Center on
GREAT TEACHERS & LEADERS
at American Institutes for Research

Student Learning Objectives:
Considerations for Teachers of Career and Technical Education Courses

Facilitator's Guide

OCTOBER 2014

PROFESSIONAL LEARNING MODULE

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About This Booklet

This *Student Learning Objectives: Considerations for Teachers of Career and Technical Education Courses: Facilitator's Guide* booklet is intended for use with the following additional resources:

- *Student Learning Objectives: Considerations for Teachers of Career and Technical Education Courses: Handouts*
- Sample agenda
- Slide presentation

These online resources are available for download on the *Professional Learning Modules* webpage of the Center on Great Teachers and Leaders website. Please visit the webpage at http://www.gtlcenter.org/technical-assistance/professional-learning-modules/.

Adapting This Booklet

This booklet is designed so that facilitators can adopt it as written or modify the content to reflect state and local context, needs, and priorities. If modifications to content are made, the GTL Center requests that the following disclaimer be included in the revised materials:

This booklet was modified in whole or in part with permission from the Center on Great Teachers and Leaders.

Student Learning Objectives: Considerations for Teachers of Career and Technical Education

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Introduction

The Center on Great Teachers and Leaders (GTL Center) developed this professional learning supplement on student learning objectives (SLOs) to assist regional comprehensive centers, state education agencies, and districts in implementing SLOs for teachers of career and technical education (CTE courses). These materials are intended as a supplement to the Introduction to Student Learning Objectives Professional Learning Module from the GTL Center. This supplement aims to provide participants with specific considerations and guidance on SLOs for teachers of CTE courses.

At the conclusion of this professional learning supplement, **participants** will

- Understand the SLO cycle and development process.
- Be able to explain what makes a high-quality SLO for teachers of CTE courses.
- Recognize the benefits and technical challenges inherent in the SLO process.
- Have awareness of and access to valuable resources on SLOs for teachers of CTE courses and the SLO research base.

Facilitators should be able to do the following:

- Support colleagues in understanding the basic components of the SLO process and specific considerations for teachers of CTE courses.
- Use materials to facilitate preliminary SLO work with colleagues.

Audience

This facilitator's guide is designed as a blueprint for professional learning to support states and districts new to SLOs and in the early stages of considering the implementation of SLOs for teachers of CTE courses. The professional learning session can be conducted by state or district leadership and can be cofacilitated by regional comprehensive center and GTL Center staff. This GTL Center professional learning supplement will provide some knowledge building on SLOs for teachers of CTE courses that can serve as the basis for state- or district-specific professional learning. Depending on who is facilitating the professional learning, the audience could be state- or district-level staff or regional service providers. This session would be particularly beneficial to participants with some basic knowledge of SLOs and CTE courses.

Timing

The materials provided have been developed for a half-day session that fits within three working hours, but they can be modified to fit alternative schedules. The materials may also be used during two afterschool sessions, which would fit within one and a half working hours for each session. We recommend that if this professional learning session is split over two meetings that the first meeting end after slide 31 and the second meeting cover the activities portion, slides 32-37, at the next convenient meeting time. For participants who are new to SLOs, the GTL Center recommends starting with the Introduction to SLOs Professional Learning Module and allowing sufficient time for questions and discussion. Please refer to the sample agenda for the

recommended order of the professional learning components and time allotted for each component.

Resources

The following resources are provided for use in delivering the SLO professional learning supplement for teachers of CTE courses:

- Facilitator's guide (this document)
- Slide presentation
- Participant handouts, including one for each activity
- Tips and tools for addressing anticipated questions

All of these materials may be used and adapted to fit the needs of the state context. To cite the content, please use the following statement: "These materials have been adapted in whole or in part with permission from the Center on Great Teachers and Leaders."

To further prepare for this presentation, facilitators may want to review the resources highlighted on slide 36 of the slide deck used for this presentation.

Materials

The following materials are recommended for professional learning and associated activities:

- Chart paper
- Fine-point markers for chart paper
- Regular markers at each table for name cards
- Sticky notes
- Pens at each table

In This Guide

The rest of the guide provides a script (the text contained within quotation marks) to support facilitators as they present the content and learning activities included in this professional learning supplement. Along with the script, time stamps and guidance are included to support streamlined and organized facilitation. Reviewing the entire guide prior to facilitating the professional learning is highly recommended.

Welcome and Introductions

The introduction slide will take approximately ***15 minutes*** (or less) to review.

Slide 1

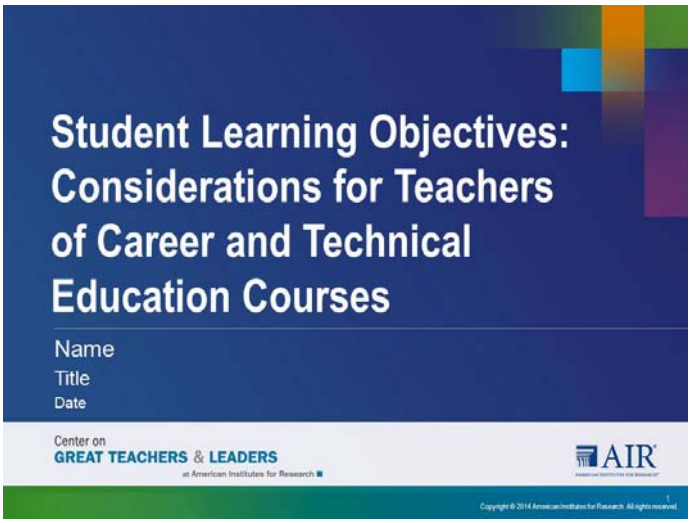
To kick off the session, allow the hosts of the professional learning to introduce themselves and the facilitators. Prior to the start of the day, ask the hosts to share their hopes and goals for the day—explaining to participants why this professional learning is important enough to request that they break away from their busy schedules to attend.

During this slide, facilitators should introduce themselves and discuss their relevant background experiences to build participant confidence in their skills as facilitators. Ask participants to introduce themselves and include their titles, so their perspectives can be taken into account by the group.

Facilitators should introduce this resource as specific to teachers of CTE courses.

Explain:

"This professional learning module supplement is designed to provide an overview of student learning objectives, or SLOs, for teachers of Career and Technical Education, or CTE courses. This professional learning supplement will provide a general overview of the SLO cycle and specific considerations for teachers of CTE courses developing SLOs."



Considerations for Teachers of CTE Courses

Slides 2–32 will take approximately ***60 minutes*** to review.

Slide 2

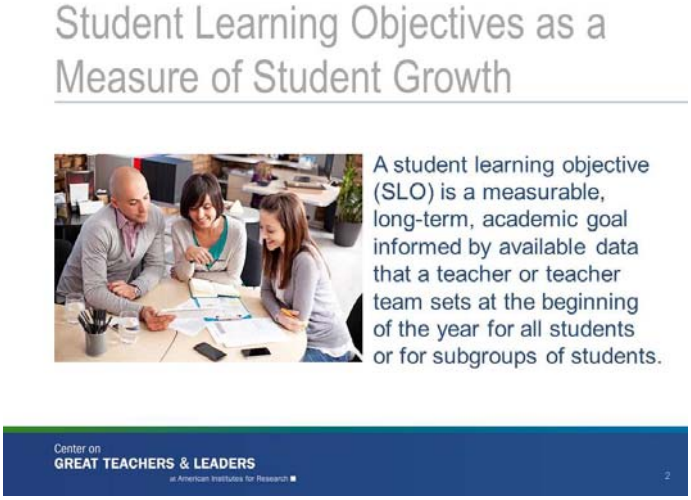
For this slide, it is recommended that the state include their own definition of an SLO and highlight the key components of the definition that should be underscored.

Explain:

"In an effort to reinforce common language, this slide introduces a common definition of an SLO.

"A student learning objective (SLO) is a measurable, long-term, academic goal informed by available data that a teacher or teacher team sets at the beginning of the year for all students or for subgroups of students.

