Using the Minnesota Questions Tool to Support Instructional Decision-Making

The Minnesota Questions Tool (MQT) is a web resource available on the Minnesota Department of Education's **Testing 1, 2, 3** website that houses publicly released state summative assessment questions from previously administered Minnesota Comprehensive Assessments (MCA) in reading, mathematics, and science.

MQT Features

Assessment items in the MQT can be searched by subject, grade, strand or substrand, question types, Depth of Knowledge (DOK) levels, or by year (of release).

This MQT User Guide has step-by-step directions for navigating the MQT.

Item Types

The Minnesota state summative assessments for reading, mathematics, and science include both multiple-choice (MC) and technology-enhanced (TE) items. Constructed-response (CR) items are used in science only. You can explore these different item types in the MQT. Understanding the different ways that students are asked to show what they know and can do on the state summative assessment can help teachers incorporate these different styles into their own classroom assessment practice to elicit the evidence needed to support claims about student learning. **Table 1** shows the different item types available in the MQT for each subject.

Table 1. Item Types in the MQT by Subject*

Reading	Math	Science
Multiple Choice (MC)	**Multiple Choice (MC)**	**Multiple Choice (MC)** **Constructed Response (CR)**
Technology Enhanced (TE): - Text Extractor (EXT) - Graphic Gap Match (GGM) - Gap Match (GM) - Gap Match Gap Table (GMGT) - Hot Spot (HS) - Hot Text (HTX) - Inline Choice (IC) - Match (MATCH) - Multiple Response (MR) - Match Table Grid (MTG) - Order (ORDER)	**Technology Enhanced (TE):** - Bar Graph (BG) - Complex Hotspot (CHS) - Graphic Gap Match (GGM) - Gap Match (GM) - Inline Choice (IC) - Multiple Response (MR) - Number Line (NL) - Order (ORDER) - Point Graph (PG) - Slider (SLD) - Text Entry/Fill-in-the-Blank (TEX)	**Technology Enhanced (TE):** - Gap Match (GM) - Inline Choice (IC) - Match (MATCH) - Multiple Response (MR) - Match Table Grid (MTG) - Text Entry/Fill-in-the-Blank (TEX)

*Item types available as of October 2022

Questions, Key/Scoring Guides, and Performance Data

Of particular value to teachers are the released questions within the MQT as well as the key/scoring guide that accompanies them. At the top of the item are three tabs: **Question**, **Key/Scoring Guide**, and **Performance Data**. These tabs contain valuable resources that can help teachers understand their students' experiences with these assessments and can inform decisions in the classroom.

The **Question** tab is the default tab and shows the question in a way that is the same or similar to how student saw the item during the assessment. Beneath the Question tab is the option to show certain attributes of the item (subject, grade, year, content classification, item type, and DOK) and stimulus, including reading passages. *Note that some questions do not function as they would in the student interface on a live assessment or may not be presented in the same way in terms of navigation and technology features.*

A sample MC item is shown:

Question	Key/Scoring Guide	Performance Data

Show: Attributes   Answer   Reading Passage   Print

How are the quilt squares made by Mei, Katie, and Sam alike?

     A. They all describe how Mr. Gutierrez helped a student.

     B. They all reflect how much Mr. Gutierrez loves Minnesota.

     C. They all describe how Mr. Gutierrez has a sense of humor.

     D. They all reflect events that show Mr. Gutierrez is a good teacher.

Question ID: 2018-5R #9 450642-3238

The **Key/Scoring Guide** tab includes the solution (correct answers, question rationales, item rubric, and other scoring information). Rationales and other scoring information describe how and why a student might answer a question in a particular way, which can provide insight for teachers about student assumptions and misconceptions regarding the standards. This insight can be used to inform instructional decisions in the classroom and shape how teachers respond to student needs. For CRs, holistic scoring rubrics are included that describe responses for each point value.

