



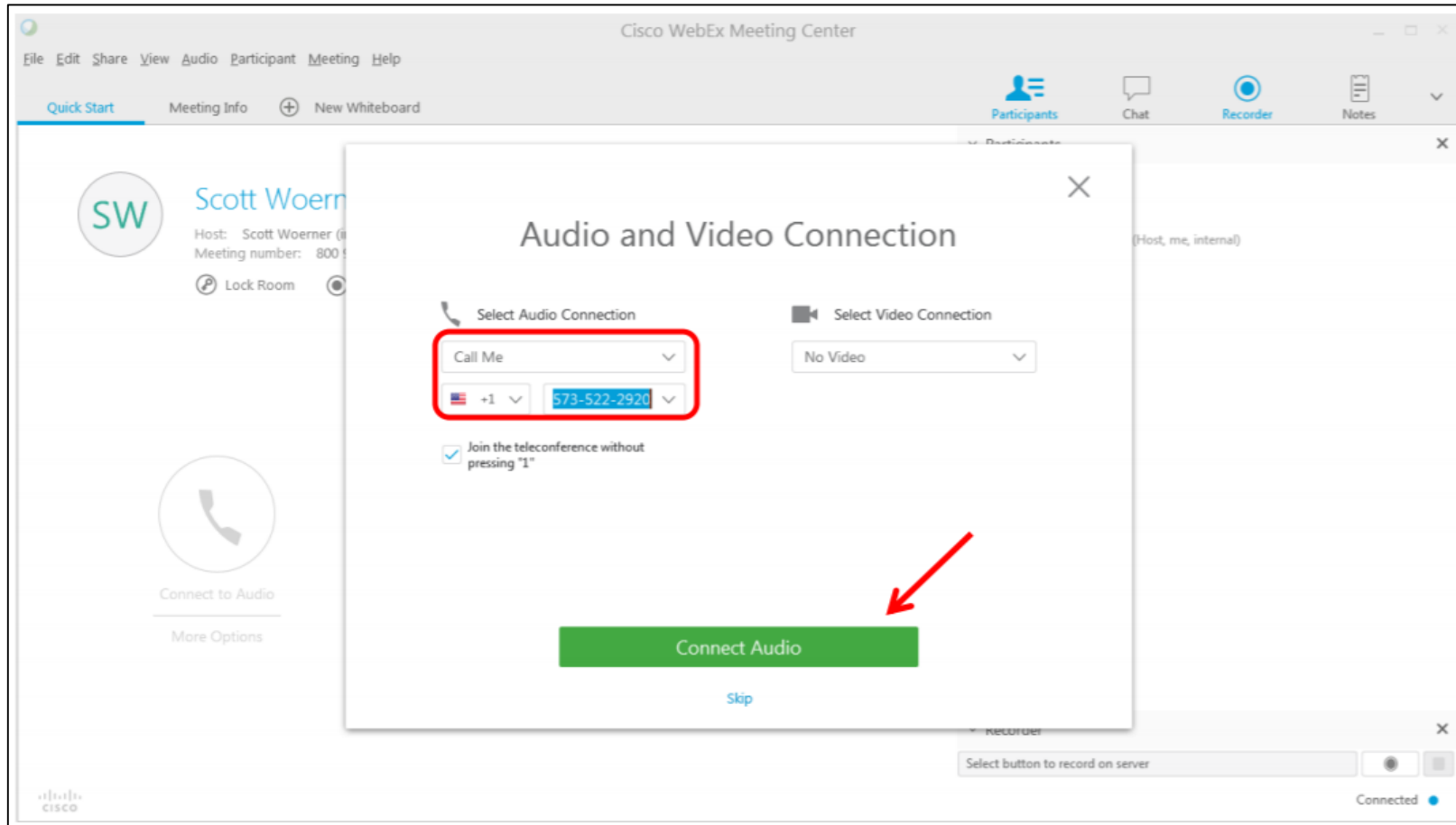
Teaching and Learning Led by Evidence Session 8: How to Interpret and Use Individual Results from the MCA

Yufeng Berry | Psychometrician

Kendra Olsen | Outreach Specialist

March 25, 2021

Connect to Audio



Introduce yourself in the chat:

- ❖ What is your role?
- ❖ Where are you from?

Today's materials and slides :

<https://bit.ly/3ro2fh6>

Today's and previous session recordings:

[Testing 123 > Get Involved > Professional Learning Opportunities](#)



By the end of today's session, you will gain...

- An overview of the MCA and what it is designed to measure.
- An understanding of individual student score interpretations.
- Guidance for using results to look at student growth.

Agenda

1. Intro discussion prompt (5 min.)
2. Purpose of the MCA (10 min.)
3. Individual Score Interpretation (5 min.)
4. Looking at individual scores across grades (20 min.)
5. Takeaways for using MCA Scores to look at growth (5 min.)
6. Updates on testing this year (5 min.)
7. Opportunities to Get Involved (5 min.)
8. 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.

