Moving Learning Forward: Student Voice

February 10, 2022

TeleEDGE: Department of Education Line

Moving Learning Forward Using a System of Assessment

Connecting Learning through a System of Assessment

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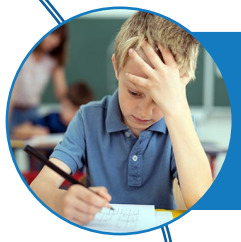
Questions to Consider



How can learning be connected through a system of assessment?

What are scale scores and how can they be used to measure learning and monitor progress from year to year?

How can we use student surveys to move learning forward?

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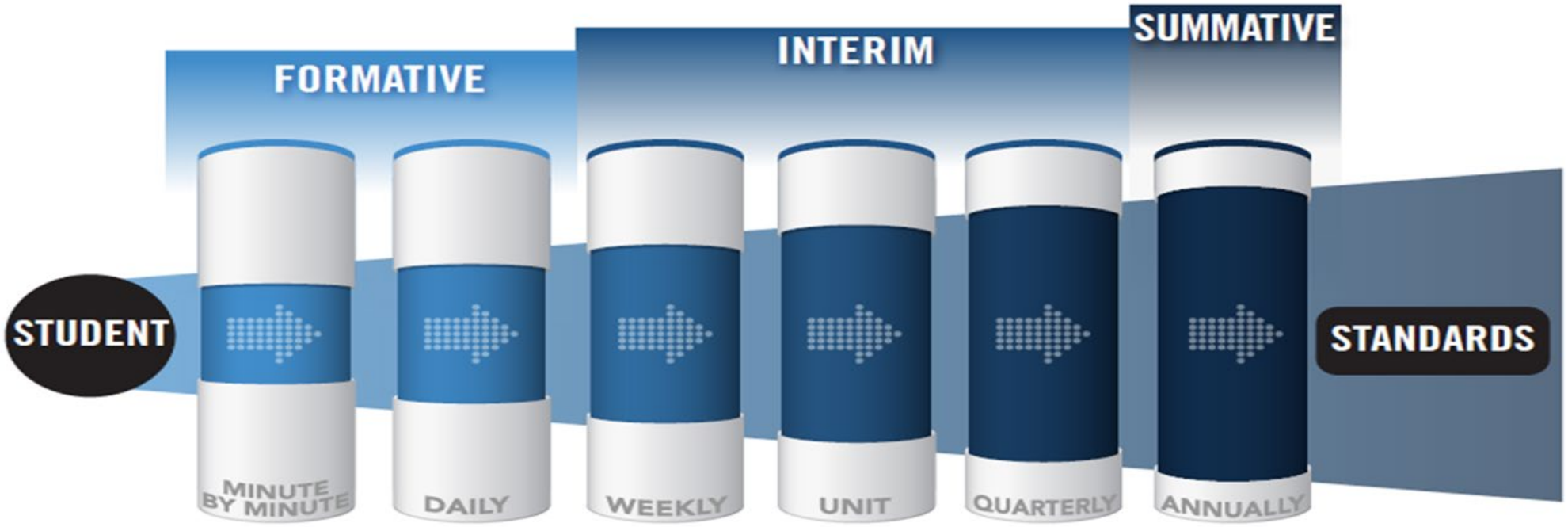
How learning is connected through a system of assessment

Oklahoma recognizes that a **robust assessment system** is tied closely to students' learning and teachers' instructional practices by valuing and promoting **local, classroom-based formative assessment that help make student learning visible.**



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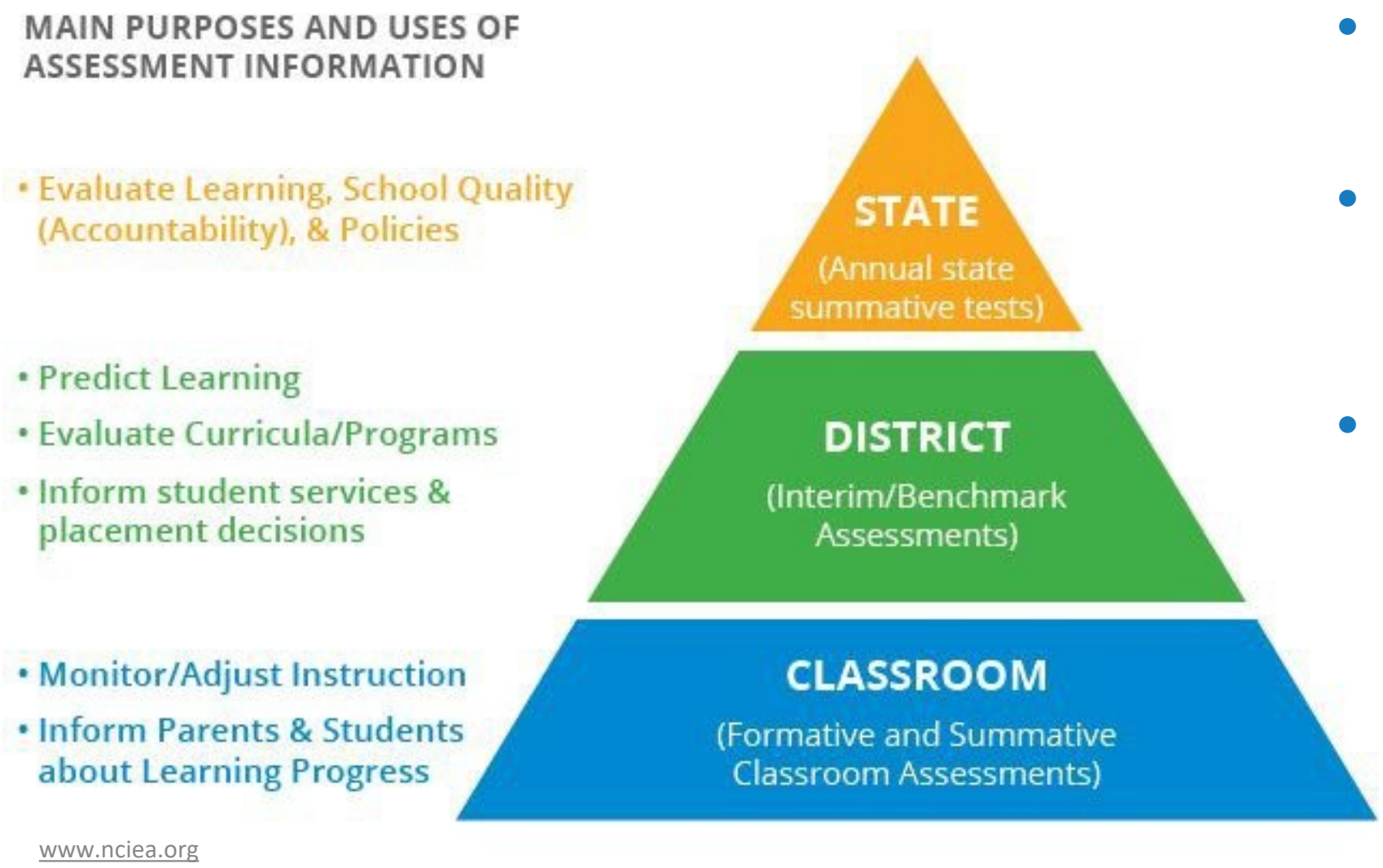
Elements of an assessment system



