing data for classroom use.

What Challenges Do Educators Face in Working With Assessments?

Finding, creating, or updating assessments is a time-consuming and challenging process for teachers. In some cases, teachers lack confidence in their ability to find or develop high-quality assessments.

Finding, creating, or updating assessments is a time-consuming and challenging process for teachers. Donaldson et al. (2014) note that the new Connecticut evaluation system requires "relatively sophisticated assessment literacy," and that "it is unclear whether educators possess the knowledge or that districts have plans or the capacity to help educators develop it" (p. 32). In Indiana, teachers in the SLO pilot were not allowed to use standardized test results in their SLOs. As a result, teachers reported that the most time-consuming component of the new evaluation system was assessment selection and development; they reported spending an average of 4 to 6½ hours writing an SLO (TNTP, 2012).

In some cases, teachers lack confidence in their ability to find or develop high-quality assessments. In Austin, educators were given the choice between using district-approved or teacher-team-developed assessments for their SLOs. Most teachers chose district-approved assessments that were easily available online, because teacher-team developed ones were considered more "labor intensive." Non-core-subject teachers and teachers with diverse student populations reported having a difficult time finding assessments that captured course content appropriately, and they tended to develop their own assessments.

Additionally, teachers voiced concerns about accurately and fairly capturing student learning when selecting between multiple-choice exams or performance-based assessments. Educators asked for more support in the next year's assessment selection (Lamb & Schmitt, 2012; Schmitt, 2013).

In Maryland, teachers struggled to develop high-quality assessments that aligned to course content. Both teachers and principals in 23 districts reported needing assessment-related help. With additional training, researchers noted a statistically significant drop in reported need over time (Slotnik, Bugler, & Liang, 2014).

Considerations for policy and practice:

- Determine which courses currently do not have high-quality assessments readily available. Bring teachers together to share current assessments and examine their alignment to standards and instruction. Use assessment leaders to review and support assessment selection.
- Provide training and support for teachers in assessment literacy. Teachers and administrators may have little background in assessment literacy and low confidence in selecting or developing their own. This can be problematic, because SLOs are only as good as the baseline and assessment data upon which they are built. Without assessments that are aligned to instruction, SLOs are irrelevant and invalid.
- Work with teachers to select high-quality, standards-aligned assessments upon which to base their SLOs. Many teachers do not have expertise in assessment development and selection and have come to rely upon district-level experts to support decisions around assessment.

What Challenges in Communication and Support Do Educators Report in Working With SLOs?

Teachers cite ineffective communication regarding the SLO process as a major challenge to successful implementation.

In a number of studies, results point to a need for more communication to ensure the consistency of SLO process implementation across schools—particularly related to SLO requirements for teachers and administrators (Lamb et al., 2013; Delaware Department of Education, 2013; Donaldson et al., 2014; Lachlan- Haché et al., 2013; Schmitt, Cornetto, Lamb, & Imes, 2009; Slotnik, Smith, & Liang, 2013), and especially during a school's first year of implementation (Lamb & Schmitt, 2012).

Communication issues varied across studies. In a 2013 survey of Maryland teachers, two thirds of respondents reported that they needed feedback on how to improve their SLOs from the school or district administration (Slotnik et al., 2014). In Delaware, teachers spoke of problems related to the consistency and timeliness of communication and related to the use of technology in the evaluation system; they also indicated a need for more training and support (Delaware Department of Education, 2013). In the Connecticut

pilot, teachers and specialists complained of a lack of clarity on how to develop SLOs and reported receiving mixed messages from school leaders on SLO policy (Donaldson et al., 2014). Fewer than half of survey respondents in Charlotte-Mecklenburg thought communication between the district and the teachers was effective (Slotnik, Smith, Helms, & Qiao, 2013). Further, teachers and principals perceived a lack of opportunities to provide their input on program changes, which made implementing SLOs in Charlotte-Mecklenburg schools challenging (Slotnik, Smith, Helms, & Qiao, 2013).

Considerations for policy and practice:

- Develop a communication plan. Communication is a critical but often overlooked element of successful SLO implementation. Attention to communication may reduce anxiety and build confidence around a new system (Lachlan-Haché et al., 2013). Without it, other pieces of implementation can falter. One study in Austin pointed to a need for timely and regular communication from the district in the form of e-mail newsletters; electronically accessible resources; multiple, short informational sessions for teachers to learn the basics; and regular district-led Q&A meetings emphasizing collaboration (Schmitt, Malerba, Cornetto, & Bush-Richards, 2008).
- Create clear talking points and documents that identify the key messages of SLO implementation. Share how SLOs integrate into the larger system, provide context, and ensure that all stakeholders are receiving the same information about expectations and content.
- Implement feedback loops. Communication is a two-way process. Feedback loops help dispel myths and promote accurate information about implementation while also collecting important information about what is and is not working on the ground. Focus groups, in-person meetings, and other mechanisms for collecting teacher and principal feedback are critical for making important refinements during early and continuing implementation. Analysis of this feedback can be important in cultivating stakeholder buy-in and understanding needs for refinement to the system. Austin Independent School District, for example, publishes an annual report (see Schmitt, 2014) on participant feedback that articulates lessons learned while bolstering support for ongoing improvements.

