Ideas Worth Keeping: Research-Based Strategies for Remote and Hybrid Instruction

Mary Klute
REL Appalachia

Beth Peery
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IES Institute of Education Sciences

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REL Appalachia at SRI International

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"My bet is that the biggest shift from COVID will not be any one tool or technique, but a broadening sense that engagement is not merely something that students 'bring to class,' but is a result of the environment of the class itself, and that environment can be designed to better support or encourage engagement."

Clay Shirky, Vice Provost for Educational Technologies, New York University

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"What matters now in education? As we prepare to depart Zoomland to return to classrooms or embark on new endeavors, may we remember to never stop asking this question, and to mute ourselves to listen for the answers. And if we are lucky enough to work with students, let's not forget the tenderness we felt when someone greeted us warmly by name when we arrived in class –and how sometimes it was the only proof we had that we were actually there, in person or not."

Kelsea Turner, Harvard University graduate student

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"Perhaps the greatest tragedy to come from COVID-related distance learning would be not learning from this experience to improve our teaching when we physically return to classrooms."

Professor John Hattie, Melbourne Graduate School of Education, University of Melbourne

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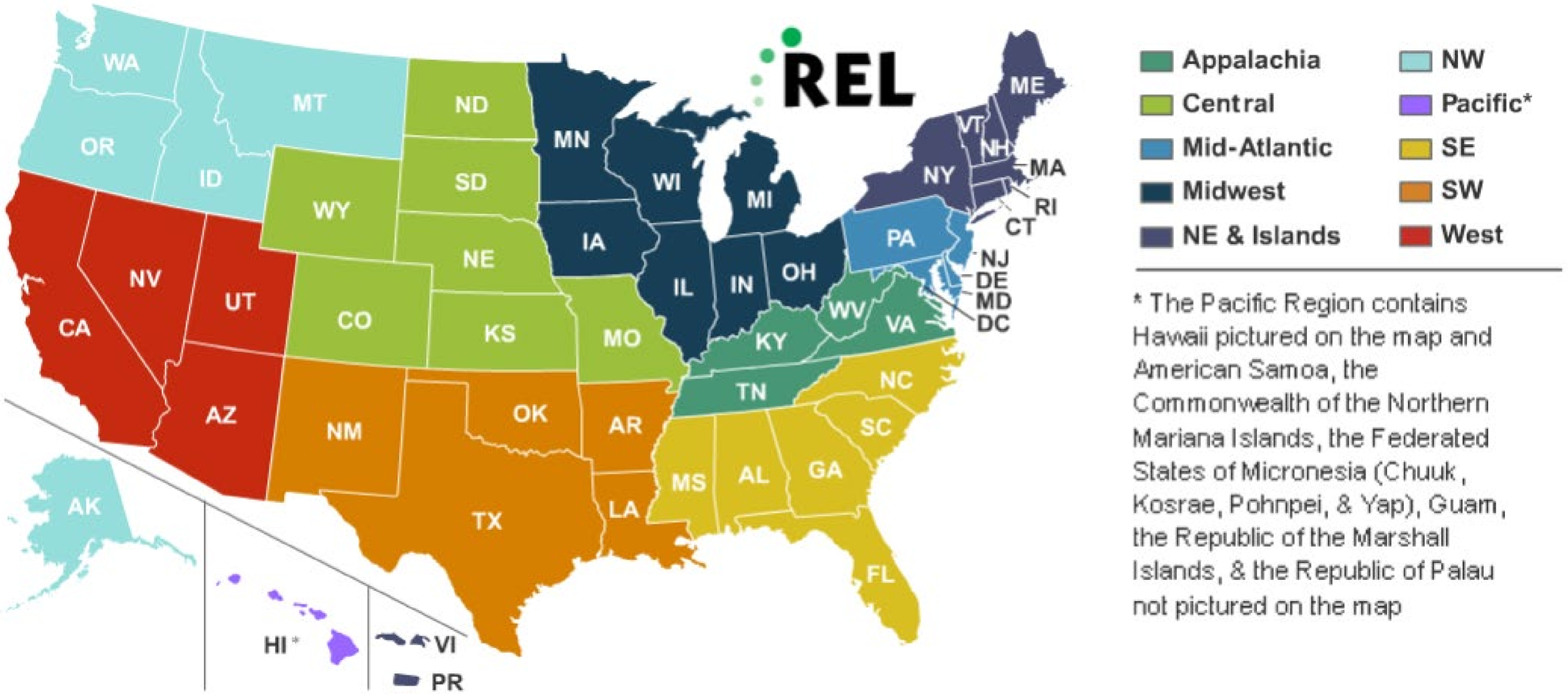
The Regional Educational Laboratories

