Handout 1: Culture of Data Use Framework: Five research summaries

Read the assigned summary and identify three to four key points to share with colleagues.

Research summary 1: Ensure access to data: Participate in the flow of information for evidence use

Investing in data management systems is an essential first step in supporting data-use practices at the district and school levels (Honig, 2004; Means, Padilla & Gallagher, 2010; Wayman, Snodgrass-Rangel, Jimerson, & Cho, 2010). Decisionmakers at different levels of the education system have different information needs, and depending on their role, they need to access information in different ways. Developing an effective information system requires first identifying and analyzing the needs of decisionmakers (Breiter & Light, 2006; Park & Datnow, 2009). Any information system should be flexible enough to accommodate multiple users of data (Mandinach, Rivas, Light, Heinze, & Honey, 2006) and should be structured to ensure that data are available in simplified and comprehensible forms. Ideally, data systems should be organized such that users can ask questions that address current education issues and needs (Means et al., 2010) and should allow teachers to focus on specific questions of student achievement (Hamilton et al., 2009). Marsh (2012) indicated that a key element that increases the likelihood that data will be used for improvement is making data usable, safe, and easily digestible.

In a national survey of data-use practices conducted by Means et al. (2010), teachers reported that they rarely prepared data on their own. Teachers relied on district, school, and data-team leaders to collect and prepare data for review. When lacking effective data management systems, teachers in one study reported significant time spent compiling data, resulting in their feeling constrained by a lack of time to explore instructional actions that might arise from data analysis (Wayman, Cho, Jimerson, & Spikes, 2012). Typically, the central office serves a critical role in organizing and providing data management systems, but schools have an important role as well. In a study of urban school leadership related to data use (Knapp et al., 2010), principals in many schools used the district's data system only as a starting point. In these schools, principals and teacher leaders created their own within-school data systems to provide continuous feedback to teachers and teacher leaders about student learning. This frame of having both district and school data systems relates to the ideal of having differentiated access based on the needs of data users.

As leads in ensuring access to data, districts are also cautioned not to be singularly directive in their role as data managers. In a study of central office processes related to district data use, Honig and Venkateswaran (2012) found that the role of the central office is to support data use both "top down" and "bottom up." Central offices that encouraged strong bottom-up flow of information had stronger evidence-use practices and were more likely to access important information from schools that would inform central office support over time. Viewed from a different vantage point, in a study of social networking, Daly and Finnigan (2010) reported that when schools have weak ties with the central office, the "top down" nature of information from the central office can limit rather than enable schools' use of data in decisionmaking. Ensuring access to data that are useful and transparent seems to be helped by ensuring strong central office and school communication about the purposes and applications of data use at the school level.

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Summary of research findings

Themes: Access, usability, transparency, ease of use:

- Districts work in cooperation with schools to develop data systems that ensure appropriate data for classroom, school, and district use.
- Districts and schools coordinate how to centralize and streamline data reporting.
- Districts and schools work together to clarify when data analysis needs are changing and to revise systems to accommodate emerging needs.
- Both the central office and schools may have a role to ensure that data reports meet the needs of teachers and can address the questions of teacher teams.

Research summary 2: Clarify expectations: Communicate professional expectations for data use

Hamilton et al. (2009) recommends establishing a clear vision for data use that includes a written plan that articulates activities, roles, and responsibilities for all data users in the system. Developing a common vision is an entry point toward consistent communication regarding expectations for data use. Common understandings provide a vehicle for articulating goals and for fostering meaningful conversations about teaching and learning (Wayman, Jimerson, & Cho, 2012). At the school level, expectations for data use are communicated primarily by principals and teacher leaders and can be conveyed in multiple ways. Schedule changes that promote time for teacher reflection and dialogue, for instance, help communicate that data-driven inquiry has value and will be supported through structured time. Similarly, schools that document common understandings that emerge from team dialogue can move closer to an aligned vision of teaching and learning (Wayman, Snodgrass-Rangel, Jimerson, & Cho, 2010).

