



College and Career Readiness Standards-in-Action

**ADVANCED
UNIT**

FACILITATOR GUIDE FOR
MATHEMATICS

3

**OBSERVING COLLEGE
AND CAREER READINESS
STANDARDS-IN-ACTION**

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BACKGROUND AND PURPOSE

States around the nation are integrating college and career readiness (CCR) demands into their adult education programming. Raising the academic bar reflects a willingness on the part of states to act on the empirical evidence of what colleges and employers require of prospective students and employees.

The U.S. Department of Education’s Office of Career, Technical, and Adult Education (OCTAE) has been supporting states’ efforts, for over a decade, through its program of national leadership activities. A technical assistance report was produced for states to voluntarily employ in strengthening their academic programs.¹ OCTAE then initiated the Implementing CCR Standards in Adult Education project. Since 2014, this project has developed several professional development units. Its products have become known as the CCR Standards-in-Action (CCR SIA).

The CCR SIA project initially developed four foundational professional development units to ensure that instructors clearly understand the intent and meaning of CCR standards. At their heart is a focus on the most critical content and processes for developing the kind of mathematics mastery needed for college and careers. Through Foundational Units 1–4, adult educators learn how important it is to concentrate mathematics instruction on three key instructional advances:

- Focusing deeply on the major work of each level;
- Designing learning based on coherent progressions from level to level; and
- Pursuing conceptual understanding, procedural skill and fluency, and application—all with equal intensity.

States that are deeply involved in implementing CCR standards report that the training embedded in Foundational Units 1–4 has been an essential first step in helping adult educators become comfortable with the instructional, curricular, and leadership demands of the three key advances.

Once instructors clearly understand the intent and meaning of CCR standards, the next step is to work through how, over time, they will support students in meeting them. This work is at the heart of Advanced Unit 3. It builds on and extends the content of the foundational units.

¹ The CCR Standards for Adult Education report is available at:
<http://lincs.ed.gov/publications/pdf/CCRStandardsAdultEd.pdf>. (2013)


Advanced Unit 3 increases the level of engagement with the key instructional advances in the areas of application, experimentation, advocacy, and innovation. The training embedded in Advanced Unit 3 not only deepens adult educators’ understanding of the intent and meaning of the standards; it also introduces teacher-friendly tools to facilitate effective standards-based instruction. Advanced Unit 3 materials and methods:

- Delve into the instructional and institutional implications of level-specific CCR standards; and
- Help shape the approach adult educators will take in teaching the standards and in sustainably implementing standards-based reforms.

Classroom observations are a key element of standards-based instructional leadership. Learning how to observe effective teaching and learning practices that reflect the instructional advances of CCR standards helps program directors, coordinators, or others in leadership positions, develop shared, complementary expertise in their programs. Observations are a primary method that they can use to monitor the consistency of instructional practices and their fidelity to standards. Observations also can help programs determine relevant topics for professional development and uncover staff apprehensions.

The CCR Classroom Observation System—and the effective teaching and learning practices at its heart—enables the administrative team to recognize the components of good standards-based instruction. This includes the extent to which lesson content, instructional practices, and classroom assessments are effective and consistent with the demands of CCR standards. This information, in turn, provides useful feedback to instructors.

The CCR Classroom Observation System is different and separate from formal summative evaluations of personnel. One of the most powerful features of the CCR Classroom Observation System is its reliance on the aggregation of data from numerous instructors and across specific teaching and learning practices. The purpose of the observation system is to reveal effective—and ineffective—teaching



The purpose of the observation system is to reveal effective—and ineffective—teaching practices and curriculum choices recurring across multiple classrooms within a program, not to judge the merit or performance of a specific instructor.

practices and curriculum choices recurring across multiple classrooms within a program. It is not meant to judge the merit or performance of a specific instructor. Observations of a single instructor cannot provide an accurate portrait of an entire program’s instructional quality.

However, when findings from visits to every classroom within a program are analyzed, a clear picture of standards-based instruction emerges. Program leads then can address the professional development needs of an entire faculty more effectively, by investigating common instructional choices made by multiple instructors.

The CCR Classroom Observation System is designed to be formative, nonthreatening, and forward-looking—one in which the observer is clearly invested in instructors' success. Through highly structured classroom observations, directors or coordinators and other instructional leaders assess how well instructors are teaching to CCR standards and employing effective standards-based instructional strategies. Observers are asked to assume the role of researcher rather than evaluator and of coach rather than supervisor. The intent is not to pass judgment on instructors; it is to coach them in more effective practices and to create a way to identify improvements needed and share best practices across the program.