"There are a couple of things to highlight with this definition. First, SLOs are long term, so they generally don't focus on just a small unit of a course, but rather on the main learnings or 'big ideas' that a teacher would want his or her students to learn over the course. These main learnings may include CTE or industry-specific content, performance skills and ability to perform authentic tasks, employability skills, and academic knowledge and skills. SLOs are also informed by available data, and they can be developed by a single teacher or a team of teachers. It should also be noted that SLOs take on a number of names: Denver calls them student growth objectives, and DC Public Schools calls them teacher-assessed student achievement data. In Louisiana and New Jersey, they are called student learning targets. In Oklahoma, they are called either student learning objectives or student outcome objectives. Although the names may be different, the concept is generally the same."

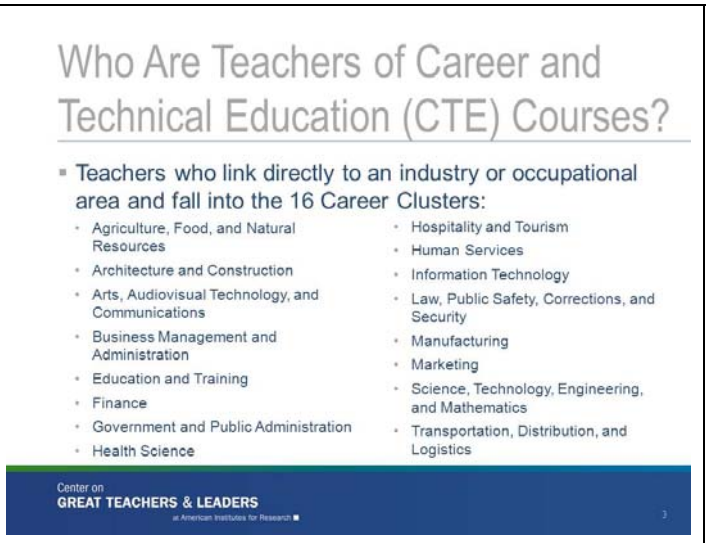


Slide 3

Explain:

"Career and Technical Education represents a diverse range of subjects. Teachers of CTE courses are also diverse: Some teach multiple academic and CTE courses, such as the mathematics teacher who also holds computer science certifications and teaches a class on digital languages, while others teach a single subject in a pathway or program of study, such as the architecture teacher who teaches all five architecture and design courses offered in his district.

"SLOs are one method that many states and districts are using to measure student growth for teachers of nontested subjects and grades, including CTE courses."

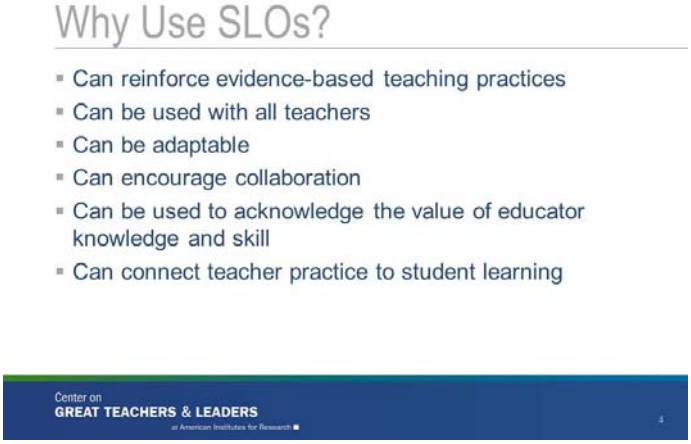


Slide 4

Explain:

"Implementing SLOs as a measure of student growth can be a complex endeavor; however, there are several reasons why using SLOs in evaluation systems can be beneficial for a state, district, the teaching profession, and ultimately the students:

- "First, SLOs can reinforce evidence-based teaching practices. Within the process, teachers typically use and analyze students' baseline data, coupled with teachers' in-depth content knowledge, to set rigorous yet achievable student growth targets that students are expected to achieve by the end of their interval of instruction. For teachers of CTE courses, these targets may represent students' gains in content knowledge, skill application, or demonstrated professionalism. Throughout the year, teachers should monitor progress through the use of formative assessments as a means to gauge student learning. These data are then used to adjust instruction accordingly to meet student needs better.
- "SLOs also can be used with all teachers as well as administrators or other specialist personnel. SLOs can be used



as a meaningful measure of growth for teachers of CTE courses because they are not dependent on state or national assessments; rather, they can be used with national, state, local, or even teacher-developed assessments. ▪ "SLOs can be adaptable. As states and districts implement new standards—such as the college- and career-ready standards—SLOs can serve as a vehicle for educators to incorporate new standards into curriculum and instructional practice. ▪ "As we've mentioned already, SLOs can facilitate a collaborative culture in which educators work together to establish SLO targets, measures, and benchmarks. Teachers don't need to develop SLOs in isolation, especially considering the diverse learning needs of the student population and the expertise that specialists bring to bear to the education of all students. Therefore, the quality of SLOs can be greatly enhanced when developed collaboratively with a team of colleagues with various expertise, all devoted to advancing student learning. When we walk through the SLO development process in a moment, we will highlight the natural areas for teacher collaboration, especially around academic content. ▪ "When implemented well, SLOs respect the knowledge and skills that teachers bring to the table. Teachers play an integral role in the development of their SLOs. The SLO components can empower teachers to use their experience and knowledge of students to identify key content and standards and establish student growth targets accordingly. Teachers of CTE courses can formally demonstrate their impact on student learning through SLOs. This can be a powerful tool for these teachers in demonstrating the impact of their work on student outcomes. ▪ "Finally, the SLO process can make an explicit connection between the content	

teachers want students to know and their instruction in the classroom." *At this point, you are about to discuss the specifics of SLOs, so it is a good time to pause for any questions from participants. If you have time, ask participants to reflect on what you just shared. For example, was the information new to them? Did the information reaffirm what they already knew?*	
Slide 5 *For states that have their own SLO template, this slide should be modified to reflect the SLO components highlighted within the state template. The descriptions for the components on the template should ideally reflect the criteria on the checklist.* **Explain:** "In the next few slides, we are going to get into the specifics of the components of an SLO. For your reference, SLOs typically include the following eight components: baseline data, student population, interval of instruction, standards and content, assessment(s), growth targets, rationale for the growth targets, and instructional strategies. Some SLO experts also recommend having a clearly stated learning goal at the beginning of the SLO template. This may be a critical step to focus the SLO on learning rather than growth. If a learning goal is not stated at the beginning, teachers and administrators could run the risk of viewing the SLO process as only a growth measure rather than a learning process. "Generally, SLOs are developed using two forms, an SLO template and an SLO checklist."	

Slide 6

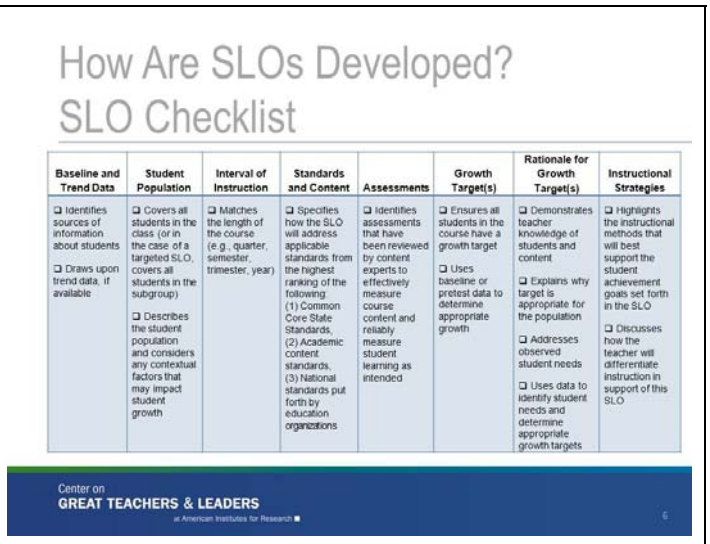
If available, this slide can highlight your state SLO checklist.

Explain:

"This is an example of an SLO checklist. This slide simply illustrates an example. You have an example in your handouts that you can refer to for easier reading.