Mentimeter Discussion

To what extent do you agree with this statement:

Statewide assessment data will be useful this year to measure “learning loss” during the pandemic. Explain.

<https://www.menti.com/6adkgyg964>

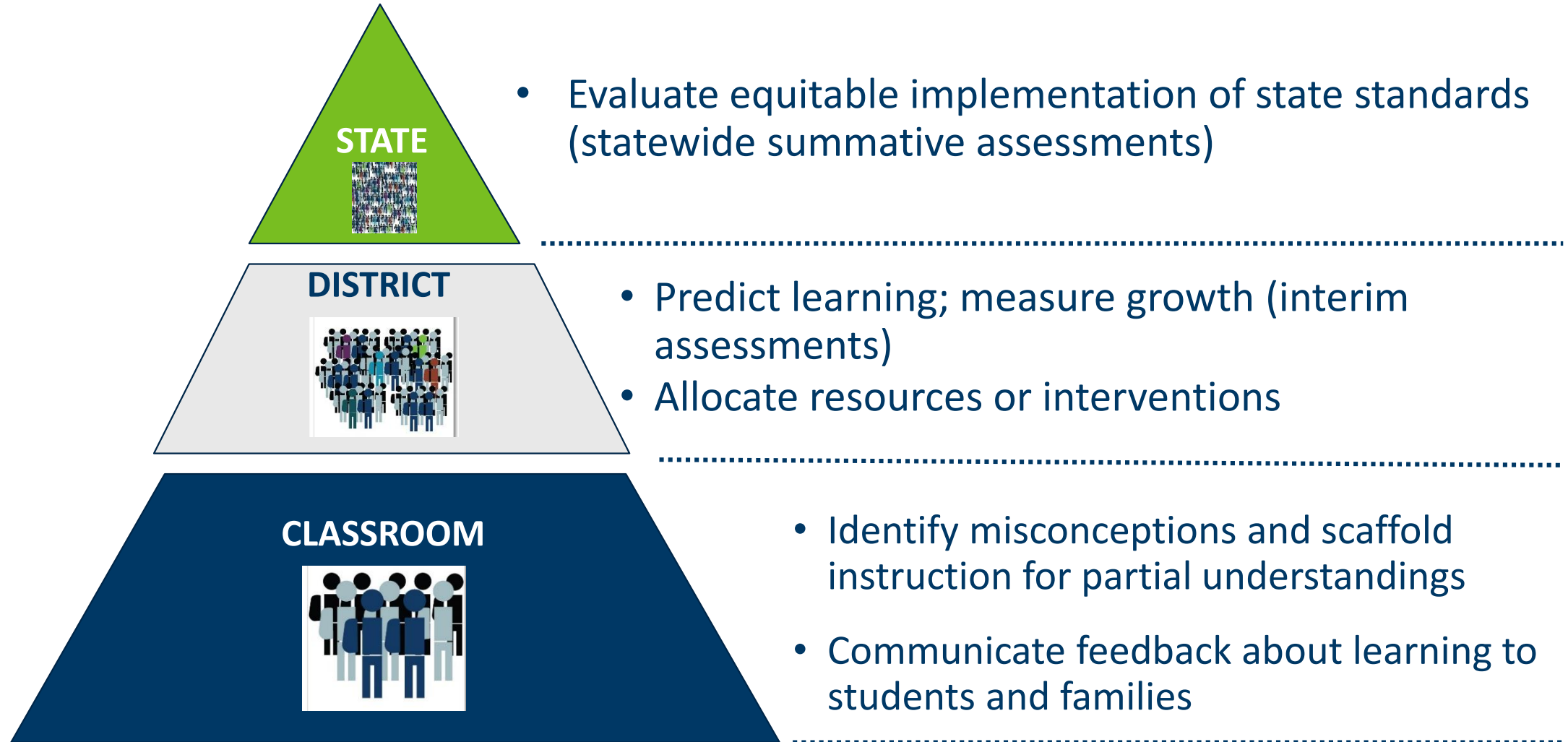
COVID-19 Learning Loss

- “Learning loss” is not limited to COVID-19 and can lead to “deficit based thinking.”
- Viewing learning loss in this way as compared to a “normal year” highlights how difficult it is to assess such a thing.
- **How can MCA results help decide what to do next, not just highlight what kids *didn't* learn?**

Lorie, Will: [Contextualizing COVID-19 “Learning Loss” and “Learning Recovery”](#)
Center for Assessment, June 2020