Spillane (2012) describes how schools redesign organizational routines and expectations to continually frame the changing expectations regarding instructional practices. In these environments, over time, data can help to establish more consistent language and instructional practice throughout the school (Wohlstetter, Datnow, & Park, 2008). Setting expectations at the district level is an important role of central office leaders. Establishing consistent data-use practices that are used at the principal and school levels appears to support more focused data-use practices (Park & Datnow, 2009; Honig & Venkateswaran, 2012). Central office administrators also play an informal role in disseminating understandings of data-use practices. The degree to which district leaders have positive informal relational networks among school staff supports data use in schools (Daly, 2012). Marsh (2012) suggests also that relational trust within schools is an important prerequisite to data use and that the ways in which principals and teacher leaders communicate clear expectations about the use of protocols, norms, and language can impact teachers' comfort with data-use practices.

Principals' ability to filter information from the central office, to shift from messages about accountability to messages focused on the central issues of teaching and learning, may be able to strengthen the impact of key messages at the school level (Knapp, Copland, Honig, Plecki, & Portin, 2010). School leaders' ability to reframe district messages helped teachers internalize improvement practices. In other words, principals reported that when leaders found ways to capture district messages to help support schools' own improvement practices, the improved coordination helped support internal values of teachers working collaboratively to meet internal school improvement goals.

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Summary of research findings

Themes: Vision, alignment, consistency, networks:

- Districts and schools establish and communicate a common interpretation and orientation toward data-driven decisionmaking.
- The district and schools provide clear messages about how data use supports improvements in student learning.
- District data-use expectations are mediated at the school level by formal and informal school leaders, so that establishing professional expectations shifts over time, as the disposition and skills to use data grow.
- District and school leaders clarify when data needs are changing.
- Expectations for data use are communicated through presentations, policy documents, and modeling of expected practice.

Research summary 3: Provide resources and assistance to make meaning from data

Research has fairly well established that analyzing data, and moving from analysis to instructional action, is most likely to occur in collaborative teams. Data use in schools is primarily a process of interpretation (Coburn, 2010; Lachat & Smith, 2005) in which teachers are engaged in making sense of data (Spillane, 2012; Little, 2012; Wohlstetter et al., 2008). Collaborative teams provide a vehicle for this analysis. Structured collaborative time for teachers is essential to help teachers move from analysis of data to instructional action (Wayman & Stringfield, 2006). Collaborative team practices should take place regularly within subject area and grade-level teams (Hamilton et al., 2009), where data analysis can be focused on developing common expectations for student learning and consistent instructional practices (Lachat & Smith, 2005; Halverson, Grigg, Pritchett, & Thomas, 2007). Teams can also be structured as vertical or cross-subject-area collaboration, to provide time for teachers to develop and align consistent instructional practices and review broader student-learning needs (Knapp, Swinnerton, Copland, & Monpas-Huber, 2006; Datnow, Park, & Wohlstetter, 2007). Marsh (2012) highlights the value of both horizontal- and vertical-teaming practices as an important component of successful interventions. Similar findings are described in a case review of data-use practices in high-performing, high-poverty schools (Gleason & Gerzon, 2013), where vertical teams deepened teachers' content knowledge and horizontal (grade-level or departmental) teams focused on developing teachers' use of inquiry.

Using an inquiry approach to data analysis in collaborative teams is a fairly well established practice (Nelson, Slavitt, & Deuell, 2012). A variety of inquiry models are reviewed in the literature (see Hamilton et al., 2009; Mandinach, Honey, Light, & Brunner, 2008; Means et al., 2010; National Forum on Education Statistics, 2012; Ikemoto & Marsh, 2007), and emerging evidence suggests that teams' use of a structured cycle of inquiry can lead to improvements in student learning. Gallimore, Ermeling, Saunders, and Goldenberg (2009) found that more frequent data team meetings led to improved practices. Similarly, Slavit, Nelson, and Deuel (2013) frame that the use of an inquiry cycle can support teacher learning that is ongoing and focused on instruction, teachers' knowledge of content, and learning goals.

Collaborative teams appear to benefit from a sense of safety (Marsh, 2012; Means et al., 2010) that ensures that conversations about data, and the data themselves, will not be used

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in punitive ways. Teams also benefit from relational trust within the group (McLaughlin & Talbert, 2006; Talbert, 2009), the use of well established norms (Louis, 2006), and having at least one person on the team with strong content knowledge (Nelson, Slavit, & Deuell, 2012). Collaborative teams also benefit from a distributed leadership model, whereby team members are provided with opportunities for leadership and ongoing professional learning (Hargreaves & Fink, 2006).