"As you can see, the components in the slide correspond directly to the SLO template we just reviewed on the previous slide. The components identified in the template are the same components that go across the top of this checklist. The checklist sets the bar for quality and acts as a guide for SLO consistency. Under each component is a series of criteria that act as a measure of quality for the SLO. SLO approvers use these criteria when determining if an SLO meets a level of expectations for approval and if the targets are rigorous yet attainable. The checklist can be used to streamline both the development and the approval processes.

"The checklist serves as a check-and-balance tool for both teachers and SLO approvers as it allows teachers to use the checklist to guide the development of their SLOs and allows evaluators to look across the checklist as they review and approve SLOs. It also helps to ensure consistency and fidelity to the SLO process."

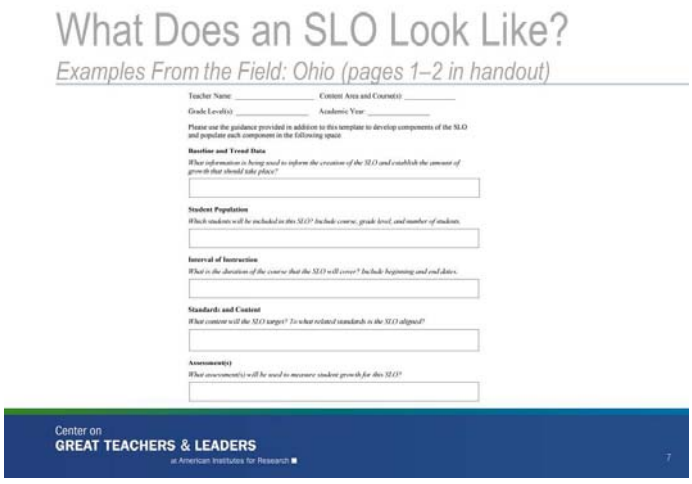


Slide 7

If available, this slide can highlight your state SLO template.

Explain:

"This first example is a template developed by the Ohio Department of Education, which can be found on pages 1 and 2 of your 'SLO Template' handout. You can refer to the handouts for easier reading. You'll notice that this template is similar to the SLO checklist discussed on the previous slide. The only component not included on this template is the instructional strategies component."



Slide 8

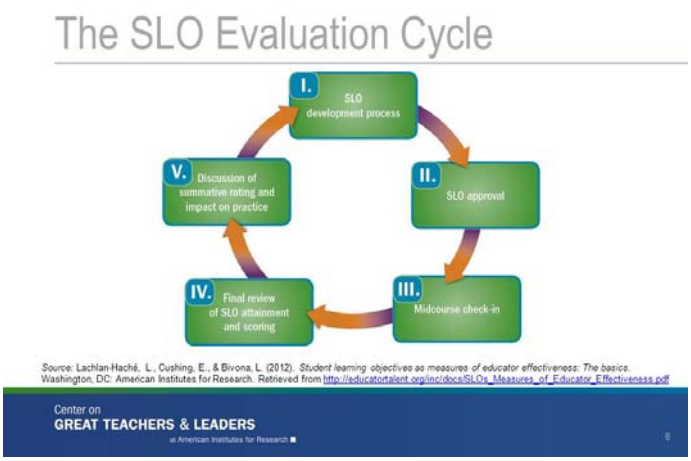
Explain:

"Now we are going to review and discuss the SLO evaluation cycle, which highlights the general steps of the SLO process over the course of the school year. Before we move on, are there any questions about the content we have covered so far?"

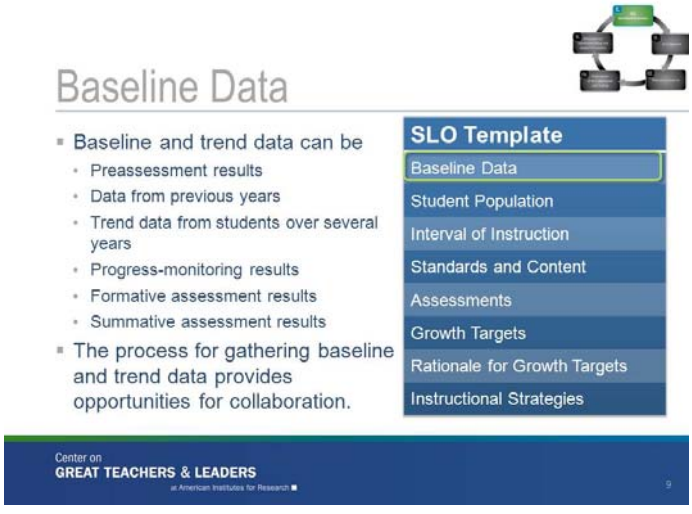
Pause for questions.

"Okay. Let's start this slide by walking through this graphic. The SLO evaluation cycle includes multiple interactions between teams of teachers, teachers and their students, and teachers and their evaluators. We will review this slide fairly quickly and provide more detail on each of these steps in subsequent slides.

- "Step one generally begins with SLO development where teachers or teacher teams work together to develop their SLOs. Teachers of CTE courses can work together with core academic teachers or teachers of related subjects to identify common academic standards or skills, analyze student data, set goals, and identify effective instructional strategies during the SLO development process. This can help to reduce the burden on individual teachers, promote professional learning, and improve student learning.
- "Step two continues with SLO approval, which is often an interaction between teachers and principals or in some cases specialized SLO leaders. At this point, the SLO is submitted to the evaluator and reviewed. If the SLO needs revision, it is returned to the teacher. If it's approved, the teacher continues to teach students, using the SLO growth targets as a guide to monitor student progress. The conversations between teachers of CTE courses and evaluators can promote administrator understanding of the value of CTE courses and their role in promoting student learning. These conversations can also provide teachers



of CTE courses with continual feedback and resources to improve their skills in the classroom. ▪ "Step three generally occurs at the middle of the academic year, although if the interval of instruction is a semester or trimester, the midcourse check-in would occur at that midpoint. This step involves teachers reviewing student data and then meeting with their evaluator to discuss their progress in meeting the growth targets. It ensures that teachers are continually reviewing student evidence to monitor their progress, which is already common practice among many teachers. This is a critical step to the SLO process, especially in the early years of SLO implementation. It establishes an expectation and the time for teachers and evaluators to reflect on the SLO process, identifies any needed changes in instructional practice, determines any services or supports needed to address student needs, and identifies any professional development needs of the educator. ▪ "Step four, the final review and scoring step, takes place when the summative assessment results are collected. The teacher collates and shares with the evaluator any relevant student data or evidence in a meaningful manner that accurately reflects student knowledge and progress toward the SLO target. The results are then reviewed and scored by the evaluator. ▪ "In the final step, step five, the teacher and evaluator meet to discuss the summative scoring and consider the teacher's impact on student learning. Similar to the midcourse check-in, this is also a critical step in the SLO process in the early stages of SLO implementation because it embeds a step for teachers and principals to reflect on the SLO process, learn from the year of experience, incorporate that new knowledge into the next year of the SLO development, and think about how the results will influence professional learning.	

