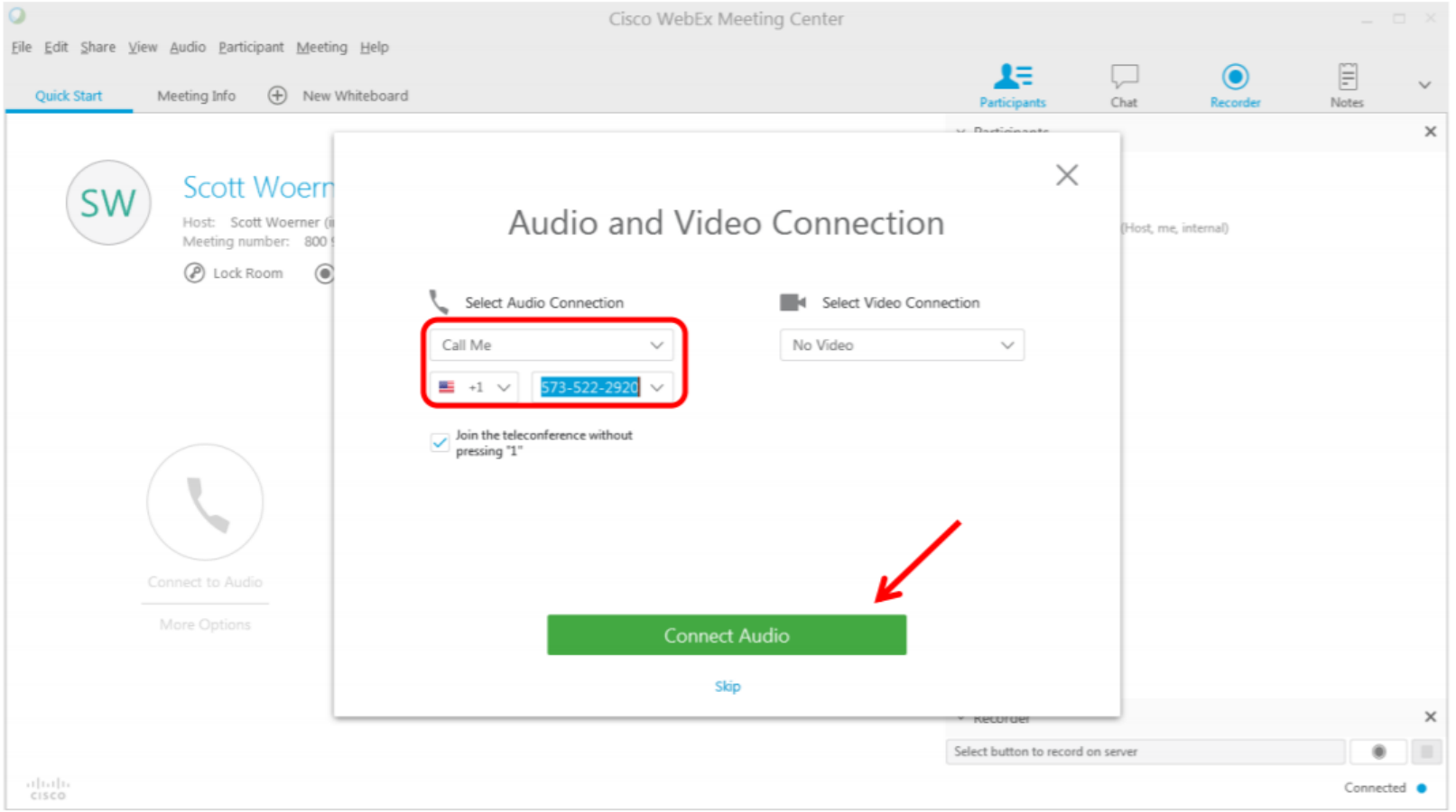
Teaching and Learning Led by Evidence Session 4:
How do we know what our students Really Know?

Jon Vaupel | Comprehensive Assessment System Coordinator

Kendra Olsen | Statewide Student Assessment and Data Analytics Outreach Specialist

October 22, 2020

Connect to Audio



Welcome!

- Today's materials and slides :

  https://bit.ly/37qFIKt

  - Submit the Google Form to indicate your content group for breakouts:

  https://forms.gle/f12ZaxZqc259NQcg7

  - P-3, Math, Reading, or Science

- Introduce yourself in the chat:

  - Who are you? Where are you from?

Learning Outcomes

By the end of today's session, you will be able to…

- Explain the components of formative assessment that support instruction
- Understand the importance of feedback from formative assessment in engaging students and families in their learning
- Apply a framework that embeds formative assessment in instructional planning and progressions of learning