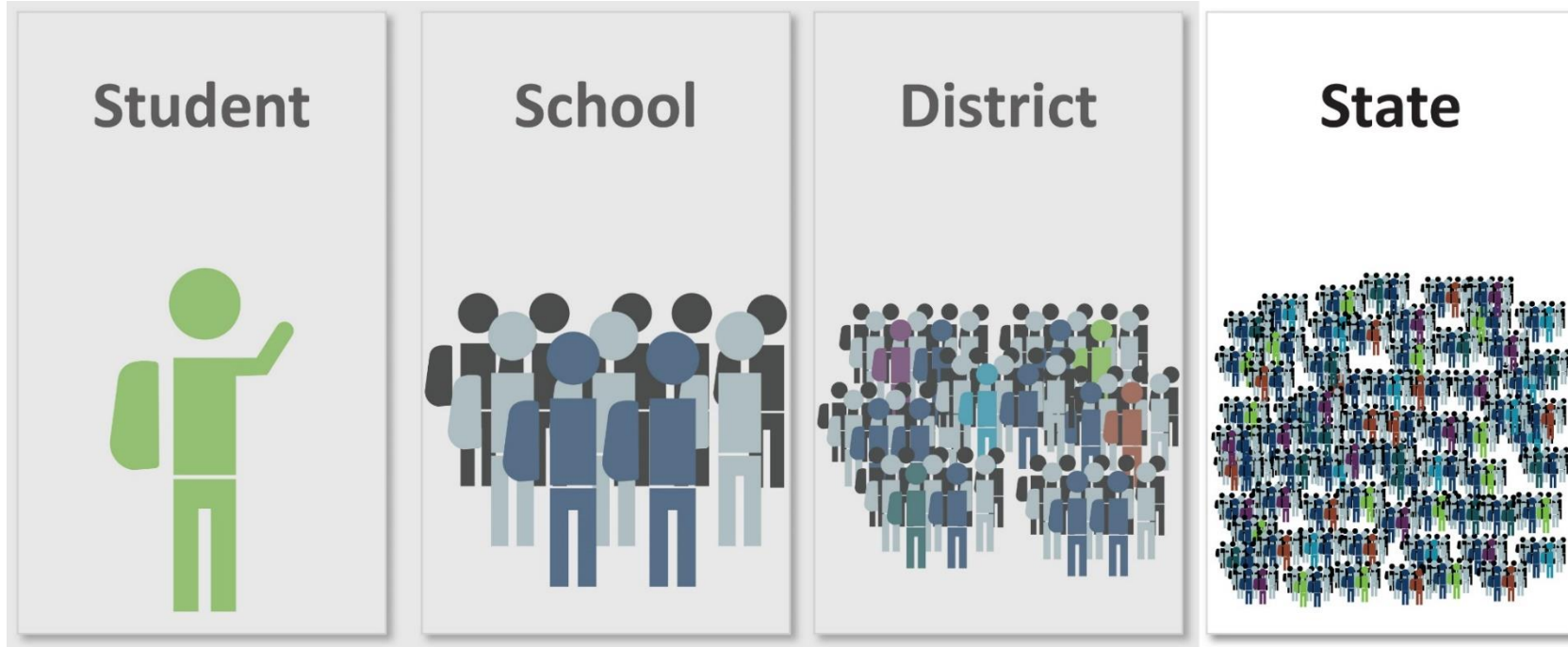


Assessment Purposes



Purpose of Minnesota Assessments (State Level)

- ☐ Provide a window into equitable opportunities for students to learn the standards in Reading, Math, Science across the state.
- ☐ Measure a broad snapshot of student learning of grade level standards.
- ☐ Measure progress in English Language Development for English learners.



Minnesota Assessments

Standards-Based
Accountability Assessments

English Language Proficiency
Accountability Assessments

MCA

MTAS

ACCESS for ELLs

**Alternate
ACCESS for ELLs**

Minnesota Assessments: Aligned to Standards

The “series number” corresponds to the set of standards from which the test is designed

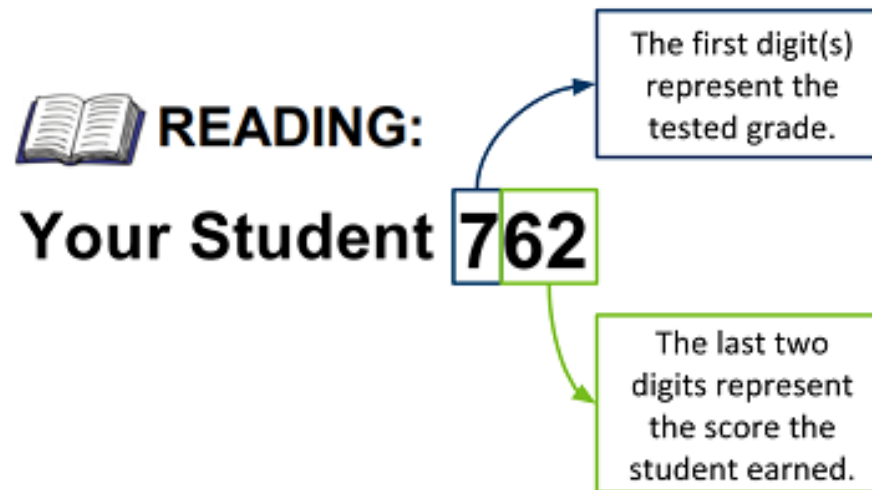
[Testing123 > Assess > Statewide Testing](#)