Observers come to lessons without the benefit of an advance meeting or details about what they can expect to see and why—just as students do. The CCR Classroom Observation System focuses attention on students and how they respond to instruction. Observers are asked to determine the effectiveness of lessons in regard to CCR standards.

Using the CCR Classroom Observation System can not only shape professional development, but also determine (through follow-up observations) whether professional development and other initiatives have actually effected changes in instruction. Ideally, the observation system is designed to prompt program leads to visit classrooms on a regular basis. Since it allows observers to do so without prior knowledge of the lesson being taught, they can participate in these observations fairly readily.



OVERVIEW

Advanced Unit 3 addresses three basic questions:

- Q:** How well are lessons aligned with the demands of CCR standards, *based on the aggregate findings across classrooms?*
- Q:** How can lessons—and the instructional practices used in presenting them—be improved to promote higher and deeper levels of student learning and to be more relevant to adult learners?
- Q:** Based on feedback from observations, what do staff members identify as priorities for professional development to strengthen CCR standards-based instruction?

You will explore with the observers you are training the relationship between the key instructional advances for mathematics and the elements of the CCR Classroom Observation Tool. In particular, by reviewing videotaped lessons, trainees will learn how to recognize instructor and student actions that are indicative of CCR standards-aligned lessons.

The CCR Classroom Observation Tool includes five core actions:

Core Action 1. Curriculum content of the lesson matches the demands of CCR standards.

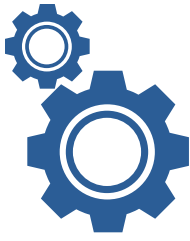
Core Action 2. Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content.

Core Action 3. CCR standards are translated into lessons that productively engage adult learners.

Core Action 4. The lesson is intentionally sequenced to build on and develop students' skills and knowledge of specific concepts.

Core Action 5. Students' levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.

Those you train will learn how to capture evidence from observations to generate highly specific data on those core actions. They will learn to use an uncomplicated reporting system that permits easy aggregation and disaggregation of information collected from observations of numerous instructors. These data can be shared in easy-to-read charts and acted upon by program staff to determine what professional supports and training instructors most need.



WORKSHOP MATERIALS

- CCR Classroom Observation Tool for Mathematics
(two copies per observer-in-training)
- Aggregation and Summary of Observation Data
(one copy per observer-in-training)
- Sample Aggregation and Summary of Observation Data
(one copy per observer-in-training)
- State’s CCR standards for mathematics
(one copy per observer-in-training)



TIME FRAME

Training will take one day. That will give observers-in-training ample time to become familiar with elements of the observation tool, practice using the tool, and understand the observation process.

Once observers are trained and ready to conduct classroom observations, they will need to schedule a pre-observation meeting (about two hours long) with participating staff.

Observations can then be scheduled. Observers should allocate about one hour per observation or the amount of time needed to observe an entire lesson. Directors or coordinators of large programs (e.g., 20 or more instructors) need to allow time to observe all classrooms—or at least a majority of classrooms. Directors or coordinators of small programs (e.g., three to five instructors) should consider observing each instructor twice to improve the reliability of the data. Or they can ask others (e.g., lead instructors) to conduct the second observation. If there are only one or two instructors in a program, directors or coordinators could join with other small programs in the region to conduct multiple observations.

After all observations are conducted, observers need one to four hours to synthesize the results and develop a preliminary set of professional development priorities. (The number of observations conducted will affect the amount of time it would take to synthesize the results.) Then they should meet for one to two hours with staff to discuss the findings.



TRAINING PREPARATIONS

Select two short lesson videos and one full-length lesson video for your observers-in-training to use.² This way, trainees will gain

confidence in their ability to determine if the core actions and indicators are evident in an observed lesson. Look for short videos that together showcase the full complement of core actions—one displaying two or three of the core actions and the other displaying the other two. All three videos should display strengths as defined by the core actions, though the lessons do not need to be perfect. In math, select lessons that focus on the major work of the level.