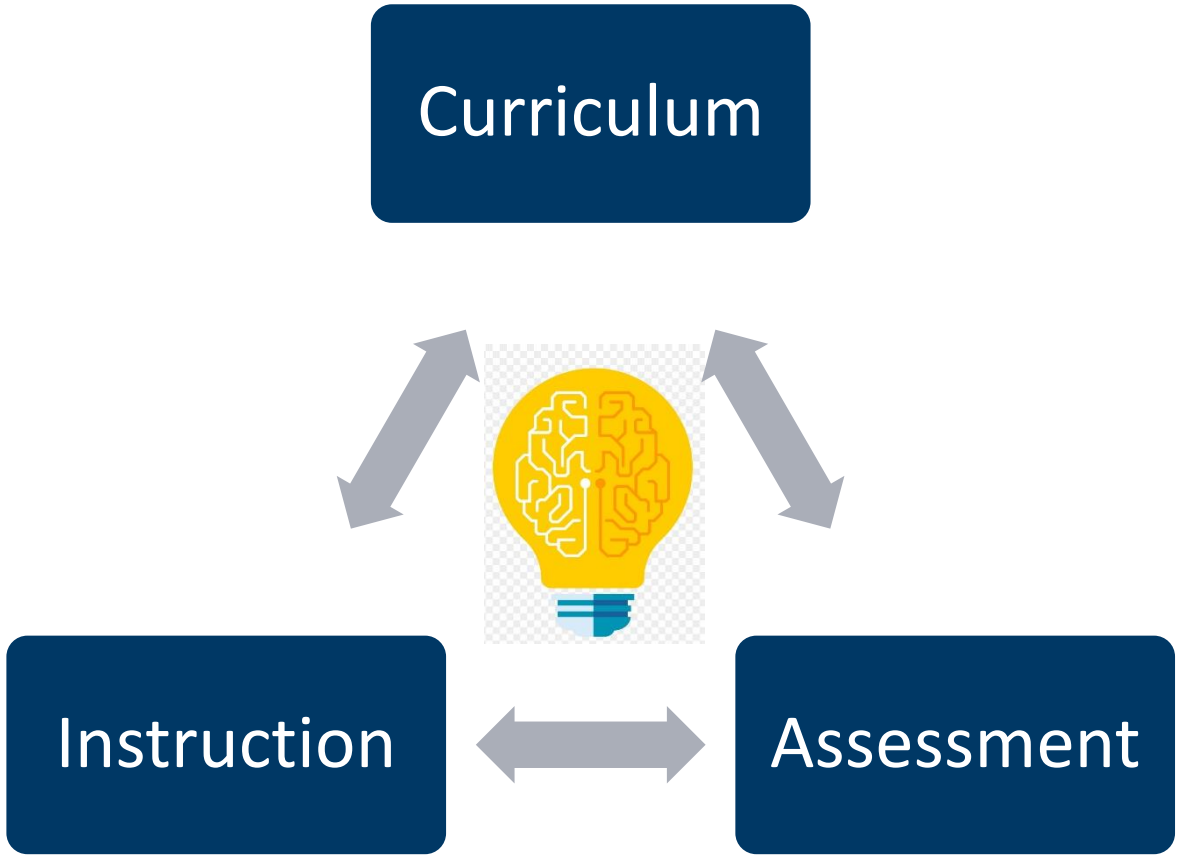
Agenda

1. Purpose of assessment in teaching and learning (5 min.)
2. Components of effective formative assessment (10 min.)
3. Formative assessment in Early Learning (10 min.)
4. Embedded formative assessment strategies; overview of planning tool (5 min.)
5. Breakout discussion with grade/content groups (20 min.)
6. Closing; Q & A (5 min.)

Ten Minnesota Commitments to Equity

1. Prioritize equity.
2. Start from within.
3. Measure what matters.
4. Go local.
5. Follow the money.
6. Start early.
7. Monitor implementation of standards.
8. Value people.
9. Improve conditions for learning.
10. Give students options.

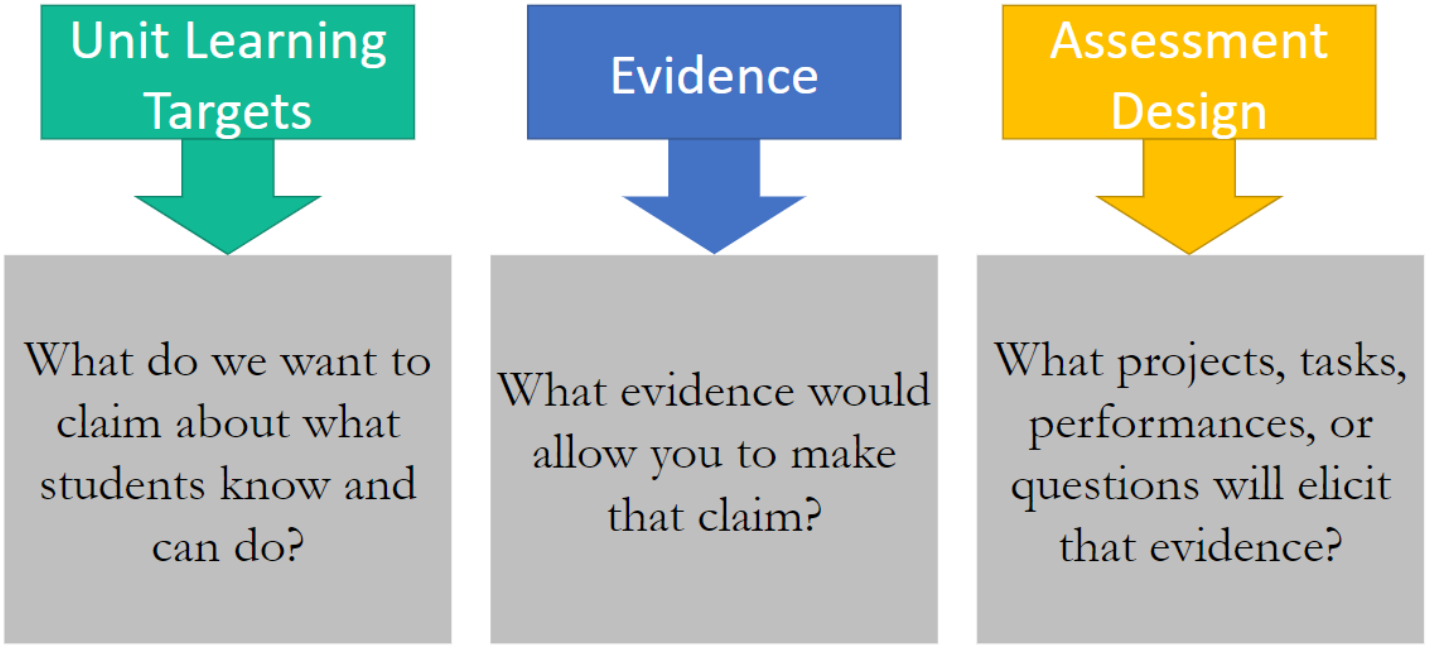
Learning models unify curriculum, instruction, and assessment



