

Culture of Data Use Workshop

Facilitators:



Regional Educational
Laboratory at EDC
relnei.org



Today's Presenters

- [Insert Information about facilitator #1]
- [Insert Information about facilitator #2]

How Were These Materials Developed?

- Network of 10 Regional Educational Laboratories (RELs) across the country
- Funded by U.S. Department of Education, Institute of Education Sciences, 2012–2017
- Helping states and districts use research and data to inform policy and practice with the goal of improving student outcomes
- The Culture of Data Use Workshop materials developed through REL Northeast & Islands (REL-NEI)



ies.ed.gov/ncee/edlabs



Workshop Agenda Topics

5 minutes	Welcome and REL overview
15 minutes	Workshop overview and learning goals
20 minutes	Defining a culture of data use
15 minutes	Participant and presenter assumptions about a culture of data use
50 minutes	Introduce the Culture of Data Use Framework
60 minutes	Explore school and district practices aligned with the Framework
20 minutes	Consider changing expectations of data use
55 minutes	Explore district data use practices over time
45 minutes	Review district and school guidance to support consistent implementation
50 minutes	Select strategies to further implementation of a culture of data use
15 minutes	Reflection and closing

Guiding Questions for the Workshop

- What does the research tell us about effective district and school data practices? What are the essential characteristics of an effective culture of data use?
- What do schools and districts with an effective culture of data use do? What are examples of the essential characteristics in practice? What can we learn from case studies of districts with effective cultures of data use?
- Which of these practices can be applied in your own setting to deepen/extend current practice?
- What is the role of district- and school-level guidance to support systemic change in data-use practices?

Workshop Overview and Learning Goals

Learning Goals:

- Explore five characteristics that contribute to an effective culture of data use in schools and districts
- Learn strategies to extend/deepen the culture of data use in your district and schools

Success Criteria:

- Apply the five characteristics of the culture of data to your school or district practice—regardless of your stage of development
- Identify high-leverage strategies that you can use to strengthen the culture of data use in your setting
- Identify policies or written guidance you can develop that will support more consistent implementation of data-use practices



Two Definitions of *Data Literacy*

A process that integrates the analysis of educational data to support decisions intended to improve teaching and learning at the school and classroom levels

Means, Padilla, & Gallagher. (2010). *Use of Education Data at the Local Level*, USDOE, p. C-3

Understanding the properties of data and how you can use them to inform practice

Jeffrey Wayman, 2012 REL-NEI webinar, *The Data-Informed District, Research on Using Data to Inform Practice*

Defining Data Literacy – Turn and Talk

- With a partner, first discuss these two definitions of *data literacy*. In what ways are these ideas consistent with your own definition of data literacy?
- Second, still with your partner, discuss the following:

Is having educators with good data literacy skills enough to ensure that data is used on a regular basis to ensure ongoing improvement in student learning?



Definition of *Culture*

“The way things are done when nobody is looking.”

from Jeffrey Wayman, REL USIA Alliance webinar (2012)

Definition of Culture of Data Use

A **strong data culture** results when an organization believes in continuous improvement and regularly puts that belief into practice. Schools and districts that have strong data cultures emphasize collaboration as a keystone for success and they empower teachers and administrators to make decisions for which they will be held accountable. Elements of a strong data culture include commitment, vision, beliefs, accountability, collaboration, modeling, and commitment to ongoing instructional and programmatic improvements.

(Ronka, Geier, & Marciniak, 2010)

Reflections on the Definition of a *Culture of Data Use*

- In the previous slide, we reviewed the definition of a *culture of data use*.
- Individually, write down 3 keywords from this definition that align with your understanding of a culture of data use. Then, write down anything from the definition that is different from your understanding. (3 minutes)
- Discuss what you wrote in a small group. Is there agreement in your group about the definition, or are there still questions? (5 minutes)
- Bring any questions to the whole group for review. (3 minutes)



Assumptions Underlying Today's Work

- *[Facilitators select 3-4 assumptions from the list provided in the facilitator's guide, or write your own. These will be used as discussion starter for assumptions participants bring to this work.]*

Reflections on “Assumptions”

- Turn and talk with a neighbor about the information shared on the previous slide. Do you have any questions about the assumptions listed?
- Reflect on the list of assumptions with your partner. Discuss how an assumption raised has been true (or not) in your own experience?
- In the large group, hear from a few participants about their understanding of the assumptions listed.



Initial Outline of the Culture of Data Use – Figure 1

Figure 1. Culture of Data Use Framework: Initial reflections on five elements

Ensuring access to data Data are accessed, coordinated, filtered, and prepared in ways that allow educators to quickly and efficiently analyze and interpret data to answer key questions and address important teaching and learning issues.	Making meaning from data Protected time is provided to allow users of data to collectively make sense of what the data indicate and to explore how to move from data to evidence that will inform instruction. This time is focused on making meaning from data and is supported by the use of consistent inquiry-based practices.
Clarifying expectations for data use There are clear expectations about how to use data, and these expectations change over time as skills for data use grow. District, school, and teacher leaders frame consistent messages about how data can be used to support teachers' professional capacity and student learning.	Building knowledge and skills to use data Adequate professional learning takes place regarding data use, assessment literacy, and using data to inform instruction. Professional learning is integrated into daily practices and supports teachers in building content knowledge over time. Professional learning is differentiated to support teachers' specific learning needs.
Leading a culture of data use Leadership nurtures and supports a culture of data use and develops organizational structures that include time and resources to conduct ongoing data dialogue and feedback that will support users to act on new knowledge. Acting on knowledge is supported at the administrative, teacher, and student levels. Leaders' use of data is central to helping educators interact around issues that will lead to improved learning outcomes.	