Prepare training materials. If possible, provide digital copies of materials to participants before the training (e.g., on USB flash drives or through email). Then staff can make notes in the CCR Classroom Observation Tool on their computers—an efficient way to complete the work—as they watch the videos. If materials cannot be made available electronically, make and distribute copies of the materials listed on Page 5 of this document. Some participants may prefer working with a hard copy of the observation tool or just taking notes on plain paper.

Familiarize yourself with the PowerPoint presentation and other workshop materials. The annotated PowerPoint presentation will help you prepare for the training. For each slide, the Notes page provides the big idea of the slide, talking points, and other pertinent notes. These will help you frame your presentation and provide important context for the content on each slide. The slides, coupled with the information in this facilitator guide, are designed to give you the support and guidance necessary to lead a successful training. Consider rehearsing before the training to master the material. With practice, you will be able to put ideas in your own words rather than read the slides word for word. Rehearsing the material will also help prepare you to answer questions from training participants as they come up.

Organize the observers-in-training in small groups at tables. Make sure the groups are small enough to promote discussion and the participation of all trainees—but large enough to allow for varied opinions. Six to eight people per group is ideal.

² In 2017, OCTAE plans to post on LINCS a couple of videotaped adult education classroom lessons for use in trainings.

Select table leaders in advance or ask each table to choose a leader. Table leaders should keep track of time and make sure activities are moving along. Table leaders can also notify you when there are questions or if the group needs more support. (If table leaders are selected in advance, provide them with copies of the PowerPoint presentation, agenda, and all participant materials before the training so they can prepare.)

TRAINING DIRECTIONS

PART 1 – TRAIN OBSERVERS TO USE THE CCR CLASSROOM OBSERVATION SYSTEM

Review the purpose, principles, and procedures for observations (Slides 2–7).

The three goals of Observing CCR Standards-in-Action are to:



Monitor how well lesson content and instructional practices are aligned with the demands of their CCR standards.



Determine how lessons—and the instructional practices used in presenting them—can be improved to promote higher and deeper levels of student learning and to be more relevant to adult learners.



Based on feedback from observations, identify priorities for professional development to strengthen CCR standards-based instruction.

Separate and distinct from formal summative teacher evaluations the CCR Classroom Observation System does **not** judge the merit of particular instructors. Rather, it is meant to reveal common teaching practices used *across* multiple classrooms. With information from numerous observations, staff members are able to develop an accurate portrait of instructional practice in a discipline for an entire program. That way, they are able to identify necessary improvements and share best practices across the program.

Begin by reviewing with observers-in-training some procedures to help ensure that they have a positive experience and set themselves up for success:

- Arrive early and stay in the classroom for the entire lesson to see the arc of the lesson: it’s setup, flow, and conclusion.
- Assume the role of a researcher who is collecting data on teaching practices, not evaluating performance.
- Come to lessons without the benefit of an advance meeting or detailed information about what to expect—just as students do.
- Support the natural atmosphere of the classroom. Minimize your interaction with students, such as asking questions or participating in activities. Contact is allowed, though, if done discreetly and with the purpose of understanding what students are thinking about and working on.

- Pay attention to students' responses, including how they are constructing their understanding, their strategies for solving problems, and patterns of student error.
- Pay attention to instructor-student interactions, including types of student engagement and how the instructor encourages engagement.

Then review the five core actions contained within the CCR Classroom Observation Tool for ELA/Literacy. Ask participants to pull out the Observation Tool Review as you move through the slides.

Review, as well, the three basic questions that participants will be seeking to answer. These include:

- Q: How well are lessons aligned to the demands of CCR standards?
- Q: How can instructional practices be improved to promote higher and deeper levels of student learning?
- Q: Based on feedback from observations, what do staff identify as priorities for professional development to strengthen CCR standards-based instruction?

After introducing the tool, examine the descriptions, components, and questions that summarize the key ideas of each core action. Break up the review and discussion of the core actions by showing short video lessons that run for 5 to 10 minutes. Using short clips will allow participants to immediately apply what they are learning into more digestible pieces. For example, after learning about Core Actions 1 and 2, show a short video clip and ask trainees to look for evidence of the indicators that make up those core actions.

Repeat this process with the remaining three core actions. Breaking up the discussions with video clips of teachers teaching will also liven up the training. Many video lessons available on the web are shorter clips rather than full-length lessons, so this will make it easier to find suitable videos to share.

The following are the descriptions, components, and questions that summarize the key ideas of each core action:

Core Action 1. Curriculum content of the lesson matches the demands of the CCR standards (Slides 8–9).

