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From Data Overload to Insight

**Leading Coherent and Efficient
Assessment Systems**

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Context

- Students, educators, and administrators need accurate, useful information about student learning.
- Many LEAs invest heavily in assessments—often without improving outcomes.

This session explores three strategies to improve coherence, efficiency, and the impact of assessment on learning.

Welcome



Jessica Arnold

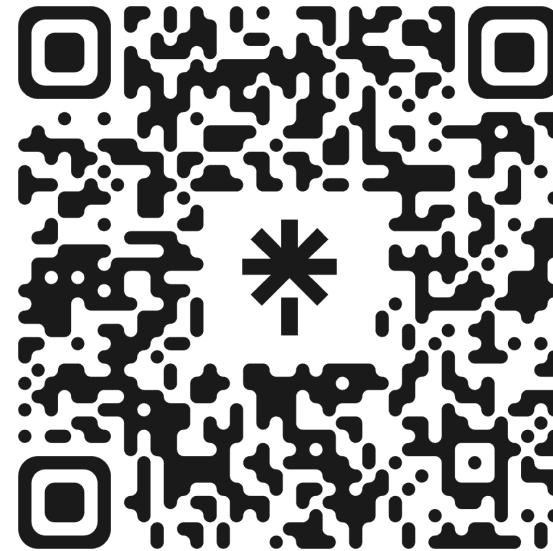
**Senior Program Manager
Assessment for Learning**



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**Content Area Director
Assessment for Learning**

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Resources



Who's in the room?

- Classroom teachers
- Coaches or teachers on special assignment
- Building administrators
- District administrators
- County office staff
- California Department of Education staff
- Other

Session Roadmap



Turn and Talk (1)



What is a pressing problem of practice related to your local assessment system?

Establish a Common Language



Define Assessment

- “Assessment is a process of reasoning from evidence.” (National Research Council, 2001)
- “Assessment is the process of gathering evidence of student learning to inform instructional decisions and improve learning outcomes.” (Stiggins, 2005)
- “Assessment is a process for obtaining information that is used for making decisions about students, curricula, and programs, and educational policy.” (Nitko & Brookhart, 2011)

**“A collection of
assessments does not
entail a system any more
than a pile of bricks
constitutes a house.”**

Theodore Coladarci (2002)

Assessment System Components



Classroom

- Formative Assessment Process
- Formal Classroom Assessments



School and District

- Interim and Benchmark Assessments
- Screening and Intervention Assessments



State

- Standardized Summative Assessment

Assessment Purposes



- Inform immediate next steps in learning for teachers and students.



- Measure individual student achievement.



- Inform instruction and planning.



- Inform evaluation of programs and policies.



- Help identify students who need additional supports.

Strategy 1: Optimize System for Coherence and Efficiency





Vignette: What are the challenges with this assessment system?

In response to dissatisfaction with elementary school reading results, a district added several different assessments to track progress toward success on the state tests. The district also purchased additional tests to be used as literacy screeners and to monitor progress for response to intervention (RTI). These tools were not screened for their connection to the standards. Over time, as reading results have not made a significant shift, new assessments have been added, duplicating the purpose of some assessments already in use.