Initial Outline of a Culture of Data Use – Figure 1, Element 1

Ensuring Access to Data

Data is accessed, coordinated, filtered and prepared in ways that allow educators to quickly and efficiently analyze and interpret data to answer key questions and address important teaching and learning issues.

Initial Outline of a Culture of Data Use – Figure 1, Element 2

Making Meaning from Data

Protected time is provided to allow users of data to collectively make sense of what the data indicate and to explore how to move from data to evidence that will inform instruction. This time is focused on making meaning from data and is supported by the use of consistent inquiry-based practices.

Initial Outline of a Culture of Data Use – Figure 1, Element 3

Clarifying Expectations for Data Use

There are clear expectations about how to use data, and these expectations change over time as skills for data use grow. District, school, and teacher leaders frame consistent messages about how data can be used to support teachers' professional capacity and student learning.

Initial Outline of a Culture of Data Use – Figure 1, Element 4

Building Knowledge and Skills to Use Data

Adequate professional learning takes place regarding data use, assessment literacy, and using data to inform instruction. Professional learning is integrated into daily practices and supports teachers in building content knowledge over time. Professional learning is differentiated to support teachers' specific learning needs.

Initial outline of a Culture of Data Use – Figure 1, Element 5

Leading a Culture of Data Use

Leadership nurtures and supports a culture of data use and develops organizational structures that include time and resources to conduct ongoing data dialogue and feedback that will support users to act on new knowledge. Acting on knowledge is supported at the administrative, teacher, and student levels. Leaders' use of data is central to helping educators interact around issues that will lead to improved learning outcomes.

“Each Teach” Activity: Research Summaries by Element

- Organize into table groups of five.
- Each person at the table is assigned one of the five research summaries.
- Each person **individually** reads their summary and identifies 3–4 points to share with their four colleagues at the table. (10 minutes, quiet reading and reflection)
- Each person **shares the key points** from their reading, going around the table, until all five research summaries are shared. (10 minutes, 2 per summary)
- If possible, try to limit discussion about the general framework, as that will take place during the next activity.

Emerging Consensus – Key Elements of a Data-Using Culture

Research with consistent findings:

- Hamilton, et al. (2009)
 - Name four areas of focus for schools: Establish a clear vision for data use, develop and maintain a district-wide data system, make data part of an ongoing cycle of instructional improvement, and provide supports that establish a data-driven culture within the school.
- Park & Datnow (2009)
 - Name three elements for data use: Invest in data management systems, build capacity to interpret and act on data through professional development and facilitation, and define goals and establish a culture of data use.

Emerging Consensus – Key Elements of a Data-Using Culture

Research with consistent findings (continued):

- Wayman, Jimerson, & Cho (2010)
 - Identify five elements to support effective district data practices: collaboration, common understandings, professional learning, principal leadership and data systems.
- Honig & Venkateswaran (2012)
 - Name four elements to support consistent districtwide use of data: participating in the flow of information, providing resources to help teachers make sense of data, communicating professional expectations for data use, and providing school-based professional development.

Jeffrey Wayman's REL Alliance Webinar

(2012)

Example of emerging consensus:

- Common understandings (“Agreeing on which data to use and how to use it”)
- Data systems (“...which provide useful and accessible access to information”)
- Collaboration (“Collaboration is the life blood of school data-use”)
- Professional learning (“To develop expertise in data use among individuals and the organization”)
- Principal leadership (“Data use lives and dies in the principal’s office”)

A Culture of Data Use Framework

Participating in the flow of information for evidence-use	Provide resources and assistance to make meaning from data
Communicate professional expectations for data use	Provide professional development on data use knowledge and skills
Provide leadership to nurture a culture of data use	

An illustrative point

1. Balance
2. Flexibility
3. Poise
4. Strength
5. Endurance



A Culture of Data Use Framework Research Summaries – Handout 5.3

Participating in the flow of information for evidence-use	Provide resources and assistance to make meaning from data
Communicate professional expectations for data use	Provide professional development on data use knowledge and skills
Provide leadership to nurture a culture of data use	

Culture of Data Use Framework

- Are there any surprises in this framework?
 - If so, what stands out that is surprising?
- Which ideas shown on this framework are familiar?



You Look Familiar

Vignette Review – Directions for Round 1 of the Jigsaw Activity

- Participants will be grouped into five (Round 1) discussion groups. Each initial group will read and discuss some vignettes that show examples of ONE element of the framework.
- During Round 1, each group will read their assigned vignette for a particular element, and discuss what about that vignette exemplifies the framework element under review. They will identify 2–3 key points to share in Round 2.
- There will be 20 minutes to read, discuss, and identify 2–3 key points.

Vignette Review – Directions for Round 2 of the Jigsaw Activity

- During Round 2, each table group of five will consist of one expert in each framework element.
- Each person has 2–3 minutes to share the key points that were identified during Round 1.
- Following discussion of all five vignettes, participants can begin to discuss the differences among the five elements of the framework. Consider the following discussion prompt:
 - What do you notice about each specific element of the framework? How are the concepts in each of the five elements unique?