Concept from Pellegrino (2001)

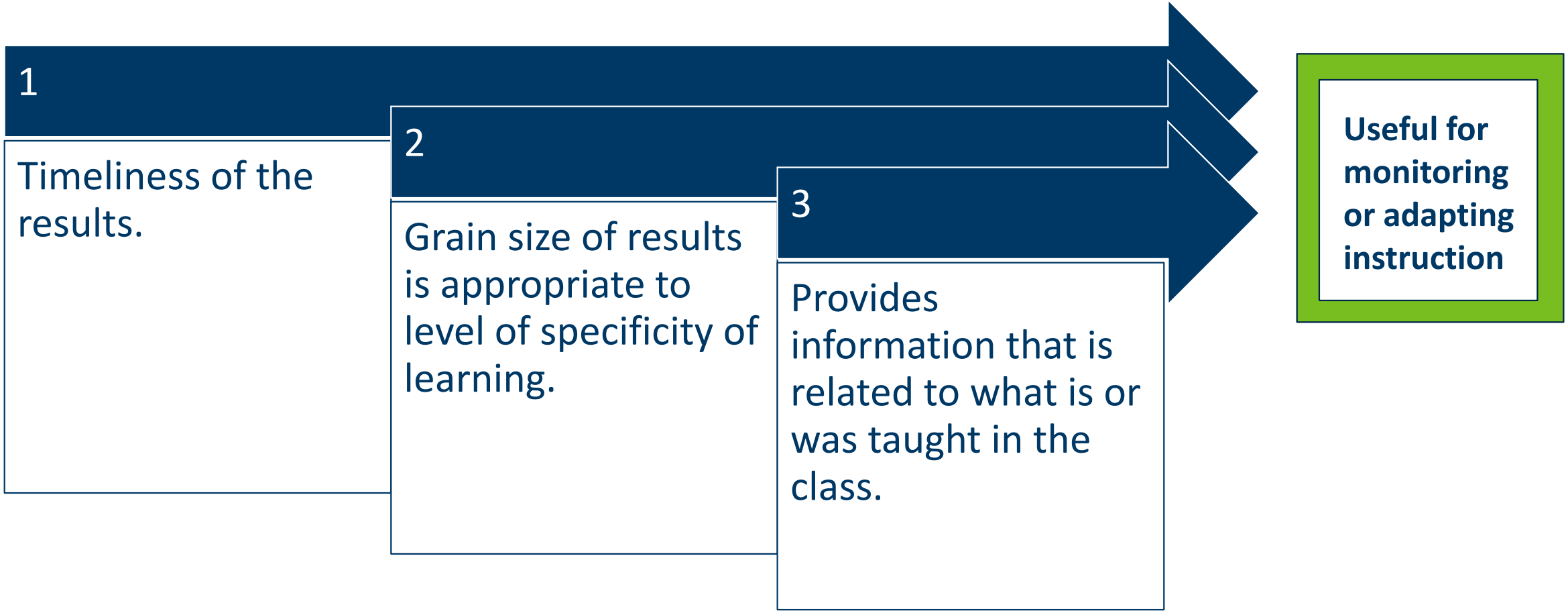
Assessment in Remote vs. In-person Learning

- Assessment in remote learning is ***still*** the process of **reasoning from evidence.**