Test Names	Standards	Year Adopted	Year Revised
Reading MCA-III and MTAS	Minnesota K–12 Academic Standards in English Language Arts	2010	2020
Mathematics MCA-III and MTAS-III	Minnesota K–12 Academic Standards in Mathematics	2007	TBD
Science MCA-III and MTAS-III	Minnesota K–12 Academic Standards in Science	2009	2019
ACCESS and Alternate ACCESS for ELLS	WIDA English Language Development Standards	2011	2020

MCA Scoring-MCA Scale Score

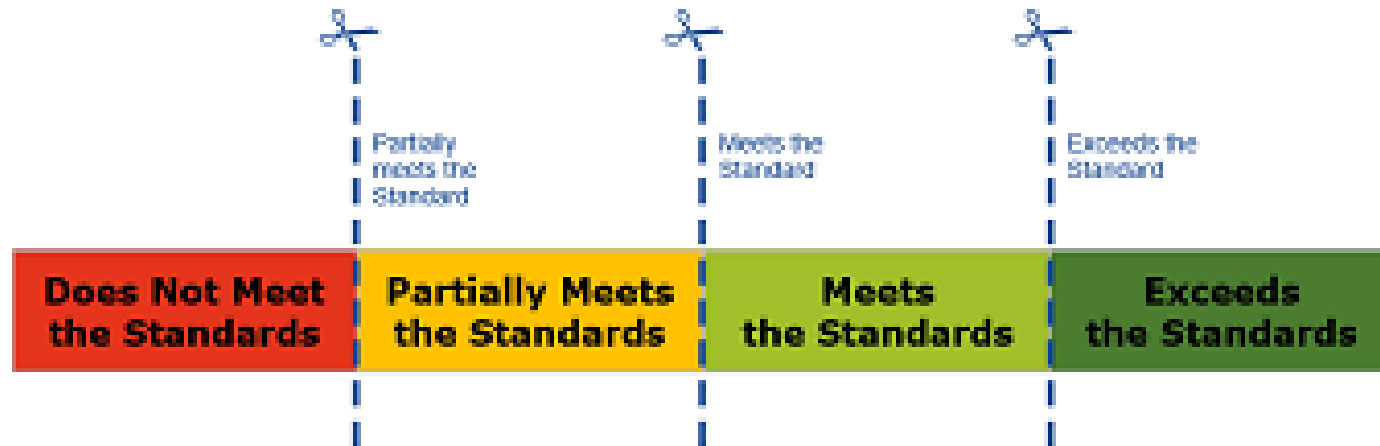
Scale Score (SS): The pattern of student responses is transformed into a scale score.

- MCA-III scale scores are from X01-X99 (X = grade)



MCA Scoring-MCA Achievement Levels

Achievement Level: Defines the level of student achievement



MCA Scoring-MCA Achievement Level Descriptors (ALDs)

- ALDs for MCA Math Grade 3: Meets the Standards.

Meets the Standards Grade 3

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

Number & Operation

- Compares and represents whole numbers up to 100,000
- Solves real-world and mathematical problems using addition and subtraction
- Represents multiplication and division in various ways (reference MN Academic Standards 3.1.2.3)
- Compares and orders fractions with common denominators

Algebra

- Continues patterns to a specified term (e.g., given first three terms in a pattern, finds sixth term)
- Represents real-world situations with a number sentence involving basic facts and an unknown

Geometry & Measurement

- Identifies parallel and perpendicular lines
- Calculates perimeter
- Makes correct change from a dollar
- Tells time from an analog clock
- Determines elapsed time within an hour
- Solves problems involving reading a thermometer and calculating temperature

Data Analysis

- Interprets bar graphs, pictographs, and tally charts

- Benchmark Achievement Level Descriptors for MCA Math Grade 3 benchmark 3.1.1.1:

Grade 3 Mathematics Benchmark Achievement Level Descriptors

Number & Operation

Compare and represent whole numbers up to 100,000 with an emphasis on place value and equality. (3.1.1)