For collaborative inquiry to support data analysis that leads to instructional (and student learning) changes, teachers must be willing to work in teams to explore their current instructional practices in light of evidence (Little, 2012; Horn & Little, 2010). Nelson et al. (2012) explore the idea of measuring the conversational routines of teams. In a five-year analysis they determined that professional learning communities with conversational routines that are consistently focused on improving student learning resulted in more transformational changes in teachers' beliefs, values, and instruction compared with teachers whose conversational routines focused on proving what students knew. Groups focused on improving student learning through inquiry carefully examined student data, openly wondered about what they could do differently to better support student learning, and were willing to change their practice. In these teams "knowledge became a dynamic, ongoing negotiation of learning goals, student understandings, and implications on practice" (Nelson, Slavit, & Deuel, 2012, p. 16). Further, the authors submit "a teacher group's stance toward student learning data can determine the nature of their collaborative work" (Slavit et al., 2013, p. 1).

Summary of research findings

Themes: Inquiry, trust, norms, safety, relationships:

- District and school staff work together to ensure that teachers have adequate structures and supports to review data.
- Educators are supported in participating in collaborative inquiry in order to make sense of data and apply findings to instruction and improvement.
- Educators from multiple levels of the education system work together to collectively understand how to use evidence from data analysis in decisionmaking.
- District and school leaders work together to ensure that teachers apply new knowledge to improve classroom instruction or school-level practices.

Research summary 4: Provide professional development on data-use knowledge and skills

In their study of current data-use practices in U.S. schools, Means, Padilla, DeBarger, and Bakia (2009) identified that teachers report two major barriers to implementing data use: a lack of preparation on how to use data and a lack of staff technical skills to use data systems. Teachers' level of individual skills and knowledge is essential to being able to make meaning from data in collaborative teams (Marsh, 2012). Professional development for data use helps teachers develop skills for collaborative work, such as understanding data literacy and assessment literacy (Mandinach & Gummer, 2013), applying interpretive frames of reference for data analysis (Knapp et al., 2006), and understanding how to move from data analysis to using information to support instructional or administrative practice (Mandinach & Honey, 2008; Mandinach & Gummer, 2013). Means et al. (2010) note that only half of districts surveyed provided training to teachers on how to use data to inform instructional practice.

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Professional development that focuses on educators' expanding their repertoire of instructional strategies helps them better respond to the needs of individual students or groups of students identified during data analysis (Breiter & Light, 2006). This focus on deepening instructional practice through data, with regards to professional development, indicates that professional learning should be customized to meet the specific needs of teachers. The Means et al. (2010) survey indicates that a majority of teachers want more training on how to interpret data and connect it to instructional practices. Orland (2012) suggests that data literacy for teachers must necessarily differ by content area because the kind of data that teachers are asked to interpret differs from grade to grade and across curriculum areas. In other words, professional development should be differentiated based on teachers' needs (Wayman, Snodgrass-Rangel, Jimerson, & Cho, 2010) and focused on deepening content knowledge to help them identify instructional changes that will lead to student improvement (Timperley, 2009).

Honig, Copland, Rainey, Lorton, and Newton (2010) identify the role of the central office as essential to supporting professional development for data use in schools. Central office leaders appear to be a main provider of professional development and have a particular focus on helping school staff build capacity to use evidence. Datnow, Park, and Wohlstetter (2007) recommend providing professional development for district leaders who can then provide turnkey training to district and school staff as necessary. This is a strategy for building internal capacity and for developing consistent practices across schools. Wayman, Snodgras-Rangel, Jimerson, and Cho (2010) note that when a district did not embed data use and associated learning opportunities in the regular workday, teachers opted out of data-use practices entirely because of the additional work they entailed.

Summary of research findings

Themes: Content knowledge, data literacy, assessment literacy, internal capacity building:

- Districts and schools provide opportunities for professional learning that builds educators' capacities to identify data, interpret data, make meaning from evidence, and use evidence to inform instruction.
- Professional development should combine information about data literacy and assessment literacy with content expertise to build knowledge of how to apply data findings.
- Learning opportunities should include expanding teachers' repertoire of instructional strategies to ensure that teachers can more effectively transition from analysis to classroom practices that are informed by the evidence.
- Whenever possible, learning opportunities should take place during the school day and be conducted by internal leaders.