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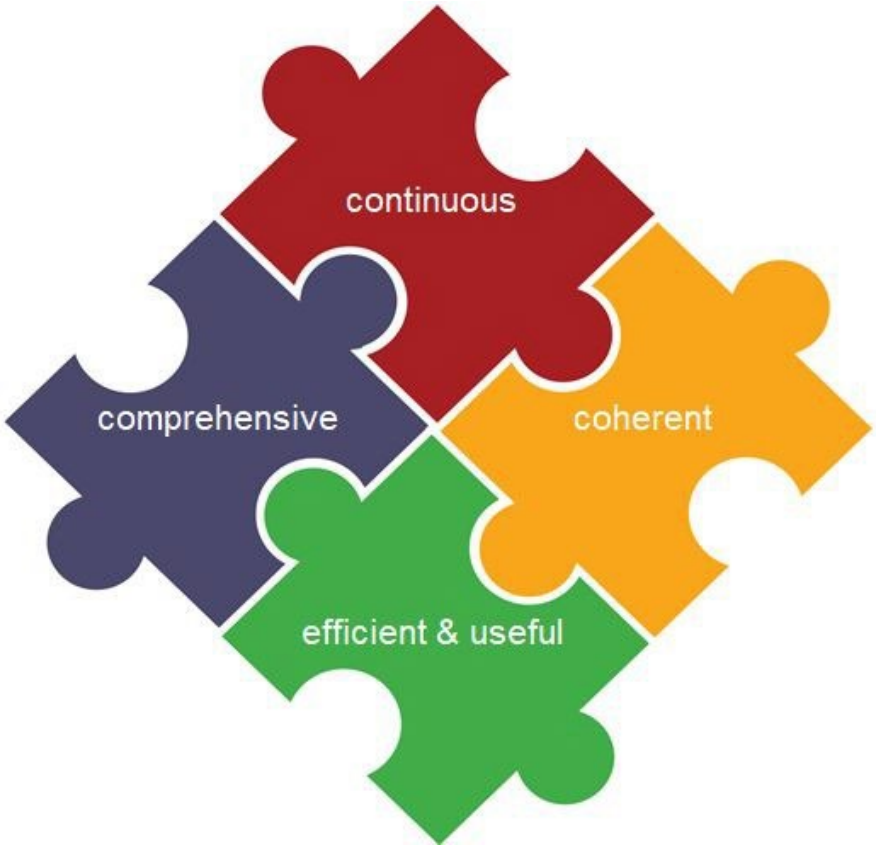
- There are multiple layers of an assessment system.
- The purposes and uses of assessment information differ at each layer.
- It is important to guard against practices that might have a negative impact on classroom instruction (e.g., teaching to the test, over-testing, narrowing of the curriculum, etc.).

Considerations for connecting assessments in a system to move learning forward



Comprehensive

- The assessment system allows students to demonstrate their understanding in a variety of ways and reflects the breadth and depth of the state content standards.

Coherent

- The assessment system reflects a systemic educational approach to promote deeper and more meaningful learning for students. Assessments in the system are compatible with the underlying model of learning.

Continuous

- The assessment system continuously documents student progress over time.

Efficient

- Each assessment within the system is non-redundant and used to make educational decisions.

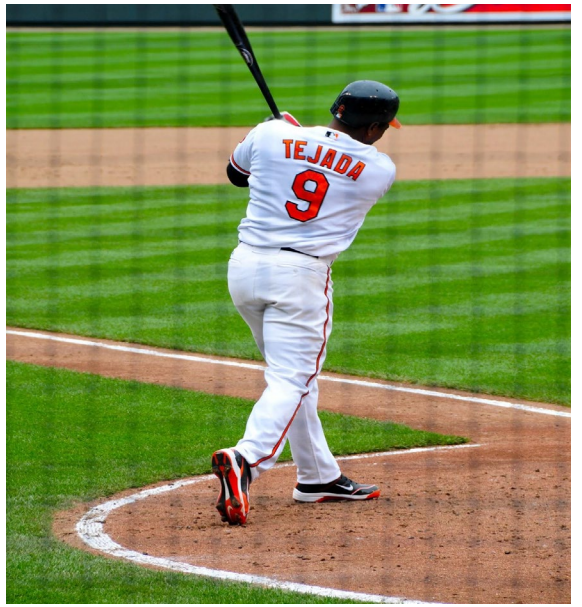
Useful

- The assessment system provides the necessary information to make better decisions in a timely fashion and at the right level of specificity to support intended uses.

See paper: "Not as Easy as It Sounds: Designing Balanced Assessment Systems"

Comprehensive

Assessments within the system reflects the breadth and depth of the knowledge, skills, and abilities outlined in the standards and allows students to demonstrate their understanding in a variety of ways.



Coherent

The assessment system reflects a systemic educational approach to promote deeper and more meaningful learning for students. Assessments in the system are compatible with the underlying model of learning

Coherent

Assessments and instruction are aligned to the standards that outline grade-level expectations for what students should know and be able to do.

Number & Operations (N)			
Fifth Grade (5)	**Sixth Grade (6)**	**Seventh Grade (7)**	**Pre-Algebra (PA)**
5.N.1 Divide multi-digit numbers and solve real-world and mathematical problems using arithmetic. **5.N.1.1** Estimate solutions to division problems in order to assess the reasonableness of results. **5.N.1.2** Divide multi-digit numbers, by one- and two-digit divisors, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. **5.N.1.3** Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal and consider the context in which a problem is situated to select and interpret the most useful form of the quotient for the solution. **5.N.1.4** Solve real-world and mathematical problems requiring addition, subtraction, multiplication, and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.	**6.N.1 Read, write, and represent integers and rational numbers expressed as fractions, decimals, percents, and ratios; write positive integers as products of factors; use these representations in real-world and mathematical situations.** **6.N.1.1** Represent integers with counters and on a number line and rational numbers on a number line, recognizing the concepts of opposites, direction, and magnitude; use integers and rational numbers in real-world and mathematical situations, explaining the meaning of 0 in each situation. **6.N.1.2** Compare and order positive rational numbers, represented in various forms, or integers using the symbols <, >, and =. **6.N.1.3** Explain that a percent represents parts "out of 100" and ratios "to 100." **6.N.1.4** Determine equivalencies among fractions, decimals, and percents. Select among these representations to solve problems. **6.N.1.5** Factor whole numbers and express prime and composite numbers as a product of prime factors with exponents. **6.N.1.6** Determine the greatest common	**7.N.1 Read, write, represent, and compare rational numbers, expressed as integers, fractions, and decimals.** **7.N.1.1** Know that every rational number can be written as the ratio of two integers or as a terminating or repeating decimal. **7.N.1.2** Compare and order rational numbers expressed in various forms using the symbols <, >, and =. **7.N.1.3** Recognize and generate equivalent representations of rational numbers, including equivalent fractions. **7.N.2 Calculate with integers and rational numbers, with and without positive integer exponents, to solve real-world and mathematical problems; explain the relationship between absolute value of a rational number and the distance of that number from zero.** **7.N.2.1** Estimate solutions to multiplication and division of integers in order to assess the reasonableness of results. **7.N.2.2** Illustrate multiplication and division of integers using a variety of representations. **7.N.2.3** Solve real-world and	**PA.N.1 Read, write, compare, classify, and represent real numbers and use them to solve problems in various contexts.** **PA.N.1.1** Develop and apply the properties of integer exponents, including $a^0 = 1$ (with $a \neq 0$), to generate equivalent numerical and algebraic expressions. **PA.N.1.2** Express and compare approximations of very large and very small numbers using scientific notation. **PA.N.1.3** Multiply and divide numbers expressed in scientific notation, express the answer in scientific notation. **PA.N.1.4** Classify real numbers as rational or irrational. Explain why the rational number system is closed under addition and multiplication and why the irrational system is not. Explain why the sum of a rational number and an irrational number is irrational; and the product of a non-zero rational number and an irrational number is irrational. **PA.N.1.5** Compare real numbers; locate real numbers on a number line. Identify the square root of a perfect square to 400 or, if it is not a perfect square root, locate it as an irrational number between two consecutive positive integers.

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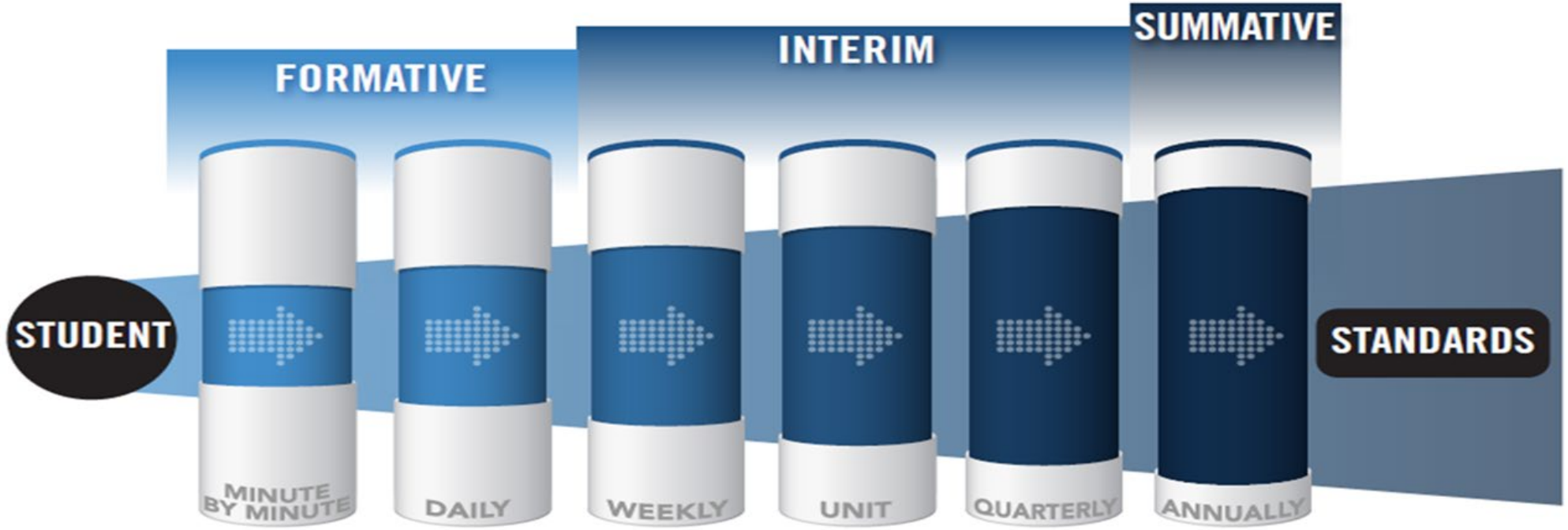
Continuous

Assessments measure student progress on an ongoing basis to provide timely evidence of learning.