I. Participating in the Flow of Information – Main Messages

“A good data system is not enough: Use of data to inform instruction requires leadership and system realignment. Data-driven decision making requires leader initiative to align curriculum and assessment practices, professional development and data systems.”

(IES, 2010)

Participating in the flow of information:

- Create systems that support timely, credible, short-cycle assessment data.
- Create systems to support high-quality data entry.
- Note shifting role of technology and educational leaders (from the systems to the learning).
- Ensure teacher feedback is built into the system.

2. Provide Resources to Make Meaning from Data – Main Messages

“The research is very clear that setting aside time during the work week to support both examining evidence of student learning AND determining instructional decisions informed by data is a key characteristic of schools and districts that do this work well.”

(IES 2011)

Providing opportunities for social sense-making can take many forms:

- Grade-level, department, or vertical data teams
- Coaches as a resource
- Peers as a resource
- Regular data meetings between teachers and principals
- Structured work in data rooms, collaborative work on data walls
- Ongoing “data days”
- Full faculty review of data at weekly or bi-weekly meetings

3. Communicate Professional Expectations for Data Use – Main Messages

Central office leaders built a “common interpretation and orientation towards data driven decision making which were mediated at the school level by formal and informal leaders.”
(Park & Datnow, 2009)

Communicate professional expectations:

- Build in opportunities to co-develop consistent messaging across buildings
- Write clear policies around how data will be used and by whom
- Include expectations for how professional learning will support new data analysis expectations
- Model expected practices, including use of the inquiry cycle

4. Provide Professional Development on Data Use Knowledge and Skills – Main Messages

“Embedded, informal professional learning provided as part of teacher collaboration or coaching sessions, and focused on instructional actions informed by evidence, appears to offer the strongest support for teachers use of data in deciding what and how to teach.”

(IES, 2010)

Professional learning includes:

- Content knowledge (standards, curriculum)
- Pedagogical content knowledge
- Data literacy
- Assessment literacy
- “Pedagogical data literacy” (Mandinach, 2009)

5. Provide Leadership to Nurture a Culture of Data Use – Main Messages

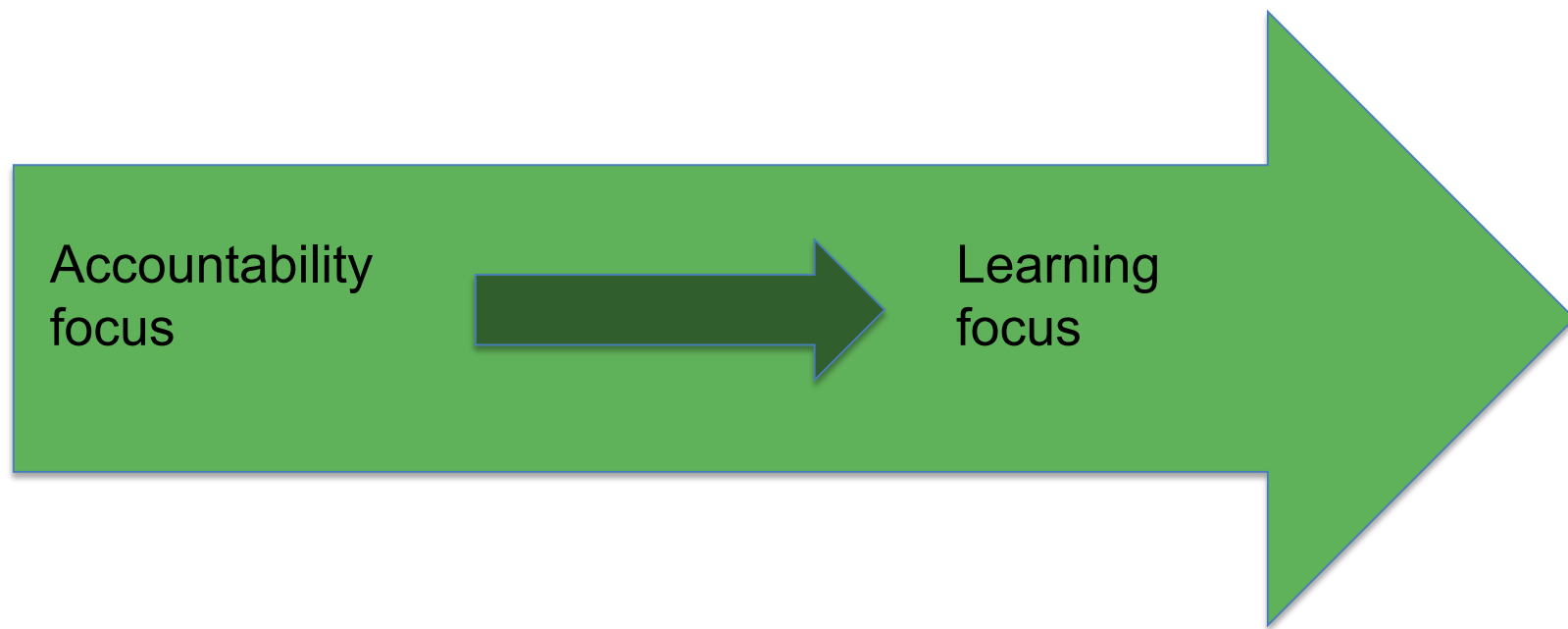
“In schools where principals intentionally employed strategies to support data use to improve student learning, teachers typically reported better attitudes and more effective data use. In schools where principals employed fewer or negative strategies, attitudes were worse and data use was reported to be less effective.”

