LEARNING PROGRESSION

MONITORING & EVALUATING GROWTH

INTERPRETATION

TASKS & ITEMS

Using a Learning Progression Framework to Assess and Evaluate Student Growth

April 2015

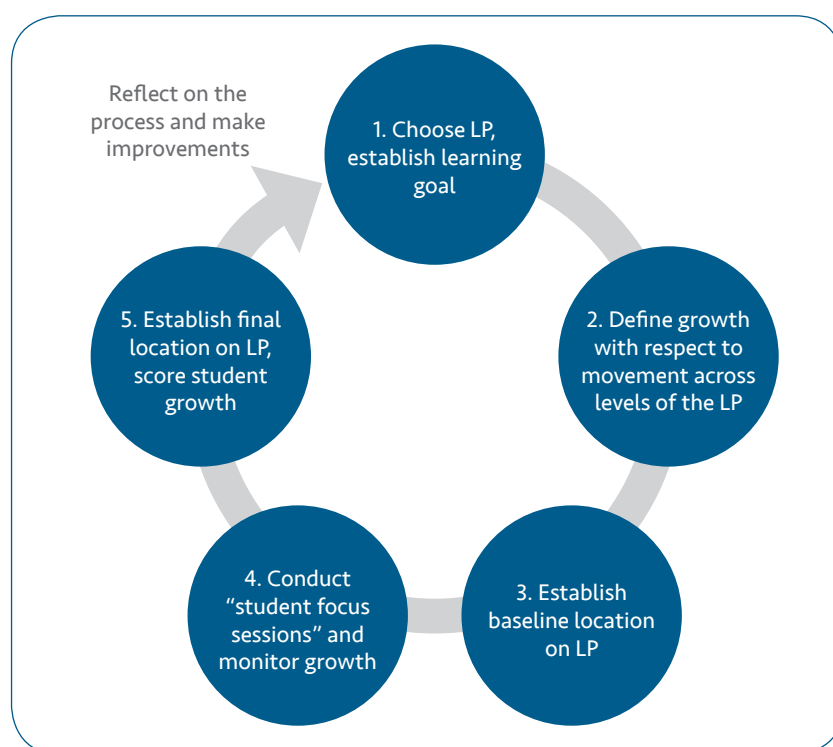## CADRE

Center for Assessment

Executive Summary

The concept of growth in student learning is central to many conversations about teacher quality and student academic success. Although the idea of measuring student growth is a significant part of teacher evaluation systems in an increasing number of districts and states, finding a way to characterize growth numerically in a manner that leads to valid and reliable inferences is extremely challenging. Quantifying growth is difficult for the teachers in tested subjects but even more so for the two-thirds of teachers who work in non-tested subjects and grade-levels. In response to needing a way to measure growth for the purposes of teacher evaluation, more than 30 states have begun using the practice of "Student Learning Objectives" or SLOs. SLOs typically involve a process in which teachers establish measureable achievement goals for their students, assess students at the outset of an instructional period, and then establish targets for student growth over the duration of that period.

In principle, SLOs reflect a process that should be appealing to teachers because they stress things that are central to good pedagogy. However, there are three reasons why this appeal may not manifest itself when implemented as a policy.

• **Ambiguous Growth.** Growth is often measured with percent correct from a pre- to post-test that may or may not include the same content. Further, rules for establishing the adequacy of growth from pre to post are typically arbitrary, and focus on proportional increases in scores that may or may not actually reflect qualitatively rich differences in learning.

• **Different Expectations.** SLOs often set different expectations for students based on their starting points. Although the intention behind setting these targets is to ensure that realistic expectations for students with varying degrees of preparedness are set, we cannot necessarily expect that teachers will feel confident accurately predicting the future performance of students early in the school year. Additionally, this entertains the possibility of teachers setting lower standards for lower achieving students and that it is acceptable to expect lower performance from some students than others.

• **Summative Use.** As with any accountability system, the stress of accountability linked to SLOs may cause the process to become compliance-based rather than instructionally-based. That is, teachers may be encouraged to set narrow goals that can be easily assessed and to attend only to post-assessment results.

In response to these threats, we introduce a *Learning Progression Framework* (LPF), which we have developed over the past two years in collaboration with teachers and administrators in a large urban school district. The LPF is organized around the use of *learning progressions* (LPs) linked to state or district standards as models of student learning. From there, the LPF applies innovative thinking about educational assessment to better support valid and reliable inferences about student growth. The steps of employing this framework are illustrated in Figure 1.

FIGURE 1: IMPLEMENTING A LEARNING PROGRESSION FRAMEWORK

Reflect on the process and make improvements

1. Choose LP, establish learning goal

2. Define growth with respect to movement across levels of the LP

3. Establish baseline location on LP

4. Conduct "student focus sessions" and monitor growth

5. Establish final location on LP, score student growth

The details on each of the five steps above can be found in our full report *Using a Learning Progression Framework to Assess and Evaluate Student Growth* [http://www.colorado.edu/education/cadre/publications]. A principal benefit of our framework is that it directly anticipates the threats to the validity of the conventional SLO process that is being implemented by states to date. Namely, implementation of the LPF has three essential features:

1. ***Coherent Definition of Growth.*** Teachers work collaboratively to identify a LP within and, ideally, across grades or courses. Collaboration in this matter requires that teacher clearly establish what it means to say that a student has shown "adequate" growth in a criterion-referenced sense.

2. ***Growth to a Common Target.*** Use of the LPF places an emphasis on growth toward a common target for all students so that there are consistent goals regardless of student prior knowledge.

3. ***Emphasis on Formative Use.*** The nature of teacher collaboration is explicitly oriented toward the analysis of student work in order to implement teaching strategies that can best support the student growth.

We argue that the LPF can be used to help SLOs meet two different needs: (1) to help teachers monitor student growth for formative purposes, and (2) to help the public monitor this growth for accountability purposes. Our theory of action is that if an LPF has been put in place first using the collaborative processes we describe, any subsequent SLO that is generated from this framework will have a greater chance of securing teacher buy-in as something that is authentic to what they value in the classroom and something that they can control.

No approach is without limitations. Writing SLOs using the LPF requires a greater fixed investment in time and resources than other SLO models. Districts that are considering this approach should be prepared to allocate substantial professional development resources to the effort. This is especially true in subject areas such as in the electives where no common curriculum may be in place or where a common understanding of standards needs to be established first. Moreover, is it unlikely that the processes supporting the LPF, which center on cultivating formative practices to guide assessment and instructional practices, are readily scalable over a short period of time or can be simply adopted by a school district or state. Instead, this work will require significant professional development and collaborative time among teachers.

Despite these limitations, we are encouraged by the process and outcomes observed during our two-year pilot study (complete reports from this pilot are available on our website http://www.colorado.edu/education/cadre/publications). Implementing the LPF requires a commitment from school districts, but our pilot results suggest that this commitment is worthwhile. Our results suggest that when teachers use LPs to create criterion-referenced models of student learning, to collaboratively review student work and to create criterion-referenced measures of student growth, the SLO process can be effective for both formative and summative purposes.