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Efficient

Each assessment within the system is non-redundant and provides timely information and evidence of student learning to make educational decisions.

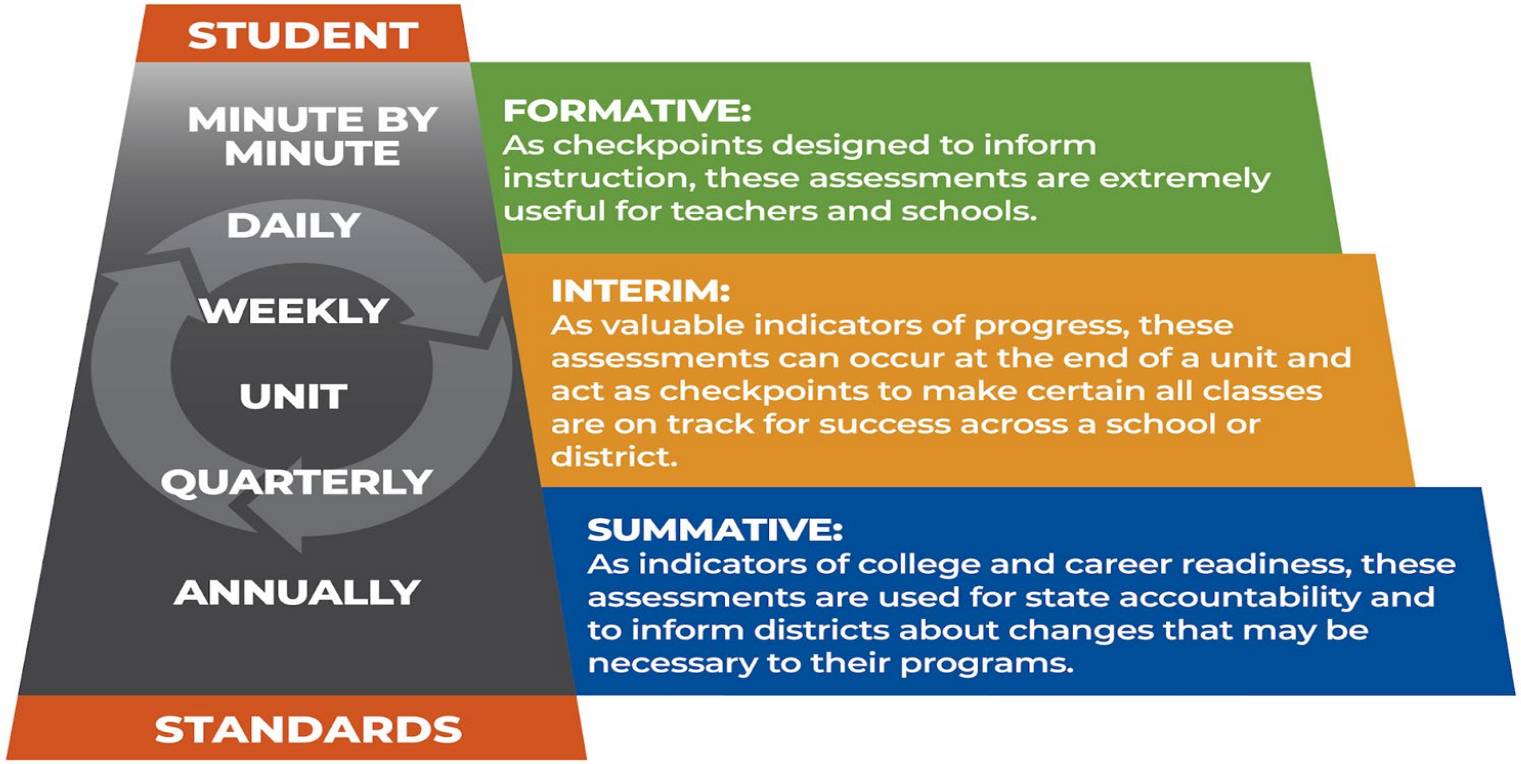
Key questions to consider when thinking about efficiency of the assessment system:

- Which assessments are you giving now?
- Why are you giving this assessment? How is it intended to be used?
- Is it fulfilling this purpose? How do you know?
- How does the assessment embody learning goals and what evidence of learning does it provide?
- To what extent does the information and uses from this assessment overlap with another assessment?

Source: Thompson & Lyons (2017)

Useful

Assessments within the system provide timely information and evidence of what students know and are able to do to inform teaching and learning.



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Role of State Assessments and Considerations for Scores

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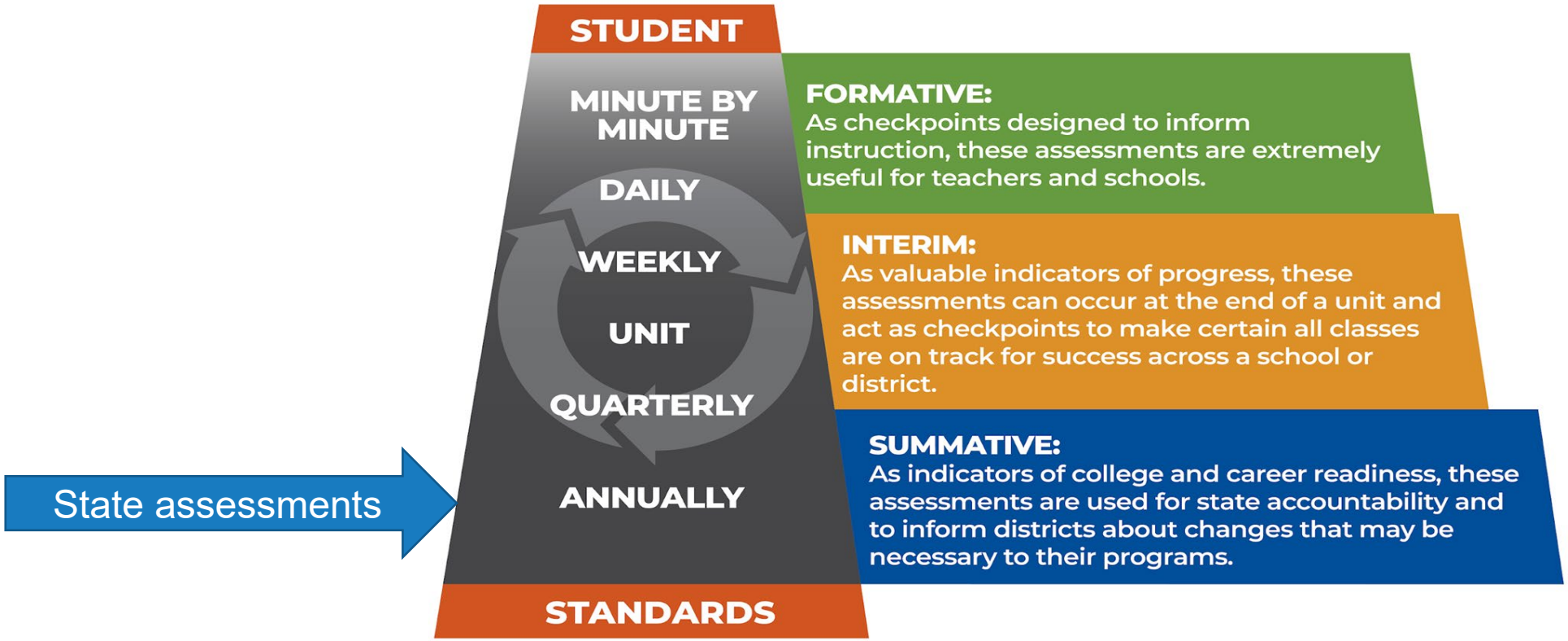
State assessments in the system

State, district, and classroom assessments can work together in a coherent system of assessment. Doing so provides educators with timely information on students' progress and overall achievement each year.