Benchmark	Does Not Meet	Partially Meets	Meets	Exceeds
	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:	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:	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:	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:
3.1.1.1 Read, write and represent whole numbers up to 100,000. Representations may include numerals, expressions with operations, words, pictures, number lines, and manipulatives such as bundles of sticks and base 10 blocks.	Identifies whole numbers up to 10,000 written as symbols (numerals) and words Understands expanded notation (symbolic expressions with operations) at a basic level Identifies a number, up to 500, a set of base 10 blocks represents	Translates between symbol and word representations of whole numbers up to 100,000 Translates between symbol and word representations of expressions containing whole numbers up to 10,000	Consistently represents whole numbers up to 100,000 using both symbols and words Compares and represents deconstructed expressions in symbols and words containing whole numbers up to 100,000	Consistently translates between various representations of whole numbers up to 100,000 Interprets models based on unit sizes Released Example: 235502

Scale Scores and ALDs are reported for individual students



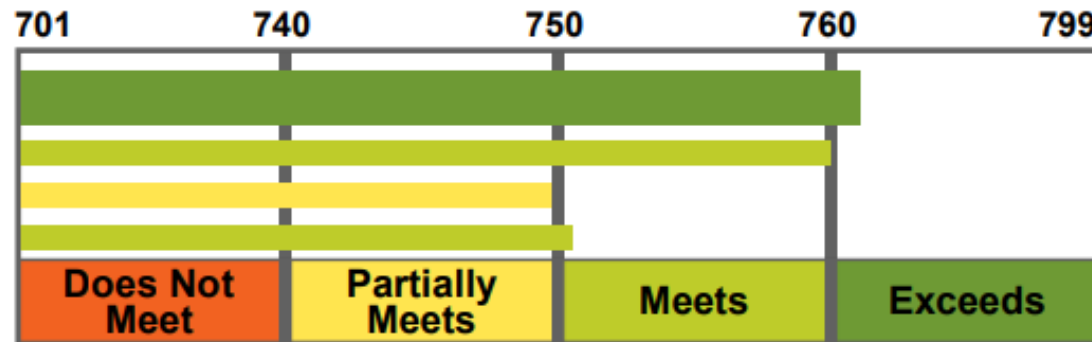
MATHEMATICS: FIRSTNAME'S OVERALL MCA-III RESULTS

Your Student 762

School Average 759.1

District Average 748.4

State Average 751.5



Performance Level Description:

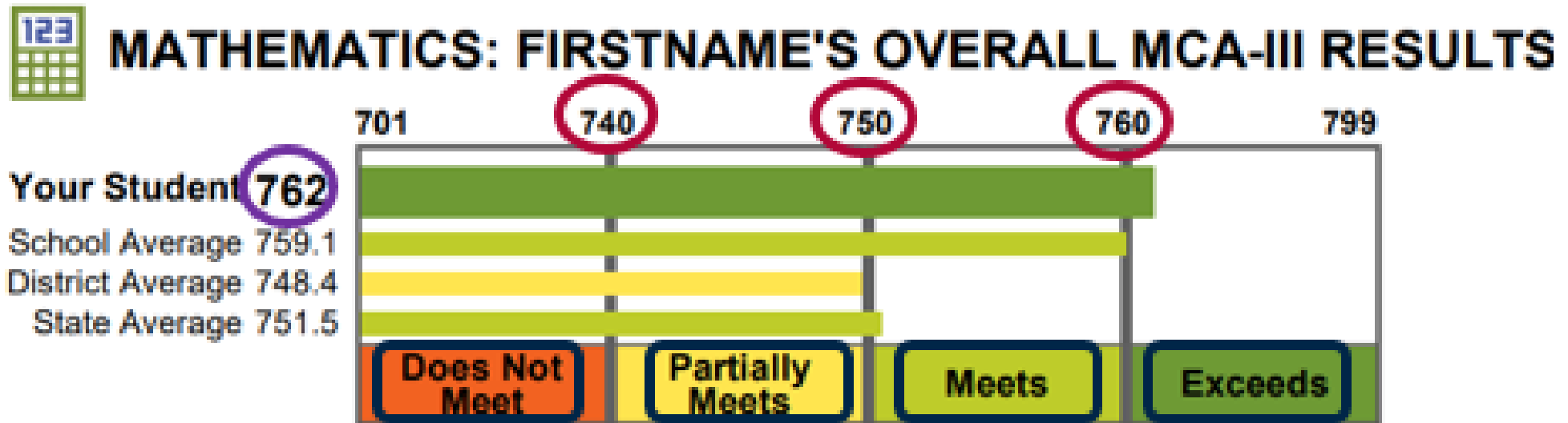
Students at the **Exceeds the Standards** level exceed the mathematics skills of the Minnesota Academic Standards.