SLO Quality and Attainment Over Time

Does SLO Quality Improve Over Time?

Findings suggest that SLO quality, as measured by rubrics or lists of quality criteria, generally improves over time. Teachers also become more comfortable with SLOs over time.

Studies in Denver, Charlotte-Mecklenburg, and Rhode Island suggest that SLO quality may improve over time (Slotnik, Smith, Glass, & Helms, 2004; Slotnik, Smith, Helms, & Qiao, 2013; Rhode Island Department of Education, 2013). The most promising results were

captured in Denver: In Year 1, 25 percent of objectives achieved the two highest levels on a four-level rubric; by Year 4 this increased to 72 percent. Researchers noted that technical assistance and training provided to teachers and principals improved and increased over time as well (Slotnik, Smith, Glass, & Helms, 2004). In Rhode Island and Maryland, teacher comfort with writing SLOs also increased over time (Rhode Island Department of Education, 2014; Slotnik, Bugler, & Liang, 2014).

Considerations for policy and practice:

- Pilot without stakes. Delay attaching human capital decisions to results during the first year of SLO implementation. This enables teachers and evaluators to gain experience with the process in a low-stakes environment. Denver Public Schools and Austin Independent School District excluded SLOs from compensation decisions during the first year of implementation (Lachlan-Haché et al., 2013).
- Conduct SLO audits. SLO audits are used to assess the development, approval, and implementation of SLOs. Audits can gauge the quality of approved SLOs, highlight common mistakes, and indicate additional training needs. Communicating results of these reviews can instill a sense of fairness if results are used for continuous improvement rather than high-stakes decision making. For example, with the support of AIR, Maine Schools for Excellence and Cleveland Metropolitan School District completed SLO audits that were used to support pilot sites by identifying common errors and areas for improvement. In Austin, all submitted SLOs are reviewed at the beginning of the school year to ensure that they meet quality standards. At the end of the year, the district conducts a random audit to verify results.

Correlations Between SLOs and Other Outcomes

Is There a Relationship Between SLO Attainment and Achievement?

Limited research finds inconsistent correlations between SLO attainment and student performance on standardized assessments.

One theory of action is that teachers who produce higher quality SLOs (as measured by a rubric) will have engaged in thoughtful analysis and reflection and will be able to draw on this to help their students reach greater levels of achievement. This theory has been examined in a few studies in Austin, where favorable relationships were noted between SLOs and school performance gains in one or more subjects at one or more school levels (Schmitt, 2011; Schmitt, 2014; Schmitt, Cornetto, Malerba, et al., 2009). Results from Charlotte-Mecklenburg Schools and Denver Public Schools were similar, suggesting some relationship between SLO quality and student achievement on standardized assessments; however, results were again not consistent throughout multiple subjects or school levels (Slotnik, Smith, Glass, & Helms, 2004; Slotnik, Smith, Helms, & Qiao, 2013).

Other evidence suggests no relationship between SLO attainment and schoolwide gains on assessments (Cornetto, Schmitt, Malerba, & Herrera, 2010). Findings on the relationship between individual teachers' SLO performance and their students' performance gains on state assessments also were inconsistent (Cornetto et al., 2010; Schmitt, 2011; Schmitt, Cornetto, Malerba, et al., 2009).

Considerations for policy and practice:

- Develop a research agenda to examine overall impact of SLO implementation on multiple outcomes. Research teams can examine how SLOs relate to student achievement gains and other outcomes, including school climate or working conditions, educator engagement and retention, and the closing of achievement gaps between students.
- Partner with other states and research organizations to reduce costs in performing research. It may be cost- and resource-effective for states to collaborate on research to examine common themes and learn from differences in SLO models. Consider partnering with regional educational laboratories and other research organizations to streamline research efforts and take advantage of large sample sizes.

Moving Forward: Issues to Consider

Research to Inform Policy and Practice

While study results should be interpreted with caution, they highlight some potential benefits of SLOs, including potential effects on teacher practice. Common implementation challenges, however, may limit these effects—teachers may struggle to gain access to data and high-quality assessments, and teachers may not have enough opportunities to deeply understand and learn from the SLO process. The impacts of SLO use on student achievement and learning are less clear, and point to a need for further research. The following recommendations outline lessons learned from this review of research as well as our collective expertise working with states and districts across the country:

1. SLOs are not an "easy" solution addressing the need for measures of student learning for educator evaluation. There can be a misconception that SLOs are the quick and easy fix to the challenge of assessing student growth because they can be implemented locally. However, much time and effort is required (for planning, communicating, training, and monitoring SLO implementation) to make hoped-for improvements in teacher effectiveness and student learning.
2. Plan for multiple years of implementation. SLOs often require a shift in culture and detailed training to ensure rigor, fairness, and comparability. These investments take time. Unfortunately, policy and leadership changes often lead to revisions to teacher evaluation systems—sometimes with little regard to investments made

by education leaders at both the state and district levels. Observing the impacts of these reforms will require time and persistence.

