The Improving Instructional System Coherence Toolkit

A Resource for K–12 Districts and Schools

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About This Tool

This toolkit is intended to help district and school leaders investigate and reflect on the extent to which coherence is present in their instructional systems, with the goal of improving coherence. The companions to this tool, the workbook and slides, are available at www.rand.org/t/TLA2168-1.

RAND Education and Labor

This tool was developed as part of a study undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. The study was sponsored by the William and Flora Hewlett Foundation. The findings and conclusions presented in the study report and the ideas in this tool are those of the authors and do not necessarily reflect positions or policies of the foundation.

More information about RAND can be found at www.rand.org. Questions about this tool should be directed to ewang@rand.org, and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.

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Available at www.rand.org/t/TLA2168-1

The Improving Instructional System Coherence Workbook

The Improving Instructional System Coherence Slidedeck

Introduction

Broadly defined, *coherence* in K–12 instructional systems is the circumstance in which all instruction-related messaging and supports—for example, via curriculum materials and professional learning—provide everyone from coaches to teachers and other instructional staff with clear and mutually reinforcing messages about what to teach and how to teach it. In more-coherent systems, teachers do not necessarily all teach the same way. However, they have a clear picture of the overall goals for their instruction and can channel their expertise into providing that instruction at the highest-quality level. District and school leaders have the primary responsibility of fostering coherence by providing mutually reinforcing materials, messaging, and supports. This toolkit is intended to help district and school leaders in teams with teachers and other instructional staff investigate and reflect on the extent to which coherence is present in their instructional systems, with the goal of improving that coherence.

This toolkit was developed as part of a research study examining the extent of coherence in K–12 schools and how coherence is connected to instructional practices. Several reports describe key findings from this study and other studies conducted by the RAND Corporation and the University of Southern California. Altogether, these studies examine the coherence of instructional systems across the United States and in several states in particular (Pauketat et al., forthcoming; Polikoff et al., 2020; Wang et al., 2022; Wang et al., 2023).

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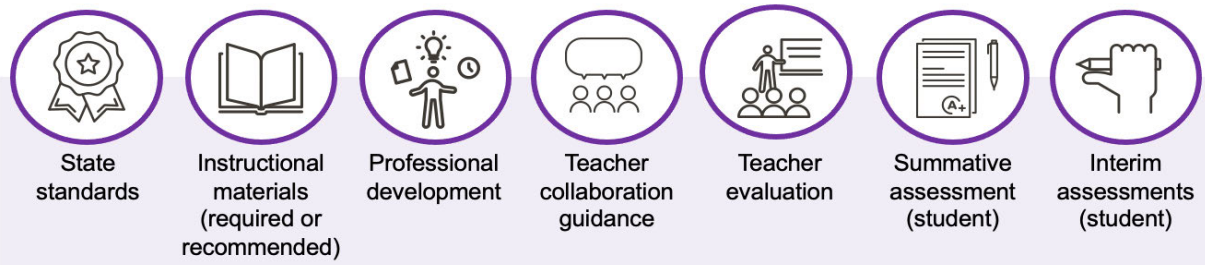
Our Definition of Instructional System Coherence

Coherence in K–12 instructional systems is the circumstance in which all instruction-related messaging and supports—for example, via curriculum materials and professional learning—provide everyone from coaches to teachers and other instructional staff with clear and mutually reinforcing messages about what to teach and how to teach it for all students and for particular student subpopulations.

Why Are Coherent Instructional Systems Important?

When all components in an instructional system are consistent with one another, teachers do not have to make decisions in the face of competing priorities and messages. By *components*, we mean aspects of a district's or a school's system that give teachers messages about what to teach and how to teach it. Key components of K–12 instructional systems are shown in Figure 1.

Figure 1. Components That Make Up a Standards-Aligned Coherent Instructional System



Our definition emphasizes the importance of instructional system coherence in terms of the messages the system conveys about how to teach to all students, including particular student subpopulations. For example, teachers may receive similar or reinforcing messages across instructional system components about how to address the learning needs of most students they serve, but they might get no messages or conflicting messages for English learners (ELs) or students with Individualized Education Plans (IEPs).

The following two vignettes illustrate how coherence among instructional system components and system alignment with standards can affect teaching. Each vignette features a hypothetical English language arts (ELA) teacher in a distinct instructional system. Although the teachers are not real, their circumstances are based on data gathered from interviews conducted by the authors of this toolkit with teachers in case study schools (Pauketat et al., forthcoming; Polikoff et al., 2020).

Vignette 1: Experiencing Instructional System Incoherence

Mr. Garcia is a sixth-grade ELA teacher at Maple Hills Middle School. He teaches students with a diversity of backgrounds and experiences, including a fair number of ELs and students with IEPs. He is required to use district-provided curriculum materials—EL Education—for instruction. He is instructed by his district and school leaders to follow these materials with fidelity while ensuring that student needs are met. He strives to implement EL Education with fidelity for the most part, although he sometimes adjusts the curriculum materials in response to what he thinks his students need and in response to other district priorities.

Mr. Garcia's students take a district-developed ELA benchmark assessment on a quarterly basis. The district uses this benchmark assessment, along with STAR (a computerized reading assessment), to set school targets for student achievement. The benchmark assessment was developed a few years ago, when the district recognized that the state standardized assessment was not well aligned in content or in rigor with the curriculum they were using at the time (which was not EL Education). Mr. Garcia sees value in a rigorous benchmark assessment that can provide feedback on student mastery toward standards. However, because the assessment is based on the scope and sequence of a curriculum that teachers no longer use, he is sometimes unsure how to use the EL curriculum to address areas in which students struggle on the assessments, and no one at his district provides information about how to do that. Because he wants students to be successful on the assessments, Mr. Garcia typically either (1) picks and chooses the EL Education activities that he feels match the upcoming benchmark and STAR assessments or (2) uses activities and lessons he finds on the internet. He believes that modifying and supplementing activities like this will help his students meet school targets for student achievement, which are largely based on these assessments.

Mr. Garcia received professional development (PD) that introduced EL Education when it was first adopted. But this year's schoolwide PD sessions have not been focused on EL Education, or even on ELA content. Instead, they emphasize social and emotional learning (SEL) and how to relate better with students. Mr. Garcia believes that this focus on SEL is a worthwhile effort, although he would love to understand ways in which EL Education does or does not address those SEL aims. He is thinking about using the first ten minutes of class to engage students in some of the SEL trust-building or self-regulation exercises he learned about in PD. Also, for the next writing assignment for his ELA class, he might replace the EL Education rubric with one that emphasizes group work and social skills rather than analytical ideas. He thinks that these instructional adjustments will be looked on favorably because his teaching evaluation is coming up, and the evaluation criteria will focus less on ELA content and more on cross-subject pedagogical skills, such as addressing SEL.

Mr. Garcia has weekly collaboration time with other sixth-grade teachers. The district and school have not provided much guidance on what will be on the agenda for those meetings. He and his colleagues sometimes use the time to discuss individual students. They also occasionally discuss the latest assessment results.

Other times, they coordinate logistics; for example, which students go to pull-out sessions at which time or how to make sure parents are informed about upcoming school events.