Early Childhood Indicators of Progress (ECIPs) & Academic Standards

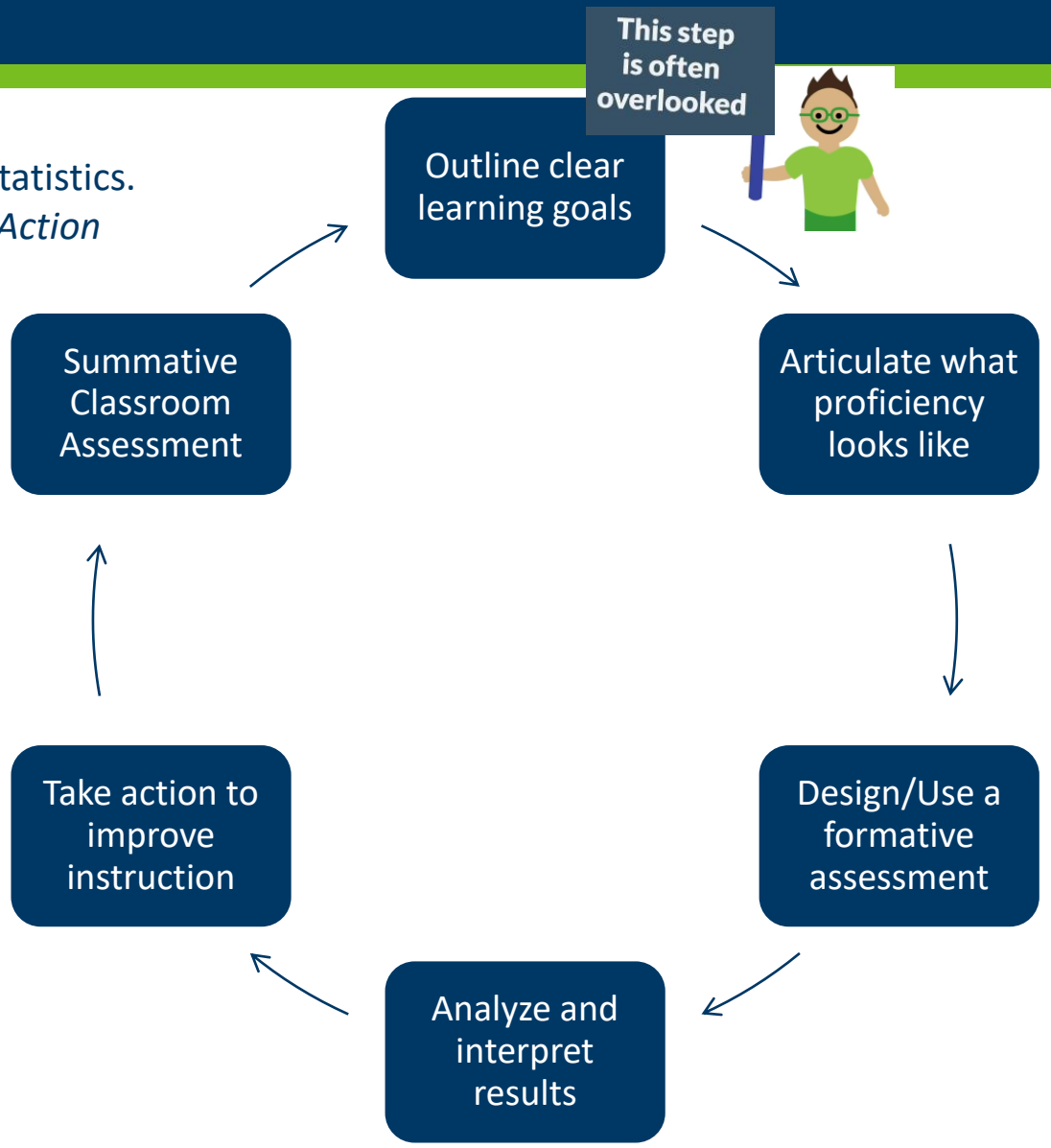
What makes assessment useful to instruction?



Adapted from: Evans, C. M. & Thompson, J. (2020). *Classroom Assessment Learning Modules*.

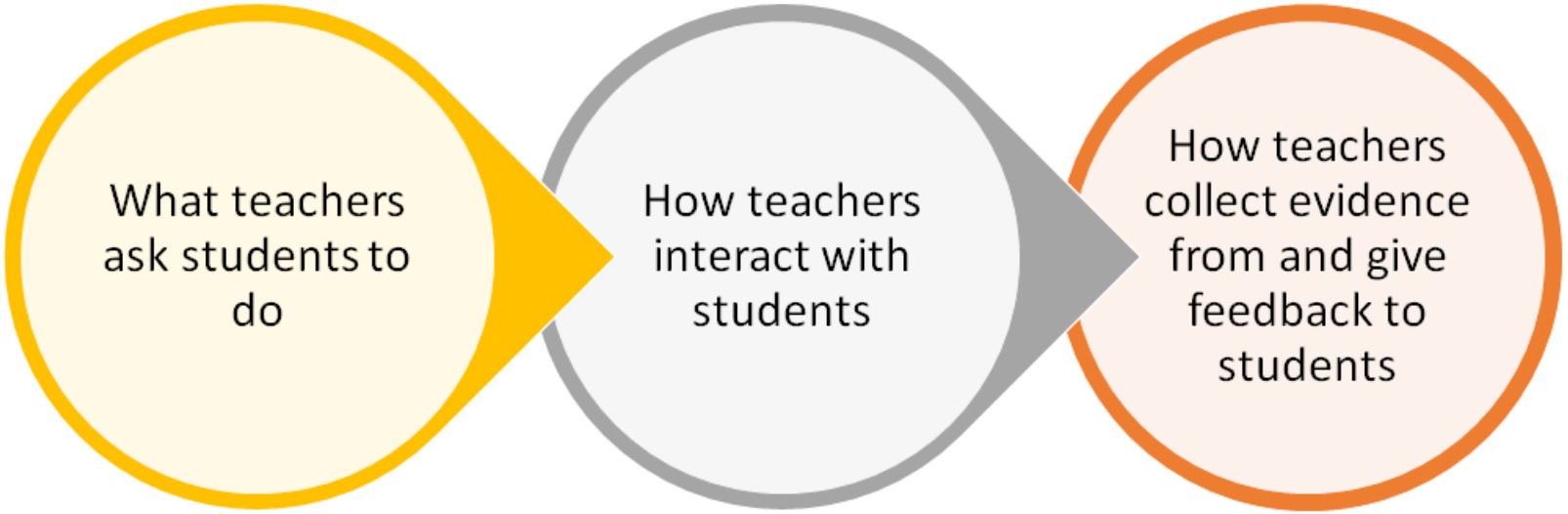
Classroom Assessment System

National Forum on Education Statistics. (2012). *Forum Guide to Taking Action with Education Data*



