

## DESMOS PLAYBOOK

### How to Use Data to Drive Synchronous Instruction

Overview: The goal of this playbook is to highlight how to use data functionalities within the platform to drive synchronous instruction. For each functionality, this playbook will highlight how to access it, recommended usage and link to additional available resources (i.e. demonstration video, example of this tool being used in live instruction, etc.).

Please note that this resource is meant to serve as a playbook demonstrating the available tools and features within the platform and how they can generally apply to synchronous instruction. Schools should incorporate these functionalities and best practices as they best see fit within their instructional models and schedules.

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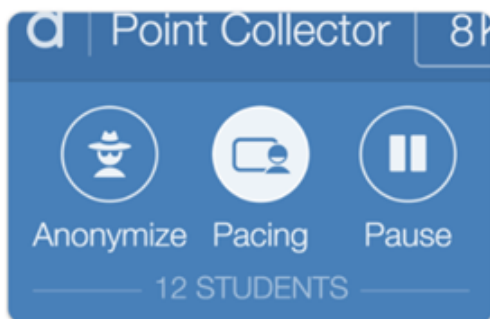
- [Teacher Pacing](#)
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## Teacher Pacing

Teacher can restrict students to particular slides in Desmos.

### How to Use It:

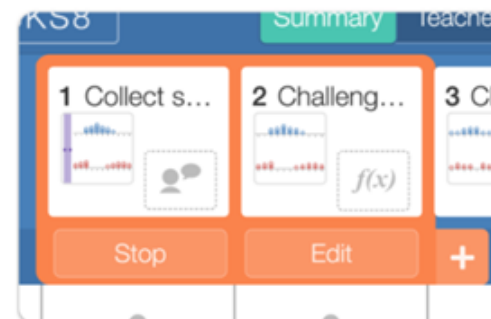
#### Teacher Pacing



By default, Desmos activities are student-paced. Want to lead students through part of an activity one screen or section at a time? Give *pacing* a try!



To activate, click the pacing icon. Then select the screen (or screens) you'd like to gather your students on. They'll automatically "snap" to that location in the activity, with navigation outside of that range temporarily disabled.



Once activated, you'll see clear indicators for what screens your students may access. You can edit or extend that range, or even disable pacing, with a single click.

### When to Use It:

Scenario A:	Scenario B:
A teacher is launching the lesson with a warm-up. The teacher can use the "Teacher Pacing" feature to ensure all students stay	Students are discussing the "Most Productive Struggle" task. The teacher has the Key Takeaway or the formula written on Slide 7 in their Desmos activity. The teacher can

on the 1<sup>st</sup> slide without moving ahead in the lesson.

use the “Teacher Pacing” feature to restrict students to Slides 1-6 until they are ready to reveal the information on Slide 7.

**Learn more!**  
[Teacher Pacing](#)

## The Dashboard

Teacher can monitor student progress & accuracy

**What it Does:**

The Desmos dashboard enables teachers to monitor student thinking & progress. It provides student-level, question-level, and class-level data thereby allowing teachers to support individual students and identify class-wide trends.

**What to Use It For:**

Teachers should be regularly using the Desmos dashboard during synchronous instruction to:

- **Monitor student progress.** Provide reminders or redirects as needed.
- **Identify error trends.** Address any common misunderstandings whole-group.
- **Provide individualized feedback.** “Serena, please add a justification to your response.”

**How to Use It:**

**SUMMARY VIEW:**

Use this view to monitor student progress:

- *Which students have logged in?*
- *Where are my students in this activity right now?*
- *Which students are further ahead or behind than I anticipated?*

**STUDENT VIEW:**

Use this view when sharing your screen to “project” a certain problem or task. It’s basically a “Student Preview” screen.

NOTE: To see student-specific data, go back to the “Summary” View and click on any “cell.” That allows you to see an individual student’s response for that question. From there, you can use the arrows to scroll and...

- See that same student’s responses to other questions
- See other students’ responses to that same question

**TEACHER VIEW:**

Use this view to monitor student accuracy:

- *How did all my students answer this question?*
- *What answers were most common?*

**SNAPSHOT VIEW:**

Use this view to see the snapshots you’ve collected for later discussion.

**Interpreting the Dashboard Symbols:**

Sofia Kovalevskaya	⋮	 dash	●	✓
Giuseppe Peano	⋮	—	✗ cross	⚠ warning
John Wallis	⋮	—	● dot	✓
Scott Williams	⋮	—	●	✓ check

Here is what these symbols mean:

- **Dash:** It isn't possible for students to do any work on this screen. Save your time and attention for other screens.
- **Check:** Everything on this screen is correct.
- **Cross:** Something on this screen is incorrect.
- **Warning:** Something on this screen isn't merely incorrect but indicates the student may have misunderstood the question itself —intervene ASAP!
- **Dot:** This screen needs human interpretation.

**When to Use It:**

Scenario A:	Scenario B:
Students are working on their independent practice. A teacher can use the TEACHER VIEW of the “Desmos Dashboard” to monitor data on question #2 (which is multiple choice) & see if students are falling for the trap answer.	Students are explaining their work to a question. A teacher can use the TEACHER VIEW of the “Desmos Dashboard” to view each student’s response and determine who to call on and in what order.