Icon: Education and Business by Pedro via Adobe Stock
Photo: Handsome man with beard over white brick wall having doubts while raising hands by Luismolinero

Vignette 2: Experiencing Instructional System Coherence

Ms. Martin is a sixth-grade ELA teacher at Sunny Valley Middle School. She serves students with a variety of needs and backgrounds. She uses EL Education because it is recommended by her school district. The district positions this as a standards-aligned curriculum that will help students master grade-level standards if it is implemented with fidelity and with supports for all student needs. She approaches her instruction with the intention of implementing EL Education with fidelity.

To support teachers in using EL Education, the district adjusted the interim assessment it had been using by including a new section explicitly aligned with ELs. The district also impressed on teachers that the performance tasks and end-of-unit assessments within EL Education are important for informing student progress and instructional next steps. The district made it a requirement for teachers to enter student scores on these curriculum-aligned assessments into a data system and provided guided discussion protocols for teachers to use during teacher collaboration time to examine student work associated with these assessments. The district communicated that teachers should use collaboration time to identify common student errors and misconceptions and to brainstorm ways to reteach or reinforce skills in the upcoming EL Education lessons. Teachers were also directed to discuss how to provide support to students or adapt or scaffold tasks as needed to help students master standards.

This year's schoolwide PD sessions focused on SEL and how to relate better with students. Although Ms. Martin initially worried that SEL was tangential to the focus on implementing EL Education, in the PD sessions, teachers were grouped together by grade level and subject area to discuss how SEL-related goals could be integrated into their lessons without compromising the rigor of the curriculum. One major focus of that PD is how SEL goals may vary for students with different needs and how to integrate SEL into the curriculum for these students.

When Ms. Martin met with her principal in advance of her formal teaching evaluation observation, they reviewed the evaluation criteria together. Ms. Martin understood that the principal will assess her and provide feedback on how she uses EL Education, including how she used recent performance task or end-of-unit

assessment data to drive her instruction and how she supports students who are performing below grade level.

Icon: Education and Business by Pedro via Adobe Stock
Photo: Woman working on laptop at office by Prostock-studio

Teachers might recognize their own experiences in those of Mr. Garcia or Ms. Martin. There are some considerable similarities between the instructional systems in which these two teachers work. Both are in districts that have provided teachers with EL Education. Both have students who take interim assessments. Both have PD and collaboration time with other teachers. And both have principals who give them feedback on their instruction.

However, the two cases differ in terms of system coherence, both in the intentional messaging they receive to help them prioritize critical aspects of ELA instruction and the extent to which the content of those messages reinforce one another. In Mr. Garcia's case, curriculum materials, student assessments, PD, teacher collaboration time, and evaluation are not clearly connected, and he does not get clear messages from his district or school about whether or how they should be connected. This incoherence—which we define as *absent or disconnected messaging*—can lead to teacher frustration amid competing priorities and can stall students' academic progress. Meanwhile, in Ms.

Martin's case, through the interim assessments, PD, teacher collaboration time, and teacher evaluation, she gets similar messages about the need to draw on EL Education.

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Coherent instructional systems in and of themselves do not necessarily foster high-quality instruction. Indeed, in the two cases in the vignettes, both teachers may have great intentions and be effective teachers. But in the case of Mr. Garcia, because different components of his instructional system are conveying apparently different and disconnected messages about what is important, he ends up having to make decisions about how to address all the different messages he perceives. Conceivably, other teachers in his school also perceive incoherent or conflicting messages, but they make different decisions about how to navigate these messages. Some may prioritize implementing the curriculum with fidelity, ignoring the guidance that SEL should be integrated; others may decide to prioritize the district-developed benchmark assessment and ignore parts of the curriculum as a result. The result for students is likely inequitable and uneven teaching. It is not hard to imagine that the content and quality of ELA instruction likely vary a great deal across teachers in Mr. Garcia's school and, furthermore, that instruction is often not strongly aligned with the intent of the standards-aligned curriculum the district has selected.

Because the messaging Ms. Martin gets ties her curriculum to assessments, professional learning, and evaluation, she likely has much greater clarity about what and how she should teach. For one thing, she is getting more guidance about how to use EL Education. Because other teachers are getting that same help, she likely is better able to coordinate with other teachers in discussing and improving instruction. Finally, the instruction likely is more equitable across her school because all teachers are on the same page about how to use EL Education in their classrooms.

Overview of the Toolkit

This toolkit outlines a set of steps that teams of district or school leaders, teachers, and other instructional staff can take to explore the coherence of their instructional systems and reflect on any potential improvements. Users can engage in this exploration as an entire district or a single school. The steps are as follows:

1. Determine the focus, team, and timeline for your investigation
2. Identify a north star
3. Reflect on coherence across instructional system components
4. Create an improvement plan.

Throughout this toolkit, we refer to the individual(s) coordinating the steps as the *team lead(s)*. The team assembled to do the work is referred to as the *coherent instructional system (CIS) team*. Also, we use the term *district* to mean school district or charter school system.

We wrote this toolkit with medium or larger-sized districts in mind; some of the suggestions we provide may need to be adapted for smaller districts. For example, our full list of suggested individuals to include on a CIS team may not make sense for a small district; there may be only a few relevant people to include on a team.

This toolkit draws on a set of RAND reports that investigate the coherence of instructional systems in schools across the United States and explore how coherence may influence teaching (Wang et al., 2023; Pauketat et al., forthcoming; Polikoff et al., 2020; Wang et al., 2022). The reports suggest that instructional system coherence varies considerably across schools. Our research also indicates that teachers' perceptions of instructional system coherence are closely connected with district and school conditions, such as having a vision for instruction and strong instructional leadership (Wang et al., 2022; Wang et al., 2023). We have also demonstrated that teachers who perceived more coherence in their instructional systems modified their curriculum materials less often (Wang et al., 2023). Thus, coherence may drive instructional improvement. At minimum, work to improve coherence can encourage district and school leaders to be more intentional and consistent in their messaging to teachers about what and how to teach. This all likely has downstream impacts on equitable teaching and learning.

A Few Limitations to Keep in Mind

The steps documented here provide an opportunity for users to reflect on the coherence of their instructional systems. There are, however, several limitations to keep in mind. First, the toolkit does not measure coherence comprehensively, which likely would require a comprehensive battery of surveys and other data collection. Thus, the process that this toolkit guides users through depends on the team members' honest assessment of how components within the system are aligned with standards and reinforce one another. Second, some instructional system components that we mention in this toolkit may not be applicable to some districts or schools or may not be in the full control of district or school leaders to change. Moreover, the components on which we focus in this toolkit may not be the only components influencing teaching and learning. We suggest, therefore, that districts and schools consider their context in making decisions at each step of the process. Lastly, improving coherence is not a one-time effort but instead is a continuous process that involves regular exploration and reflection. Given these limitations, use of this toolkit alone will not solve all of the incoherence issues within district and school systems. At the same time, we expect that in undertaking the process outlined in the toolkit, district and school leaders will gain critical information that can help refine their system components, lead to more informed system-improvement decisions and, ultimately, stronger instructional practices.