Research summary 5: Provide leadership to nurture a culture of data use

Leaders' recognition that data analysis processes support the real work of teaching and learning appears to serve as an important leadership frame through which data analysis can take hold. In this way, leading for data use is largely consistent with leading for improvement (Knapp et al., 2010). In a study of urban leadership practices, Knapp and his colleague find that leadership for data use is strongly focused on issues of teaching and learning, identifying innovative resources to support teachers and teacher leaders, structuring time to attend to issues of teaching and learning, and providing a consistent focus on

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using evidence to guide instructional improvement. Schools with a high level of data use exhibit more effective practices to support teachers to use data, including providing structural supports to ensure time for collaborative team meetings (Wayman, Cho, Jimerson, & Spikes, 2012), modeling data-use practices with faculty (Young, 2006), and distributing internal expertise among faculty (Anderson, Leithwood, & Strauss, 2010).

Schools with a focus on continuous improvements in learning often see a "proliferation of individuals engaged in within-school instructional leadership" (Knapp et al., 2010, p. 11). Involving multiple teacher leaders in playing roles in supporting collaborative inquiry, professional development, and communication allows for more internal capacity building related to developing inquiry-based practices. Deepening the connection to student learning can be enhanced through the use of distributed leadership models. Gallimore et al. (2009) found that using teacher-facilitators during inquiry team meetings opened the door for coaches, content experts, and principals to take on more informal leadership roles in meetings, providing necessary support and leadership to teacher teams. In this way, informal teacher leaders provide much needed support to ensure that data practices can take hold. Similarly, when principals support teachers and teacher leaders in sharing developing strategies for data analysis, it can lead to more effective team practices, as team members come to understand and implement more useful collaborative inquiry practices (Nelson, Slavitt & Deuell, 2012).

Central office personnel play an important leadership role in developing a culture of data use. As leaders, they can frame key messages, provide resources and supports for school implementation, convene cross-school dialogue groups to streamline data-use practices, and develop strategies to build capacity for data use over time. A central focus of their role is to support principals to use data themselves. Luo (2008) finds that if the central office implements models in which principals are held accountable to use data, there is an overall positive impact on principals' use and comfort with data. The central office can help schools set aside time needed for collaborative inquiry and streamline the use of inquiry practices (Wayman, Cho, Jimerson, & Spikes, 2012).

Leadership for data use is not a one-way street, nor is it only top-down. Data-use processes in central offices depend on schools. Honig and Venkateswaran (2012) note that school staff can support central office staff to make sense of evidence about school progress and can help the central office use this evidence in its decisionmaking. This two-way focus toward leading for data use may ensure greater transparency in data use. Marsh (2012) identified data transparency as a key element that increased the likelihood that data would be used for improvement, because transparency assures teachers that they will not be evaluated based on data findings.

Summary of research findings

Themes: Distributed leadership, shared roles, differentiated support, teaching and learning

- The principal recognizes and models how data use informs instruction and fosters shared mental models of how data use can improve teaching and learning.
- Principals and superintendents ensure access to resources that establish a data culture, such as setting aside time for data practices, ensuring a safe environment for teachers to engage in dialogue about best practices, and modeling effective data-use practices.

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- The role of the central office includes ensuring that the principals' data responsibilities are clearly defined and manageable.
- The central office should both empower principals to use data to make decisions and hold principals accountable for data-use practices in their schools.
- Leaders report having more successful data-use and inquiry practices using shared or distributed leadership models that include teacher leaders in a variety of roles.

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Handout 2: Culture of Data Use Framework: Findings from research

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- Districts and schools work together to clarify when data analysis needs are changing and to revise systems to accommodate emerging needs.
- Both the central office and schools may have a role to ensure that data reports meet the needs of teachers and can address the questions of teacher teams.

Provide resources and assistance to make meaning from data

- District and school staff work together to ensure that teachers have adequate structures and supports to review data.
- Educators are supported in participating in collaborative inquiry in order to make sense of data and apply findings to instruction and improvement.
- Educators from multiple levels of the education system work together to collectively understand how to use evidence from data analysis in decisionmaking.
- District and school leaders work together to ensure that teachers apply new knowledge to improve classroom instruction or school-level practices.