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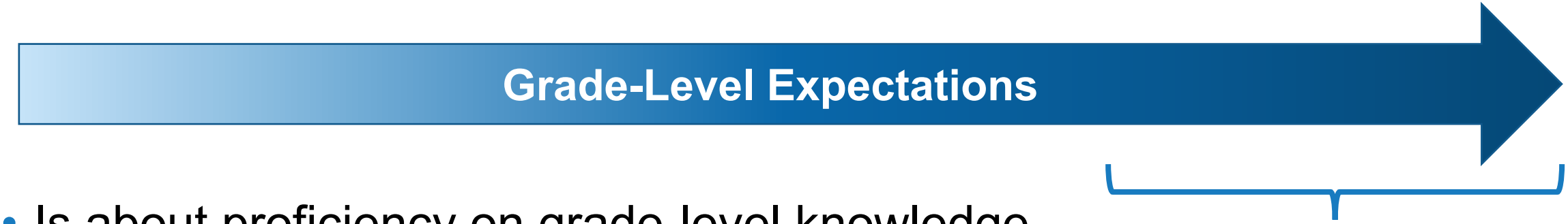
State Summative Assessments in a Typical Year



- Is about proficiency on grade-level knowledge
- Is a single snapshot and does not tell the whole story
- Should be used in conjunction with district and classroom assessments to monitor progress and overall achievement

How far am I from end-of-year expectations?

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State Summative Assessments from SY 2020-2021

- Is still a sound comparison to grade-level expectations
- Tells us the what about student performance
- Does not tell us the "why" about student performance
- Helps us understand system-level supports that are necessary to help teachers and students

How much further am I from end-of-year expectations?

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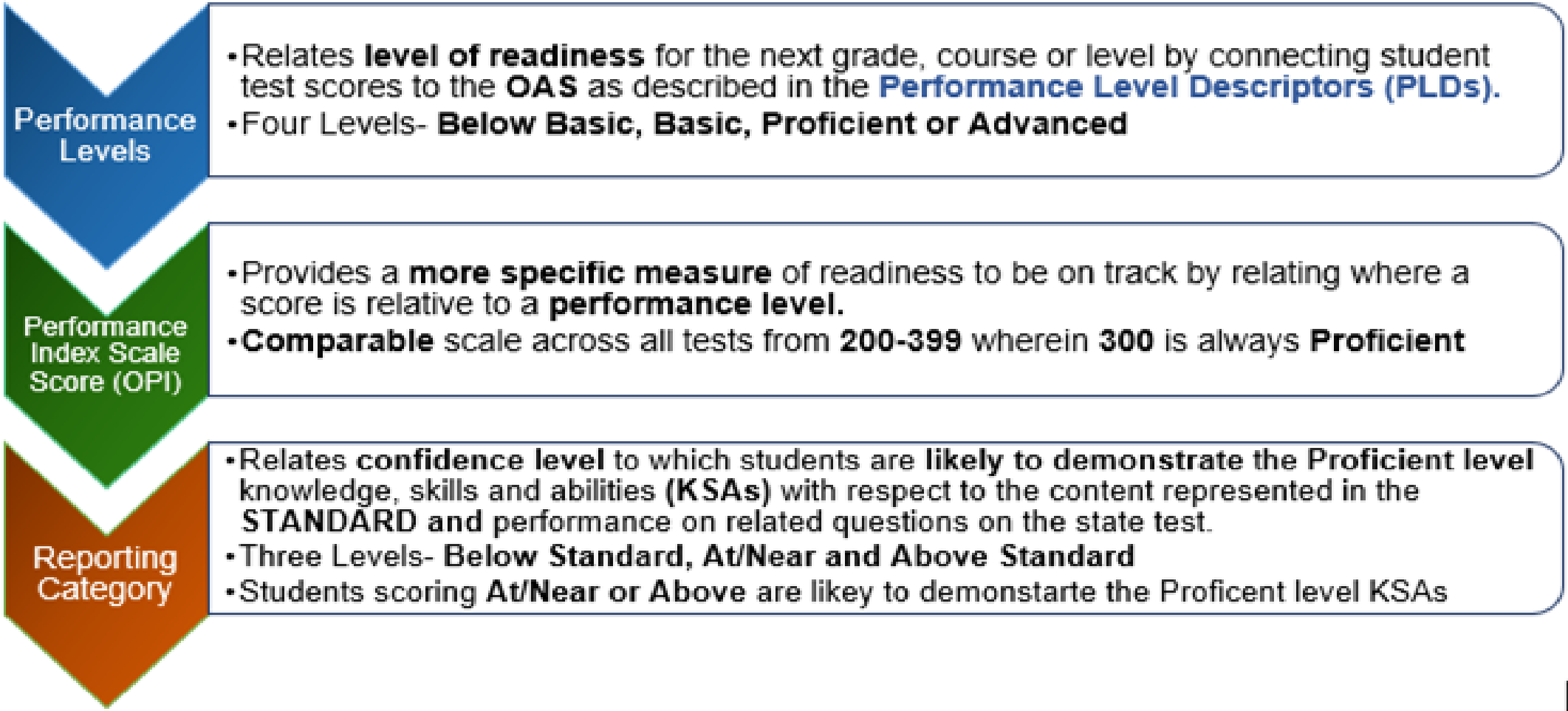
Data from state summative assessments



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OPIs pinpoint performance within a level and help us measure progress from one year to the next

Grade 5 ELA	Spring	200 – 270	Below Basic
		271 – 299	Basic
		300 – 322	Proficient
		323 – 399	Advanced
Grade 5 Math	Spring	200 – 265	Below Basic
		266 – 299	Basic
		300 – 320	Proficient
		321 – 399	Advanced
Grade 5 Science	Spring	200 – 271	Below Basic
		272 – 299	Basic
		300 – 329	Proficient
		330 – 399	Advanced

Mean OPI scale scores pinpoint overall performance within a performance level.

Grade 11 OPI scale scores for ELA and Math are displayed in the Accountability Reporting application in the Assessment Performance Report.

Grade 3-8 OSTP Performance Level Lookup Table

Grade 11: ACT/SAT OPI Conversion

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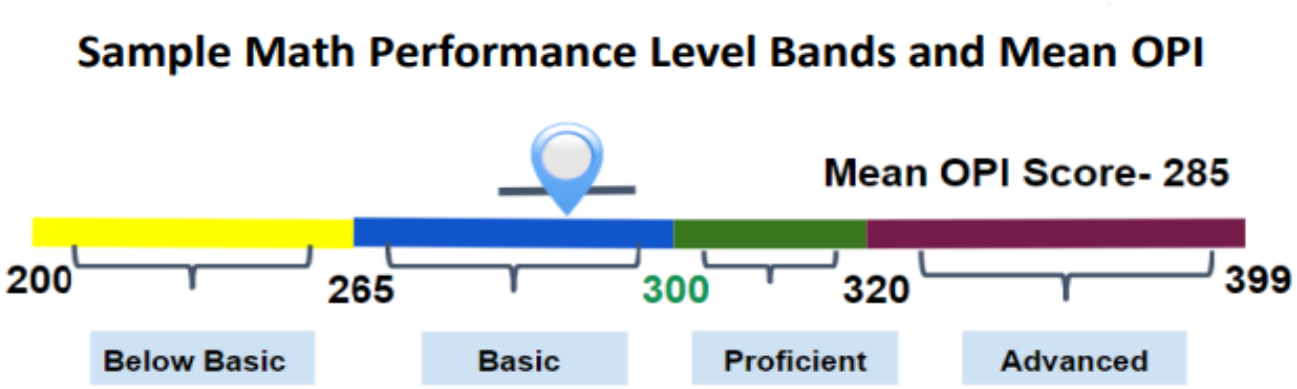
OPIs are scale scores

OPI scores are obtained by converting raw scores onto a common scale to account for differences in question difficulty on different assessment forms. Doing so allows for consistency in score interpretation across forms.



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Why scale scores?
Which student showed more mastery?