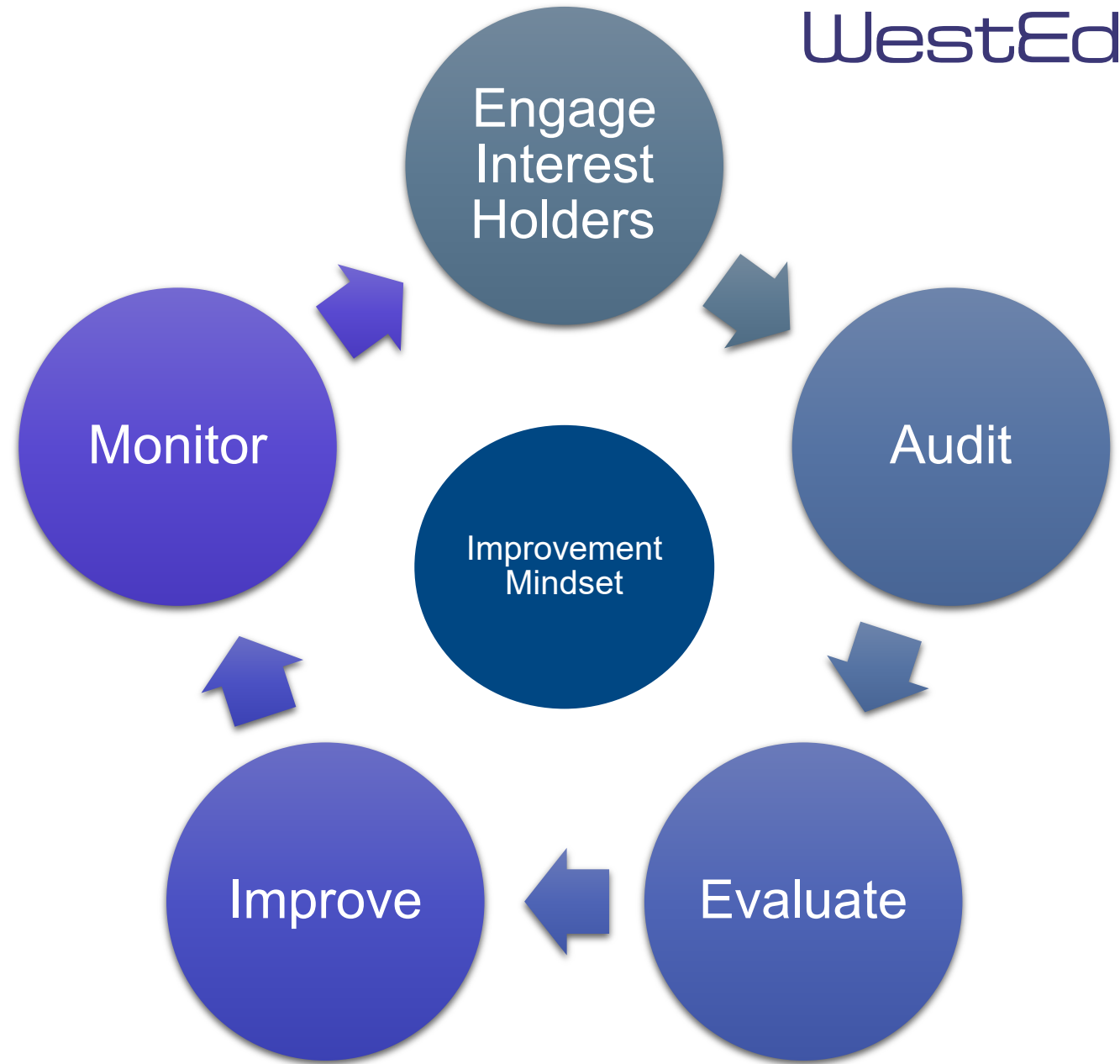


Coherent and Efficient Local Assessment Systems

Intentionally designed to improve learning outcomes for all students

- are aligned with standards, curriculum, and shared understandings about teaching and learning;
- streamline testing and maximize instructional time through formative assessment practices;
- use multiple measures to present a more complete picture of learning; and
- contain accessible assessment tools and strategies for all learners and value student strengths.

Continuous Improvement Cycle





Engage Interest Holders

- Advise throughout the whole continuous improvement cycle.
- Inform the design of the data collection strategy.
- Provide input about the assessment system, including information about their lived experience with assessment tools and use of the data they yield.
- Collaborate on data analysis and recommendation development.
- Support communication and implementation of changes.
- Lead monitoring and continuous improvement efforts.



Audit and Evaluate: Collect and Analyze Data

- Design a data collection strategy.
- Gather data on each assessment tool in the system.
- Analyze for alignment, coherence, value, use, and return on investment.
- Identify redundancies and gaps.
- Maximize state-provided assessment tools and resources.
- Make actionable recommendations for next steps to improve the assessment system.

Turn and Talk (2)



Think back to your problem of practice.

- How would having a clearer understanding of your assessment system help you address this problem?
- What interest holders have essential information about your assessment system and how might you engage them?

Resource

- Key Characteristics of a Coherent and Effective Local Assessment System
- WestEd Learning Together Assessment System Webinars

Strategy 2: Build Assessment Literacy and Foster Strong Assessment Practices



Vignette 2: What are the assessment literacy and practice challenges in this example?

A district requires quarterly use of a commercial interim math assessment, which uses timed, multiple-choice items to measure mathematical operations. A team of teachers use scores as a single data point to identify students for targeted remediation between each testing window. As a result, some students who struggled with the test interface or with the time constraints but could explain complex mathematical concepts in class were flagged as “at risk” and other students who had memorized procedural steps but still struggled with concepts and math practices appeared proficient and did not get additional support. The school’s summative test results remained flat, with math composite area two (Mathematical Practices) as an area of relative weakness.

Assessment literacy is defined as the knowledge about how to assess what students know and can do, interpret the results of these assessments, and apply these results to improve student learning and program effectiveness.

(Webb, N, 2002)





Build Capacity of Educators and Leaders

- Understand the purpose, administration expectations, and appropriate use of the summative, interim, screening, diagnostic, progress monitoring and classroom assessments they are expected to use.
- Effectively use the tools in the California assessment system.
- Evaluate and develop high-quality, fit-for-purpose assessment tools and strategies.
- Use rubrics to analyze student work with fidelity and calibration with colleagues.
- Partner with their students to engage in authentic formative assessment processes in the classroom.