3. Conducting additional research on SLOs is critical. The results from initial studies can be used to inform implementation plans, but additional studies are warranted. More study is needed to determine whether SLOs accurately capture student growth and have an impact on student learning. In addition, because there are diverse approaches to SLO implementation in the field, studies are needed to compare approaches to identify best practices. Finally, more research on perceived and actual effects of the SLO process is needed. These studies, for example, could examine effects on pedagogy, teacher morale, and commitment to the profession. Such studies could complement our current understanding of how SLOs affect student learning beyond what is captured by outcomes related to testing while at the same time providing critical insights into the art and science of setting learning goals.

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Appendix A. Use of Student Learning Objectives by States in Teacher Evaluation Systems[5]

State	Required or Recommended	Which Educators	Weight/Scoring
Arizona	Recommended	All teachers	Classroom data that can include SLOs must be 33% of the total evaluation for teachers with available classroom-level student achievement data
Colorado	Recommended	All teachers	Determined by LEAs
Connecticut	Recommended	All teachers	45%
Delaware	Recommended	Teachers in non-tested grades and subjects	20%
Georgia	Required	Teachers in non-tested grades and subjects	Rubric based
Hawaii	Required	All teachers	Not specified
Idaho	Recommended	Not specified	Not specified
Illinois	Recommended	All teachers	Not specified
Indiana	Recommended	All teachers	10%–20%
Kentucky	Recommended	All teachers	Not specified
Louisiana	Recommended	All teachers	50%
Maine	Recommended	All teachers	50% but determined by rubric
Maryland	Recommended	All teachers	20%–35%
Massachusetts	Recommended	All teachers	Not specified
Michigan	Recommended	All teachers	2014–15: 40% 2015–16: 50%
Minnesota	Recommended	All teachers	Teachers who only teach tested grades and subjects – 5% for schoolwide shared goal Teachers who teach both tested and non-tested grades and subjects – 5% for schoolwide shared goal and 10% for class SLO Teachers who only teach non-tested grades and subjects – 5% targeted SLO and 10% class SLO
Nebraska	Recommended	All teachers	Not specified
New Hampshire	Recommended	All teachers	Not specified

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[5] Information on state use of SLOs comes from the Center on Great Teachers and Leaders (2013) and Lacireno-Paquet, Morgan, and Mello (2014).

State	Required or Recommended	Which Educators	Weight/Scoring
New Jersey	Recommended	All teachers	15%
New Mexico	Recommended	Not specified	Not specified
New York	Required	May be used by all teachers	20% for a locally selected measure which can include SLOs
North Carolina	Recommended	Not specified	Not specified; SLOs are one option for type of student growth data teachers can submit
North Dakota	Recommended	Not specified	Not specified
Ohio	Required	Teachers decided by LEAs	Districts determine what portion of the 50% of evaluation based on student growth
Oregon	Recommended	All teachers	Not specified
Pennsylvania	Recommended	All teachers	20%
Rhode Island	Required	All teachers	Not specified
South Carolina	Recommended	Teachers in non-tested grades and subjects, but all teachers can choose SLOs as a measures	20%
Utah	Recommended	Teachers in non-tested grades and subjects	Not specified
Virginia	Recommended	All teachers	20%–40%
Washington	Recommended	All teachers	Not specified
West Virginia	Required	All teachers	15%
Wisconsin	Required	All teachers	15%

Appendix B. Resources: Student Learning Objectives

For additional information on SLOs, please refer to the following resources:

- Center on Great Teachers and Leaders (GTL Center) *SLO Resource Library* at http://www.gtlcenter.org/tools-publications/online-tools/student-learning-objectives
- GTL Center *Introduction to Student Learning Objectives* at http://www.gtlcenter.org/technical-assistance/professional-learning-modules/introduction-student-learning-objectives
- GTL Center *Scoring Student Learning Objectives* at http://www.gtlcenter.org/technical-assistance/professional-learning-modules/scoring-student-learning-objectives
- Lachlan-Haché, L., & Castro, M. (2015). *Essential components of student learning objectives implementation: A checklist.* Washington, DC: U.S. Department of Education, Teacher Incentive Fund.
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- Lachlan-Haché, L., Cushing, E., & Bivona, L. (2012). *Implementing student learning objectives: Core elements for sustainability.* Washington, DC: American Institutes for Research. Retrieved from http://educatortalent.org/inc/docs/Implementing_SLOs.pdf
- Potemski, A. (2013). *Flexibility for fairness: Crafting business rules for student learning objectives.* Washington, DC: Center on Great Teachers and Leaders. Retrieved from http://www.gtlcenter.org/sites/default/files/docs/GTL_AskTeam_FlexForFairness.pdf.

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2003_04/15