Effective teaching and learning aligned with CCR standards occur when there is a direct relationship among instructional goals, instructional resources, classroom activities, and CCR standards. Indicators of this core action include lesson goals clearly derived from the standards and directly related to the mathematical concepts students are learning.

The following questions summarize the key ideas of Core Action 1. They are useful for instructors to consider as they plan and reflect on their lessons and instructional practices. They are also helpful for observers to use in their observations:

- Q:** What are the learning goals of this lesson?
- Q:** What must students know and be able to do to meet those goals?
- Q:** Does the lesson include an appropriate balance of conceptual and procedural understanding?
- Q:** Does the lesson target level-specific CCR standards related to the major work of the level with an in-depth treatment?
- Q:** If the lesson targets supporting CCR standards, is there a visible connection to the major concepts?

Core Action 2. Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content (Slides 10–11).

Effective teaching and learning aligned with CCR standards occur when instructors engage students through varied questioning techniques and challenging assignments. Indicators of this core action include higher-order questions requiring students to think beyond recall and prompting them to justify their results. Offering students ample wait time to stimulate thinking and verify understanding is another element.

The following questions summarize the key ideas of Core Action 2. They are useful for instructors to consider as they plan and reflect on their lessons and instructional practices. They are also helpful for observers to use in observations:

- Q:** Are the questions engaging students in what they are learning and facilitating their mathematical thinking and problem-solving skills?
- Q:** Do students use precise mathematical language, symbols, graphs, calculations, and procedures?
- Q:** Do some questions require that students justify or defend their answers or critique the reasoning of others?
- Q:** Are students given adequate time to think before they respond to questions and time to persist through challenging assignments?

Apply the observation tool to the first video you selected (Slide 12). Ask observers-in-training to make notes and assign ratings for Core Actions 1–2 as they watch the video. After watching the video lesson, ask observers to discuss with one another at their tables their findings and the evidence to back up those findings. Share reflections as a whole group.

Core Action 3. CCR standards are translated into lessons that productively engage adult learners (Slides 13–14).

Effective teaching and learning aligned with CCR standards occur when instructors tailor instruction to the needs, strengths, and interests of adult learners. Doing so keeps students actively engaged in varied and consequential learning activities. Indicators of this core action include instructors' efforts to provide opportunities for students to practice their newly acquired skills and knowledge to solve problems and participate in interactive discourse.

The following questions summarize the key ideas of Core Action 3. They are useful for instructors to ask as they plan and reflect on their lessons and instructional practices. They are also helpful for observers to use in observations:

- Q:** Are students actively participating in the lesson?
- Q:** What strategies are being used to encourage productive collaboration among students?
- Q:** Are there clear protocols for student discussion?
- Q:** What strategies are being used to make sure all students persevere on challenging mathematical tasks and problems and get the opportunity to practice their newly acquired skills and knowledge?
- Q:** Do the tasks invite students to take initiative and to work and think independently?

Core Action 4. The lesson is intentionally sequenced to build on and develop students' skills and knowledge of specific concepts (Slides 15–16).

Effective teaching and learning occur when instructors make certain that students have a common understanding of prerequisite skills and content before new skills or concepts are introduced. Rather than treating standards as a checklist of isolated content, instructors cluster standards to take advantage of their natural connections and permit deep and thoughtful exposure for learners. Effective connections among standards are apparent in the lesson, showing a sensible progression of learning. Indicators of this core action include explicitly connecting new learning to previous learning early in the lesson. The instructor ends the lesson by summarizing the connections between what students have just learned and what they will learn next.

The following questions summarize the key ideas of Core Action 4. They are useful for instructors to consider as they plan and reflect on their lessons and instructional practices. They are also helpful for observers to use in observations:

- Q:** Does the lesson address multiple level-specific standards that support each other?
- Q:** Does the lesson offer students the opportunity to deepen their conceptual understanding by making connections between and among domains of the discipline?
- Q:** Does the lesson help students clearly see the connections between and among related concepts and skills, and between new concepts that students are learning and previously learned concepts?
- Q:** If appropriate, are connections made between the concepts and skills of the lesson and future learning?

Core Action 5. Students’ levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly (Slides 17–18).