(Wayman, Cho, & Jimerson, 2012)

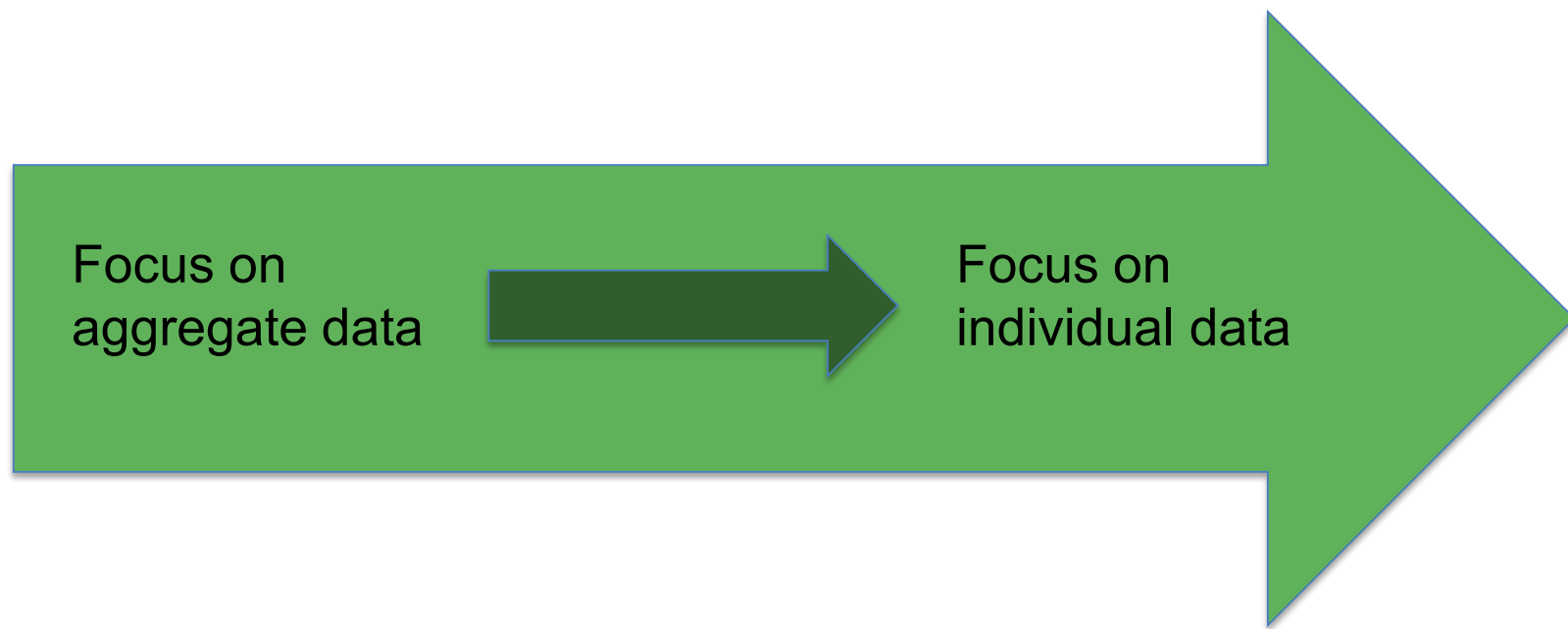
District and school level leadership includes:

- Lead learners
- Modeling
- Creating safe conditions for analysis
- Access to data
- Accountability AND support