The RAND Instructional System Coherence Toolkit: Quick Start Guide

Meeting Number	Step	Preparation	During the Meeting
1	**Step 1: Determine the Focus, Team, and Timeline** **Step 1.1**—Identify the subject and grade(s) on which you will focus. Be prepared to share the rationale with the team. **Step 1.2**—Assemble a CIS team. **Step 1.3**—Determine the right time and timeline for your investigation. **Step 1.4**—Have a team kickoff meeting.	**Workbook pp. 4–10:** • Worksheets 1.1, 1.2, 1.3A, 1.3B **Meeting agenda:** • Toolkit p. 21 • Vignette handout for team prior to the meeting	**Toolkit pp. 16–21 and slides 1–31** **To Do:** • Introduce this effort. • Discuss why you are investigating the coherence of your district's or school's instructional system. • Share how might it benefit teaching and learning. • Introduce this toolkit. • Give an overview of the process. • Discuss the timeline.
2	**Step 2: Identify a North Star and Focal Instructional System Components** **Step 2.1**—Identify a north star and instructional emphases.	**Workbook pp. 11–12:** • Worksheet 2.1 **Meeting agenda:** • Toolkit p. 24	**Toolkit pp. 22–24 and slides 32–38** **To Do:** • Identify your district's north star. • Consider instructional emphases.
3	**Step 2.2**—Identify key components of your instructional system that support students to master standards.	**Workbook pp. 13–14:** • Worksheet 2.2 **Meeting agenda:** • Toolkit p. 26	**Toolkit pp. 25–26 and slides 39–44** **To Do:** • Identify key components that guide teaching. **Assignment:** • Complete the Assessing Coherence grid.
4 & 5	**Step 3: Reflect on Coherence** **Step 3.1**—Prepare the "Assessing Coherence" grid. **Step 3.2**—Arrive at consensus ratings.	**Workbook pp. 15–17 (ahead of time):** • Worksheet 3.1 **Meeting agenda:** • Toolkit p. 29	**Toolkit pp. 27–29 and slides 45–55** **To Do:** • Reflect on the coherence of your instructional system as a team. • Arrive at consensus ratings. • Edit slide 54 as you reach consensus.
6	**Step 3.3**—Focus on equity in coherence.	**Workbook p. 18 (ahead of time):** • Worksheet 3.2 **Meeting agenda:** • Toolkit p. 31	**Toolkit pp. 30–31 and slides 56–58** **To Do:** • Focus on one student subgroup. • Discuss instructional system components conveying conflicting messages about what and how to teach. • Consider the top three areas of conflict and supporting evidence for that. • Edit slide 57 during the meeting.

Meeting Number	Step	Preparation	During the Meeting
7	**Step 4: Create an Improvement Plan** **Step 4.1**—Identify areas for improving coherence.	**Workbook p. 19 (ahead of time):** • Worksheet 4.1A **Workbook p. 19–20:** • Worksheets 4.1A and 4.1B **Meeting agenda:** • Toolkit p. 34	**Toolkit pp. 32–34 and slides 59–64** **To Do:** • Consider areas for improving coherence. • Identify high-impact areas that have the potential to improve the coherence of your instructional system. • Each small group chooses 1 or 2 areas that have a high impact and high ability of the district or school to make changes. • Rank the areas as a group and identify one or two areas of improvement. • Edit slide 63.
8	**Step 4.2**—Brainstorm improvement activities.	**Workbook p. 21:** • Worksheet 4.2 **Meeting agenda:** • Toolkit p. 36	**Toolkit p. 35–36 and slides 65–68** **To Do:** • Share areas of improvement. • Assign people to groups based on interest in particular areas. • Brainstorm activities the district or school could undertake to improve coherence (chart paper). • Share and have members vote on ideas that could have the most impact and are the most reasonable in the next 3–6 months.

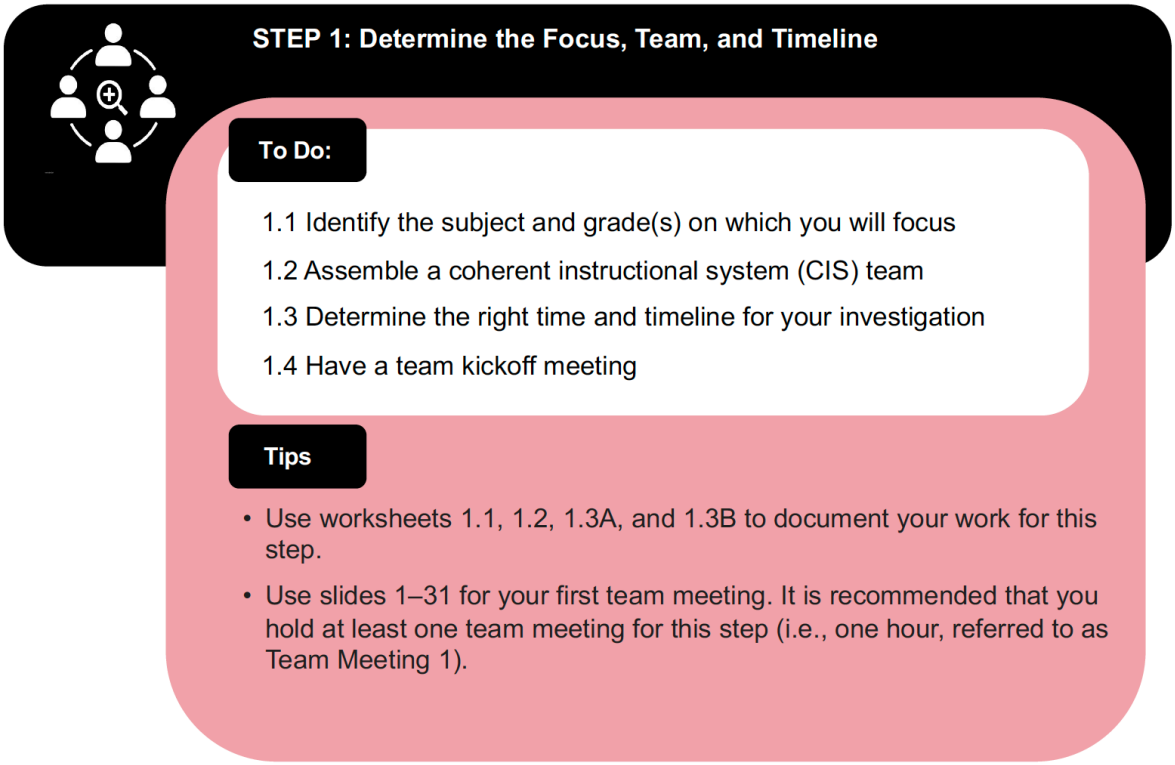
9	**Step 4.3**—Create an improvement plan.	**Workbook p. 22 (ahead of time):**
		• Worksheet 4.3A
		Workbook pp. 22–24:
		• Worksheets 4.3A and 4.3B
		Meeting agenda:
		• Toolkit p. 38
			Toolkit pp. 37–38 and slides 69–73
			To Do:
			• Divide into one group per objective to identify
			  ○ the tasks involved in meeting their objective
			  ○ the timeline and deadlines for each task.