Communicate professional expectations for data use

- Districts and schools establish and communicate a common interpretation and orientation toward data-driven decision making.
- The district and schools provide clear messages about how data use supports improvements in student learning.
- District data-use expectations are mediated at the school level by formal and informal school leaders, so that establishing professional expectations shifts over time, as the disposition and skills to use data grow.
- District and school leaders clarify when data needs are changing.
- Expectations for data use are communicated through presentations, policy documents, and modeling of expected practice.

Provide professional development on data-use knowledge and skills

- Districts and schools provide opportunities for professional learning that builds educators' capacities to identify data, interpret data, make meaning from evidence, and use evidence to inform instruction.
- Professional development should combine information about data literacy and assessment literacy with content expertise to build knowledge of how to apply data findings.
- Learning opportunities include expanding teachers' repertoire of instructional strategies to ensure that teachers can more effectively transition from analysis to classroom practices that are informed by data.
- Whenever possible, learning opportunities should take place during the school day and be conducted by internal leaders.

Provide leadership to nurture a culture of data use

- The principal recognizes and models how data use informs instruction and fosters shared mental models of how data use can improve teaching and learning.
- Principals and superintendents ensure access to resources that establish a data culture, such as setting aside time for data practices, ensuring a safe environment for teachers to engage in dialogue about best practices, and modeling effective data-use practices.
- The role of the central office includes ensuring that the principals' data responsibilities are clearly defined and manageable.
- The central office should both empower principals to use data to make decisions and hold principals accountable for data-use practices in their schools.
- Leaders report having more successful data-use and inquiry practices using shared or distributed leadership models that include teacher leaders in a variety of roles.

Source: Hamilton, Halverson, Jackson, Mandinach, Supovitz, & Wayman, 2009; Honig & Venkateswaran, 2012; Mandinach and Jackson, 2012; Means, Padilla, and Gallagher, 2010; Spillane, 2012; Wayman & Conoly, 2006; Wayman, Jimerson, & Cho, 2012; Wayman, Jimerson, & Cho, 2010.

Handout 3: Discussion protocol: Identifying implementation strategies for a culture of data use

1. Working with colleagues, identify one of the five framework elements to work with, in order to develop some initial ideas for implementation strategies. (2 minutes)

   Framework element/focus area: _____

2. Brainstorm and list three or four barriers that impact implementation in the framework element that you selected in item 1. (5 minutes)

3. In handout 4, review only the framework element that you identified in item 1. Discuss and then list one or two more barriers from the handout that apply in your setting. (5–10 minutes)

4. In handout 5, review and discuss the strategies designed to support consistent implementation for the framework element that you identified in item 1. Then address the following questions. (10–15 minutes)

   a. How do these examples build consistent data-use practices?

   b. Would any of these example practices help address the barriers you listed above? How?

   c. How are these examples similar to, or different from, strategies you've tried in your setting?

   Note key points from your discussion:

5. What are some thoughts related to next steps that can support deepening a culture of data use in your setting? What are one or two high-priority ideas to move forward from this discussion?

Gerzon, N., and Guckenburg, S. (2015). Toolkit for a workshop on building a culture of data use (REL 2015–063). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. Retrieved from http://ies.ed.gov/ncee/edlabs.

Handout 4: Barriers to a culture of data use, by framework element

Participate in the flow of information for evidence use

- Data management systems are cumbersome, inefficient, and frustrating for teachers to use.
- Technical limitations of data systems suppress data use.
- Educators go to great lengths to compensate for a lack of integration with data systems and might even have built their own systems to address the lack of a district system.
- Teacher leaders take on the task of coordinating and preparing data for teacher team meetings, usually during their own time.
- Educators can become frustrated with the amount of time it takes to access and analyze data, most frequently because of a lack of system integration.

Provide resources and assistance to make meaning from data

- Data are used, but there is little evidence of collegiality.
- Protocols for data use are followed but only at the most procedural and basic level. Team dialogue does not focus on dialogue about instructional change.
- Structures and protocols for collaboration are not used or understood.
- Teachers who believe in data-use practices do it on their own time—before school, after school, or at lunch.
- Ineffective access to data prevents collaboration and dialogue about instructional practices.