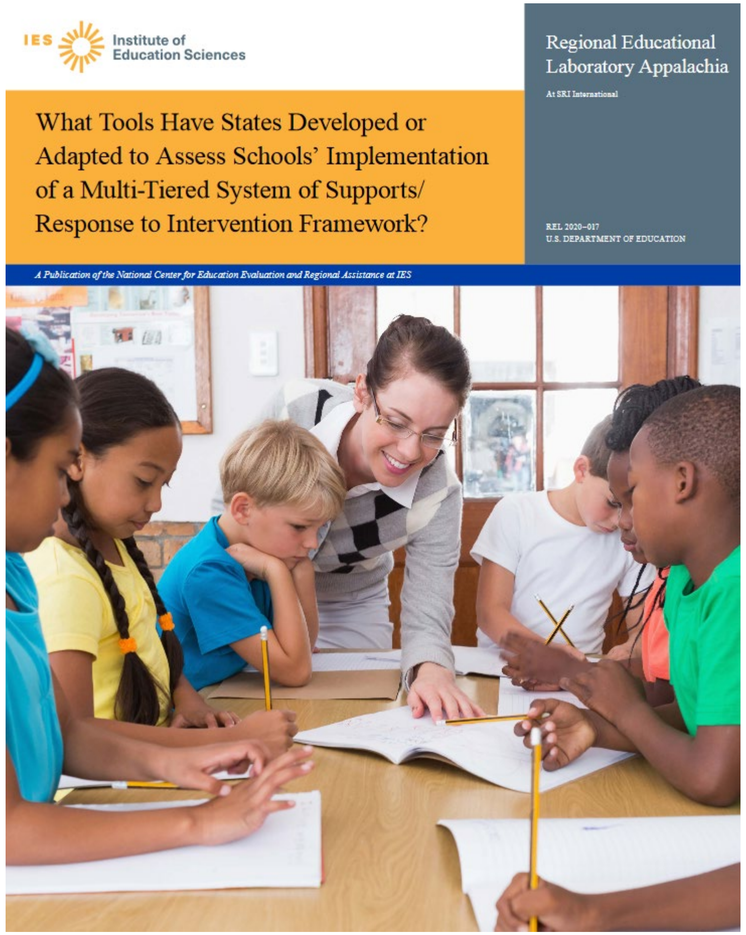


The **10 RELs** work in partnership with stakeholders to **support a more evidence-based education system.**

Administered by the U.S. Department of Education, Institute of Education Sciences (IES)

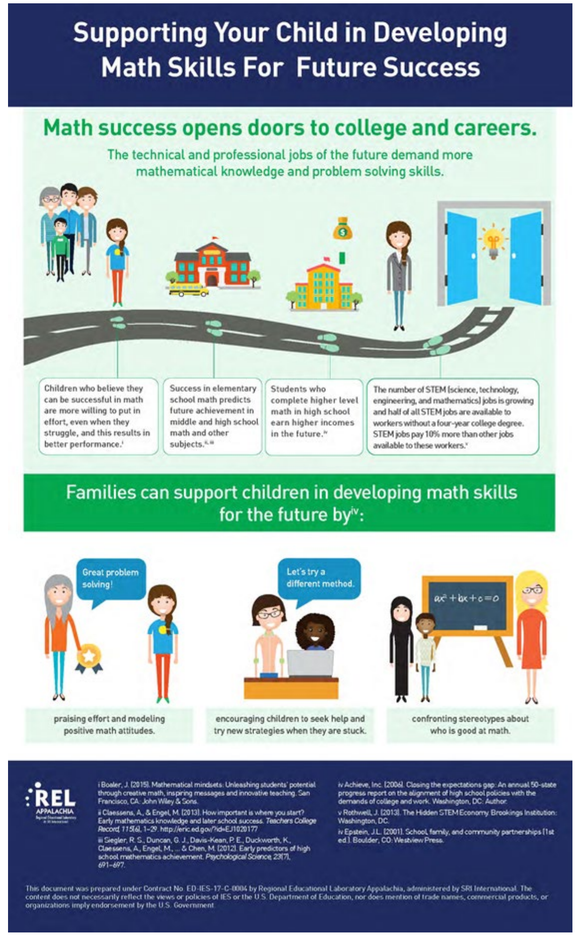
Find us on the web! **https://ies.ed.gov/ncee/edlabs/regions/appalachia/**