10	**Step 4.4**—Share plans with a larger group of stakeholders to ensure broad buy-in.	**Edit slide 75 (ahead of time)** **Meeting agenda:** • Toolkit p. 40	**Toolkit pp. 39–40 and slides 74–77** **To Do:** • Meet with stakeholders. • Summarize your improvement plan and process. • Invite questions. • Create small discussion groups. • Have groups share out ideas.
11	**Step 4.5**—Revise the improvement plan based on stakeholder feedback. **Step 4.6**—Meet periodically to discuss progress on activities and determine what to share with stakeholders.	**Edit slides 79 and 81 (ahead of time)** **Workbook pp. 25–26:** • Worksheet 4.5 **Meeting agenda:** • Toolkit p. 42	**Toolkit pp. 41–42 and slides 78–83** **To Do:** • Team lead summarizes key takeaways from the stakeholder meeting. • Come to a consensus on any revisions needed. • Plan the frequency of team and stakeholder meetings to sustain the work.

The RAND Instructional System Coherence Toolkit: The Step-by-Step Guide

STEP 1

Determine the Focus, Team, and Timeline



Step 1.1. Identify the subject and grade(s) on which you will focus

- Who is involved in this step? CIS team lead(s)

The coherence of your district's or school's instructional system may vary based on subject area and grade. For those reasons, choosing a single subject and grade or set of grades will help bound your inquiry and keep it manageable. At the same time, a too-narrow focus may result in insufficient information or may not target enough classrooms to support improvements. Here are examples of subject and grade focuses for which this toolkit may work well:

- K–2nd grade mathematics
- 6th–8th grade ELA
- 9th–12th grade social studies.

We encourage you to choose a subject and grade that will focus your team in thinking deeply about the coherence of your instructional system ahead of your team meetings. You might consider drawing on recent data or areas for which you have concerns about the instructional alignment.

This toolkit refers to a single subject area throughout. If you wish to work on several subjects with this toolkit, we suggest engaging in this toolkit process separately for each subject.

Use worksheet 1.1 to identify the subject and grade(s) on which you will focus your coherence investigation.

Step 1.2. Assemble a CIS team

- Who is involved in this step? CIS team lead(s)

Build a CIS team that reflects all roles and critical voices for supporting students in the subject and grade(s) you have chosen to focus on. The team should be led by one or two facilitators. The CIS team also should include representatives of all key roles that support instruction for the subject and grade(s) you have chosen. Your team might include classroom teachers and other district and school staff. Your team will look different based on whether your work is focused at the district or school level.

If you are a district team, you will want to make sure that district administrators who oversee various aspects of instruction in the target subject and grade(s) are on the team. If you are doing this exercise as a single school, one district administrator may be useful to include, but you should include more instructional leaders from the school itself.

For example, if you are a district team focused on 6th–8th grade mathematics instruction, you may want to include the following people on your CIS team:

- district administrators who oversee or support 6th–8th grade mathematics instruction (e.g., those who choose curriculum, those who provide mathematics professional learning, those who support special education services)
- at least one or two school leaders serving 6th–8th grade schools
- one or two mathematics teachers for grades 6–8
- a mathematics coach, specialist, or interventionist if that is a position in your district
- educators who support mathematics instruction for a particular student

subgroup (e.g., ELs or students with IEPs).

In another example, if you are a team at a single school focused on 9th–12th grade instruction in ELA, you may want to include

- at least one district administrator who supports high school ELA instruction
- a school leader
- two or three ELA teachers
- an ELA coach, specialist, or interventionist
- educators who support ELA instruction for particular students (e.g., ELs or students with IEPs).

Guidance for Team Formation in Smaller Districts

In smaller districts, there are likely fewer people to include on a team for this work. In this case, we recommend that teachers across multiple grade levels be included in a team, along with a school leader, any EL or special education specialists, and, if possible, a district administrator focused on the chosen subject area.

Use worksheet 1.2 to help you assemble your team.

Identify one or two people on the team who will act as the team lead(s). The team lead(s) prepare for team meetings (e.g., complete slides, make sure team members know if they have assignments to complete prior to the meeting). The team lead(s) ideally would have decisionmaking power in district or school improvement work so that the efforts can move forward over time. A strong understanding of district or school history, context, and key stakeholders will also help. Most importantly, the CIS team lead(s) will need time to focus on this work; therefore, we imagine that a strong CIS team lead might be a central office administrator who is not charged with daily in-school duties.

Step 1.3. Determine the right time and timeline for your investigation

- Who is involved in this step? CIS team lead(s)

Use worksheet 1.3A to consider the right time for your instructional system coherence investigation.

The decision about when to start your investigation should be informed by the extent to which your administrators and teachers will be motivated and interested in participating and learning from the process and its findings. Your decision should also consider any changes in your instructional system. For example, if you are shifting to a different set of ELA curriculum materials this year, you may want to wait until teachers have had a chance to learn about the new curriculum.

Next, using worksheet 1.3B, set a reasonable preliminary timeline for your investigation. This worksheet involves reviewing the toolkit steps and understanding what is involved at each step. In this toolkit, we ask you to engage in a series of meetings that will involve some pre-work, time for reflection, and planning next steps. The entire process might take three to six months, or even longer.[1]

Use worksheet 1.3B to create a timeline for your team's investigation.

Step 1.4. Hold a team kickoff meeting

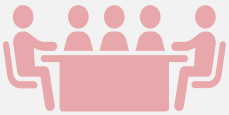
- Who is involved in this step? CIS team lead(s) and team

Schedule the first meeting with your team. Prior to that meeting, ask prospective team members to read the vignettes that appear in the introduction of this toolkit. They are available as a stand-alone set of pages in the workbook that accompanies this toolkit.

The Team Meeting 1 agenda on p. 21 provides an outline for Team Meeting 1. Essentially, at the meeting, you will introduce the toolkit, discuss the toolkit process, and discuss the timeline for your investigation. One important goal is to gather buy-in and support for the effort you are about to undertake. This involves gathering input on why coherence is important and addressing concerns the team may have about the work. We have provided some prompts to help guide that conversation. Make sure to emphasize that improving coherence is about improving and aligning the district and

[1] We have assumed that team meetings last for one hour each. We have footnoted instances in which two meetings may be combined, time permitting.

school messages teachers get about what to prioritize in their instruction; it is not about improving the way in which teachers teach. The point is to improve messaging so teachers are clearer about what they are being asked to teach and can better apply their expertise to teaching it well. This will also help all levels of the system gain clarity, thus creating a coherence loop that aims to improve instructional system coherence across all levels of a school system.