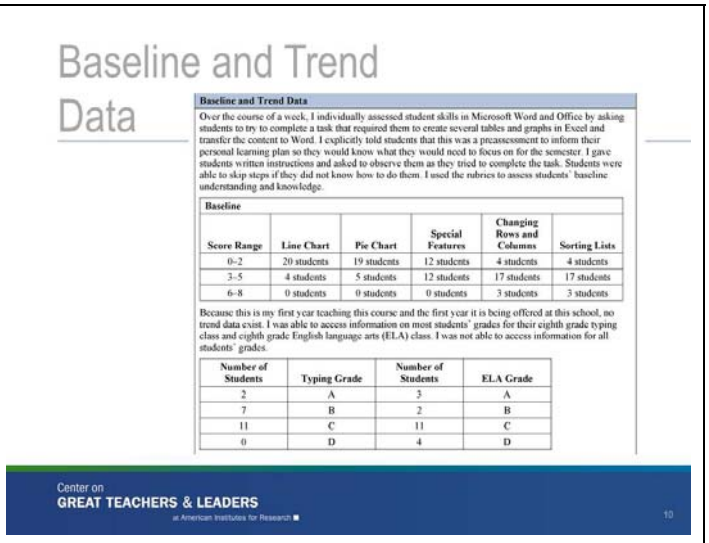
"As you look at the evaluation cycle, you will notice the arrow that runs through this cycle. The arrows in this graphic illustrate the collaborative interaction between teacher colleagues, between teachers and evaluators, and between teachers and their students. "The SLO cycle can also promote collaboration between teachers and students in setting learning goals. Because many CTE courses are elective and taken at the high school level, students are typically invested in their own learning. When teachers share the learning goals in SLOs with their students, students can become more invested in setting goals and monitoring their own learning. "It is important to note that this presentation focuses only on step one of the SLO cycle because the key considerations around SLOs for teachers of CTE courses focus on the SLO development process." *Note: Please see the Introduction to SLOs Professional Learning Module for more information about the other steps of the SLO cycle.*	
Slide 9 **Explain:** "Now let's look at considerations for teachers of CTE courses within the SLO development process. We will discuss specific considerations for each SLO component, starting with baseline and trend data. "Baseline and trend data are used as the basis of establishing growth targets. These forms of data can include preassessment results, data from previous years, trend data from students over several years, progress-monitoring results, formative or summative assessment results, or any other evidence of student knowledge that informs teachers about students' readiness to learn. "The baseline data gathered will depend in part on the assessments used in the CTE	

course. We will talk more about assessments in a few minutes. If there is no baseline data available, teachers of CTE courses may need to use other data to inform growth targets. For example, a teacher of a Web design class can use students' performance on class assignments or tests given early in the year and previous year's grades to inform growth targets. Trend and other data is also meaningful because it can help teachers and evaluators establish expectations for what a year's worth of growth looks like in CTE courses. Because many teachers of nontested subjects and grades may face challenges related to choosing assessments and gathering data for SLOs, teachers can work together to solve common challenges and share data analysis methods. If the CTE course and the SLO also include relevant academic skills or standards, teachers of CTE courses can also collaborate with core academic teachers to gather and analyze data on students' strengths and weaknesses in those skills. For example, a teacher of a journalism course may include data on students' skills in writing and analyzing information text from English language arts (ELA) courses to inform growth targets. "After the data are gathered, the teacher analyzes his or her current students' data to identify trends in student performance and preassessment skills and knowledge. The teacher can also review past students' data to identify growth trends and content or skills to target specific to the SLO course (e.g., What is the average amount of growth attained in this course? Are there specific skills or content strands that are particularly challenging for students?). "In many cases, it may be helpful for teachers to think about three groups of students: those who are **prepared to access the course content**, those who are **not prepared** (need some remediation), and those who are **very well prepared** (and may be in need of some enrichment).	

Slide 10

Explain:

"Look at the baseline and trend data section in example SLO 2. As you can see, the teacher gathered baseline data and, because she didn't have access to trend data for the pre- and postassessment, she gathered additional available data to inform growth targets. In this case, the teacher had access to student grades from the previous year. The teacher was able to use this additional data to confirm that the baseline data was generally representative of student performance over time."



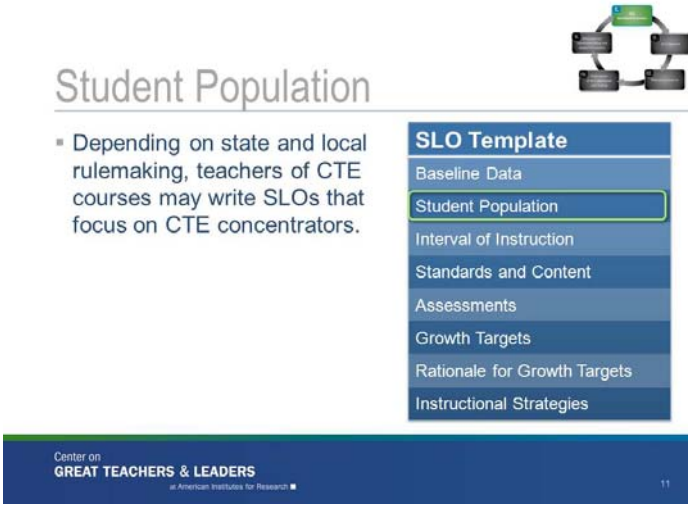
Slide 11

Explain:

"Student population covered within the SLO generally includes the number and identification of students, student exceptionality status (e.g., students with disabilities, English language learners), or any other relevant student information. For example, if the SLO covers multiple grades or classes, then this section would also include student grades, classes, and academic levels. It is important to note that student mobility can be addressed in this section as well, if the teacher teaches in a school with a highly mobile student population.

"Depending on the state and local rules set around SLOs, teachers can sometimes choose to write an SLO on a targeted group of students. For example, a teacher of an information technology course may choose to focus on CTE concentrators who plan to complete the entire program of study. The teacher may also choose to write one SLO that focuses on all students and a second SLO that focuses on CTE concentrators only.

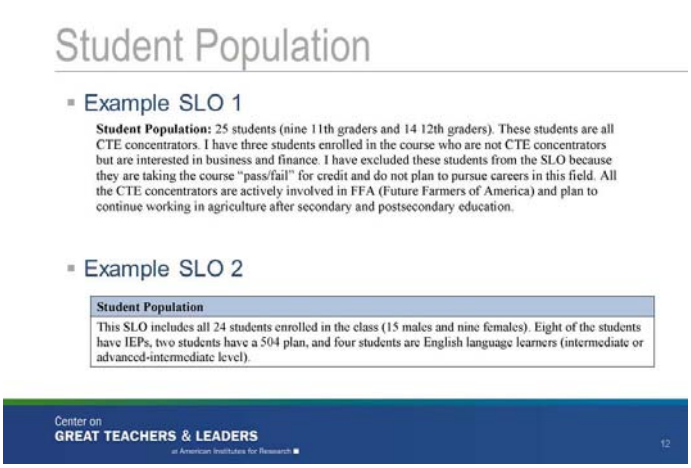
"In most states and districts, CTE concentrators are high school students who have taken more than two advanced CTE credits or students who have taken more than three credits in a secondary CTE program."



Slide 12

Explain:

"Look at the student population section in example SLO 1 and example SLO 2. As you can see, SLO 1 focuses on the CTE concentrator students because the three other students are taking the course pass/fail and do not intend to pursue further coursework or experience in this field, while SLO 2 includes all students in the course."

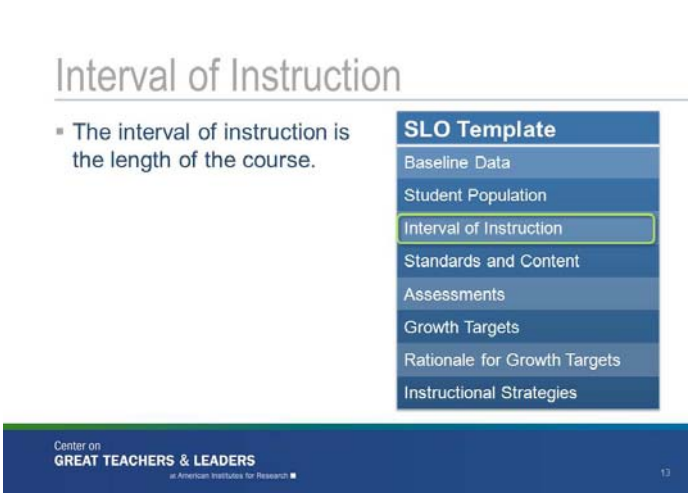


Slide 13

Explain:

"The interval of instruction is the length of the course that the SLO will cover. If the course is a full year, then the interval would be a year. If the course is a semester, then the interval would be the semester.