(1). $1 + 1 =$

(2). $9 + 5 =$

(3). $8.2 + 3.3 =$

(4). $\frac{1}{2} + \frac{1}{3} =$

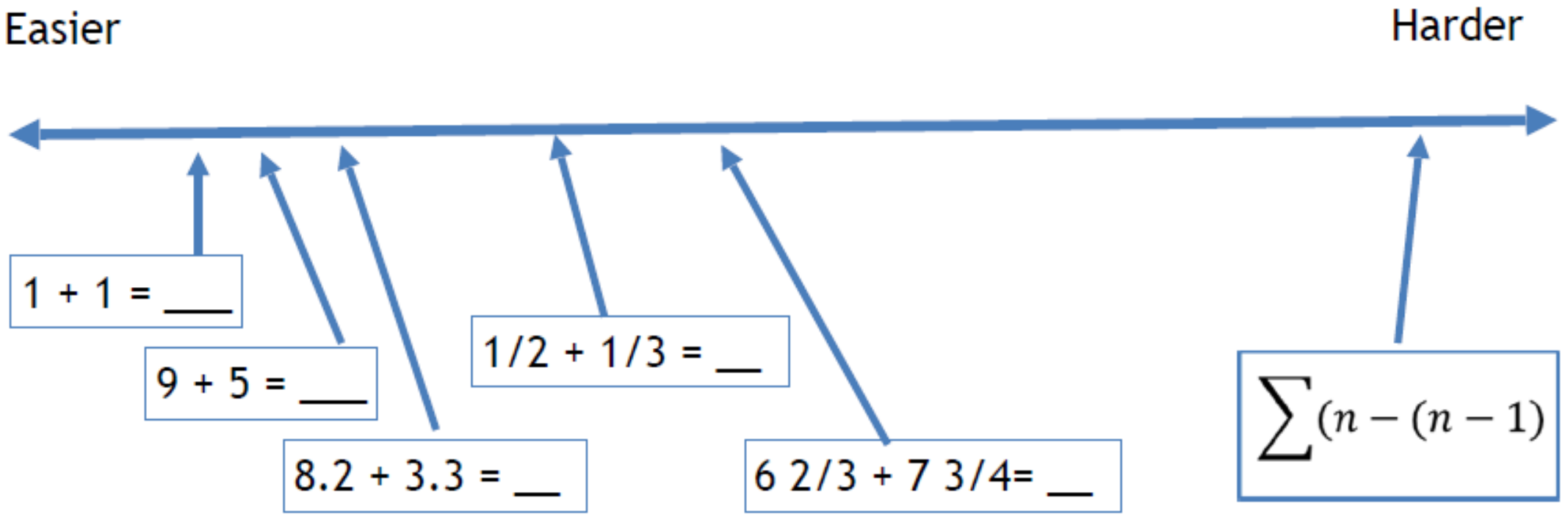
(5). $6\frac{2}{3} + 7\frac{3}{4} =$

(6). $\sum_{n=1}^{100} \left(n - (n-1)\right)^n$

Student A: **4**/6 correct

Student B: **4**/6 correct

It's not about the number correct



It's about the difficulty and complexity of what the student is being asked to do.

- Difficulty refers to the likelihood that the student will respond correctly.
  - How much effort is needed?(easy or hard)
  - How many people can answer the question correctly?
- Cognitive complexity refers to the mental processes required to meet the task.
  - What kind of thinking, action, or knowledge must be demonstrated? (simple or complex)
  - How many different ways can a question be answered, a problem addressed, or a task accomplished?

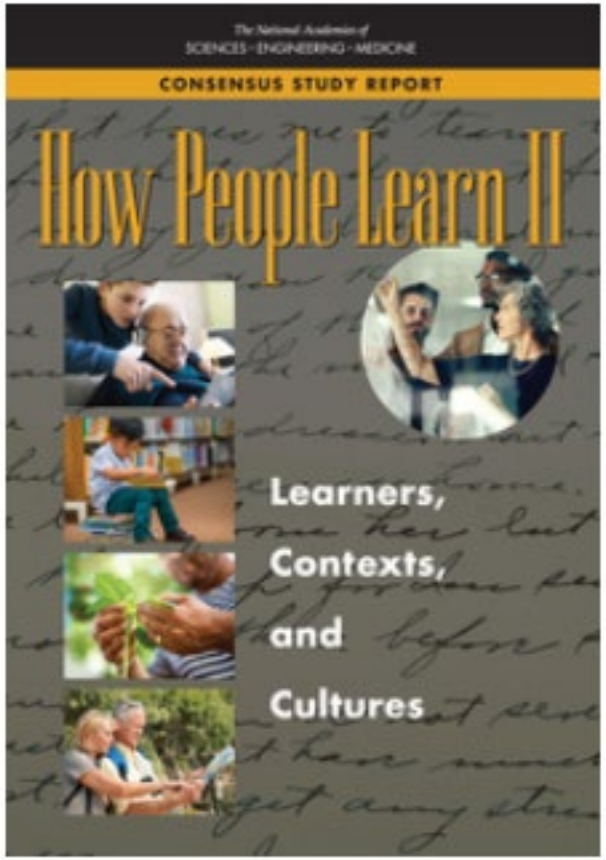
Source: Sousa: How the Brain Learns

Complexity is tied to motivation

Motivation is a condition that activates and sustains behavior toward a goal.

- “Learners tend to persist in learning when they face a manageable challenge (neither too easy nor too frustrating) and when they see the value and utility of what they are learning” (p.110-111).
- “Motivation to learn is fostered for learners of all ages when they perceive the school or learning environment is a place where they “belong” and when the environment promotes their sense of agency and purpose” (p.133).

Source: How People Learn II



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Excel Team Case Study

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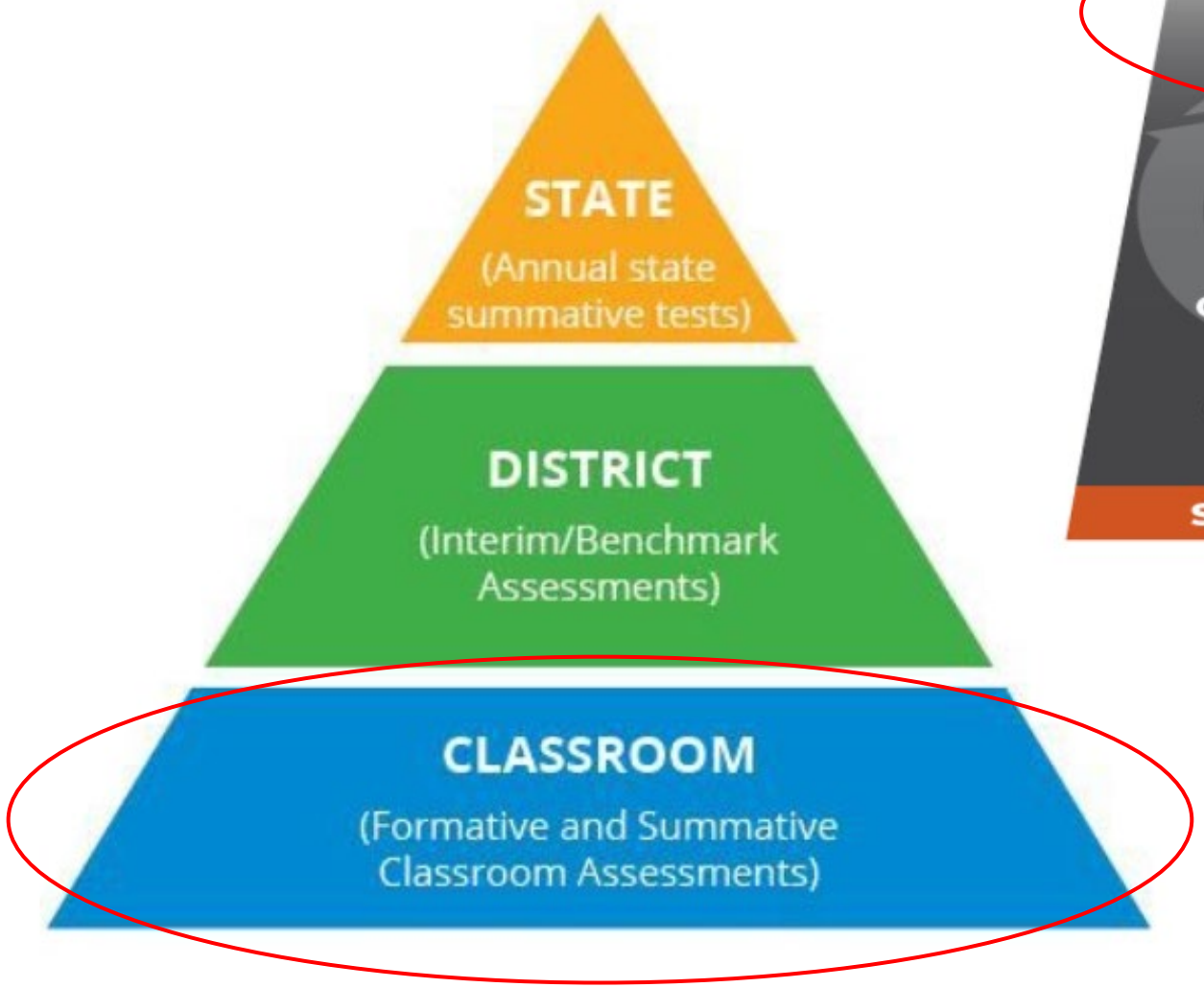