TESTING 123

Assessment in remote setting looks different



Types of Assessment

Formative

- Formative assessment is a planned, ongoing process used by students and teachers *during* learning.
- Used to elicit evidence of learning outcomes to improve student understanding and help students become self-directed learners.

Summative

- Summative assessment gathers evidence at the end of a unit of study; a snapshot of student learning related to a set of objectives or criteria for learning.
- Used as a way to document what students have learned as a result of instruction.

What can teachers do with classroom assessment data?

Formative:

- Occurs throughout and after daily instruction
- Quick checks for understanding (warm-ups, fist to five, exit tickets, whiteboards, etc.)
- Provides actionable data for teachers to monitor understanding and adjust instruction
- Provides specific, descriptive, actionable feedback to students and families

Summative:

- Projects, performance tasks
- Grading and reporting

Digging Deeper into Formative Assessment Process

- The term formative assessment is used in many different ways.
- Dylan Wiliam says the term has been co-opted by special interests (i.e., commercial vendors sell products they call formative assessments, though some are not).
- Remember the definition shared of formative assessment and the 3 components for usefulness to instruction

- What are the essential features of the formative assessment process?

Formative Assessments in Early Learning

- Kindergarten Entry Profile (KEP)-approved assessments are MDE supported standards-based formative and summative assessments that produce valid and reliable information. This information can be used by teachers, administrators, and families understand what students know and are able to do to support their success in school and beyond. Data from KEP-approved assessments (along with other relevant information) can also be used to individualize instruction and guide continuous program-improvement efforts including:
    - Voluntary Prekindergarten (VPK) and School Readiness Plus (SRP) Measuring Impact Report
    - Early Childhood Special Education (ECSE) Child Outcome Summary (COS) Ratings
    - Reading Well by Third Grade
    - Parent Aware 3- and 4-star-rated child care programs
    - Seamless transitions from prekindergarten to kindergarten

KEP-Approved Assessments

COR Advantage®

GOLD®

DRDP (2015)

Pearson

The Work Sampling System®

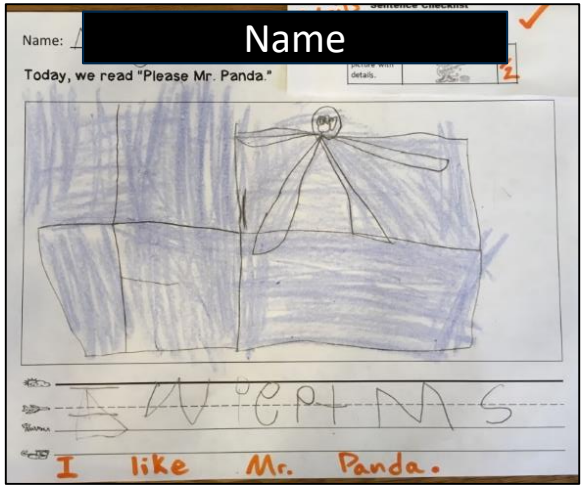
To learn more, visit: [MDE Assessment in Early Childhood]

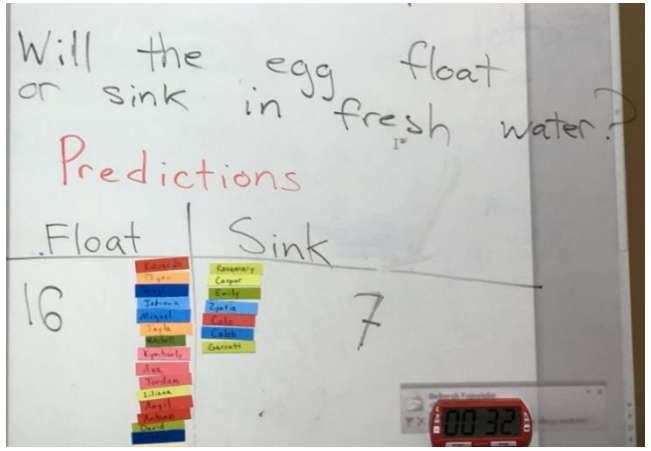
KEP-Approved Assessments

Criteria to be on the Approved Menu

- ✓ Be age/developmentally appropriate.
- ✓ Align to and cover all eight domains of the 2017 ECIPs (i.e., whole child/holistic) and the Kindergarten Academic Standards.
- ✓ Evidence of producing valid and reliable data.
- ✓ Rely on authentic assessment (i.e., observation and work samples rather than direct assessment).
- ✓ Must be formative and provide real-time data to inform instruction and programming.
- ✓ Be accessible and appropriate for culturally, linguistically, and developmentally diverse children – including children with disabilities.
- ✓ Demonstrated demand for the assessment.