Communicate professional expectations for data use

- Data are mistrusted and are seen as a compliance tool rather than an instructional support.
- Teachers have competing time demands for data use and analysis.
- Formal district policies around data use do not exist.
- Educators appear to be negative about data use, but deeper questioning reveals that it is not the idea of data use in itself that concerns educators. Rather, it is the perceived difficulties that arise with data use—the amount of time required, the lack of access to data, and so on—that prompt the negative responses.
- Different data-use expectations are in play across district and schools.

Provide professional development on data-use knowledge and skills

- Professional development occurs in large group settings and does not address skill development using teachers' own data.
- Professional development takes place in the early stages of data use, but as teachers shift to more challenging practices (for example, interpreting evidence to use during instruction), professional learning is no longer focused on data use.
- Evidence about teachers' current practices and learning needs is not collected, and professional learning is not aligned to teacher learning needs.
- Different messages from competing professional development providers hinder coherence and application of new practices.

Provide leadership to nurture a culture of data use

- Time is not provided for collaborative review of data, or the time that is available is barely monitored for effective practices.
- The culture is one in which teachers do not feel safe revealing where they need to improve practice, and leaders (inadvertently or not) punish teachers for sharing areas of weakness or concern.
- Decisions at the district or school level are made "from the gut" and do not model effective data-use practices.

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Handout 5: Examples of policy and guidance to support a culture of data use, by framework element

Participate 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.
- Description of district data systems to clarify functions and uses.
- Description of district data systems that describe how they support and align with the everyday work of educators.

Provide resources and assistance to make meaning from data

- A school calendar documenting scheduled time to analyze evidence.
- A common location (computer 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.

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.

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.

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.
- Documentation related to how leaders learn data use over time, with increased expectations outlined over time.

Gerzon, N., and Guckenburg, S. (2015). Toolkit for a workshop on building a culture of data use (REL 2015–063). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. Retrieved from http://ies.ed.gov/ncee/edlabs.