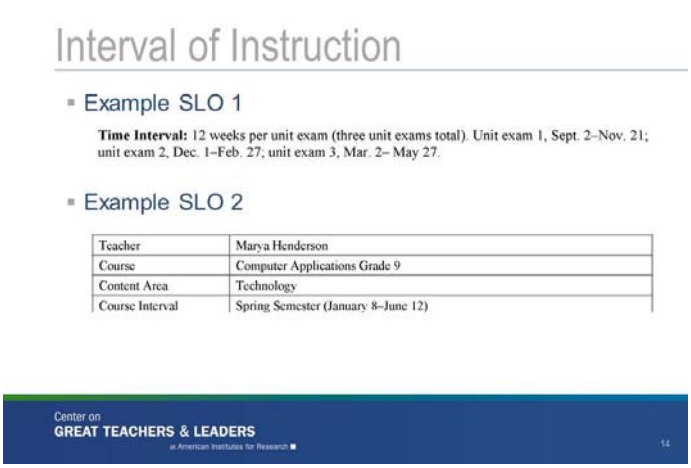
"It is important to note any state or district policies that require information to be shared by a certain date. For example, if state policy requires all teachers submit summative data by mid-May, then the interval of instruction should take into account the time needed to disseminate a summative assessment, score the assessment, score the SLO, and combine the SLO score with any other performance measures. In this situation, if the summative scores were due in mid-May, then the interval of instruction would end close to mid-April."



Slide 14

Explain:

"In example SLO 1, the interval of instruction is yearlong. In example SLO 2, the interval of instruction is semesterlong."



Slide 15

Explain:

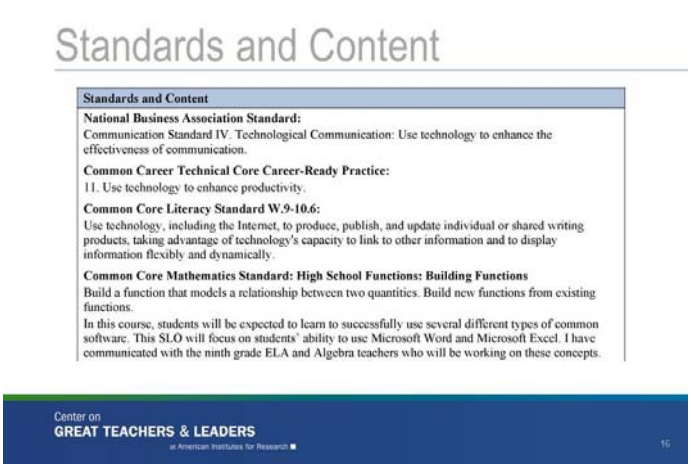
"The standards and content component consists of the main standards and content the teacher addresses and expects students to learn during the interval of instruction.

"Many states have made it a priority for all teachers to include common core or academic standards in their SLOs, even if they teach a subject that is not a core academic course, such as ELA or mathematics. For many teachers, including teachers of CTE courses, this means that the SLO may not necessarily include all standards covered in the course. Rather, the SLO for a teacher of a CTE course will likely include some of the major CTE or industry standards, select academic standards, and possibly select standards related to employability skills."

Slide 16

Explain:

"Look at example SLO 2. As you can see, this SLO includes Industry, Business, and Common Core standards that align with the focus of the SLO."



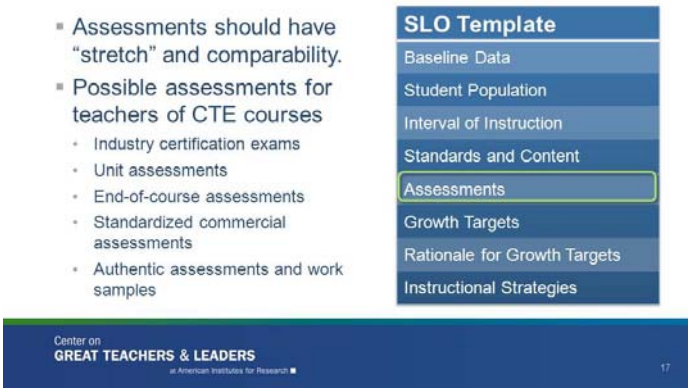
Slide 17

Explain:

"The assessment section identifies assessment(s) the teacher will use to measure and document student growth at the end of the interval.

"It should be noted that the SLO is only as strong as the assessment used to measure students' knowledge. This is for two reasons:

- "First, it is critically important that the assessments are accessible to all students for whom knowledge can be accurately demonstrated and captured. In addition, selection of the assessment should be based on the assessment's alignment to the standards and curriculum of the course. The assessment needs to be able to measure growth of the skills and knowledge being targeted and provide enough 'stretch' to show growth in both high- and low-performing students.
- "Second, comparability across teachers, grades, and schools should be sought. For example, if there are two sixth-grade science teachers in one school, and one teacher uses a self-created summative assessment to measure student learning and the other teacher uses a vendor-created end-of-course exam, comparing the SLO results between the two teachers may be difficult. Later today, we will talk more about the different approaches

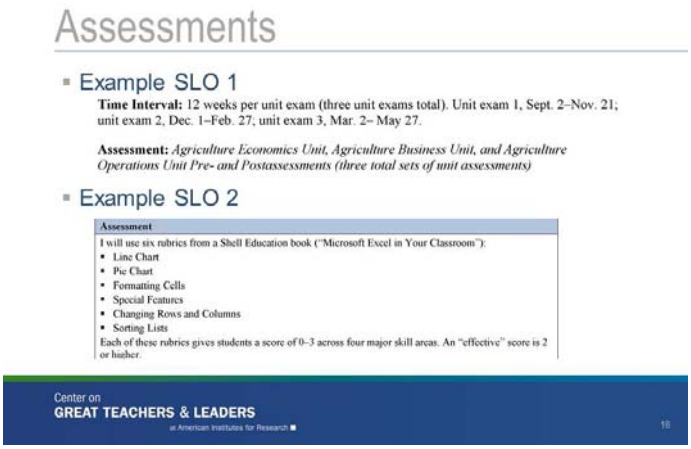


states and districts are taking to support teachers in the assessment selection process. "Teachers of CTE courses may consider using several types of assessments in their SLOs. Industry certifications are an important measure of student success, but they can only be used as an achievement measure (not a growth measure) because they do not include a pretest and because the results often belong to the testing agency. Industry certifications can be included in growth targets for higher achieving students, however. We will discuss this approach later in the presentation. Like other teachers of nontested grades and subjects, teachers of CTE courses can use unit assessments or end-of-course assessments with aligned preassessments to measure growth. Teachers who do not have appropriate unit assessments or end-of-course assessments can also consider buying commercial pre- and postassessments or using authentic assessments and work samples to measure growth. "The type of assessment chosen will have implications for other components of the SLO. We will discuss considerations for setting growth targets, writing a rationale, and planning instructional strategies later in this presentation. We will also look at examples of how these different types of assessments may be used to inform growth targets later in this presentation."	

Slide 18

Explain:

"As you can see here, example SLO 1 uses three unit exams to measure student learning. Example SLO 2 uses six different performance rubrics to assess student learning and execution of tasks."



Slide 19

Explain:

"The growth targets illustrate the expected learning at the end of the instructional period based on students' baseline and trend data. Later in the session, we will review different types of growth targets.

"The growth targets are developed using all of the data and evidence collected so far: the baseline and trend data, the key learning that the students should know by the end of the interval of instruction, and the assessment(s) that measure the key learning. The growth target rationale explains why the target created for the students is appropriate for the students while also being realistic for the teacher. It also should mention how the targets will help students meet the state standards or other college- and career-ready standards.

"The type of growth target chosen should reflect the student data. Most of the following growth targets can be used with most types of assessments. It is important to note that if the SLO includes multiple assessments, such as multiple unit assessments, the growth target component of the SLO should include plans for combining scores to create a single growth target."

Slide 20

Explain:

"The next series of slides provide some examples of what an SLO growth target could look like. We recognize that this is an important step in the SLO development process. These examples will give you a sense of the variety of growth targets and their limitations and strengths. In no way are these examples representative of all the possible kinds of growth targets. There are strengths and limitations to each, and all those points should be considered. It should also be noted that there is currently no research regarding types of growth targets; thus, professional judgment on the part of the teacher and evaluator is crucial. Teacher leaders, CTE administrators, and SLO approvers can work with teachers of CTE courses to help them identify the appropriate growth targets.