Examples of Formative Assessment

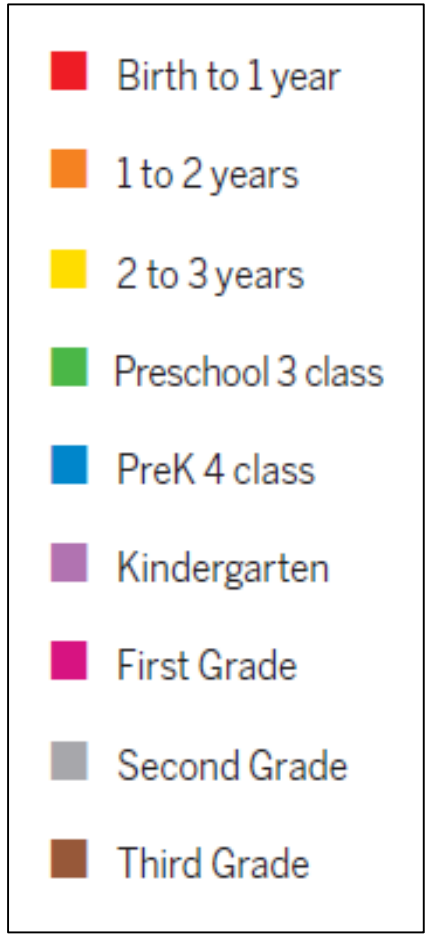




KEP-Approved Assessments

Overview of the GOLD

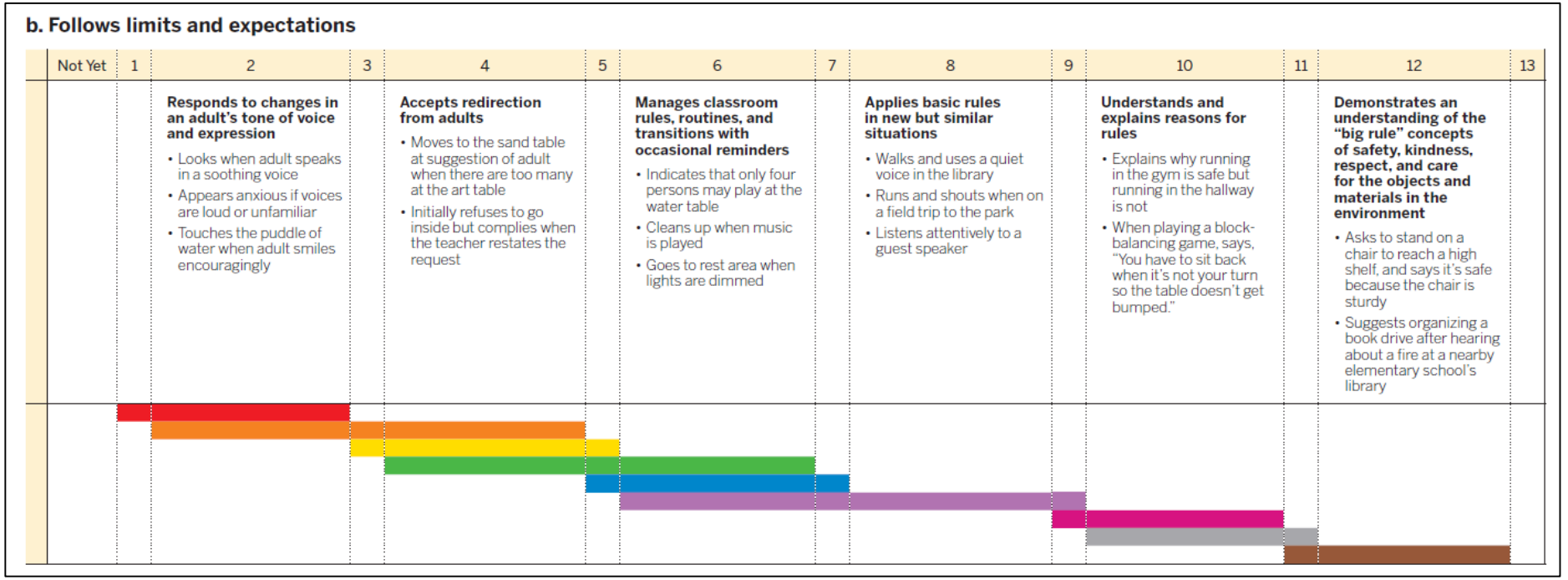
- The GOLD is a KEP-approved assessment for children from birth through 3rd grade and has 73 items.
- Typically, there are three rating periods each year: Fall, Winter, and Spring.
- Each rating period is spans 2 – 3 months.
- Each item is broken down into a "learning progression" by age/grade level.
- Observations are documented in the online system.
- Teachers use the observations to assign a rating (score) for that item for the child. ***One observation can often be used for multiple items.***
- The online system allows teachers and administrators to run a variety of reports to both (1) monitor the collection of observations and (2) individualize instruction.



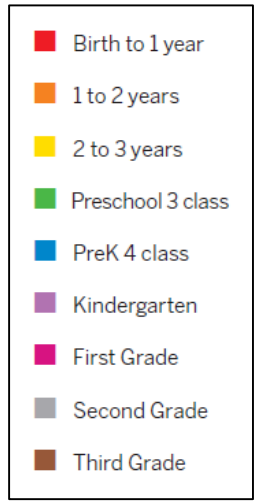
KEP-Approved Assessments

Example of an Item from the GOLD

Here is an example of item from this assessment (1B): Regulates own emotions and behaviors → Follows limits and expectations.