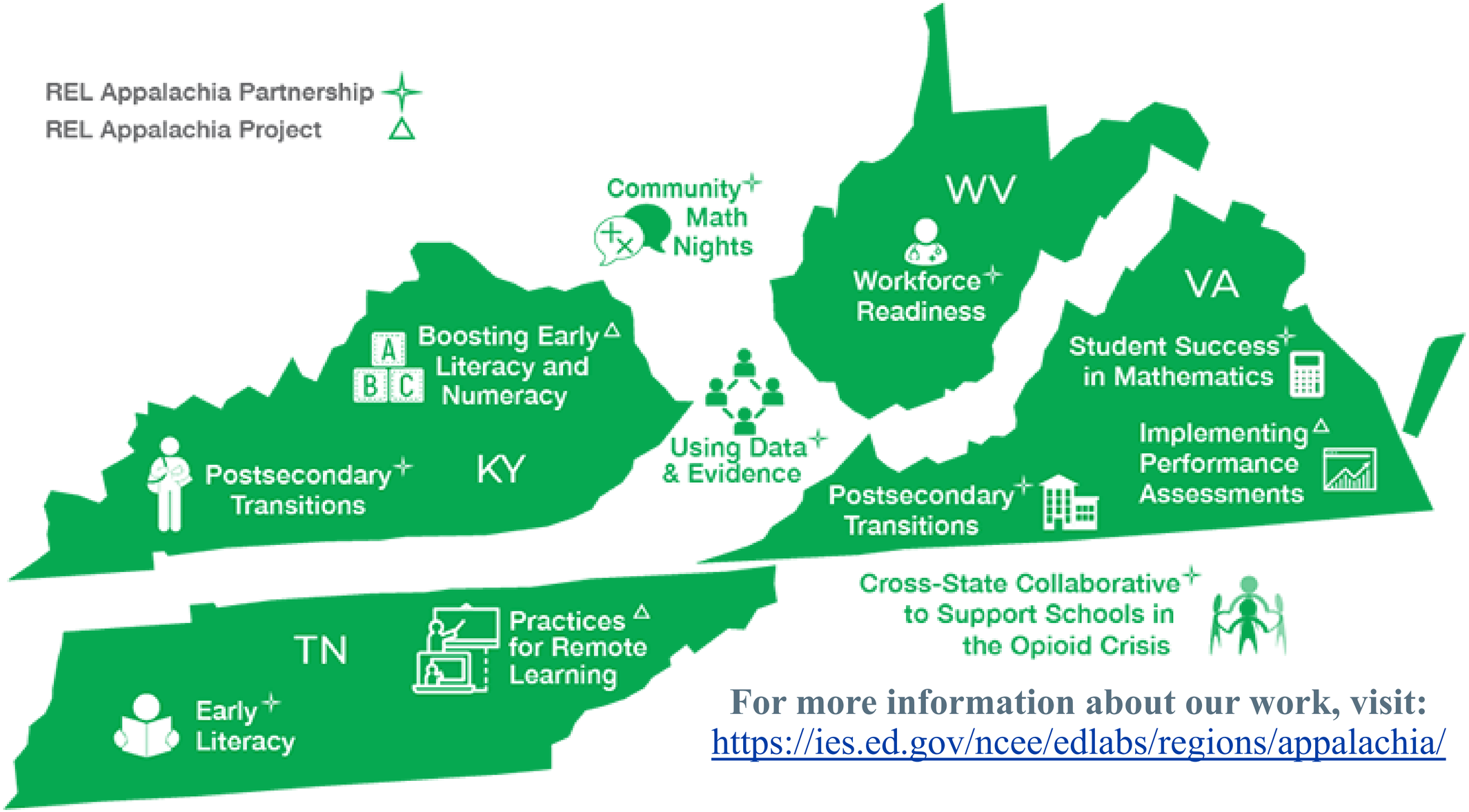
Applied Research



Training, Coaching, and Technical Support

Dissemination





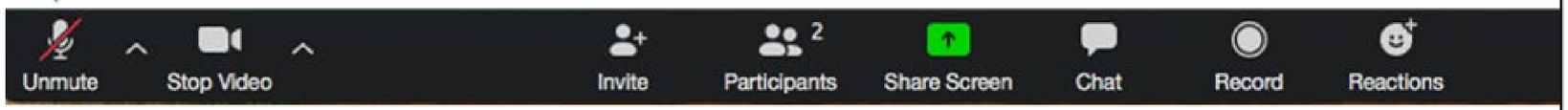
For more information about our work, visit:
https://ies.ed.gov/ncee/edlabs/regions/appalachia/

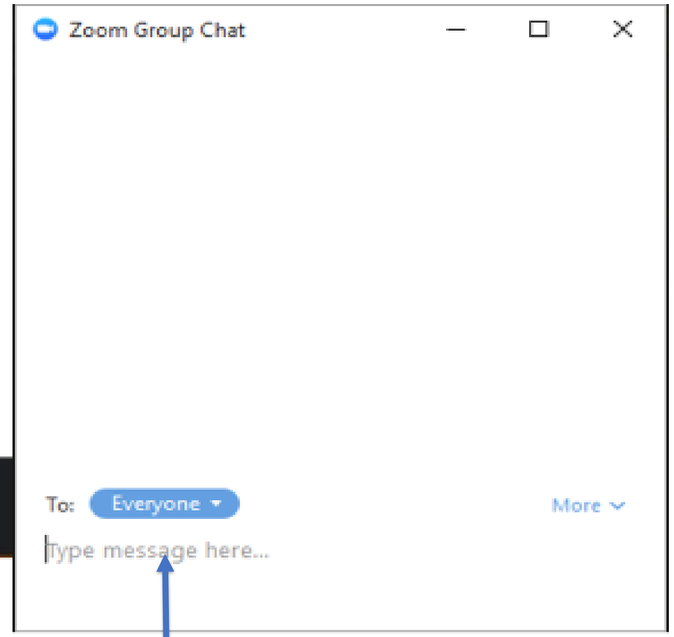
Quick tour of Zoom features

Mute/unmute **microphone**

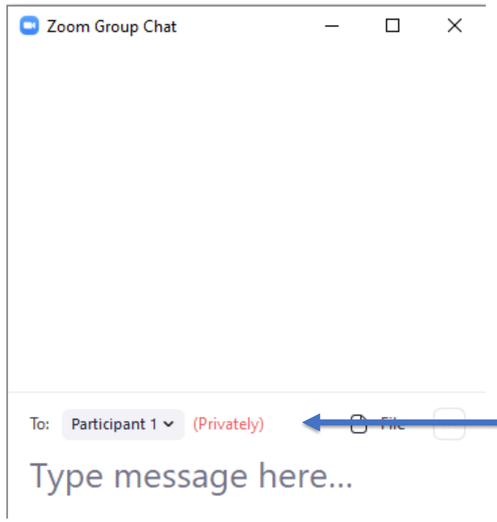
Pro Tip: Mute your mic unless speaking to limit background noise.

To view and use **Chat**





Pro Tip: Turn video off if you are experiencing low bandwidth.



You can send a Chat message to Everyone in the meeting or select a specific person from the dropdown.