"This first example is a simple growth target that has the same amount of growth for all students covered under the SLO. In this example, all students are expected to grow 20 points on the assessment by the end of the semester in order for the teacher to meet his or her SLO. This growth target would be appropriate to use if 20 points demonstrated sufficient growth for all students.

"One limitation of this target is that it assumes that 20 points is sufficient or even possible for all students. For example, is a student who grows from 40 to 60 points growing as much or more than a student who is growing from 60 to 80 points? In some cases, this is the right amount of growth, and in other situations, it could be too high or too low for the student population and the assessment chosen."

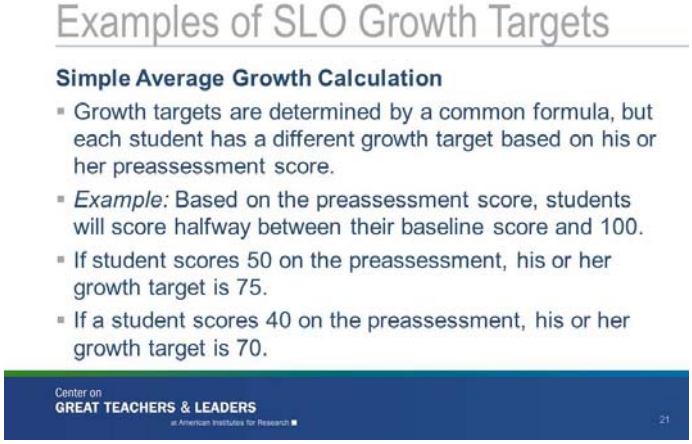
Slide 21

Explain:

"Setting a common amount of growth may not be appropriate in all circumstances. For example, students who start the year with a lower baseline score may require more rigorous growth goals to close the achievement gap. In this situation, one way to set a growth target is to use a simple calculation.

"This example is what the Austin school district uses for its growth targets. All students are expected to grow half the distance between their baseline score and 100. As the examples show, the amount of growth expected of the student varies based on his or her preassessment score.

"It's important to note that this calculation is valuable in its simplicity, and it can guide growth targets for teachers who are using a new assessment or lack sufficient data to make more precise growth targets. Yet some assessments aren't designed so that growth from a 10 to a 55 is equivalent to growth from an 80 to a 90. Further, formulas may push teachers to assume that lower performing students will grow more than higher performing students, which is not necessarily the case. These are important considerations when choosing the type of growth target used. They point to the importance of assessment literacy for both teachers and evaluators."



Slide 22

Explain:

"Another way to write a growth target is to use a tiered growth target. With a tiered target, teachers group their students on the basis of their preassessment data and, after reviewing trend data, set growth targets based on the expected growth for each tier of students.

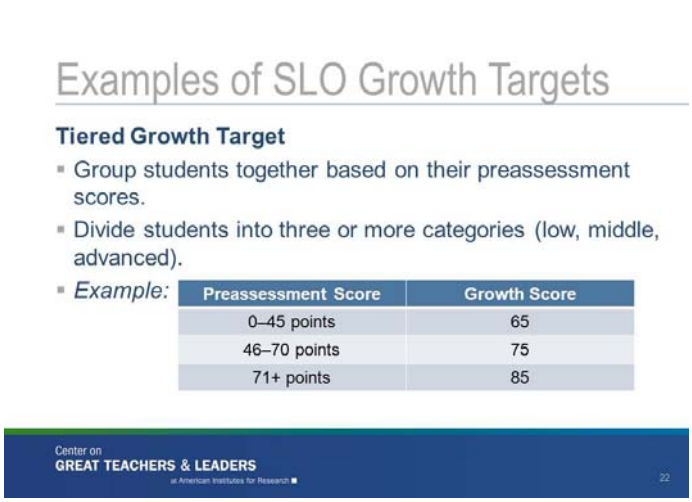
"In this hypothetical example, the teacher knows that students who start the year with a baseline score of 0–45 tend to score around a 65 on the end-of-year assessment. Students who scored between 45 and 70 tend to score around 75 points on end-of-year assessment, and so on. This teacher is aiming to bring her students to the level of expected growth based on both baseline and trend data."

Pause to ask participants if they have any questions.

"One more point of note before moving on to the next slide: If you look at these tiers, you might realize one drawback to this approach. Can anyone spot the limitation to this approach?

"If a student scores a 70 on his or her preassessment, what is that student's expected growth? And if a student scores a 71, what is the expected growth?"

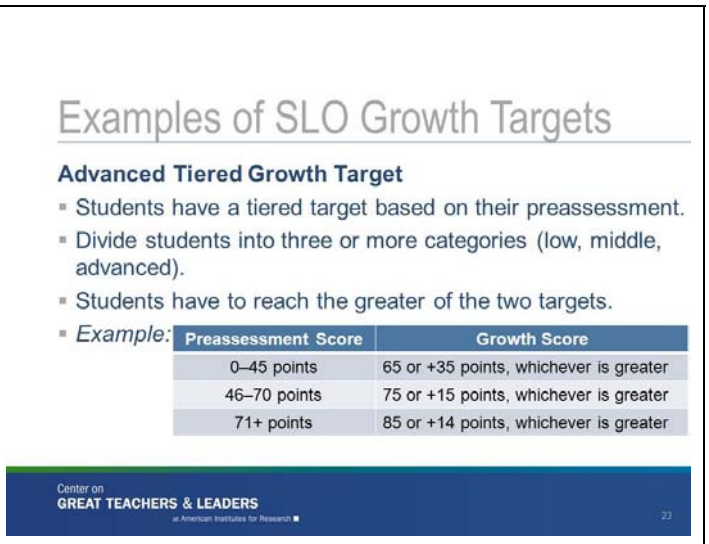
Allow participants time to consider the answers to these questions. Ideally, participants will recognize that the limitation lies in the chunking process. When a student scores a 70, that student only has to grow 5 points. If another student scores a 71, that student has to grow 14 points. This difference can be narrowed by using the type of growth target outlined on the following slide.



Slide 23

Explain:

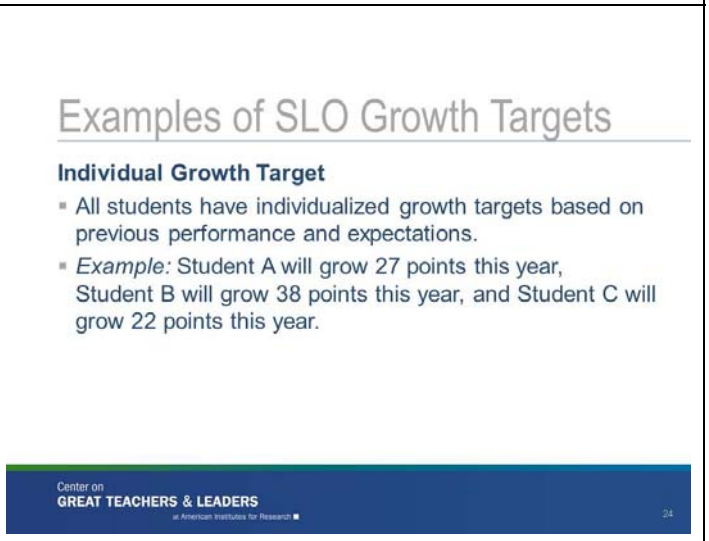
"This example of a growth target is called an advanced tiered target and is designed to address the challenge we just identified in the previous example. An advanced tiered growth target pushes all students to achieve the highest level of growth within their tier. As the table shows, if students scored a 70 on the preassessment, they would have to score an 85 on the postassessment; if they scored a 71 on the preassessment, they would be expected to score an 85 on the postassessment."



Slide 24

Explain:

"This final example of a growth target is called an individual target. Individual targets can capture the specific learning needs and conditions of each student. These types of targets are typically more appropriate for students who cannot be easily grouped by learning readiness or performance. If a teacher sets individual targets and finds that many of the targets are the same or very close in range, the teacher may consider setting tiered targets instead."