MCA Scale Scores and ALDs

(Individual Student Report – ISR)

Scale Score (SS)

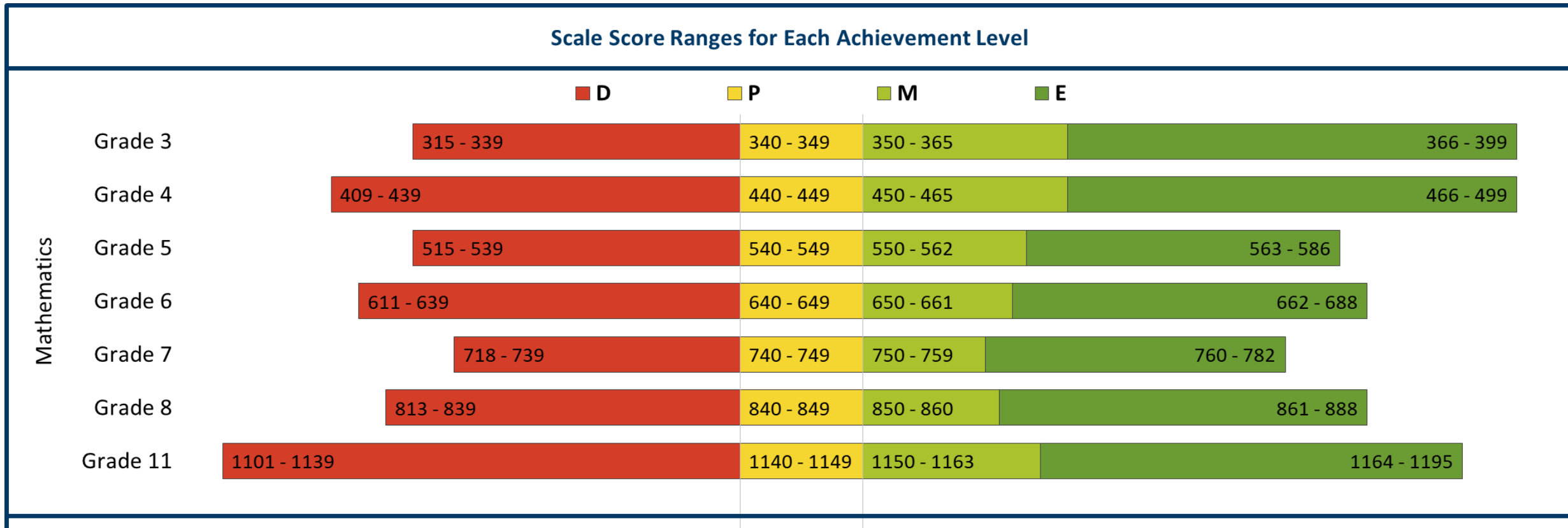
Cut Scores (based on the ALDs)



Achievement Levels

ORID Activity- Mentimeter

Minimum and Maximum Possible Scores on Math MCA



[Testing 1, 2, 3 > Analyze > Interpret Statewide Assessment Scores > Understanding MCA Scores](#)

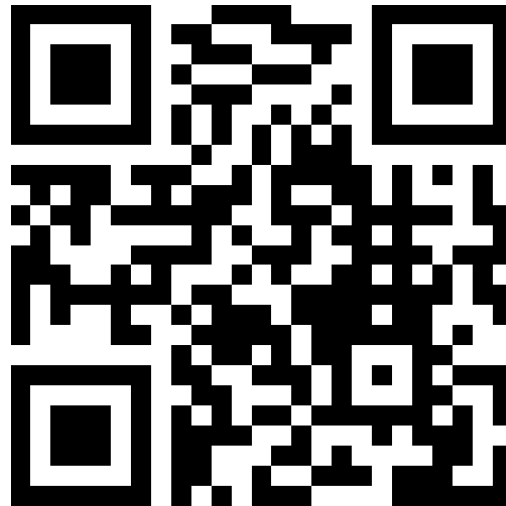
ORID Questions to Process the Scale Score Infographic

- ORID is a group discussion framework.
- A facilitator asks four levels of questions, each building on the previous.
- Allows the group to:
 - Be aware of the actual data
 - Process their emotional responses
 - Analyze and make decisions