Question	Key/Scoring Guide	Performance Data

Print

The correct answer is:

     D. They all reflect events that show Mr. Gutierrez is a good teacher.

Solution:

RATIONALE A	Although Mei's square with the embroidered Chinese characters for "thank you" (paragraph 7) indicates she appreciates the help Mr. Gutierrez gave her, and Katie's square implies that Mr. Gutierrez helped his students learn math, Sam's square made from the torn apron does not reflect how Mr. Gutierrez helped a student.
RATIONALE B	Although Katie's square made from a "Minnesota Twins jersey" (paragraph 3) shows Mr. Gutierrez's interest in the team, neither Sam's nor Mei's square indicates Mr. Gutierrez's love of Minnesota.
RATIONALE C	Although Sam's square made from the torn apron shows that Mr. Gutierrez can laugh at himself ("'I kept myself from falling, but the cookies weren't so lucky!'" (paragraph 4)), neither Katie's square nor Mei's square have to do with Mr. Gutierrez's sense of humor or fun.
RATIONALE D	Correct: All three squares reflect events that show Mr. Gutierrez is a teacher who cares about his students' well-being (Mei's square), makes lessons interesting for students (Katie's square), and has a sense of humor and fun that he shares with his students (Sam's square).

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The **Performance Data** tab, included in the tool, demonstrates how students in Minnesota performed on those exact questions, which can provide further insight for teachers as to the possible likelihood of correct or incorrect responses from their own students. This information can be helpful for teachers to identify student misconceptions that might need to be addressed and focused on through instructional activities.
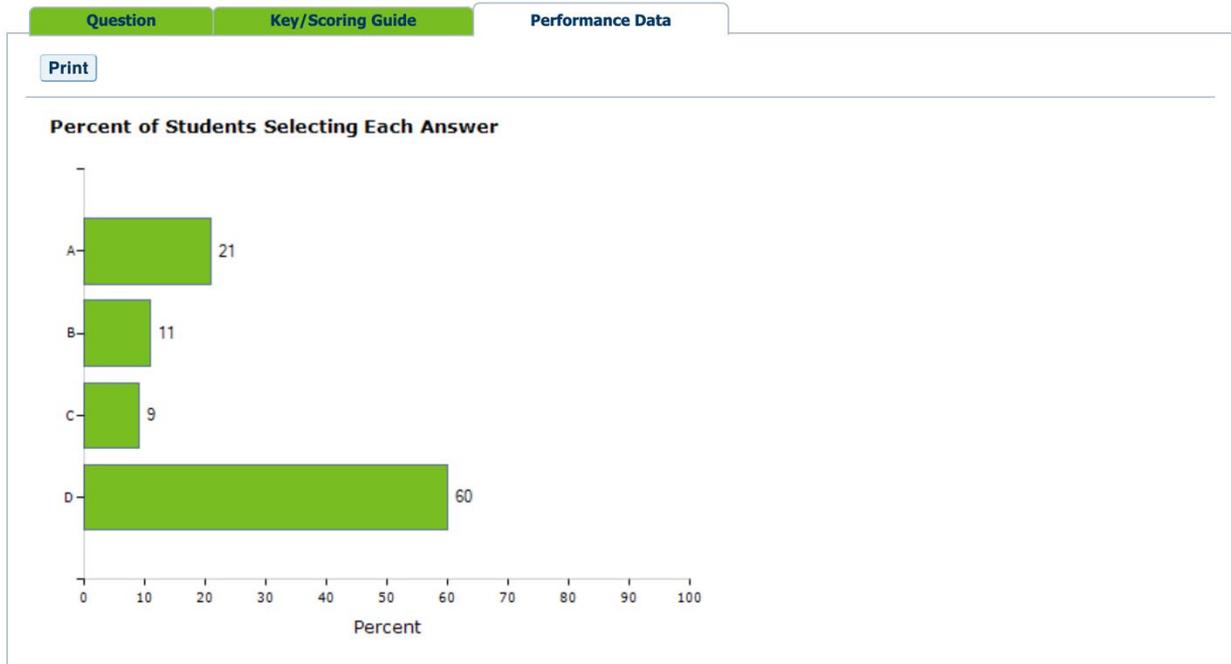
Consider Your Students

The MQT provides teachers with a wealth of information that can support and inform the decisions they make in their classrooms. Think about the students you serve and their instructional needs regarding the standards. As you view sample questions, ask yourself the following:

- How does the way that questions assess student knowledge and skills differ from how I assess the same knowledge and skills in the classroom?
- Do my students receive practice and support with a range of DOK levels? Or are most of the tasks my students practice in class aligned to DOK Level 1?
- How might the performance data help me predict student misconceptions that I could use to guide my instructional decisions?
- What information gathered from the MQT will be most valuable for my instructional decision-making?