The GOLD outlines a progression of skills/knowledge, by age, for typically developing children.



Formative Assessment

Benefits for Children and Families

- Is appropriate for **ALL** children, including children with disabilities, as teachers can have a dynamic interaction with students (adjusting the task and/or accommodations, if necessary). ***Authentic formative assessment is not a "one-size-fits-all" strategy.***
- Minimizes or eliminates the stress and anxiety of "testing."
    - No computerized testing.
    - Not a sit-down test.
    - Not an on-the-spot (right now) test.
    - Many students will not notice they are being assessed (observed).
- Is linguistically appropriate and culturally responsive: observations can incorporate verbal and non-verbal responses as well as responses in other languages (instruction should follow culturally-responsive pedagogy).
- Allows families to contribute to the assessment process, particularly in the early grades.
- Is a strength-based/asset-based approach (focus on what a child can do, not what they cannot or are not able to do).

Formative Assessment

Benefits for Teachers and Other Staff

- The process is driven by standards, curriculum(ae), and lesson(s).
- Provides real-time data that guides individual and group instructional decisions.
- Occurs during everyday activities and routines (centers, whole-group instruction, small-group, 1:1, recess, specials, and home-based activities).
- Wide variety of opportunities to obtain data: notes, work samples, drawings, art, videos, or photos.
- Incorporates verbal and non-verbal responses.
- Promotes an asset-based approach to what children are able to do (what a child can do, not what they cannot or are not able to do).
- Is an ongoing process that occurs regularly over time.
- No loss of learning time for “pull out testing.”
- Can incorporate data (observations) from other teachers and educators (including families, especially for young children).
- KEP-approved assessments can provide a systematic method of collecting data on standards-aligned IEP goals (i.e., can be used for progress monitoring).

Summary

Essential Features of the Formative Assessment Process

1. Formative assessment is a process that is inseparable from instruction
2. Formative assessment must gather useful information for teachers *and* students
3. Feedback is fundamental, and useful feedback has certain characteristics

Characteristics of Useful Feedback from Formative Assessment

Feedback from Teacher…	Feedback from Peers…	Feedback from Student Self-Assessment…
• Descriptive and actionable • Directly related to the learning target and criteria of success • Focused on both the outcome and the process of learning • Provides students opportunity to use and learn from the feedback • Is used to monitor the student's understanding of the feedback and scaffold their revisions	• Engages students in peer assessment; activates thinking for one another • Is structured around models of performance, such as rubrics or other success criteria to help students engage in the process • Allows students to help one another and deepen their own thinking/understanding	• Engages students as they become self assessors • Is structured by using a rubric, model, or other success criteria to determine where they are in relation to mastery of the learning target • Allows students to plan revisions for their work and set goals for future learning • Should be monitored by the teacher

Embedded Formative Assessment Strategies

Where is the learner going? Clarify, share, and understand learning intentions and success criteria

Educators

Deepens awareness of student understanding by collecting evidence of learning in a variety of ways.

Provides clear feedback that moves the learning forward.

Groups of Students

Supports a clearer message about what is important to learn.

Activates students as learning resources for each other.

Individual Student

Supports students *prior* to summative assessment.

Promotes reflection, internalizes progress, and activates students as owners of their own learning.

Formative assessment video on Testing 1, 2, 3

Selected Formative Assessment Resources

- Make sure the tools or apps you use in classroom formative assessments fit your purpose – pedagogy is the driver.
- Don't overwhelm students with too many tools – focus on a few.
- *Use* the information you collect!

- Early Learning Assessment Page
- Technology tools for virtual assignments and performance tasks – Jay McTighe
- 60 Formative Assessment Techniques: remote and in-person examples

- Tools for Formative Assessment - - Techniques to Check for Understanding - - Processing Activities -	
1. **Index Card Summaries/ Questions**	Periodically, distribute index cards and ask students to write on both sides, with these instructions: (Side 1) Based on our study of (unit topic), list a big idea that you understand and word it as a summary statement. (Side 2) Identify something about (unit topic) that you do not yet fully understand and word it as a statement or question.
2. **Hand Signals**	Ask students to display a designated hand signal to indicate their understanding of a specific concept, principal, or process: - I understand_____ and can explain it (e.g., thumbs up). - I do not yet understand _____ (e.g., thumbs down). - I'm not completely sure about _____ (e.g., wave hand).
3. **One Minute Essay**	A one-minute essay question (or one-minute question) is a focused question with a specific goal that can, in fact, be answered within a minute or two.
4. **Analogy Prompt**	Present students with an analogy prompt: (A designated concept, principle, or process) is like _____ because _____.
5. **Web or Concept Map**	Any of several forms of graphical organizers which allow learners to perceive relationships between concepts through diagramming key words representing those concepts. http://www.graphic.org/concept.html
6. **Misconception Check**	Present students with common or predictable misconceptions about a designated concept, principle, or process. Ask them whether they agree or disagree and explain why. The misconception check can also be presented in the form of a multiple-choice or true-false quiz.
7. **Student Conference**	One on one conversation with students to check their level of understanding.
8. **3-Minute Pause**	The Three-Minute Pause provides a chance for students to stop, reflect on the concepts and ideas that have just been introduced, make connections to prior knowledge or experience, and seek clarification. • I changed my attitude about… • I became more aware of… • I was surprised about… • I felt… • I related to… • I empathized with…
9. **Observation**	Walk around the classroom and observe students as they work to check for learning. Strategies include: •Anecdotal Records •Conferences •Checklists
10. **Self-Assessment**	A process in which students collect information about their own learning, analyze what it reveals about their progress toward the intended learning goals and plan the next steps in their learning.