Effective teaching and learning occurs when instructors use ongoing assessment to monitor and guide student learning and to inform the next steps in instruction. Indicators of this effective practice include instructors’ routine verification of student progress during the lesson and specific, accurate, and corrective feedback to students. One indicator includes the provision of extra time and instruction for students who need additional help. Another focuses on extensions for students who are ready for greater challenge. In addition, there are indicators that concentrate on whether or not instructors prompt students to be intentional about the learning strategies they use and to assess whether they understand what they are learning.

The following questions summarize the key ideas of Core Action 5. They are useful for instructors to consider as they plan and reflect on their lessons and instructional practices. They are also helpful for observers to use in observations:

- Q:** Does the lesson content seem appropriate for students’ levels of understanding?
- Q:** Are students’ skills and understandings regularly assessed in ways that are varied, authentic, and unbiased?
- Q:** Are there regular check-ins for student understanding?
- Q:** Are students’ understandings of the content apparent? If not, is instruction adjusted to accommodate student understanding—providing scaffolding or strategic support?
- Q:** Are students given the opportunity to evaluate their own learning?

Apply the observation tool to the second video you have selected (Slide 19).

Ask observers-in-training to make notes and assign ratings for Core Actions 3–5 as they watch the video. After watching the video lesson, ask observers to discuss with one another at their tables their findings and the evidence to back up those findings. Share reflections as a whole group.

Practice using the CCR Classroom Observation Tool by observing a full-length videotaped lesson (Slides 20–21). After reviewing the five core actions and the two short video clips, ask observers-in-training to watch a video of an entire lesson. This activity mirrors the actual observations that they will conduct in their programs.



Review the meaning of the various ratings with observers-in-training.

An indicator in a lesson will either be **evident** (marked with a **Y** for “**Yes, it is evident**”), **not evident** (marked with an **N** for “**No, it is not evident**”), or **not applicable** (marked with an **N/A**). When there is enough information to do so, rate the indicator with a **Y** when the indicator is present or present to a certain extent. (For example, the indicator is present consistently, or among most students.) Use **N** when instructors are attempting to address an indicator but do not do so fully, effectively, or transparently. If an indicator was not evident because it did not apply, write **N/A**. (For example, based on students’ work and level of engagement, providing students with an extension activity may not be necessary.)



Ask observers-in-training to take notes in the observation tool during the lesson.

Observers-in-training should take detailed notes about what they see and hear in the videotaped lesson. The process for observing effective teaching and learning practices is not linear. In many cases, determinations about whether certain core actions and indicators are evident will not become clear until the lesson is finished. Others will be evident early in the lesson. It is a good idea to take detailed notes during the lesson and then review them after the lesson is finished.



Ask observers-in-training to keep in mind the standards-based purpose of the lesson during the observation.

It should be clear which concepts and skills are being addressed at the beginning of the videotaped lesson. Observers-in-training should refer to the CCR standards document to determine precisely which standards are being targeted. If what is being taught—the concepts and skills—remains unclear throughout the lesson, then effective standards-based practices are not present.

If the standards-based purpose of the lesson is not immediately apparent, observers-in-training should take notes on the content they see being presented. Then, they should review their standards document in more depth after the observation is completed to determine whether the lesson content is standards-based. In this case, it will be important for them to document their difficulty in identifying which standards


were targeted. This challenge suggests a potential area for further discussion once data are aggregated across all observations. It may be that instructors need to be more explicit about what they are teaching. Or, the observer may need to become better versed in the standards and how they are manifested in instruction.



Ask observers-in-training to collect evidence during the lesson.

Observers-in-training should use the space under each core action to make notes about what they see and hear to support their findings. They should include information about student behavior, class discussions, student and instructor actions and interactions, and other activities as they happen. Keeping notes will provide specific examples—evidence—to support findings when discussing them with instructors later.

Remind observers to pay close attention to instructor-student interactions during the lesson: What does the instructor say and do? How are students engaged in the lesson and how does the instructor encourage that engagement? How are students demonstrating their understanding and their strategies for solving problems? Are there patterns of student error?



Pay close attention to instructor-student interactions during the lesson.



After watching the video, each observer-in-training should individually review his or her detailed lesson notes and determine which indicators are evident and which are not.

Be sure observers-in-training cite evidence to support why they think an indicator is or is not present. Again, they should be noting both instructor and student actions that are indicative (or not) of a lesson that is aligned with CCR standards.



Ask observers-in-training to share their findings.