Collaborative Data Teams Needs Assessment

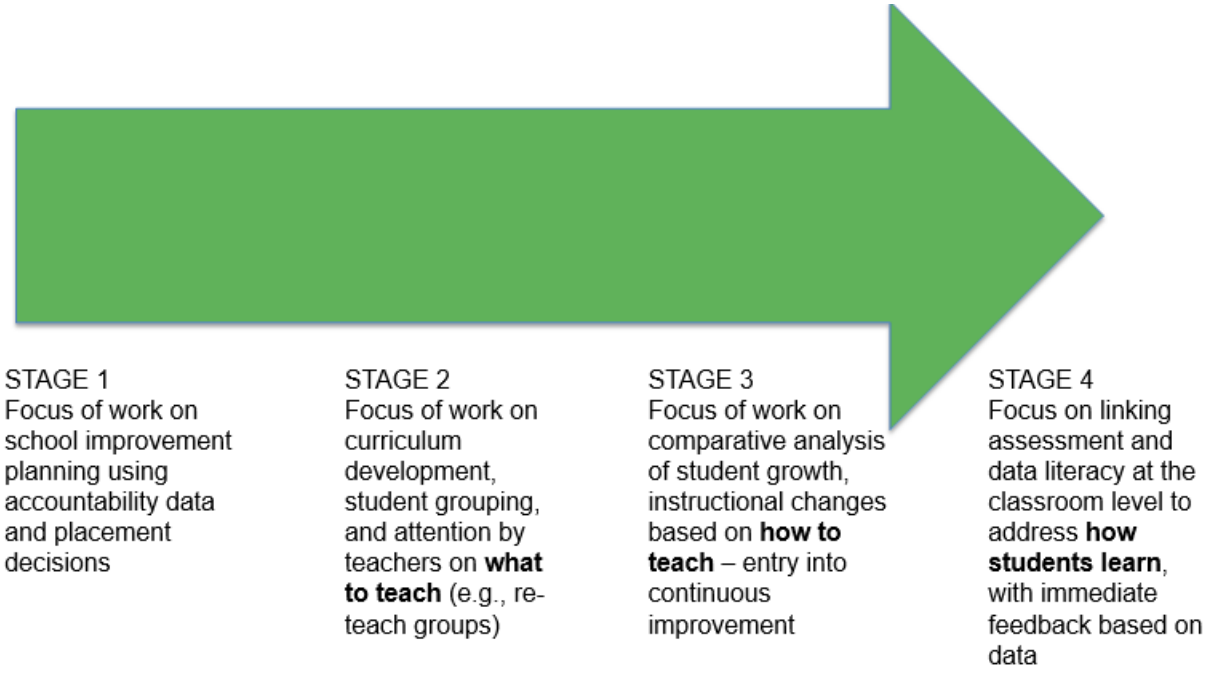
School: _____

Evaluator: _____ Date: _____

1. There are data teams formed at each grade level or within each department.
   ☐ YES ☐ NO (skip questions 2- 4 and answer questions 5 - 15)
2. Data teams are meeting on a monthly basis.
   ☐ YES ☐ NO
3. The data teams have basic structures for operating:
   a. Start and stop on time ☐ YES ☐ NO
   b. Have data accessible ☐ YES ☐ NO
   c. Assigned roles for members ☐ YES ☐ NO
4. The data teams have established processes:
   a. Members contribute equally ☐ YES ☐ NO
   b. Members know how to analyze data ☐ YES ☐ NO
   c. Members identify problems in data ☐ YES ☐ NO
   d. Members develop written plans for solving problems ☐ YES ☐ NO
5. Multiple forms of data are gathered:
   a. Instructional quality ☐ YES ☐ NO
   b. Screening ☐ YES ☐ NO
   c. Diagnostic ☐ YES ☐ NO
   d. Progress monitoring ☐ YES ☐ NO
   e. Outcome/summative ☐ YES ☐ NO
6. The school has an assessment schedule that all teachers follow.
   ☐ YES ☐ NO
7. Teachers receive expert training on how to administer assessments.
   ☐ YES ☐ NO
8. Teachers receive expert training on how to interpret data.
   ☐ YES ☐ NO
9. There is a designated individual for managing data at the school.
   ☐ YES ☐ NOT

10. Data are made available in a timely and efficient manner.
    ☐ YES ☐ NO
11. There is an electronic system for aggregating data from multiple sources.
    ☐ YES ☐ NO
12. There is an electronic system for displaying data within and across years.
    ☐ YES ☐ NO
13. There are formal plans for communicating data to stakeholders.
    ☐ YES ☐ NO
14. There is agreement among faculty and administrators about the data to use and how to use it.
    ☐ YES ☐ NO
15. The principal is a model of data use on the campus.
    ☐ YES ☐ NO

Where is the school on the continuum of data use?



Handout 6b: Culture of Data Use Framework: Vignettes

Element I: Participate in the flow of information for evidence use

This rural high-poverty K–12 district has a limited data infrastructure. It has recently implemented an off-the-shelf student information system (SIS), which is poorly understood and has had numerous technical glitches. The person tasked with the role of technology director teaches technology at the local high school and, while knowledgeable about software, has limited knowledge of infrastructure. There are no data coaches and one K–8 literacy coach who travels to three schools. The district has extremely limited financial resources.

When a new district superintendent arrives, she recognizes that data-use practices are extremely limited at both the district office and at the classroom level. The superintendent establishes a district data leadership team, whose role is to prepare data for review, develop visual data displays, and serve as the "lead learners" who will learn about and disseminate information on key data-use practices. The district data leadership team membership is:

- District technology coordinator.
- District curriculum coordinator.
- District K–8 literacy coach.
- Two lead teachers from each school.
- Two principals.
- Two guidance counselors.

In its first year, the team focused on learning about data-use practices in schools. It attended two summer trainings run by the state department of education, one on using data in schools (with Nancy Love, author of *The Data Coaches Guide*) and the other on data-based dialogue (with Bruce Wellman and Laura Lipton, authors of *Data Driven Dialogue: A Facilitator's Guide to Collaborative Inquiry*). At the urging of the superintendent, it planned to "get the lay of the land" prior to implementing any new data initiatives.