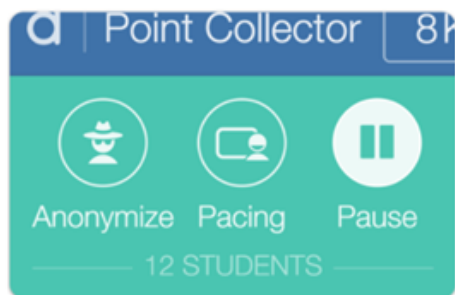
Learn more! Video clip pending

## Pause Class

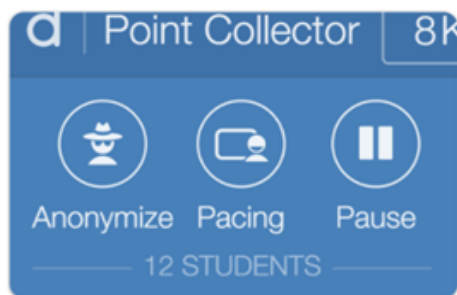
*Teacher can gather student attention*

### How to Use It:

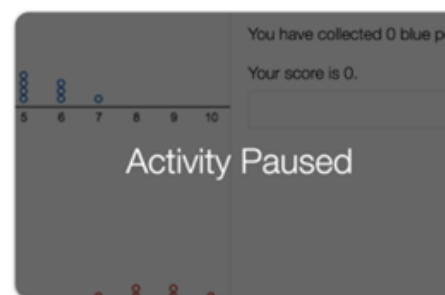
#### Pause Class



*Pause class* allows you to gather student attention—whether for a brief announcement, or a class discussion.



Keep an activity paused for as long (or short) as you want. When you're ready for students to continue, press the pause button again to resume the activity.



With *pause class* activated, students can see—but not interact—with their current screen.

### When to Use It:

#### Scenario A:

A teacher is monitoring student work & sees a trending error (>20%). A teacher can use the “Pause Class” feature to gather student attention & facilitate discourse focused on the error.

#### Scenario B:

Students are discussing the task that will provide the most productive struggle. A teacher can use the “Pause Class” feature to ensure students are focused on the discourse and listening to their peers’ responses.

Learn more!

[Pause Class](#)

## Snapshots

*Teacher can select student responses to share with the class to facilitate discourse*

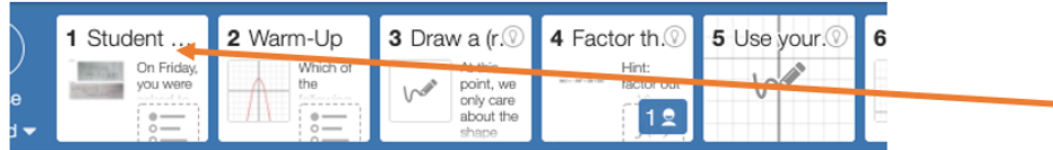
### What It Does:

- The “Snapshot” feature allows teachers to select student responses & present them to the class to facilitate discourse.
- It is the equivalent of a “Show-call” or using students’ written work and displaying it to the class.

### How to Use It:

- When monitoring, teachers can use the camera icon to capture snapshots of student responses.
- Teachers can pause the class to facilitate discourse by having students evaluate the snapshotted response(s).

1. Choose the slide/question/problem you’re interested in.



2. Click on the camera icon next to any response you want to “snapshot.”

Analyze the student work. Which is correct? Be prepared to explain your answer.

Answer Key

Student A  
1 student

Student A

Student B  
2 students

Student B, Student X

Student A

**Student A** | They kept both terms positive.

Student B

**Student B** | Student A is incorrect because 8 and 1 are not the zeroes; they don't make the value of the terms zero.

3. Once you've taken pictures of the work you want to highlight (this can be for multiple problems at once, if you like), click on “Snapshots” at the top.

Snapshots (4) Summary Teacher Student

1 e your. 2 6 Write the. 3 7 First, use. 4 8 The do. 5 9 Practice #. 6 10 Thank y..

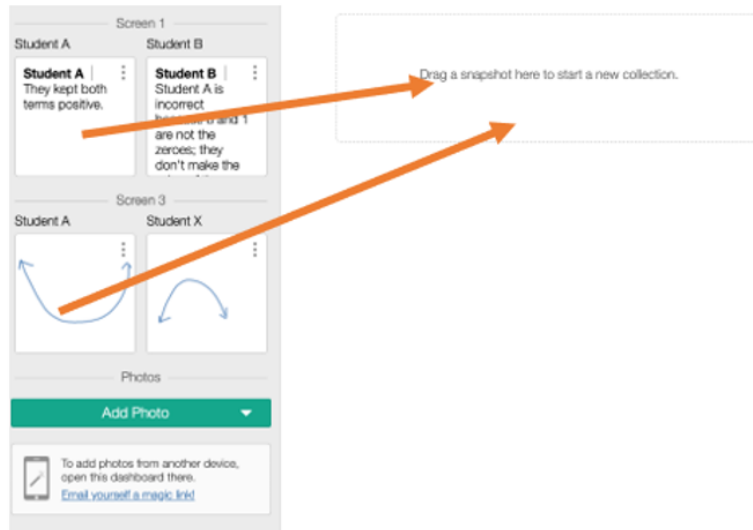
Analysis from Friday

On Friday, you were asked to find the x-value of the vertex, so know as the axis of symmetry, by finding the midpoint between the zeros.

The function for 1b. was  $g(x) = (x + 8)(x + 1)$



4. Drag the snapshots you've taken from the left into a "Collection".



5. You will now have a “Collection.” You can add a question to display with this work, or simply “Present” to display this student work.



**When to Use It:**

Scenario A:	Scenario B:
<p>A teacher is monitoring student work &amp; sees a trending error (&gt;20%). Use the snapshot feature to select a correct response &amp; the common error, present them side-by-side and facilitate discourse by asking students: “Who do you agree with and why?”</p>	<p>Students are discussing the task that will lead to the most productive struggle. To drive towards the “Ideal Student Response,” use the snapshot feature. The teacher should select an “Almost There” response, present it to students &amp; use universal or deepen/stretch it prompts to refine the response.</p>

**Learn more!**  
[Snapshots](#)