Objective
Reflective
Interpretive
Decisional

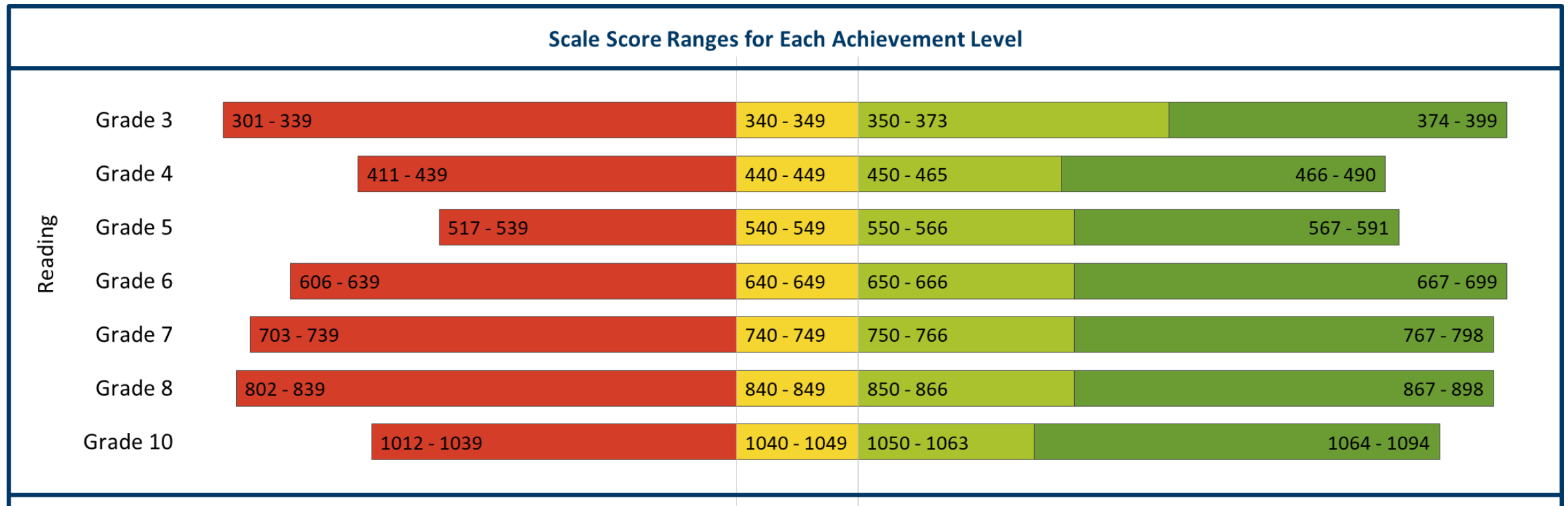
ORID Activity

Go to <https://www.menti.com/6adkgyg964>, or scan the QR code below on a mobile device.



Reading Scale Scores Across Grade Levels

[Testing 1, 2, 3 > Analyze > Interpret Statewide Assessment Scores > Understanding MCA Scores](#)



Inappropriate uses of Individual Scores



- MCA scale scores are based on grade-level specific content.
- In technical terms, this means the scores are not “vertically aligned”.
- Scale scores should never be compared across grades for a student, especially when determining if a student has no growth, remained the same, or improved.
 - Ex: Meets in 5th grade, to Meets in 6th Grade

[Testing 1, 2, 3 > Analyze > Interpret Statewide Assessment Scores > MCA Scores > Where do Scale Scores Come from?](#)

Appropriate uses of Individual Scores

- The achievement levels CAN be used to gain a general sense whether student growth across grades is demonstrated in a subject over time.
- The academic standards are built to be vertically aligned across grade levels, but as grade levels progress, standards become more complex.
- It is difficult to make claims about whether students have retained knowledge from previous grades and are improving based on MCA or MTAS scores.

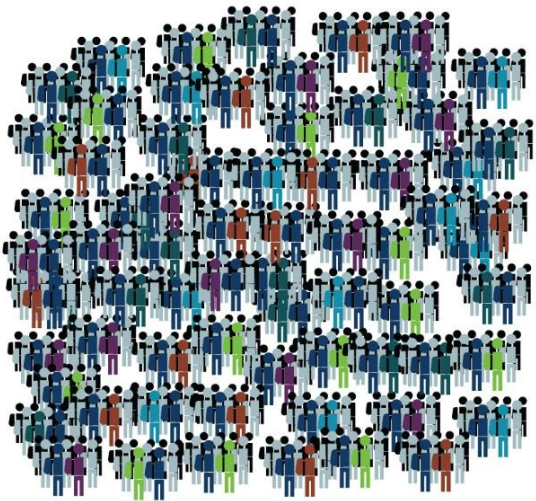
Your Student's **READING** Performance History

Student Grade	3	4	5	6	7	8
Year	2019	2020	2021			
Achievement level of student score on grade level standards	 Exceeds	No participation due to COVID-19	 Partially Meets			

[Testing 1, 2, 3 > Analyze > Interpret Statewide Assessment Scores > MCA Scores](#)

What can teachers do with Summarized MCA and MTAS data? (Recap)

State



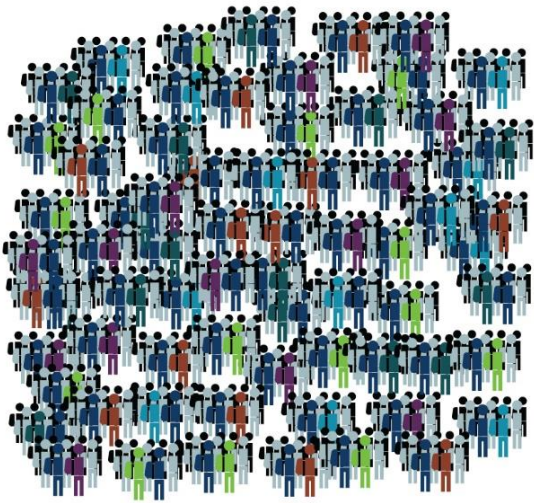
Get a general sense of strengths and growth areas in relation to the grade-level standards for your content area.