Encourage observers-in-training to work first toward a consensus at their tables, but allow for some disagreement. Then debrief with the whole group: Have a participant at each table share the highlights of what that table found. Ask observers-in-training to review their individual ratings—keeping in mind the table and whole-group discussions. Not all observers will see or use the same evidence, so sharing will help build the observation skills of trainees. By sharing their findings, the group will begin to develop a common understanding of the indicators and what they look like (or do not look like) in instruction.



Take a few minutes to again debrief the training activity. What were the groups' strongest impressions or discoveries in this process? What did they learn about evaluating the quality of the alignment of lessons through observation? What did they learn about the process? What questions do they still have?

Aggregate and summarize observation data (Slide 22-23). Once the full-length observation is complete, ask observers-in-training to complete the Sample Aggregation and Summary of Observation Data form. The sample is partially filled in with data from nine other observations to provide practice in determining the prevalent teaching practices observed.

For each indicator, calculate the percentage of lessons displaying that indicator: To determine a percentage of prevalence, count the number of **Y**'s and divide by the total number of lessons receiving either a **Y** or an **N**. For example, if a given indicator has received seven **Y**'s, two **N**'s, and one **N/A**, then about 78% (7 out of 9) of the lessons are exhibiting this CCR standards-based teaching practice.

Check the last box of each indicator when the indicator is evident in less than 50% of classes observed.

Set priorities for professional development (Slide 24). The next step is to set priorities for professional development. Look at the patterns. Which core actions have the most checkmarks? These are probably the areas that should comprise the initial list of professional development priorities. Encourage observers-in-training to work first toward a consensus at their tables about the priorities. Then debrief with the whole group.

PART 2 – PREPARE OBSERVERS TO IMPLEMENT THE CCR CLASSROOM OBSERVATION SYSTEM IN THEIR PROGRAMS

After training participants on the CCR Classroom Observation Tool, turn your attention to what they need to do implement the observation system when they get back to their programs. Lay out the five actions for them to take.

Conduct a pre-observation meeting with staff to review the purpose and principles of the Classroom Observation System (Slides 25–26). The objectives of this meeting will be for participating staff to:

- Understand the purpose, principles, and content of the Classroom Observation System;
- Review the observation procedures and the observation tool;
- Watch a videotaped lesson together (with the observation tool); and
- Discuss their observations.

Explain to participants that the observation system works best when it is well-understood by both observers and those being observed. Let them know that they will need to discuss in some detail during the pre-observation meeting what teaching and learning practices will be measured. It is important that their instructors understand the components of the CCR Classroom Observation Tool. Once they become familiar with the tool, instructors often see the observations as motivation to continuously improve standards-based instruction. Let participants know that some instructors may also be apprehensive about being observed. Remind participants to take the time during the pre-observation meeting to reassure instructors that this will not result in individual personnel evaluations. If observations are a new practice, despite efforts to allay fears, some instructors still may have concerns that could affect teaching and learning during the observation. This is normal. Over time, as observations become a welcome and usual practice, anxieties about them should subside.

Suggest to participants that they use the videos from the training with their instructors to help make the core actions and indicators come to life and to ensure that they are well-understood. (Using the training videos will allow your participants to be better prepared to identify with their teachers which core actions and indicators are—and are not—evident.)

Using the observation tool with actual lesson videos will enable instructors to gain and share an understanding of what constitutes concrete evidence for each indicator. Instructors also are likely to get ideas from watching another instructor in action. Just experiencing this process will prompt them to reflect on their own practice and to consider—and perhaps sharpen—elements of their lesson delivery.


Ask your instructors to bring their calendars to this meeting to block out time for observations.

Conduct observations of staff (Slide 27). Remind participants that they should schedule their observations so that they begin when lessons start and end when lessons finish. Share the following reminders. They should:

- Plan to arrive before class begins.
- Be as nonintrusive as possible so as not to interfere with the flow of the class.
- Bring a copy of the appropriate standards for the level and content area in which the instructor is teaching, as well as a copy of the CCR Classroom Observation Tool.
- At the end of each observation, ask the instructor if this was a typical class and whether any additional clarification would be helpful in interpreting what was observed. (Where applicable, obtain materials used or referenced in class to help document findings.) The data collected must represent an instructor’s overall performance in the classroom. Conduct a second observation to get more reliable data if a given class or lesson seemed atypical.
- While the experience is fresh in their minds, review their notes, gather their thoughts, and make final decisions about the presence (or absence) of the indicators. (This should occur before the next observation.)