In its first year, the team met monthly to complete the following tasks:

- Met with all teachers (by school-based, grade-level teams) in the district to discuss current data-use practices.
- Developed an assessment map documenting the current assessments in use at each grade level and in each school.
- Developed an assessment inventory documenting available data for program and curricular review.
- Researched how high-performing schools are using data with teachers and at the central office.
- Researched data-management systems to replace or complement the current student information system.
- Learned how to analyze commonly used data types, in preparation for teaching teachers how to streamline analysis.
- Analyzed issues and prepared a report related to data collection and data quality in the district (and its relationship to the quality of data the district is reporting to the state).
- Created teacher focus groups to give twice-yearly feedback to the district data leadership team.

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DIBELS-Next® Benchmarks
Beginning of Year

- Grade 5: Words Read Correctly (WRC)
  - At benchmark: 111+
  - Below benchmark: 96-110
  - Well below benchmark: 0-95
- Grade 5: Accuracy
  - At benchmark: 98%
  - Below benchmark: 95 – 97%
  - Well below benchmark: 0 – 94%

Sample Grade 5 Beginning of Year

Name	WRC	Status	Errors	Accuracy	Status
1. Kent	203		5	98%	
2. Jacob	156		3	98%	
3. Taylor	138		3	98%	
4. David	155		1	99%	
5. Brett	140		0	100%	
6. Margie	136		2	99%	
7. Roger	134		6	96%	
8. Stephanie	131		12	92%	
9. William	129		4	97%	
10. Genevieve	127		1	99%	
11. Rocky	126		10	93%	
12. Angel	121		5	96%	
13. Belinda	120		8	94%	
14. Samantha	119		15	88%	
15. Yolanda	119		5	96%	
16. Zach	116		4	97%	
17. Jonathan	115		8	93%	
18. Edie	112		5	96%	
19. Nathan	111		7	94%	
20. Delia	111		10	92%	
21. Felicia	98		7	93%	
22. Gregory	97		8	92%	
23. Lucas	97		3	97%	
24. Paul	85		9	90%	
25. Alicia	72		11	87%	

WRC percent meeting benchmark: _____

Accuracy percent meeting benchmark: _____

Instructional Implications:

Sample Grade 5 Demographics

Name	Sped?	ELL?
1. Kent	N	N
2. Jacob	N	N
3. Taylor	N	N
4. David	Y	N
5. Brett	N	N
6. Margie	N	N
7. Roger	N	N
8. Stephanie	N	N
9. William	N	Y
10. Genevieve	N	N
11. Rocky	N	N
12. Angel	N	N
13. Belinda	N	N
14. Samantha	N	Y
15. Yolanda	N	N
16. Zach	N	N
17. Jonathan	N	N
18. Edie	Y	N
19. Nathan	Y	N
20. Delia	N	N
21. Felicia	Y	Y
22. Gregory	Y	Y
23. Lucas	Y	Y
24. Paul	Y	N
25. Alicia	Y	Y

Percent of special education students at benchmark? _____

Percent of English language learners at benchmark? _____

Instructional Implications:

Measuring Fidelity Handout

Instructions: As a team, first select an essential component to focus on; as a group, you will then work through this fidelity handout with the topic area in mind. Use this handout to track information on fidelity and work with your team to determine your current practices to measure fidelity of implementation and make plans for measuring fidelity in other ways.

Possible Focus Areas: Select which focus area your group will be using to answer the questions below.

- Screening
- Progress Monitoring
- Primary Level
- Secondary Level
- Tertiary Level
- Data-Based Decision Making

Ways to Measure Fidelity	Examples of Tools That Can Be Used	Reliability/Efficiency	What Are We Doing?	What Could We Be Doing?
Self-Report	• Interviews • Surveys • Questionnaires • Other:	• Often unreliable when used alone • Efficient		
Observations	• Spot checks • Peer/administrator observations • Peer coaching • Checklist for evaluating adherence to lesson components • Other:	• Least efficient, but most reliable		

Ways to Measure Fidelity	Examples of Tools That Can Be Used	Reliability/Efficiency	What Are We Doing?	What Could We Be Doing?
Logs/Lesson Plans/ Student Work	• Logs • Lesson plans • Student work samples	• Moderately efficient • Moderately reliable		
Other:				

Based on how your group completed the table, identify three next steps for evaluating fidelity of implementation:

1. _____

2. _____

3. _____

Preparing to Model Data Decision Making

What do teachers need to know to use these data?

What supporting data are available?

What are the key areas or concepts I want to model with these data?

What questions will I ask when discussing these data with teachers?