Different Approaches to Build Assessment Literacy and Improve Assessment Practice

- Clear information about all assessment tools
- Policies and guidance that support best practices
- Technical training resources for administration, accessing, and interpreting data
- Virtual and in-person professional learning
- Educator collaboration protocols (assessment validation, student work analysis)
- Calibration training for rubrics, scoring, and feedback
- Ongoing coaching and job-embedded support for formative assessment practices

Turn and Talk (3)



Where and how do educators in your district currently learn how to use assessment to support teaching and learning?
What additional learning support might they need?

Assessment Literacy and Practice Resources

- CAASPP and ELPAC professional learning offerings
 - Interim and Formative Assessment series
- Tools for Teachers
- WestEd Assessment Literacy Workshops

Strategy 3: Support a Culture of Data Based Inquiry



Vignette 3: What are the data literacy challenges in this example?

A district requires all K–8 students to participate in a standardized reading and math interim assessment every 6 weeks. The tool comes with a data dashboard that supports disaggregation and item-level analysis, but teachers need special provisioning to access these data and primarily review the information in the student-level reports (a raw score and a percentile score) without any context about standards, student learning, or guidance about next steps in learning. These reports are either ignored or used simply to confirm assumptions about which students are “getting” the content being taught and which are not.

Data literacy for teaching is the ability to transform information into actionable instructional knowledge and practices by collecting, analyzing, and interpreting all types of data ... to help determine instructional steps. **It combines an understanding of data with standards, disciplinary knowledge and practices, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn.**

(Mandinach, E. B., & Gummer, E. S., 2016)

Data Use: From Superficial to Systemic

Superficial

Systemic



Data are superficial when used inconsistently or inappropriately.

Data are systemic when used routinely, collaboratively, and effectively at all levels.

Conditions That Impact Systemic Data Use

- Data quality
- Data capacity
- Data culture

Data Quality

Systemic use is predicated on high-quality, fit-for-purpose data.

To address data quality, ensure data are

- accurate,
- well-organized and complete,
- disaggregated,
- in context of multiple measures, and
- reviewed for bias.

Data Capacity

Build role-specific capacity to access, understand, and draw sound conclusions.

- Build structural supports, such as collaboration norms, dedicated time, established protocols, effective facilitation for collaborative teams, and clearly defined roles and responsibilities related to data use.
- Build data systems that integrate information from multiple sources, provide appropriate access for users based on their roles, and present data in easily interpretable formats.
- Build data and assessment literacy skills for all educational partners to help them understand, analyze, and draw meaningful conclusions from various types of data.

Data Culture

Foster a broad orientation to continuous improvement and inquiry.

- Establish a compelling vision.
- Publicly model an improvement mindset.
- Establish expectations, celebrate success, and provide support.
- Promote beliefs about the value of data for teaching and learning.

Turn and Talk (4)



Where do you see your greatest data use challenges?
Consider data quality, data capacity, and data culture?

Culture of Data-based Inquiry Resources

- CDE Data Leadership
- Data Protocol Examples

Closing and Reflections



Next Steps


Reflecting on what we've explored about assessment and data literacy, what concrete next steps can your team take to strengthen how your system uses assessment to support student learning?

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Technical Assistance

Enhancing your capacity, expertise, and program quality through collaborative, relationship-focused training, needs assessment, and other supports.

How We Help

References

- Arnold, J., & Webb, J. (2024). *Key characteristics of a coherent and effective local assessment system*. Center for Standards, Assessment, & Accessibility at WestEd.
- Center for Standards, Assessment, & Accountability at WestEd. (2024). *Components of a coherent and effective assessment system*. WestEd. <https://csaa.wested.org/resource/components-of-a-coherent-and-effective-assessment-system/>
- Coladarci, T. (2002, June). *Is it a house... or a pile of bricks? Important features of a local assessment system*. *Phi Delta Kappan*, 83(10), 772–774
- Mandinach, E. B., & Gummer, E. S. (2016). *Data literacy for educators: Making it count in teacher preparation and practice*. New York, NY: Teachers College Press.
- National Research Council. (2001). *Knowing what students know: The science and design of educational assessment*. Committee on the Foundations of Assessment, J. Pellegrino, N. Chudowsky, & R. Glaser (Eds.). National Academy Press.
- Nitko, A. J., & Brookhart, S. M. (2011). *Educational assessment of students* (6th ed.). Boston, MA: Pearson.
- Ronka, D., Geier, R., & Marciniak, M. (2010). *A practical framework for building a data-driven district or school: How a focus on data quality, capacity, and culture supports data-driven action to improve student outcomes*. PCG Education.
- Stiggins, R. J. (2005). From formative assessment to assessment for learning: A path to success in standards-based schools. *Phi Delta Kappan*, 87(4), 324–328. <https://doi.org/10.1177/003172170508700414>,
- Webb, N. L. (2002, April). *Assessment literacy in a standards-based education setting* (Working paper). University of Wisconsin–Madison, Wisconsin Center for Education Research. https://wcer.wisc.edu/docs/working-papers/Working_Paper_No_2002_4.pdf