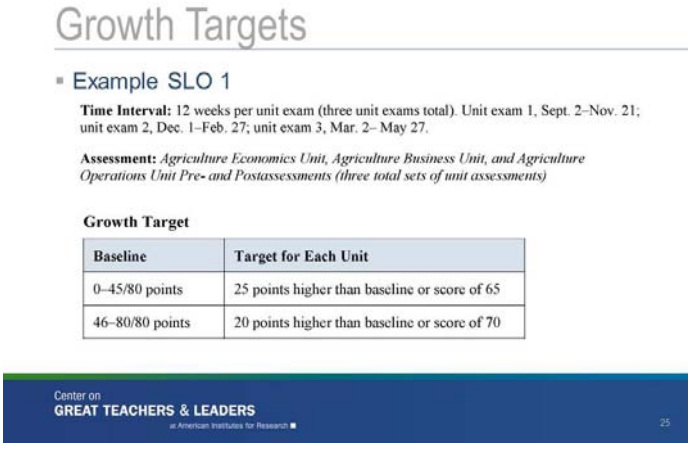


Slide 25

Explain:

"As you can see here, example SLO 1 includes three different unit assessments. This SLO uses tiered growth targets for each unit assessment.

"For other SLOs, it is possible to set different types growth targets for each of the unit assessments, depending on student strengths and weaknesses."



Slide 26

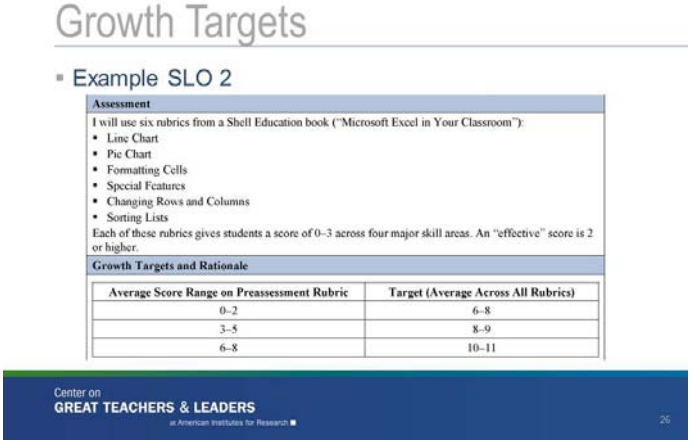
Explain:

"As you can see here, example SLO 2 uses several rubrics to assess student performance. These rubrics are used as both the pre- and postassessment. For SLOs that use rubrics to measure student performance on authentic assessments, projects, performances, or portfolios, it is important that the rubric is high quality. In the second example, the teacher chose premade rubrics that aligned with her course content and the focus of her SLO. Teachers can also create their own rubrics, depending on state or district rulemaking. Any rubrics used to measure student performance should meet a few basic criteria:

- "First, the rubrics should be based on the standards or content included in the SLO.
- "Second, the rubrics should include descriptive labels and indicators to describe clearly different levels of student performance for the various knowledge and skills the rubric is used to assess.
- "Finally, it is important to establish a "proficiency" baseline for performance. What is the minimum score on the rubric that indicates proficiency?

"We will review a rubric used to measure authentic assessments in SLOs in a later activity."

If the participants include teachers of CTE courses, this may be a good time to ask participants to reflect on and share what kinds of assessments and growth targets may be meaningful for specific courses or pathways.



Slide 27

Explain:

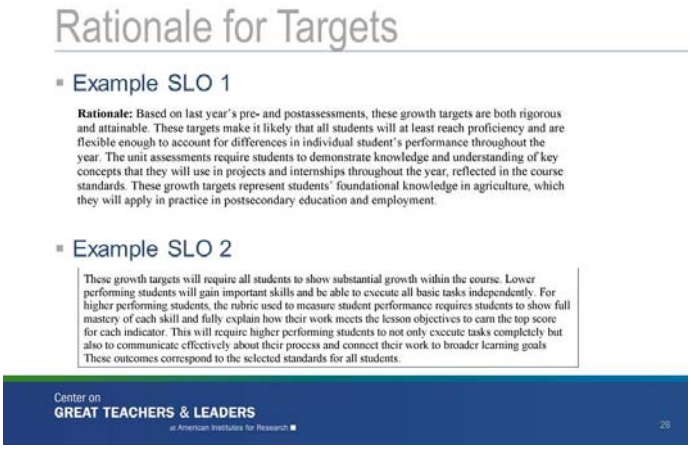
"The rationale or basis for determining the growth targets explains why they are necessary and appropriately rigorous. This section often includes an analysis of students' baseline and trend data, highlights the key content and skills the students should know by the end of the interval of instruction, and identifies appropriate and accessible assessments that accurately capture students' knowledge.

"The rationale also should describe how the targets will help students meet the state standards, college- and career-ready standards. For teachers of CTE courses, the rationale can also describe how students will gain employability skills or other "soft skills" such as communication by attaining these targets."

Slide 28

Explain:

"For example SLO 1, the rationale clearly connects the targets to proficiency and student expectations for future performance. The rationale for example SLO 2 describes how the targets reflect the standards chosen for the SLO."



Slide 29

Explain:

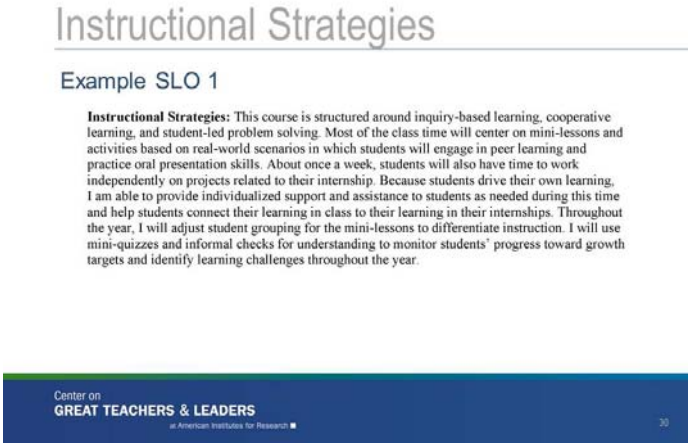
"Finally, instructional strategies highlight the evidence-based or high-leverage instructional practices educators intend to employ to ensure student mastery or growth toward the targets.

"The instructional strategies should be clearly aligned to growth targets. Because many CTE teachers have been alternatively prepared and may have had limited training in pedagogy, it may be more challenging for CTE teachers to describe their instructional strategies in-depth. Teacher leaders, CTE administrators, and SLO approvers can work with CTE teachers to help them identify the appropriate instructional strategies for the SLO. This can create a great opportunity for collaboration and professional learning for CTE teachers."

Slide 30

Explain:

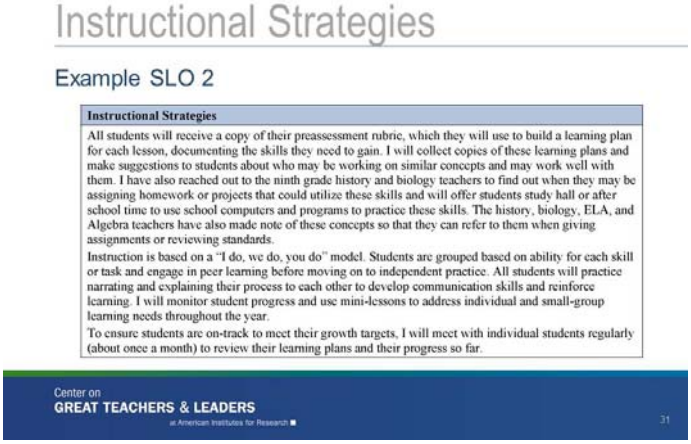
"In example SLO 1, the teacher provides individualized support to connect content in the course to student projects and internships. The teacher also uses mini-lessons and small-group work to organize instruction and encourage peer learning."