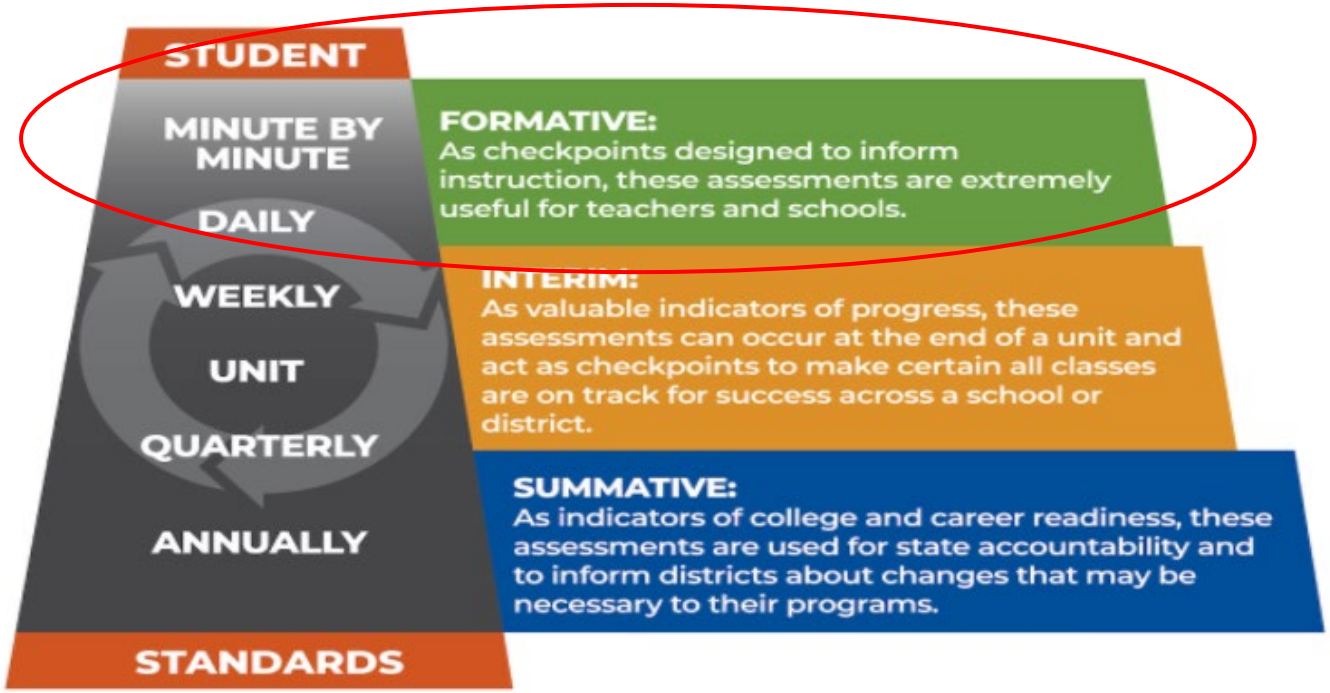

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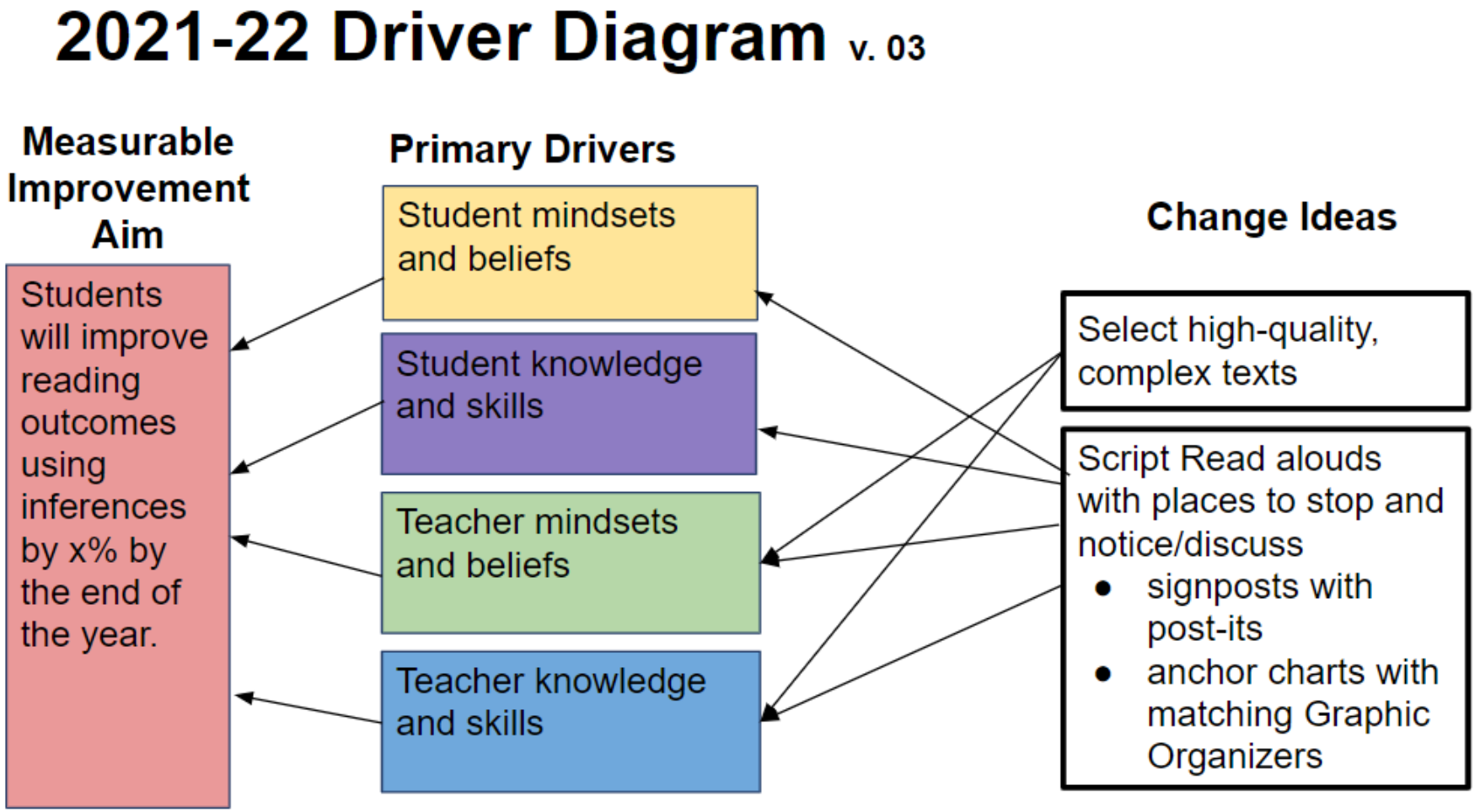
Oklahoma Excel Networked Improvement Community- ELA