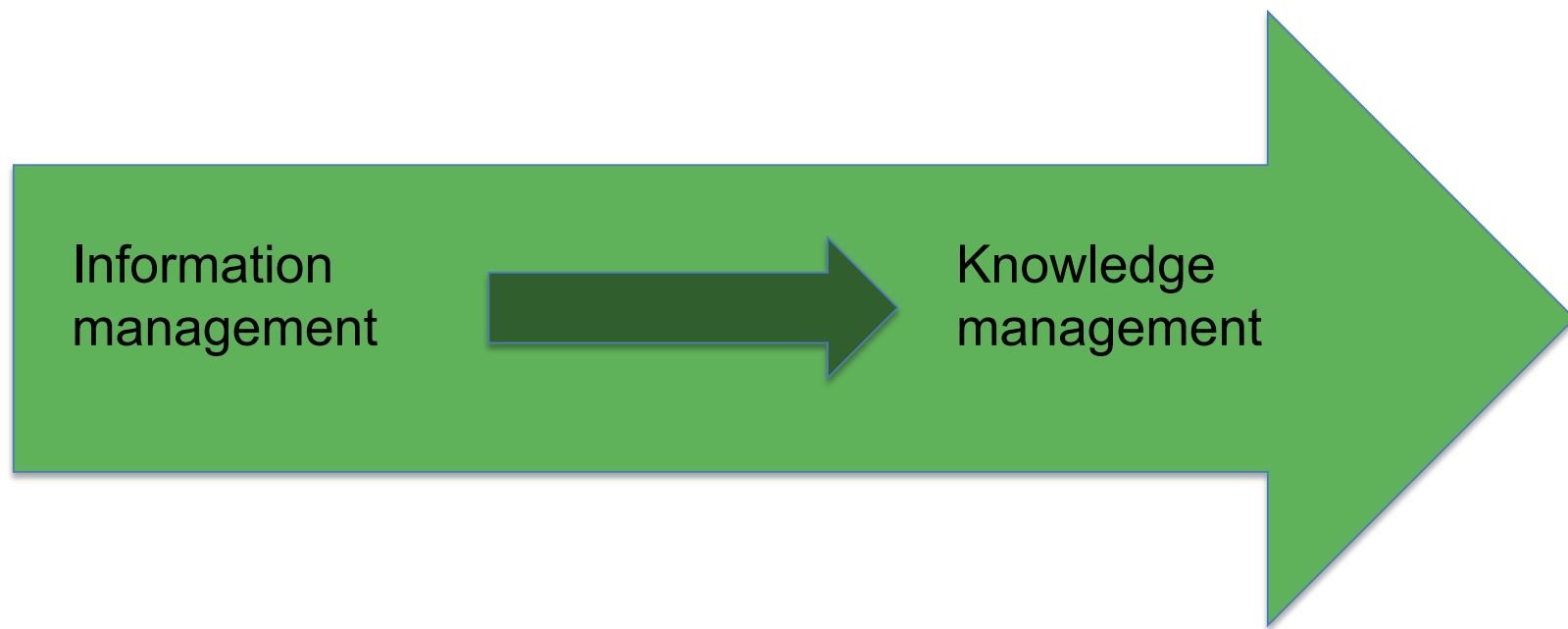
Changing Expectations of Data Use



Changing Expectations of Data Use



Changing Expectations of Data Use



Changing Expectations of Data Use – Teacher Activities on the Continuum

STAGE 1

Focus of work on school improvement planning using accountability data and placement decisions

STAGE 2

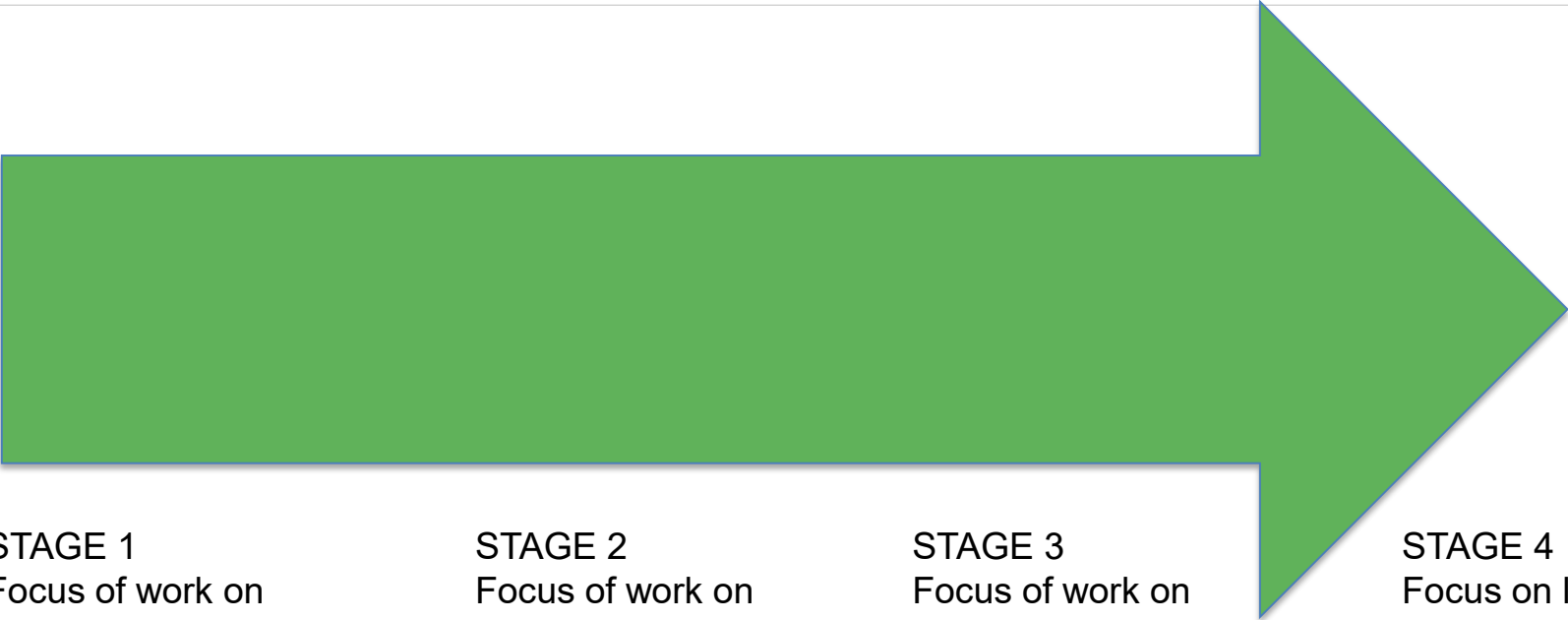
Focus of work on curriculum development, student grouping, and attention by teachers on **what to teach** (e.g., re-teach groups)

STAGE 3

Focus of work on comparative analysis of student growth, instructional changes based on **how to teach** – entry into continuous improvement