Team Meeting 1: Introducing the Work

Meeting objectives: Introduce the coherent instructional system (CIS) team and plan for the team's work

Worksheets 1.1, 1.2, 1.3A, 1.3B

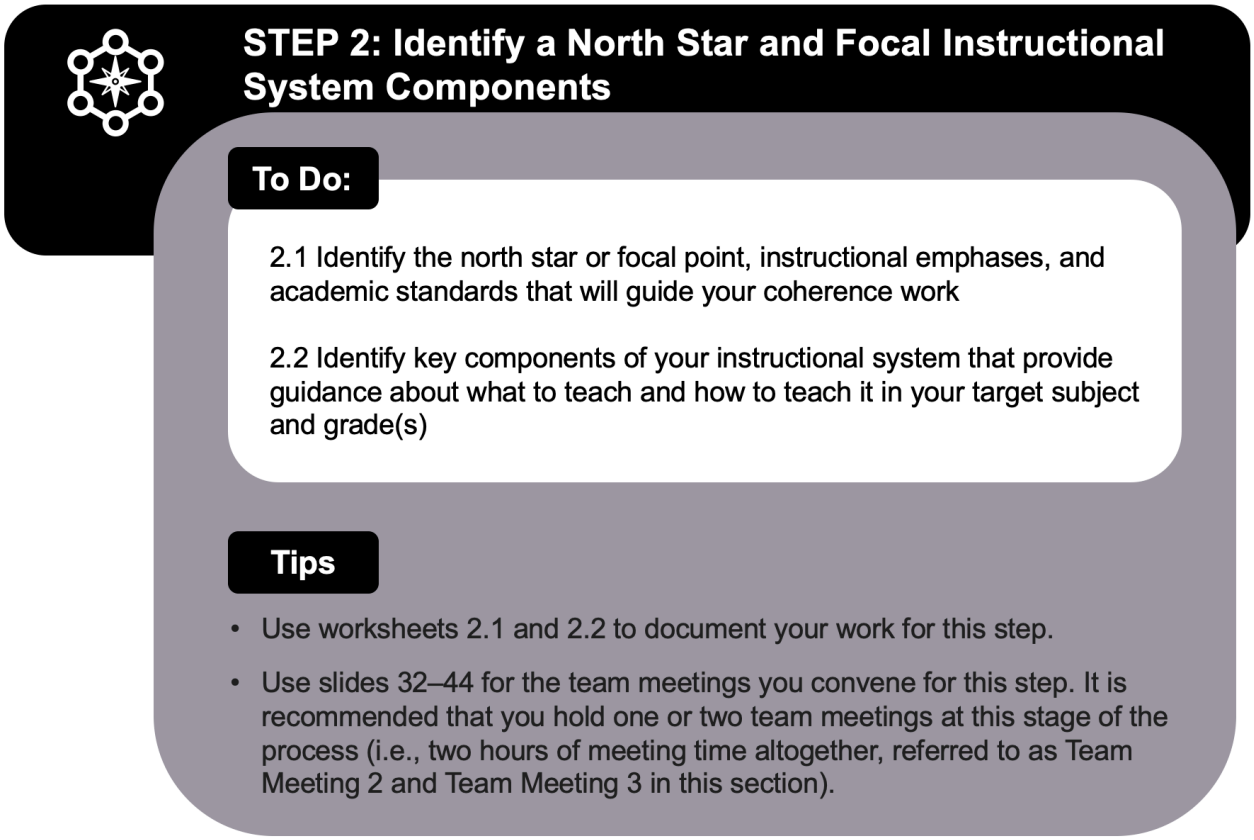
Slides 1–31

Agenda

- ❑ Introduce and define coherent instructional systems.
- ❑ Discuss why investigating the coherence of your district's or school's instructional system is important. How might more coherence benefit teaching and learning at your school? After reading the vignettes, is there anything within your system that you can already identify as more or less coherent? What concerns do you have about trying to improve coherence within your system?
- ❑ Share proposed subject or grade-level focus and rationale for that focus.
- ❑ Ask team members to introduce themselves. Potential icebreakers for this round of introductions to get everyone focused on the target subject and grade(s) are
  - What do you think is the most important thing or set of things students learn in [chosen subject and grade(s)]?
  - What is the biggest challenge to high-quality instruction in [chosen subject and grade(s)] right now?
  - What does our school or district do well in [chosen subject and grade(s)]?
- ❑ Provide an overview of the toolkit.
- ❑ Provide the suggested timeline and meeting dates for each step of the work. Invite questions and discussion. Shift the timeline as needed, based on discussion.
- ❑ After the meeting, share slides with the team that outline the whole plan for your work, including your timeline.

STEP 2

Identify a North Star and Focal Instructional System Components



Step 2.1. Identify the north star or focal point, instructional emphases, and academic standards that will guide your coherence work

- Who is involved in this step? CIS team lead(s) and team

Now that you have selected your team and held an introductory meeting, the team will work on mapping out your instructional system. Your first team task to that end—which you will introduce in your second team meeting—will be to identify a focal point for your investigation, which we refer to throughout this toolkit as your *north star*. *We consider the* north star *to be the focal point to which you ultimately want components of your instructional system to be aligned*. This is likely the most authoritative source on the key content and/or pedagogical strategies that your district or school has agreed should guide instruction for that subject and grade(s).

Examples of what could be a north star for your district:

- academic standards for the target subject and grade(s)

- your recently adopted curriculum materials for the target subject and grade(s)
- district mission statement as it applies to your target subject and grade(s)
- instructional strategies for the target subject and grade(s) that have been the focus in your district for the past few years.

In sum, your north star should be a rallying point or a common goal, principle, mission, or comprehensive guide to instruction that will align your team's work as you proceed through this toolkit.

While you will work as a team to identify that north star in Team Meeting 2, we suggest that the CIS team lead prepare some preliminary north star ideas to bring to the meeting. Worksheet 2.1 can be used to gather thoughts ahead of time and/or to guide Team Meeting 2.

Use worksheet 2.1 to help you identify your north star.

At Team Meeting 2, share ideas for a north star or focal point. Gather feedback from your full team to ensure that the north star is aligned with the district's ultimate vision and mission, if possible.

Then, using worksheet 2.1, ask the team (on their own or in pairs) to brainstorm some instructional goals, strategies, or principles underlying the focus you have chosen. In other words, what are the critical instructional emphases for a given subject and grade(s) (e.g., key pedagogical strategies, foundational areas of focus)? Some possible examples of instructional emphases for ELA might be focusing on reading science; asking students to draw evidence from texts; and encouraging nonfiction texts that reflect a diversity of students' experiences. In math, an example might be ensuring that students persevere in solving challenging problems. These examples are meant to be illustrative and not exhaustive.

Lastly, after identifying your focal point and instructional emphases, make sure that everyone on your team is aware of the academic content standards for the target subject and grade(s). Team leads can locate these ahead of time and share them in written or digital form during the meeting. The slides for Team Meeting 2 include a guide for leading a team discussion of your academic standards.

Follow the plan outlined in the slides to brainstorm ideas as a team.

Team Meeting 2: Identifying the North Star

Objective: Identify your instructional north star and instructional emphases

Worksheet 2.1

Slides 32–38

Agenda

- ❑ Share the slides on the potential north star and come to consensus on the north star for this work.
- ❑ Brainstorm instructional emphases connected with that north star in small groups or as a whole group on a white board.
- ❑ Have each group member choose up to three of the instructional emphases as the most critical, either by using a dry erase marker to place a star by them or some other method. Then count the votes to determine the most critical instructional emphases.
- ❑ Identify academic standards intended to support the north star.
- ❑ After the meeting, share with your team the slides that define your north star and critical instructional emphases.