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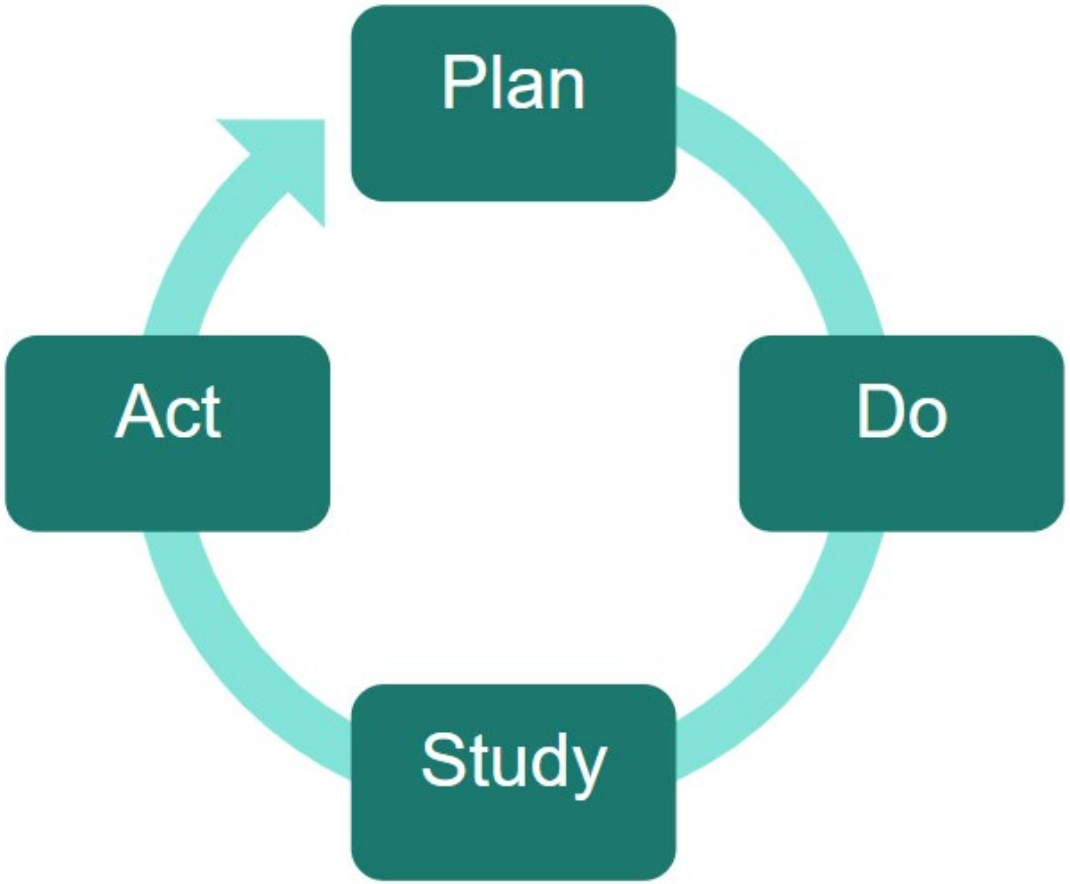
English Language Arts Networked Improvement Community



McAlester Student Survey Goal:

By the end of the 2021-2022 school year, 75% of students will report they feel interested or focused when reading a book that the teacher assigns.

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Improve Reading Outcomes Using Inferences

Student Practical Measures (version 0.1)

Introduction

During the Plan-Do-Study-Act cycles, the following set of questions will be used to understand if and how the change ideas impact students. Please do your best to administer the following items and submit data to OSDE by the dates specified. A student version of the questions can be downloaded at https://bit.ly/ELApaperpencil2122 and a Google Form version can be accessed at https://bit.ly/SSPDSA1

1. How often do you stop to make sure you understood what you just read before you keep going? (never, sometimes, a lot)
2. Listening to my teacher explain their thinking when they read aloud helps me understand the text better (Strongly agree, Agree, Disagree, Strongly Disagree)
3. Which of these best describes how you feel when you are reading a book the teacher assigns? (focused, interested, bored, frustrated)
4. My teacher thinks I am a good reader. (Strongly agree, Agree, Disagree, Strongly Disagree)
5. When you are reading a book, what do you think is the most important thing? (I can sound out each word, I understand what I am reading, I know the meaning of each word, I finish my book quickly)

Change Idea Focus:
Selecting **high-quality, complex texts**

Primary Drivers

Student mindsets and beliefs

Student knowledge and skills

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Improve Reading Outcomes Using Inferences

Student Practical Measures (version 0.2)

Introduction

During the Plan-Do-Study-Act cycles, the following set of questions will be used to understand if and how the change ideas impact students. Please do your best to administer the following items and submit data to OSDE by the dates specified. A student version of the questions can be downloaded at https://bit.ly/paperpencilPDSA2 and a Google Form version can be accessed at https://bit.ly/PDSAtwo

1. How often do you stop to make sure you understood what you just read before you keep going? (never, sometimes, a lot)
2. I choose to read on my own: (every day or almost every day, once or twice a week, once or twice a month, never or almost never)
3. Which of these best describes how you feel when you are reading a book the teacher assigns? (focused, interested, bored, frustrated)
4. Think about the last time you and a classmate discussed a book you both had read. Did that discussion help your understanding of the book or topic (yes, somewhat, no)
5. Do your classmates listen to one another during a reading class discussion? (yes, sometimes, no)

Change Idea Focus:
Scripting **read alouds** using **signposts**

Primary Drivers

- Student mindsets and beliefs
- Student knowledge and skills

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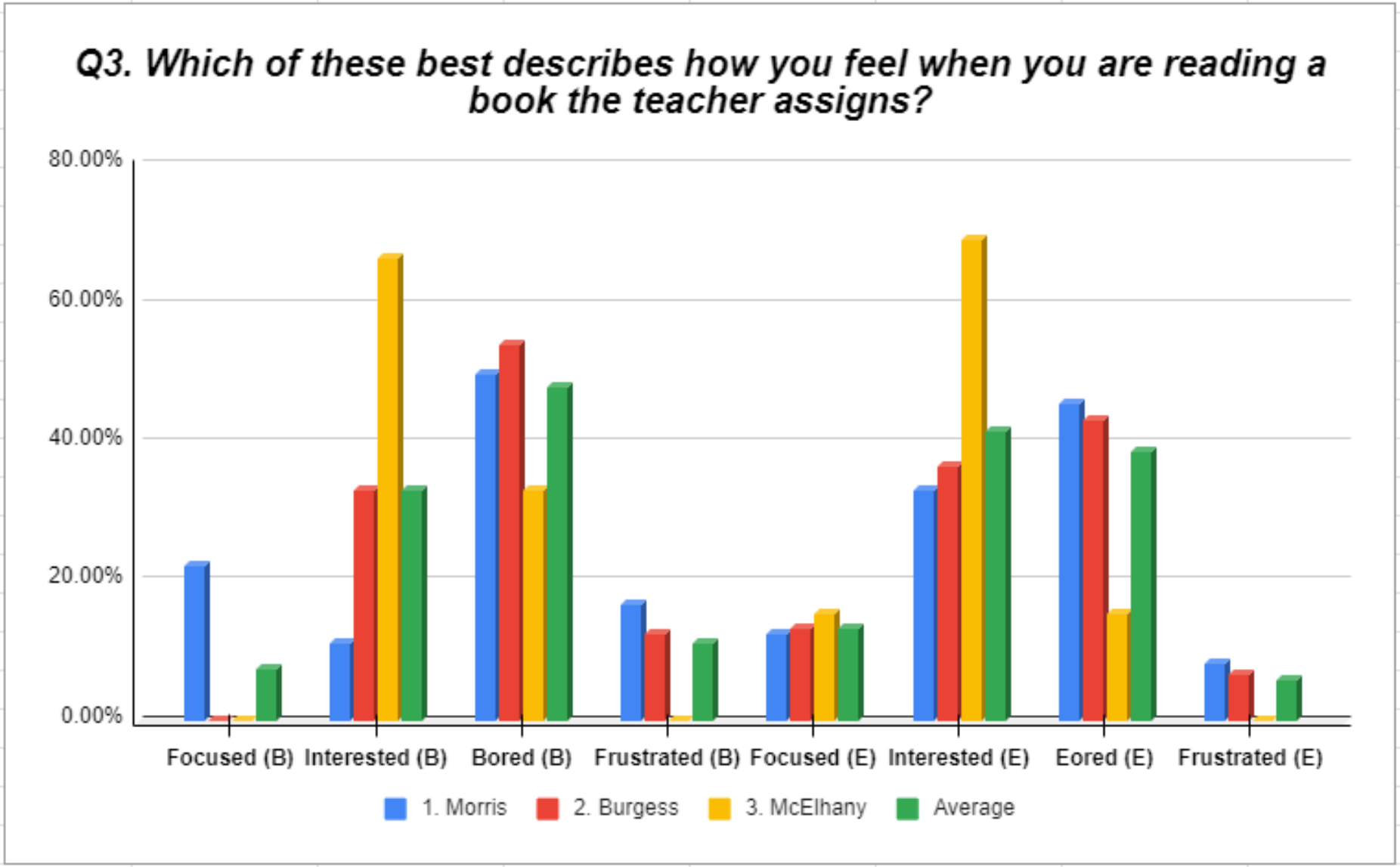
PDSA Cycle 1 (9/2/21-10/6/21)