Material adapted from Means, Padilla, & Gallagher, 2010

Changing Expectations of Data Use – Teacher Activities on the Continuum



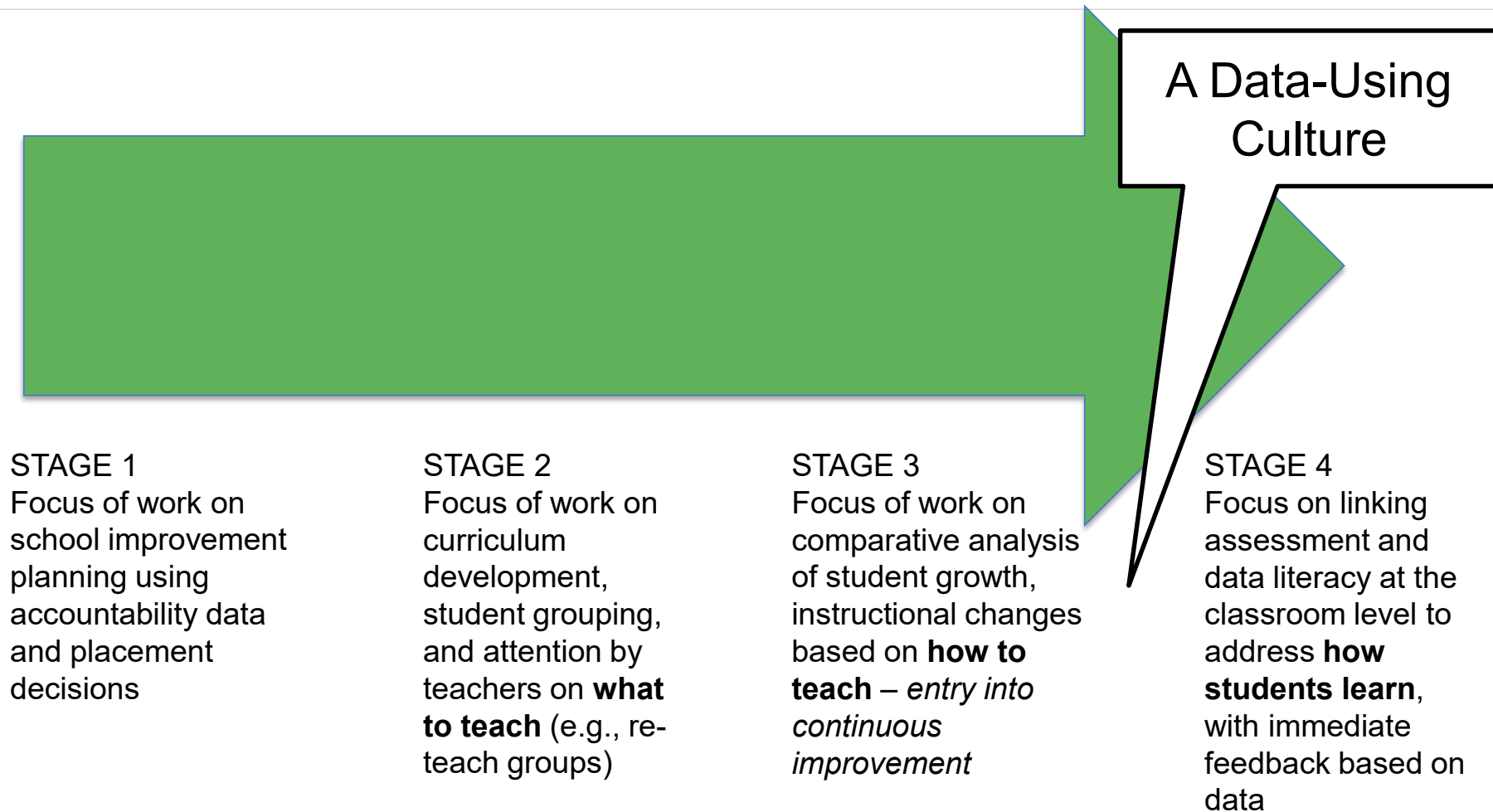
STAGE 1
Focus of work on
school improvement
planning using
accountability data
and placement
decisions

STAGE 2
Focus of work on
curriculum
development,
student grouping,
and attention by
teachers on **what
to teach** (e.g., re-
teach groups)

STAGE 3
Focus of work on
comparative analysis
of student growth,
instructional changes
based on **how to
teach** – entry into
continuous
improvement

STAGE 4
Focus on linking
assessment and
data literacy at the
classroom level to
address **how
students learn**,
with immediate
feedback based on
data