Step 2.2: Identify key components of your instructional system that provide information about what to teach and how to teach it in your target subject and grade(s)

- Who is involved in this step? CIS team lead(s) and team

In Team Meeting 3, your team will talk through the instructional system components that send messages (either explicit or implicit) to teachers about what they should teach and how they should teach it. Academic standards, for example, are one component of your instructional system that you discussed in the previous step. Other core components to include are

- instructional materials (required or recommended) for your target subject and grade(s)
- professional learning opportunities, which might include regular trainings teachers receive, coaching, etc.
- collaboration time that teachers engage in (e.g., professional learning communities, subject or grade-level meetings)
- teacher evaluation system
- interim assessments
- summative or year-end standardized assessments for your target subject and grade(s).

Other components that may or may not be present in your system are

- formative or classroom assessments for your target subject and grade(s)
- community or parent partnerships
- grading systems
- teacher-created rubrics.

In Team Meeting 3,[2] your team will use worksheet 2.2 to identify the key components of your instructional system. Aim to identify a maximum of nine instructional system components (the minimum are the seven core components: academic standards, required or recommended instructional materials, professional learning, teacher collaboration time, teacher evaluation, summative or year-end assessments, and interim assessments).

Use worksheet 2.2 identify key components of your instructional system.

[2] Team Meeting 2 and Team Meeting 3 can be combined, time permitting.

Team Meeting 3: Identifying Instructional System Components

Meeting objective: Identify key components of your instructional system

Worksheet 2.2

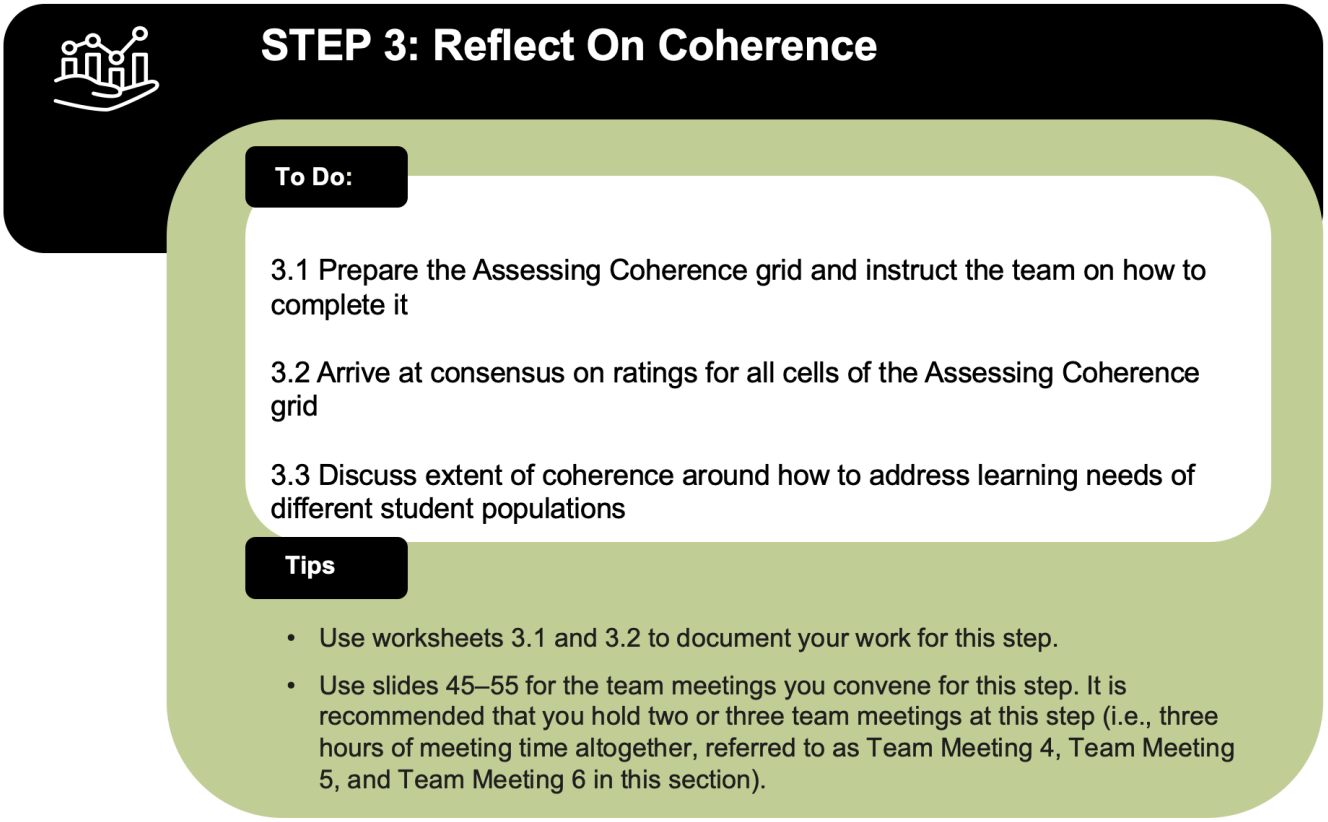
Slides 39–44

Agenda

- ❑ Review our north star and instructional emphases.
- ❑ Define an instructional system component.
- ❑ Identify key instructional system components.
- ❑ Share as a group and come to consensus on the major instructional system components (typically six or seven, or to a maximum of nine).
- ❑ After the meeting, share with your team the slides that list these instructional system components.

STEP 3

Reflect on Coherence



Step 3.1. Prepare the Assessing Coherence grid and instruct the team on how to complete it

- Who is involved in this step? CIS team lead(s) and team

In this step, the team lead(s) will prepare the Assessing Coherence grid in worksheet 3.1. The grid has been partially prepared to include components that are present in typical instructional systems. Add whatever additional components your team identified in Step 2.2.

In Team Meeting 4, the team lead will introduce the grid and model how to complete a few of the cells. Then, the team should complete the rest of the grid on their own in preparation for Team Meeting 5.

Use worksheet 3.1 to develop your team's Assessing Coherence grid based on the instructional system components you identified in Step 2.2.

At the end of Team Meeting 4, ask the team to record the ratings for which the group has come to consensus and then take home their assessing coherence grid to provide preliminary ratings for the remaining cells.

Step 3.2. Arrive at consensus ratings for all cells in the Assessing Coherence grid

- Who is involved in this step? CIS team lead(s) and team

At Team Meeting 5, assess the coherence of your instructional system as a team, drawing on the work team members did individually to assess the coherence of each instructional system component pair. Assign someone on the team to take notes on slide 57.

Team Meetings 4 and 5: Rating Instructional System Coherence

Meeting objective: Introduce the coherence ratings and arrive at consensus ratings.