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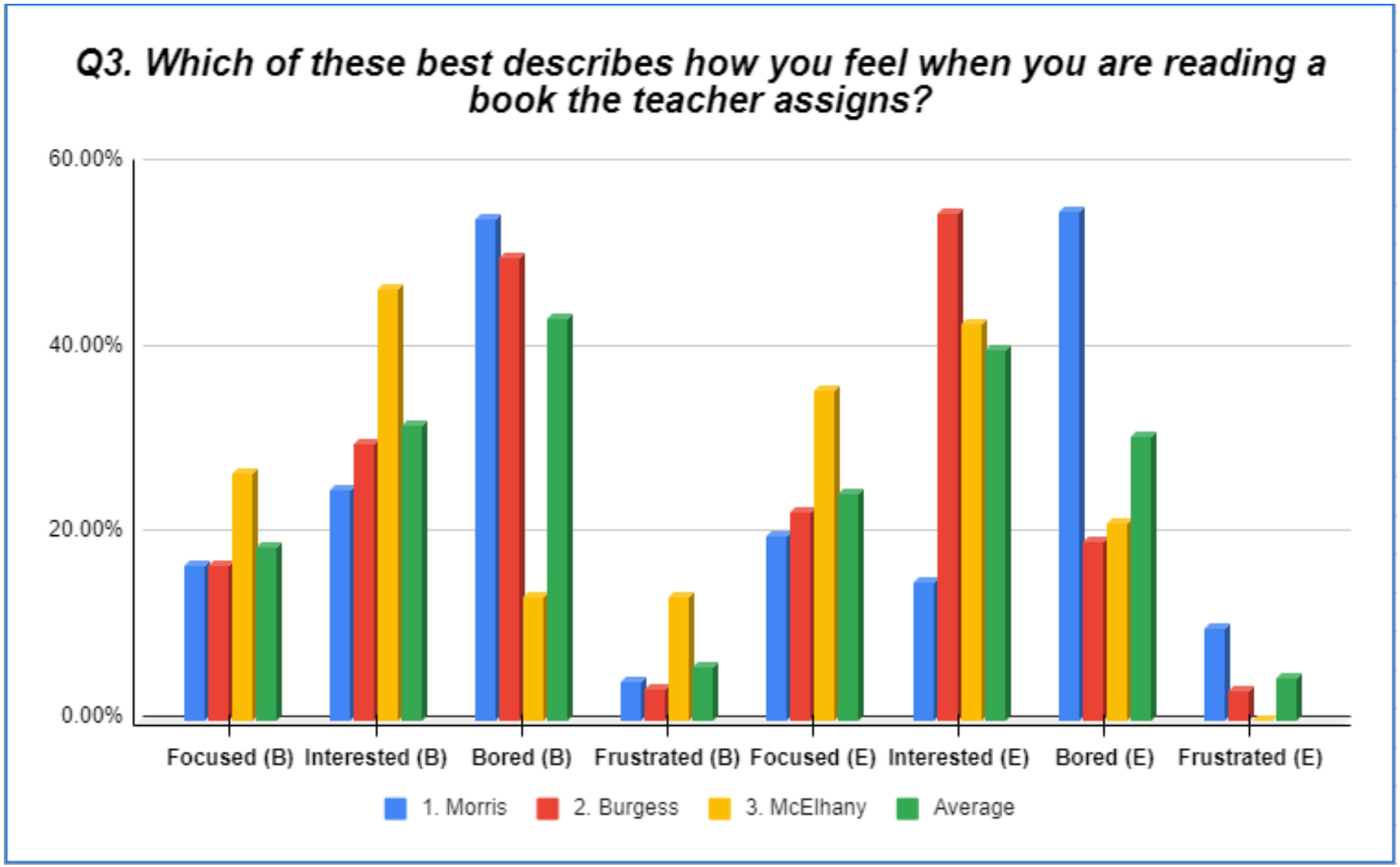
PDSA Cycle 2 (10/20/21- 11/19/21)



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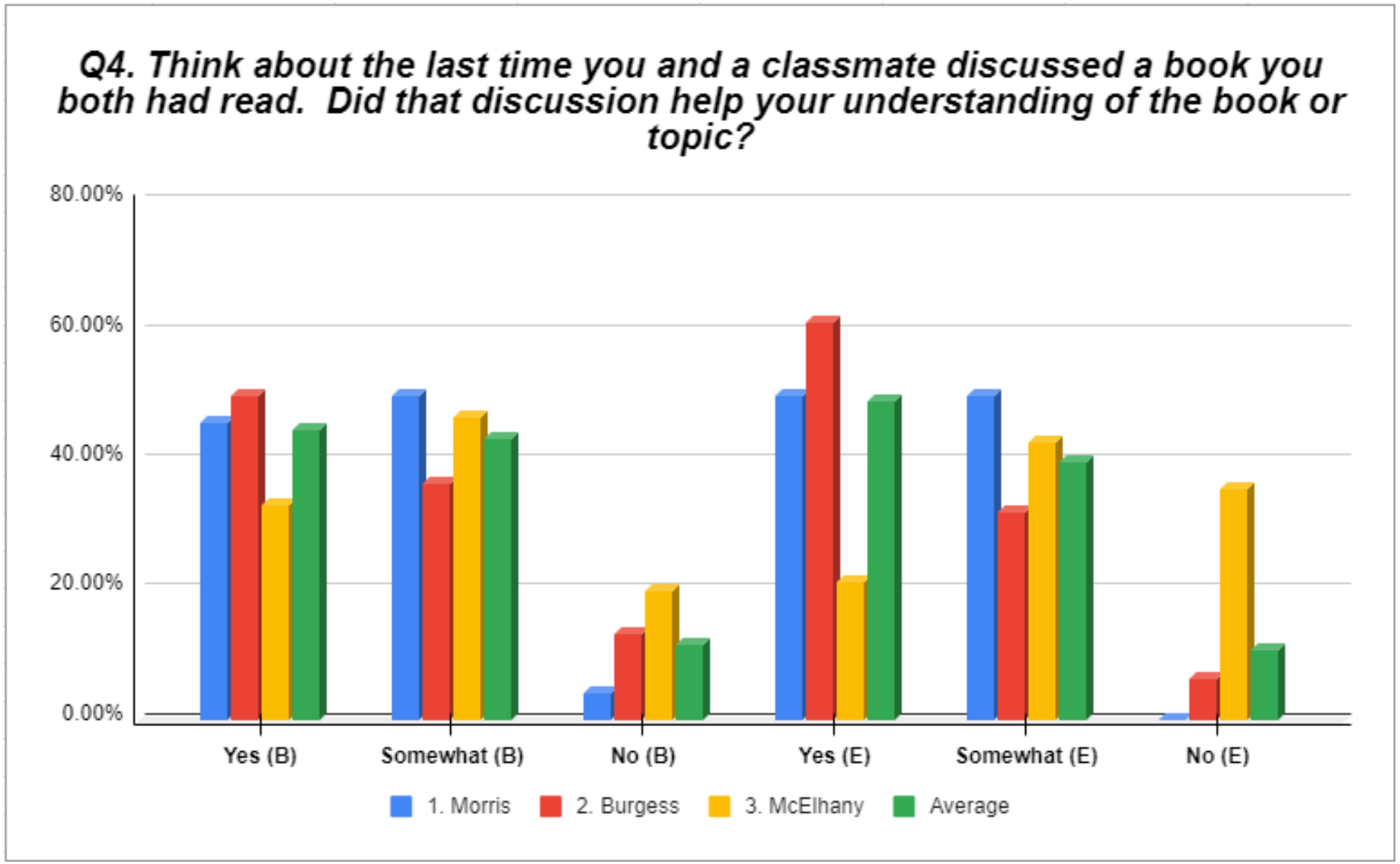
PDSA Cycle 2 (10/20/21- 11/19/21)



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Questions for McAlester

- Can you describe how you use these student surveys in your classrooms with students?
- Describe your experience *before Oklahoma Excel* in using student surveys.
- What impact has using student surveys in this way had on teaching and learning in your classroom?
- What challenges, or limitations, have you encountered with using student surveys?
- What advice would you give to other teachers who are interested in using student surveys?

Contact info

Oklahoma Excel- applications launch each spring!

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Next ECHO

- March 10, 2022
- Time: 3:30-4:30
- **Topic**: Moving Learning Forward: Academic Measures