Conduct a post-observation meeting with staff to jointly determine professional development priorities (Slides 28–29). Remind observers of what they must accomplish before calling the meeting. They should aggregate the results and prepare a list of suggested professional development priorities drawn from the observation findings to share with instructors. The priorities identified should be based on areas where indicators of effective practice were not evident in the majority of classes observed.

When presenting the major findings, observers should recall how new this process is and consider staff dynamics carefully. A central purpose of presenting the observation findings is to celebrate instructors' strengths. It also increases their awareness of standards-based teaching, identifies learning areas that need improvement, and elicits ways to address those weaknesses. Instruct observers to:



The central purpose of presenting major findings is to celebrate instructors' strengths. It also increases their awareness of standards-based teaching, identifies learning areas that need improvement, and elicits ways to address those weaknesses.

- Begin on a **positive note** by thanking instructors who taught the lessons and discussing the strengths observed. Significant overall staff learning and improvement can come from building on strengths, as well as from addressing weaknesses.
- Speak **specifically** and **concretely**, providing examples and details wherever possible, but never identifying individual instructors. They should make factual, objective comments when addressing weaknesses and avoid value judgments. For example, a statement like “In many classrooms, I did not observe students actively participating in the lesson through class discussions and activities” is more effective than “On the whole, the lessons I observed were boring.”
- Talk only about things that **can be changed** and **are worth changing**. For example, they should ignore anything that could be characterized as a personal mannerism, unless it interferes with student learning.
- Use the following questions to guide the discussion and encourage instructor reflection:


Q: What, if anything, surprises you about the findings?

Q: Which areas of the teaching and learning practices do you want to know more about?

Q: Which professional development priorities are most pressing for the program's continuous improvement efforts in standards-based instruction? How might we structure that professional development?

Provide staff with access to professional development opportunities (Slide 30). Below are some approaches to share with participants that they can take to address the areas of need that emerge from the post-observation meeting:

- **Establish instructor mentors.** Observers can look within the program for instructor mentors. They can pair instructors who need assistance on a particular core action with mentors who show evidence of all or most of the indicators of that core action. One way for instructors to improve their skills in a particular area is by watching an expert instructor teach a lesson. An instructor mentor provides ongoing professional development that is job-embedded, sustainable, and focused on the instructor’s work, with many opportunities for practice and reflection.
- **Locate or deliver targeted professional development.** Since K-12 and adult education programs share CCR content, observers should look for ways to take advantage of the full-range of K-12 professional development opportunities. They also should consider organizing their professional development by implementing other CCR SIA innovations. The following chart identifies specific connections between areas of professional need and various CCR SIA training initiatives:



An instructor mentor provides on-going professional development that is job-embedded, sustainable, and focused on the instructor’s work, with many opportunities for practice and reflection.

Core Action 1. Curriculum content of the lesson matches the demands of CCR standards.

Foundational Unit 1 – Focusing on the Major Work of the Levels: If lessons do not focus on the key content demands of CCR standards, this unit introduces instructors to the importance of organizing lessons around major topics.

Foundational Unit 3 – Engaging the Three Components of Rigor: If lessons seem to focus predominantly on, for example, procedural skill and fluency, this unit teaches instructors how to recognize the other two components of rigor: conceptual understanding and application. Instructors also learn what it means to engage each of the three components of rigor with equal intensity in instruction.

Core Action 1. Curriculum content of the lesson matches the demands of CCR standards. (Continued)

Foundational Unit 4 – Connecting Standards for Mathematical Practice to Content: If lessons do not seem to address the Standards for Mathematical Practice adequately, this unit will provide instructors with a good grasp of what the practices are. They also will learn how to connect them to mathematical content in lessons.

Advanced Unit 1 – Aligning Resources With Standards: If the content of the lessons does not reflect the demands of CCR standards, this unit will allow instructors to verify the alignment of their resources with CCR standards. It will also help them determine when they need to revise or augment resources to teach the standards at the right level of depth and complexity.

Advanced Unit 2 – Focusing on Assignments and Student Work: If the content of the lessons does not match the demands of CCR standards, this unit helps instructors learn how to strengthen student assignments so they better reflect the standards.

Core Action 2. Learning activities (questions and tasks) are challenging and maximize opportunities for students to master the lesson content.

