Visualizing Student Problem Solving in Real Time

Play

Lesson Start

9:05   9:09   9:13   9:16   9:20   9:23   9:27   9:30   9:34

Lesson End

Number Systems Lesson 6-6

Student 1 ✓✓✓✓X✓✓XXX ✓✓XXXX
Student 2 XXXX✓✓XXXXX✓ ✓XXXXXX✓
Student 3 ✓✓✓✓✓✓ XXX✓ ✓✓✓✓✓
Student 4 XX✓✓✓✓✓✓ ✓X✓✓XXX
Student 5 ✓XXXXXXX✓XXX✓X XX✓✓XXXX
Student 6 ✓✓✓✓✓✓✓✓✓✓✓X X✓✓✓X
Student 7 X✓✓✓✓✓✓✓✓✓✓XX XX✓✓✓X
Student 8 XXXXX✓✓✓✓XX ✓XX
Student 9 ✓✓✓✓✓✓ ✓✓X
Student 10 ✓✓✓✓✓✓ X✓✓XXX
Student 11 ✓✓✓✓✓✓
Student 12 X✓X✓✓✓✓✓✓XXXX✓✓✓ X✓X✓✓✓✓✓
Student 13 ✓✓✓✓✓✓ ✓✓X
Student 14 ✓✓✓✓X✓✓XXX✓X✓✓X✓ ✓✓✓✓X
Student 15 X✓✓✓✓✓✓✓✓✓✓ ✓✓XX✓
Student 16

Aggregate Visualization

This visualization is designed to provide teachers with aggregate information about student performance during the current class period. In this view, all problem-solving data for the class period up until the current time is displayed. Again, the check marks indicate correct responses and the X marks indicate incorrect responses. Spacing between marks indicates a change in concept. Teachers can determine how students have performed overall during this class period by looking at the bar color. For more information, the teacher can click on a student bar. This displays how the student has performed on each concept that has been covered during the current class period.

In addition to this aggregate visualization, we also created an concept-based visualization that shows data for the concept each student is currently working on. Click the button below to see the concept view:

Switch View

This visualization shows data from 6th grade students during a single class period. To view data from a different class period, select the desired session below:

Class Session 1 ⇕

We chose to use a green-red scale to encode problem correctness, since these colors are so commonly used in educational settings. To provide support for colorblind users, we also support a blue-red scale. Click the button below to change the color mode:

Switch Colors