Changing Expectations of Data Use – Teacher Activities on the Continuum



Individual Reflection

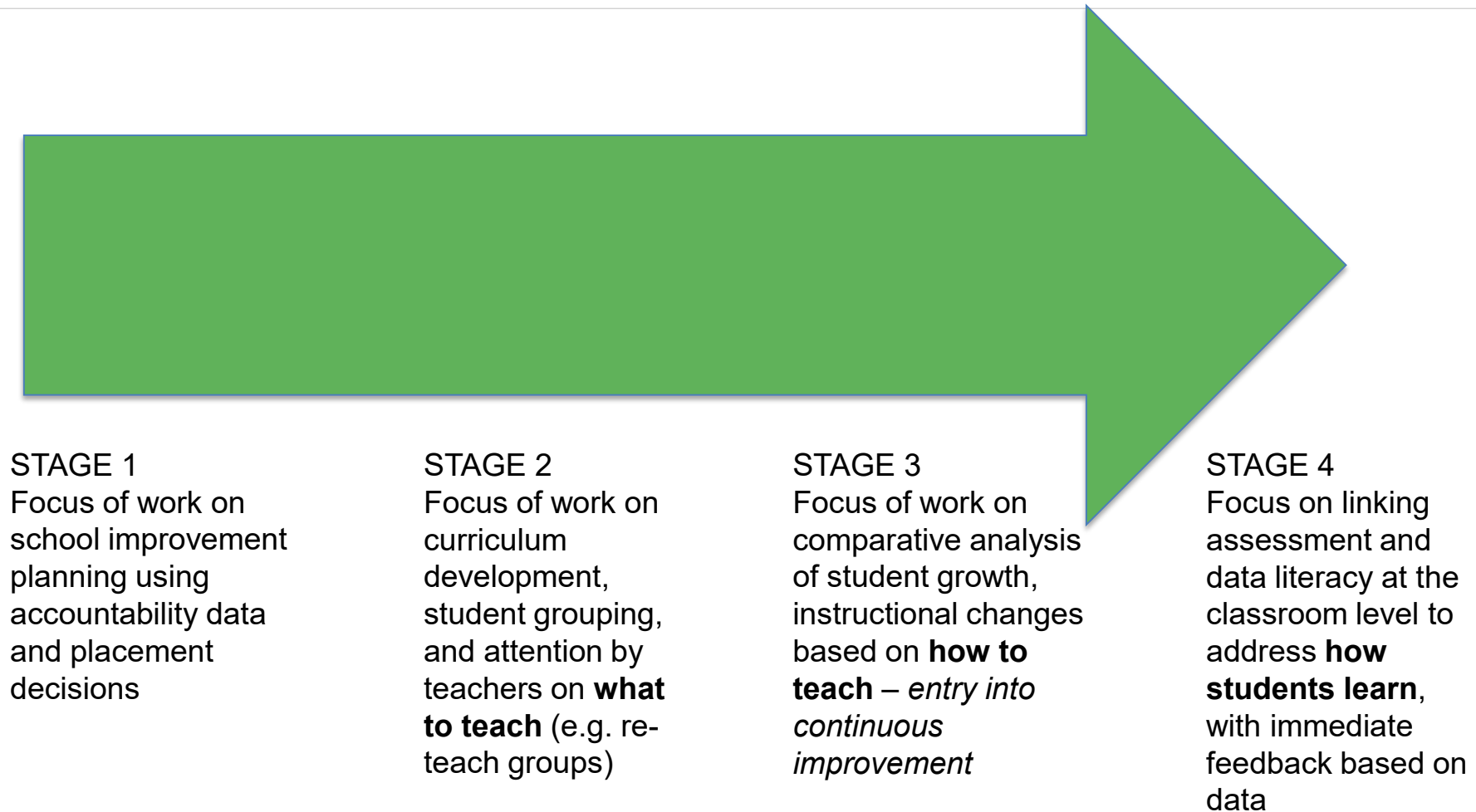


- ☐ Take a moment to individually think about which stage or stages best represent your current practice.
- ☐ What might be some preliminary thoughts you have about next steps, based on your individual reflection about current practice?

Case Study Review

- The purpose of the case study is to look at an existing set of district data practices and to think about how this district has addressed developing and supporting data use practices over time.
- This case study is not an exemplar for best practice. It is, rather, a real example, one in which the district has done some things very well and also had some mis-steps along the way (which we fully expect in this work).

As You Review the Case, Think about How This District has Moved through These Four Stages.



Case Study Process

- Work in groups of three.
- Everyone reads the introduction page to the case study.
- Each person is assigned one of the following:
 - 2005–2006 and 2006–2007
 - 2007–2008 and 2008–2009
 - 2009–2010 and 2010–2011
- Once each person has read their section:
 - Report out in chronological order.
 - Share 3–4 key points per year.
 - Discuss and agree on 1–2 points that capture the districts' stage of development in each of the three time frames under review. Include evidence from the case study that supports your claim.

Debrief – Case Study

- What does this case study indicate about the time frame for establishing a culture of data use?
- In what ways is the time frame in the case study similar to, or different from, the timeframe for developing a culture of data use in your district?
- What might this case study imply about future considerations related to the time needed for implementation?



Culture of Data Use Framework

Participating in the flow of information for evidence-use	Provide resources and assistance to make meaning from data
Communicate professional expectations for data use	Provide professional development on data use knowledge and skills
Provide leadership to nurture a culture of data use	

Case Study: High-Leverage Policies Clarify the Shift

- Provide information about the structure(s) and intended use of data systems (I)
- Guidance to clarify how to use scheduled time available to analyze data (II)
- Outline expectations and structures for learning opportunities for teacher data use (III)
- Outline professional development goals and alignment to available supports (IV)
- Clarify the role of teacher leaders (IV)
- Set expectations, professional learning, and support for principal data use (V)

Activity: Review of School and District Practices by Framework Element

Working in small groups of 3–5 people, use the discussion protocol to:

- Identify one element of the framework to focus on for the next 40 minutes
- Brainstorm barriers to implementation in that specific element of the framework
- Review Handout 9.2: Barriers to a culture of data use, by framework element
- Review Handout 9.3: Examples of policy and guidance to support a culture of data use by framework element
- Identify 1–2 high priority ideas to consider in your setting

District- and School-Level Guidance

What written guidance can do:

- Address inconsistent implementation
- Help alleviate/address barriers to a culture of data use
- Clarify the changing roles and interrelationships necessary to do this work
- Support breaking down silos
- Provide a vehicle to model new forms of collaborative work necessary for a culture of data use
- Other (your ideas)

Handout 9.3: Examples of Policy and Guidance

Participating in the flow of information for evidence-use	Provide resources and assistance to make meaning from data
Communicate professional expectations for data use	Provide professional development on data use knowledge and skills
Provide leadership to nurture a culture of data use	