Foundational Unit 3 – Engaging the Three Components of Rigor: If learning activities seem to focus predominantly on conceptual understanding, this unit teaches instructors how to recognize the other two components of rigor: procedural skill and fluency, and application. Instructors also learn how to make sure they are part of lessons in equal intensity.

Foundational Unit 4 – Connecting Standards for Mathematical Practice to Content: If lessons do not ask students to use precise mathematics in their calculations or elaborate on and justify their responses, this unit provides instructors with a good grasp of how to incorporate these skills into their lessons.

Advanced Unit 1 – Aligning Curriculum Resources With Standards: If questions and tasks do not focus on level-specific content, this training shows instructors how to address these gaps in curriculum resources.

Advanced Unit 2 – Focusing on Assignments and Student Work: If assignments appear to be low level, this unit helps instructors learn how to strengthen student assignments so they better reflect the standards and are cognitively demanding. Instructors also learn how to partner with colleagues to develop and try out more demanding lessons through Lesson Study. This includes elements such as offering challenging questions and problems that prompt students to discuss their developing thoughts about important mathematical content.

Core Action 3. CCR standards are translated into lessons that productively engage adult learners.

Foundational Unit 3 – Engaging the Three Components of Rigor: If learning activities seem to focus predominantly on, for example, procedural skill and fluency, this training will teach instructors what it means to offer students varied opportunities to apply what they are learning.

Advanced Unit 1 – Aligning Curriculum Resources With Standards: If lessons do not seem to productively engage students, this unit shows instructors how to address gaps in curriculum resources. This includes how to ensure that lessons ask students to participate actively through class discussions and group projects, as well as to apply what they are learning in authentic or practical adult-oriented contexts.

Advanced Unit 2 – Focusing on Assignments and Student Work: If lessons do not seem to productively engage students, this unit shows instructors how to improve classroom assignments so they are more relevant, engaging, and appropriately rigorous for students. Instructors also learn through this unit how to partner with colleagues to develop and try out engaging lesson plans through Lesson Study. This includes connecting lessons to issues relevant to students, as well as emphasizing interactive discourse and active learning in authentic contexts.

Core Action 3. CCR standards are translated into lessons that productively engage adult learners.

Foundational Unit 3 – Engaging the Three Components of Rigor: If learning activities seem to focus predominantly on, for example, procedural skill and fluency, this training will teach instructors what it means to offer students varied opportunities to apply what they are learning.

Advanced Unit 1 – Aligning Curriculum Resources With Standards: If lessons do not seem to productively engage students, this unit shows instructors how to address gaps in curriculum resources. This includes how to ensure that lessons ask students to participate actively through class discussions and group projects, as well as to apply what they are learning in authentic or practical adult-oriented contexts.

Advanced Unit 2 – Focusing on Assignments and Student Work: If lessons do not seem to productively engage students, this unit shows instructors how to improve classroom assignments so they are more relevant, engaging, and appropriately rigorous for students. Instructors also learn through this unit how to partner with colleagues to develop and try out engaging lesson plans through Lesson Study. This includes connecting lessons to issues relevant to students, as well as emphasizing interactive discourse and active learning in authentic contexts.

Core Action 5. Students' levels of understanding are assessed throughout the lesson, and instruction is adjusted accordingly.

Advanced Unit 1 – Aligning Curriculum Resources With Standards: If sufficient numbers of students do not seem to understand the content of lessons, this unit shows instructors how to address those gaps in curriculum resources. Instructors learn how to include strategic supports and scaffolds to students who need them as well as to provide extension activities for students who need the additional challenge.

Advanced Unit 2 – Focusing on Assignments and Student Work: If the extent to which students are mastering lesson content is unclear, instructors gain experience with developing and trying out well-scaffolded lesson plans through Lesson Study. This includes elements such as:

- Determining that students have mastered lesson material before introducing new ideas;
- Providing detailed feedback; and
- Providing both supplemental instruction for students needing help and extensions for those ready for a greater challenge.

After professional development has been provided, conduct follow-up observations (Slide 31). Subsequent observations can be streamlined by concentrating on one or two core actions—or particular indicators within them—rather than on all five core actions, in accord with the training provided to staff. For example, if professional development is focused on increasing the productive engagement of students in lessons, classrooms can be observed for only that core action. Then, as promptly as possible, update staff on the progress they have made in addressing areas previously identified as needing improvement.