Worksheet 3.1

Slides 45–55

Agenda

- ❑ Share the coherence grid that you have prepared.
- ❑ Walk through the instructions for completing the grid.
- ❑ Walk through several cells as examples and solicit ratings from the team for each cell. Use the following example questions:
  - How would you rate the coherence of standards and curriculum materials? Ask team members to raise their hands for the rating they would assign (0, 1, or 2).
  - Ask team members to provide a rationale for their rating.
  - If the team members disagree on the rating, work together to come to consensus on the rating to assign.
- ❑ After working on a few cells, the team can either (1) use time during the meeting to complete the rest on their own and then convene to come to consensus on the ratings (combining Team Meetings 4 and 5) or (2) take the grid home to spend time completing on their own and then convene Team Meeting 5 to come to a consensus on the ratings.

Tips for establishing consensus on ratings when members disagree:

- After team members share their rationales for differing ratings, ask for a revote to see whether members now lean more one way or the other.
- List evidence for each rating as a group and ask which rating is supported by the most evidence or the most-robust evidence.
- Pair up people with differing views and task them with determining which rating is supported by the most-robust evidence.

Step 3.3. Discuss the extent of coherence around how to address the learning needs of different student populations

- Who is involved in this step? CIS team lead(s) and team

Another way to investigate coherence is to consider whether teachers receive coherent messages about how to address the learning needs of different student subgroups. Begin by identifying one focal student subgroup on which to focus. Consider whether particular subgroups are at a disadvantage (for example, ELs, special education students, Black students, Hispanic students) in your district or school. You may want to identify a subgroup that is large or growing in your district or school.

Ask team members to complete worksheet 3.2, another Assessing Coherence grid, on their own. This time, the main messages members identify and consider throughout the exercise are not about what and how to teach in general, but instead are messages about what and how to teach for that particular subgroup with equity as a central concern.

Use worksheet 3.2 to focus on equity in coherence.

When completed, ask team members to discuss their findings and rationale during Team Meeting 6.

Team Meeting 6: Examining Equity in Coherence

Meeting objective: Identify conflicting messages among instructional system components that affect a teacher's ability to address equity.

Worksheet 3.2

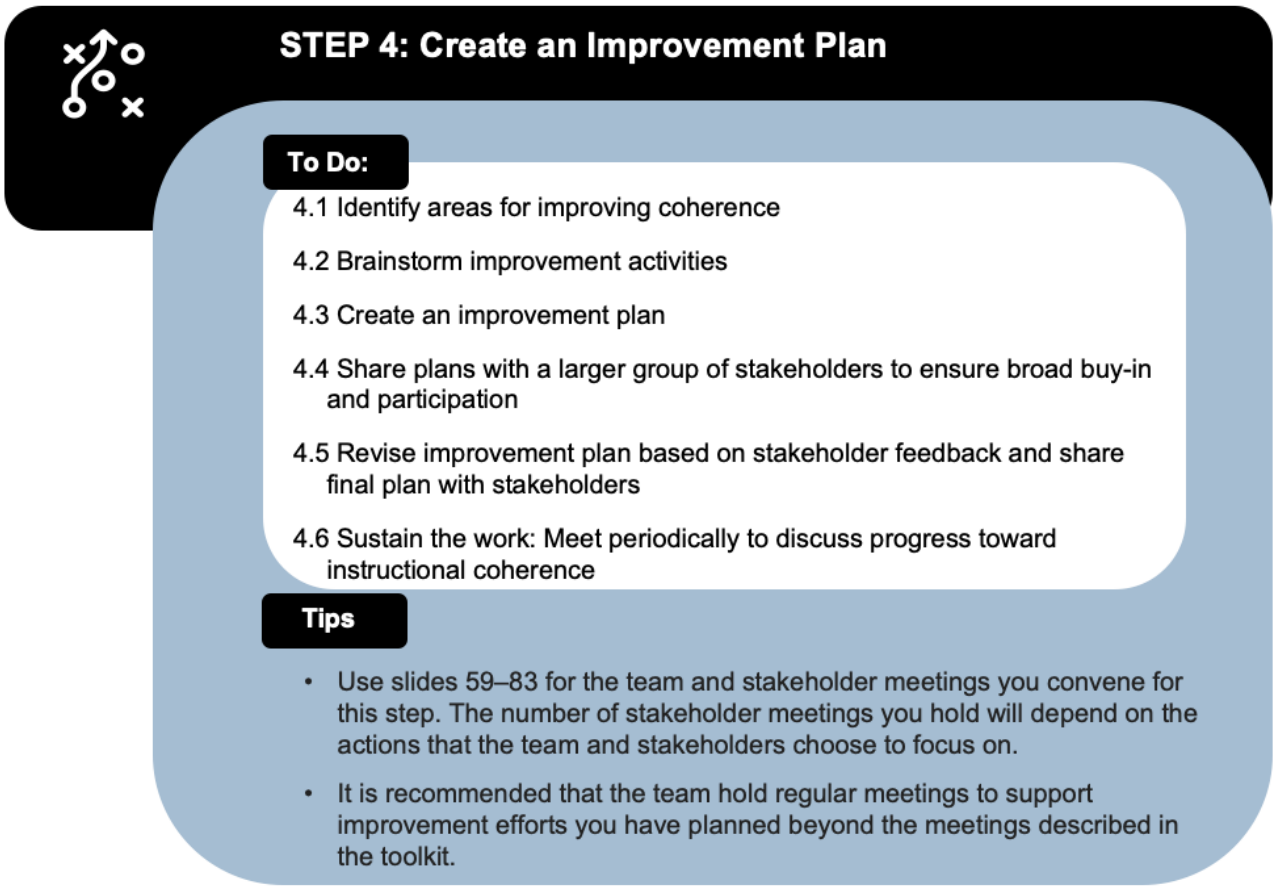
Slides 56–58

Agenda

- ❑ Ask team members to share the cells where they identified conflicts or dissimilarity.
- ❑ The team lead lists components that are in conflict with other components on a whiteboard or other place that the whole group can see.
- ❑ As a group, or in small groups or pairs, rate the top three areas of conflict (e.g., component pairs sending different messages about what and how to teach) for each student subgroup along with the supporting evidence.
- ❑ After the meeting, the team lead should share the notes with the full team on the top three areas of conflict for each student subgroup, along with evidence for the conflicts that are present.

STEP 4

Create an Improvement Plan



Step 4.1. Identify areas for improving coherence

- Who is involved in this step? CIS team lead(s) and team

In this step, you will hold a team meeting to look across all the work you have completed on instructional system coherence to identify areas for improvement. These could be components indicated in the Assessing Coherence grid that could better reinforce other components' messages around addressing the learning needs of all students or particular subgroups. We suggest choosing a small number of system components (i.e., one to three) on which to focus. For example,

- curriculum and interim assessment, which are currently conveying conflicting messages for target subject and grade(s)
- professional learning and teacher evaluation, which are currently conveying unclear messages about how to address the focal student subgroup in target subject and grade(s).

Concrete examples of improvement goals include

- improving the coherence of messages between curriculum materials and professional learning about what and how to teach in 6th–8th grade mathematics, with a focus on how to address ELs' needs
- improving the coherence of messages between professional learning and teacher evaluation about what to teach and how to teach in 9th–12th grade ELA.