Formative Assessment Planning Tool

- Based on Dylan Wiliams 5 Key Strategies

  Explanation of the Five "Key Strategies" (Wiliam & Thompson, 2008)

- Planning tool to brainstorm ways to imbed formative assessment within instruction

1. *How will I communicate to students what they will be learning?*
2. *How will I communicate to students what success looks like to learn the learning target?*
3. *How will I use strategic questions and other formative assessment techniques to elicit evidence of learning and identify learning strengths/needs in a virtual setting?*
4. *What are my next instructional moves **during** and **after** instruction based on the formative assessment results?*
5. *How will I provide students with actionable, descriptive, specific feedback about their progress related to the learning targets and success criteria so they know where they are going, where they are now, and what they need to do next?*

Math Example

Name of Instructional Unit: Fractions

Grade Level: 4

Content Area: Mathematics

Goals of the Instructional Unit
Understanding Goals: *Students will understand that...*
▪ U1: Fractions, including mixed numbers and improper fractions, are numbers. (Benchmark 4.1.2.2)
▪ U2: Equivalent fractions represent the same value. (Benchmark 4.1.2.1)
Knowledge Goals: *Students will know...*
▪ K1: How to replace fractions with equivalent fractions. (Benchmark 4.1.2.1)
▪ K2: How to add and subtract fractions with like denominators. (Benchmark 4.1.2.3)
Skill Goals: *Students will be skilled at...*
▪ S1: Represent equivalent fractions using fraction models such as parts of a set, fraction circles, fraction strips, number lines, and other manipulatives. Use the models to determine equivalent fractions. (Benchmark 4.1.2.1)
▪ S2: Locate fractions on a number line. (Benchmark 4.1.2.2)
▪ S3: Use models to order and compare whole numbers and fractions, including mixed numbers and improper fractions. (Benchmark 4.1.2.2)
▪ S4: Use fraction models to add and subtract fractions with like denominators in real-world and mathematical situations. (Benchmark 4.1.2.3)

Benchmark ALDs – Math Example

Benchmark	Does Not Meet *A typical student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards.* **Some of the skills typically demonstrated may include:**	Partially Meets *A typical student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards.* **Some of the skills typically demonstrated may include:**	Meets *A typical student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards.* **Some of the skills typically demonstrated may include:**	Exceeds *A typical student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards.* **Some of the skills typically demonstrated may include:**
4.1.2.1 **Represent equivalent fractions using fraction models such as parts of a set, fraction circles, fraction strips, number lines and other manipulatives. Use the models to determine equivalent fractions.**	Identifies fraction strips representing the same fractions	Identifies fraction circles representing the same fraction	Uses fraction models (such as fraction strips, fraction circles, other manipulatives, and written descriptions) to determine equivalent fractions Uses fully labelled number lines to plot equivalent fractions **Released Examples:** 245000 & 242042	Interprets fraction models to identify multiple equivalent fractions Determines equivalent representation of fractions plotted on a number line with minimal labeling

Breakout Groups (20 min.)

1. *Open Formative Assessment example tool for your grade level and/or subject area in Google Drive.*
2. *Discuss the four discussion prompts with your group once everyone has had a chance to read and review.*

Debrief the ORID Process

- What about the process helped you to see and learn interesting or surprising things?
- What could be improved about the ORID process?

Objective

Reflective

Interpretive

Decisional

Upcoming Sessions

4. **Assessment *of* Learning – Improving teacher-designed summative assessments**
   - Improve alignment of classroom summative assessment and questions to standards.
   - Increase the rigor of questions on assessments to eliminate student misconceptions.
   - Use ALDs to ensure assessments measure the extent students have mastered the standards for an instructional unit, and ensure depth of mastery.

     Thursday, November 12, 4:00 p.m.

Teacher Newsletter

- If you would like to receive updates about information relevant to educators, please use the following QR code to enter your information.
- You can also sign up on the Testing 1, 2, 3 site (testing123 > Get Involved > Testing 123 Newsletter).

Resources

- Testing 1, 2, 3 - MDE site for teachers about using assessment and data
- Assessment in Early Childhood
- Technology tools for virtual assignments and performance tasks - Jay McTighe
- 60 Formative Assessment Techniques- remote and in-person examples
- Classroom Assessment Learning Modules - Evans, C. M. & Thompson, J. (2020)
- Classroom Assessment Principles to Support Teaching and Learning - Shepard, L.A., Diaz-Bilello, E., Penuel, W.R, & Marion, S. F. (2020)
- Formative Assessment - What it is and what it's not – Dylan Wiliam video

Closing

- Write one takeaway from this session that will help you improve the quality of your classroom assessment system.
- Drop it in the chat!

Thank you!

Kendra Olsen
Kendra.Olsen@state.mn.us
651-582-8542