Handout 9.3: Examples of Policy and Guidance – Element 1

Participating in the flow of information for evidence-use:

- Written expectations for data use that show which practices align with improved practice and document the shift away from an accountability-based data use approach
- Written clarification identifying which users of data are meant to answer which questions
- Calendars and timelines of district data-use expectations by grade level
- Description of district data systems to clarify functions and uses
- Description of the district data system that describes how it supports and aligns with the everyday work of educators

Handout 9.3: Examples of Policy and Guidance – Element 2

Provide resources and assistance to make meaning from data:

- A school calendar documenting scheduled time to analyze evidence
- A common drive with written protocols for using evidence during team meetings
- Written role expectations for data teams with specific team-member functions outlined
- A schedule with opportunities for calibration
- Agreed upon norms for data use posted and reviewed at all meetings
- Written documentation of how coaches or instructional specialists will support collaborative data use practices

Handout 9.3: Examples of Policy and Guidance – Element 3

Communicate professional expectations for data use:

- Written guidance about the focus of data use as designed to support all students
- Written communication highlighting how the focus on all students will raise the achievement of struggling learners through increased differentiation and personalized student supports
- Written expectations about annual “products” that include student evidence, including written guidance for use of evidence at parent-teacher meetings, portfolios, and information that is documented across years

Handout 9.3: Examples of Policy and Guidance – Element 4

Provide professional development on data use knowledge and skills:

- An annual schedule of professional learning for data use, including formal, informal, large-scale, team-based, and daily learning, focused on common learning goals schoolwide and including individual (or team) areas of focus for teacher learning
- Written structure to document teacher learning goals regarding using data
- Protocol for principals to review teachers practices with various types of data-use (including both schoolwide and classroom uses) and to outline next steps in their individual learning

Handout 9.3: Examples of Policy and Guidance – Element 5

Provide leadership to nurture a culture of data use:

- Job descriptions that capture the role of data-use leaders throughout the district – principals, teacher leaders, data team leaders, district leaders
- A hiring protocol outlining expectations or activities that show facility with data use during the hiring process
- Documentation related to how leaders learn data use, with increased expectations outlined over time

Strategy Review – Stand Up and Share

Returning to the discussion protocol, each person finds two others in the room who were not at their discussion table and has five minutes to discuss the following:

- Identifies the element under review
- Notes 2 barriers that were discussed
- Reviews 2 high-leverage strategies in their element
- Identifies 2–3 points to bring back to the next level of discussion

There is **no** roadmap.



Developing Internal Guidance to Support a Culture of Data Use

1. Identify an area of focus for your work. Select one framework element in which to develop written guidance or policy. (Note, this is likely to be the same area you discussed in the last part of the agenda.)
2. If your district or school has developed a “case study” (optional assignment), this may help clarify priority areas for written guidance.
3. Use Handout 10.2 in your workbook to explore the guiding questions in the one framework element you have identified. Consider and discuss ALL of the guiding questions in that element.
4. Use the discussion prompts to have a dialogue and craft an outline for written guidance in 1–2 areas.
5. Clarify how you will work with your district or school leadership team to share and finalize the draft examples of data guidance documents that are developed in this session.

Handout 10.2: Guiding Questions/Culture of Data Use

Participating in the flow of information for evidence-use	Provide resources and assistance to make meaning from data
Communicate professional expectations for data use	Provide professional development on data use knowledge and skills
Provide leadership to nurture a culture of data use	

Developing Guidance – Debrief



Report out:

- What written guidance is being developed?
- What barrier does this address?
- In what way(s) does this build on current practice?
- How will this guidance support more consistent implementation of a culture of data use?

Guiding Questions for the Workshop

- What does the research tell us about effective district and school data practices? What are the essential characteristics of successful data-using cultures?
- What do successful data-using cultures do? What are examples of the essential characteristics in practice? What can we learn from case studies of districts with successful data-using cultures?
- Which of these practices can be applied in your own setting to deepen/extend current practice? How can you create systemic change in data-use practice using district- or school-level guidance?

Workshop Overview and Learning Goals

Learning Goals:

- Explore five characteristics that contribute to an effective culture of data use in schools and districts
- Learn strategies to extend/deepen the culture of data use in your district and schools

Success Criteria:

- Apply the five characteristics of the culture of data to your school or district practice – regardless of your stage of development
- Identify high-leverage strategies you can use to strengthen the culture of data use in your school or district
- Identify policies or written guidance you can develop that will support more consistent implementation of data-use practices

Parting Thoughts

Understand There Is **No** Roadmap



Framing Idea – A Culture of Data Use

In a data-using culture, daily use of evidence supports individual, team, and organizational learning that is reflected in new practices, norms, and routines that further organizational goals.



System Integration

District and school adoption of data-driven decision-making practices requires a focused coordination of elements of the larger education system, including such things as policy change, widespread professional development planning, and reliable and affordable support mechanisms. In other words, it is important to consider how the process will function across the entire district and will be used by participants at all levels of the system.

(Means, Padilla, & Gallagher, 2010)

Your Ideas about a Culture of Data Use



As you think back to the vignette, case studies, tables, and examples:

- What will you do differently as a result of this session?
- Regarding developing or enhancing a culture of data use, what have you learned or discussed today that motivates you to continue with this work?
- What do you want to share with others about this session?

Thank You!