To prepare for Team Meeting 7, ask team members to reflect on the Assessing Coherence grids that the team has completed, and then identify three areas on which they think that the district or school should focus their coherence improvement efforts.

During Team Meeting 7, use worksheets 4.1A and 4.1B to help you settle on a few components or areas for improvement.

Use worksheet 4.1A to brainstorm ideas for improving system coherence.

Use worksheet 4.1B to identity high-impact areas that have the potential to improve coherence in your instructional system.

Team Meeting 7: Identifying Areas for Improving Coherence

Meeting objective: Identify critical areas of focus for improvement

Worksheets 4.1A and 4.1B

Slides 59–64

Agenda

- ❑ Ask team members to form small groups to talk about the areas for improvement they identified in worksheet 4.1A.
- ❑ In the small groups, categorize each area for improving coherence on the grid in worksheet 4.1B. Rate (from low to high) both the extent of the potential impact and the ability of the school or district to make change. Assign a group lead to take notes in worksheet 4.1B.
- ❑ In each small group, identify one or two areas for improvement that they have categorized as high impact or high ability of the school to make changes.
- ❑ Each group shares the one or two areas for improvement categorized as high impact or high ability of the school to make changes. In the full team, come to a consensus on one or two areas to focus improvement efforts on in the months or year ahead.

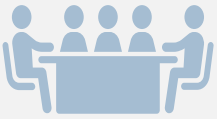
Step 4.2. Brainstorm improvement activities

- Who is involved in this step? CIS team lead(s) and team

In Team Meeting 8,[3] your team brainstorms actions that could improve coherence in the areas you have identified.

Use worksheet 4.2 to brainstorm possible improvement activities to create stronger coherence in your system.

[3] Team Meeting 7 and Team Meeting 8 can be combined, time permitting.



Team Meeting 8: Brainstorm Improvement Activities

Meeting objective: Brainstorm a set of activities for improving instructional system coherence

Worksheet 4.2

Slides 65–68

Agenda

- ❑ Share areas of improvement decided on in Meeting 7.
- ❑ Assign people to small groups based on interest in particular areas.
- ❑ In each small group, brainstorm on a whiteboard or flip chart activities that the district or school could undertake to improve coherence.
- ❑ Each group shares ideas.
- ❑ Members vote on the ideas that could have the most impact and are reasonable to undertake in the next three to six months. One idea for voting is to have members circulate among white board lists and put stars by the top three to five ideas.
- ❑ Identify the ideas with the most votes.

Step 4.3. Create an improvement plan

- Who is involved in this step? CIS team lead(s) and team

In this step, take what you learned from Step 4.2 to identify a set of improvement objectives. Then coordinate with the team to create a plan for each objective, identifying potential leads and team members to tackle each objective using worksheet 4.3A.

Task leads: Use worksheet 4.3A to draft your team's coherence improvement objectives ahead of time.

Use worksheet 4.3B to draft your improvement plan.

Use the table on p. 21 of the workbook to map out a task lead, staff, dates, and deliverables. Sample deliverables might include revised interim assessments or an updated professional development plan.

Team Meeting 9: Draft an Improvement Plan

Meeting objective: Draft an improvement plan

Worksheet 4.3A and 4.3B

Slides 69–73

Agenda

- ❑ Team lead(s) share suggested objectives based on Team Meeting 8 and their work before Team Meeting 9 on worksheet 4.3A.
- ❑ Team breaks into task groups to make a plan for each objective, including tasks for each objective, members involved in each task, and timelines and deadlines for those tasks. Ask someone in each group to take notes and finalize the plan after the meeting.
- ❑ A spokesperson for each group presents their draft improvement plans to the team.

Step 4.4. Share plans with a larger group of stakeholders to ensure broad buy-in and participation

- Who is involved in this step? CIS team lead(s), team, and other stakeholders

In this step, your CIS team meets with a larger group of stakeholders to present your plan for improving instructional system and share the process that led to it. Consider inviting instructional staff that might be involved in ascertaining or improving coherence for a given subject and grade(s), including teachers in that subject and grade(s), along with support staff (e.g., paraprofessionals, aides).

Prior to this meeting, the team lead(s) put together slide 75. This slide will summarize the findings from the work your team did in Steps 1–4, as well as the improvement plan. In the larger stakeholder group (Team Meeting 10), the team lead(s) shares the summary of the team's work. Then the team collects feedback on questions, areas of agreement and disagreement, and any suggestions for revisions to the improvement plan.

Team Meeting 10: Gathering Stakeholder Input

Meeting objectives: Gather input from stakeholders on improvement plan

Slides 74–77

Agenda

- ❑ Share summary of the CIS team's work.
- ❑ Share areas of improvement that have been identified.
- ❑ Review the improvement plan thus far.
- ❑ Encourage stakeholders to pose questions to the team on areas of confusion or need for clarification.
- ❑ Break stakeholders into groups to discuss
  - areas of agreement and disagreement in terms of coherence areas of improvement
  - any suggestions for improvement of the plan.
- ❑ Each group shares their ideas.

Step 4.5. Revise the improvement plan based on stakeholder feedback and share a final plan with stakeholders

- Who is involved in this step? CIS team lead(s), team, and other stakeholders

During Team Meeting 11, the team will discuss stakeholder feedback and revise the improvement plan, as appropriate. The team then determines how often to meet over the coming year to operationalize the plan and monitor progress, as well as the frequency and method of updating stakeholders.

It will be important to update stakeholders on these revisions to ensure their continued support and buy-in. We recommend that the team lead(s) or another team member be assigned to develop a memo following this meeting that notes how the team has revised the plan based on stakeholder feedback and provides an overview of the final plan. You can use worksheet 4.5 to develop that memo.

Use worksheet 4.5 to develop a memo to share your response and revisions to your coherence improvement plan based on stakeholder feedback.

Step 4.6. Sustain the work by meeting periodically to discuss progress toward instructional system coherence

- Who is involved in this step? CIS team lead(s), selected team members, other stakeholders

Based on the agreed-upon meeting cadence, the team assembles periodically so that task groups can summarize their progress, solicit input from the team, and make any adjustments to their activities or timeline.

The team lead(s) decide on what to share with stakeholders and in what format.

Team Meeting 11: Revising the Improvement Plan

Meeting objectives: Determine any revisions to improvement plan

Worksheet 4.5

Slides 78–83

Agenda

- ❑ Team lead summarizes key takeaways from the stakeholder meeting in terms of areas of agreement and disagreement and suggestions for improvement.
- ❑ Team comes to a consensus on any revisions to make based on input.
- ❑ Core team members assigned to activities make any revisions to that activity, its timeline, and deadlines and share it with the team lead or whole group.
- ❑ The team plans for the frequency of future team convenings to discuss improvement plan progress, as well as the frequency of meetings with stakeholders to summarize progress.

References

Pauketat, Regena, Elaine Lin Wang, Julia H. Kaufman, Alyson D. Gittens, and Ashley Woo, *Teachers' Perceptions of Coherence in K–12 English Language Arts and Mathematics Instructional Systems*, RAND Corporation, RR-A279-3, forthcoming.

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