Slide 31

Explain:

"In example SLO 2, the teacher engages students in goal-setting by sharing preassessment data with students and encouraging them to develop their own learning plans. The teacher also uses small-group work, targeted instruction, and regular meetings with students to monitor learning."



Activity: Reviewing an SLO

This activity provides participants an opportunity to look at different examples of SLOs from three states. The activity corresponds with the handout titled "Activity: Reviewing an SLO." The objective is for participants to identify key questions about the SLO examples and discuss those questions as a large group.

Allow ***45 minutes*** for this activity.

Slide 32

The purpose of the activity is for the participants to look at real examples, generate practical questions about SLOs, and have their questions answered.

On chart paper, write the names of the different sections of the SLO in columns so there is room for sticky notes to be posted in that section for this activity. Here is a sample of the first three sections:

Baseline and Trend Data	Student Population	Interval of Instruction

After participants finish their reviews, walk through the questions posted and respond to the questions based on your knowledge of how states and districts address each question posed.

Slide 33

If available, this activity should be done with an SLO example that was developed in your state using a state-developed template and checklist.

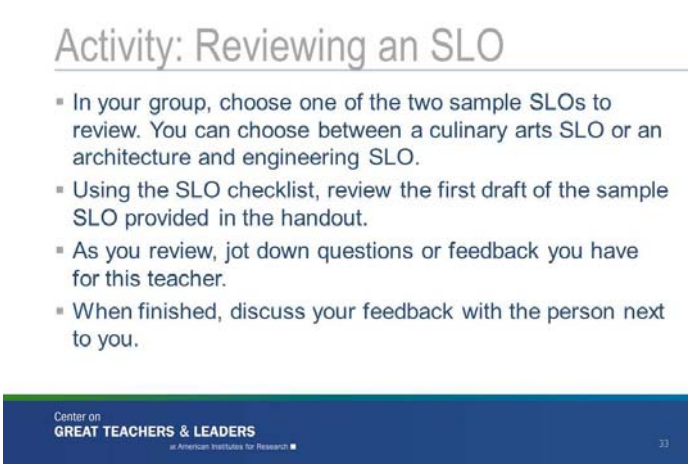
Direct participants to the activity handout, which includes two "first drafts" of SLOs for teachers of CTE courses. Ask participants to choose one of the SLOs and review it using the SLO checklist, then discuss their feedback with their team or table. After about 20 minutes (or time needed), hand out the annotated and final versions of the SLOs to participants and ask them to compare their notes and feedback. After about 10–15 minutes, have participants share what they found important, what they did not notice on first review, or any questions they may have.

Explain:

"This next activity will require your engagement in the following:

- "Review the two sample SLOs provided in the handout.
- "As you review, jot down questions or concerns about the SLOs using the sticky notes provided.
- "When finished, place your sticky notes in the appropriate SLO section listed on the chart paper.
- "As a group, we will review questions and concerns and collectively consider how best to address each."

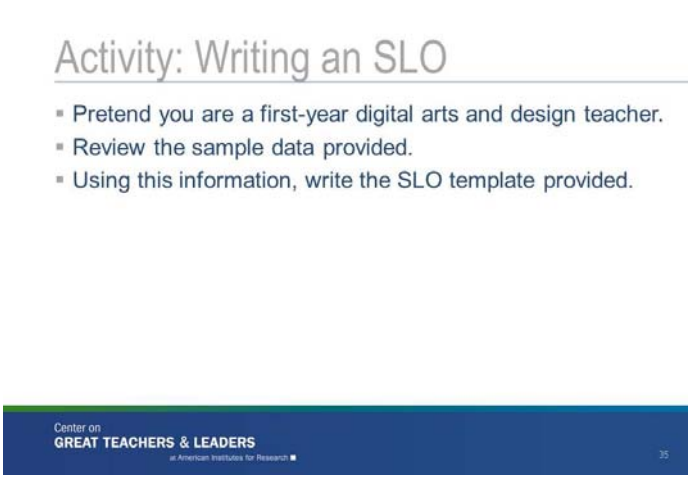
During the activity, draw attention to the rubrics used in the architecture and engineering SLO. Discuss how participants can tell that these rubrics are appropriate (because they were reviewed by the department head, are based on standards, and include multiple performance levels). If possible, review and summarize the major takeaways that groups identify throughout the activity.



Activity: Writing an SLO

In this activity, participants will be required to write an SLO, given a scenario. The scenario provides participants the opportunity to write an SLO without having their own classroom or student data at hand. The activity corresponds to the handout titled "Activity: Writing an SLO," which includes two SLO templates and two SLO checklists that can be used for the activity. This allows participants to test differing formats to consider which might work best in their context. The activity ends with a group discussion, prompted by reflection questions.

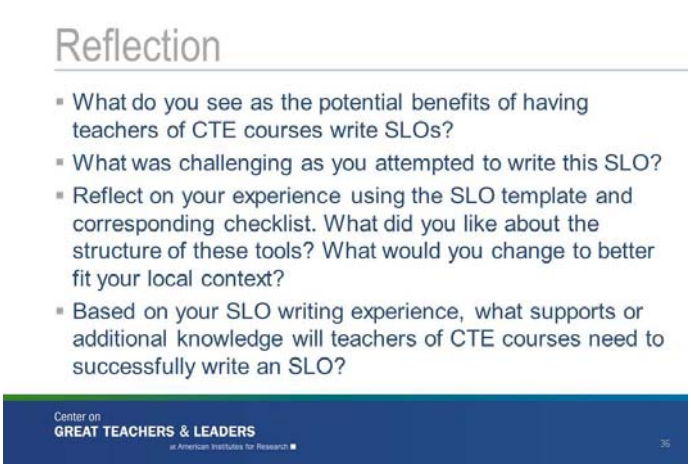
Allow ***45 minutes*** for this activity.

Slide 34 **Explain:** "In our next activity, we will use the handout titled 'Activity: Writing an SLO.' The purpose of this activity is to give you a sense of what information and skills are required to write an SLO. It is also an opportunity to generate more discussion about how SLOs will be used in your contexts."	
Slide 35 **Explain:** "The handout provides a scenario that will allow you to write a trial SLO. We're going to ask you to pretend that you are a first-year teacher of a digital arts and design course. In the handout, we have included information about your students, about the assessments you have access to, and some basic information about students who have taken this course before. Because you are a first-year teacher, you'll be relying on information from another teacher's classroom." *Note: If available, participants can use the state SLO template and checklist.* "Also in this handout, we have provided a sample SLO template and checklist."	

If the state has already developed a template and checklist, those resources should be used in this activity. *Allow **35 minutes for reading and writing**, checking in with participants as they work. In many cases, participants need additional time. Ask them to hold up fingers as to how many minutes they need to complete the work.*	

Reflection and Wrap-Up

Slides 36–37 will take approximately ***15 minutes*** to review.

Slide 36 *When participants have finished writing the SLO, facilitate a **group discussion for 10–15 minutes**, using the reflection questions listed on this slide.*	
Slide 37 **Explain:** "We hope that this presentation and these activities have been helpful and informative. For more information on measuring student growth and learning for teachers of CTE courses, please see the 21st Century Educators webinar and brief from the GTL Center. For more information on SLOs, please see the GTL Center's SLO Library and Introduction to SLOs Professional Learning Module. Thank you!	

About the Center on Great Teachers and Leaders

The Center on Great Teachers and Leaders (GTL Center) was created to help states leverage their strengths to improve the educational attainment of all students by ensuring an effective teacher in every classroom and an effective leader in every school. Funded by the U.S. Department of Education, the GTL Center is part of the U.S. Department of Education's Comprehensive Centers program, which includes seven content centers that focus on specific areas of expertise and 15 regional centers that provide services primarily to state education agencies to enable them to assist districts and schools.

In its role as a content center, the GTL Center is responsible for providing in-depth knowledge, expertise, and analyses to regional centers and the states they serve. The GTL Center disseminates information about scientifically based research on effective practice, creates research-based products, and provides expertise that regional centers can use in delivering technical assistance to states.

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