Analyze achievement level results in a school or grade:

- What percent of students are proficient?
- What percent of students are not yet proficient? How does this compare across student groups?
- Are the students that completed the assessment representative of the total student population of the school or district?
- Are there other instructional changes that could provide additional context (i.e., textbook change, emphasis on a certain content strand)?

Cautions for teachers when using MCA and MTAS data

State



This data is ***not instructionally useful***.

A teacher needs more fine-grained, curricular information to differentiate instruction for individual and groups of students.

Scale scores should never be compared across grades for a student, especially when determining if a student has shown growth.

The achievement levels CAN be used to assess whether student growth across grades is demonstrated.

Statewide Testing Decisions for Spring '21

- The U.S. Department of Education sent a letter at end of February to states stating they will not be allowing waivers for testing like last year.
- A remote option for MCA was evaluated, but was determined that it was not feasible to test remotely, as it could not be a secure test administration.
- In response to an opportunity from the U.S. Department of Education, Minnesota is submitting a waiver for the accountability sections of its ESSA state plan.
- Under the waiver, MN will still collect and report data on student learning. However, data collected during the 2020–21 school year will NOT be used for accountability.
- The draft of Minnesota's waiver is available for public comment through Tuesday, March 30, 2021. [Read the waiver](#). Comments can be submitted via email to mde.essa@state.mn.us.

[MDE](#) > [Districts, Schools and Educators](#) > [Every Student Succeeds Act \(ESSA\)](#) > [Minnesota State Plan](#)

Statewide Testing Updates for Spring '21 – Test Administration

- All testing must be administered in-person following the Safe Learning Plan guidance protocols. There will NOT be a remote testing option.
- A remote option for MCA was evaluated, but was determined that it was not feasible as it could not be a secure test administration remotely.
- Your District Assessment Coordinator (DAC) can provide more specific information about your school's testing dates and the health and safety measures.
- For more updates about test administration, read the documents under “Assessing Learning” on the [Student Instruction COVID-19 Resource page](#).

[MDE](#) > [Districts, Schools and Educators](#) > [Healthy Schools](#) > [COVID-19 Updates](#) > [Student Instruction COVID-19 Resources](#)

Statewide Testing Updates for Spring '21 – Results

- We know the pandemic has had a significant impact on instruction this year.
- We expect student performance to be different from previous years and are discussing ways to report this that supports “assets-based” thinking.
- MDE will provide additional guidance on the use of Spring 2021 results, including comparing results to previous years.
- When the test is administered correctly, the scores still represent a valid and accurate snapshot of current learning of the grade-level content standards and proficiency in academic English (for ELs) at the time students test.

Testing 1, 2, 3 Newsletter

- Monthly e-mails updates from MDE's Division of Statewide Student Assessment and Data Analytics.
- Scan the QR code to enter your name and email

OR sign up on [Testing 1, 2, 3](#)

(testing123 > Get Involved > Testing 123 Newsletter)



Want to write or review test content for the MCA?

Educators are needed to review and approve new content for the MCA for all grades.

Benefits:

1. You will see questions that will appear on upcoming MCAs.
2. You will be paid (if non-teaching day).
3. Opportunity to improve test for students.
4. Meals or voucher provided.

[More information](#)

Testing123 > Get Involved > Join an Educator Committee
(or scan the QR code)



Please take a brief survey about this session – We want your feedback!

<https://forms.gle/1a8xWebqvQWpKz4W9>

[Understanding MCA Scale Scores - Infographic](#)

(Testing 123 website > Analyze > Interpret Statewide Assessment Data)

[Appropriate and Inappropriate Uses of MCA Results - Infographic](#)

(Testing 123 website > Analyze > Use Statewide Assessment Data)

[Interpret Statewide Assessment Data Page – Testing 1,2,3](#)

(Testing 123 website > Analyze > Use Statewide Assessment Data)

[Use Statewide Assessment Data Page – Testing 1,2,3](#)

(Testing 123 website > Analyze > Use Statewide Assessment Data)

[Accountability Waiver Draft](#)

(MDE > Districts, Schools and Educators > Every Student Succeeds Act (ESSA) > Minnesota State Plan)

[Student Instruction COVID-19 Resource page](#)

(MDE > Districts, Schools and Educators > Healthy Schools > COVID-19 Updates > Student Instruction COVID-19 Resources)

Thank you!

Kendra Olsen

kendra.olsen@state.mn.us

Yufeng Berry, Ph.D

yufeng.berry@state.mn.us