Agenda

- Welcome and introductions
- Purpose and background
- Part 1: Student engagement
- Part 2: Monitoring student progress and providing feedback
- Wrap-up

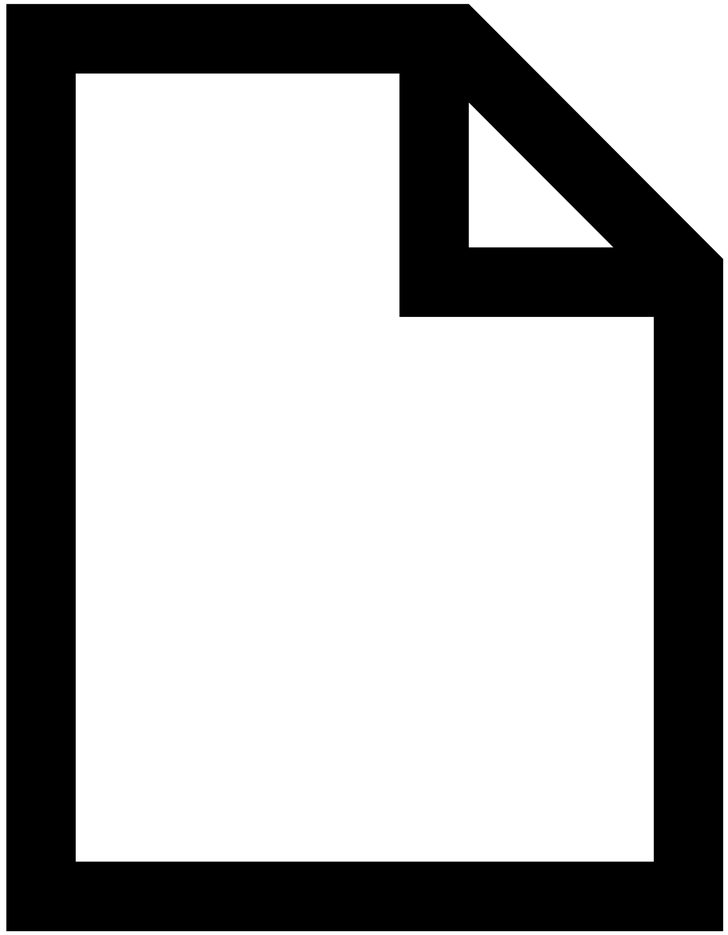
Materials

Handout 1: *Strategies to Support Students' Behavioral, Emotional, and Mental Engagement*

Handout 2: *Student Engagement Infographic*

Handout 3: *Monitoring Student Progress and Providing Feedback in a Remote Setting*

Handout 4: *Digital Tools Resource List*



Welcome!

Please introduce yourself in the chat:

- Name
- Organization
- Experience with remote instruction

Meet the presenters

Mary Klute
SRI International

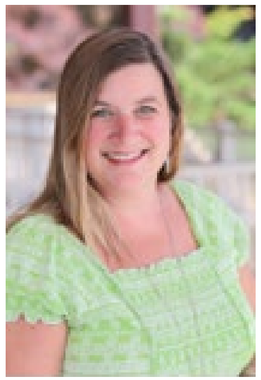
Beth Peery
Magnolia Consulting

Emma Pellerin
SRI International

Jill Marcus
Education Development Center

Emnet Shibre
SRI International

Meet the guest speakers



Mandy Cannon
Sevier County Schools

Jessica Wear
Sevier County Schools

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- Brooke Drinnon, Niswonger Foundation
- Mia Hyde, Comprehensive Educational Resources
- Mandy Cannon, Sevier County Schools
- Krisi Wallin, Greene County Schools
- Angie Wills, Johnson County Schools
- Denise McKee, Hawkins County School District
- Kevin Cline, Jefferson County School District
- Lori Hill, Sevier County School System
- Jessica Wear, Sevier County Schools

Poll

What is your role?

- Teacher
- School Administrator
- District Administrator
- Coach
- Other

Chat

How will you or your colleagues be using remote instruction going forward?

Purpose and Background

Why is remote learning still relevant?

- Ongoing nature of the pandemic
- Interest in virtual schools
- Teacher shortages
- Natural disasters or weather emergencies
- Enhanced learning technologies
- In-person applications

(Herold, 2021)

Research on remote learning

A great deal of research has been conducted on the topic of online learning.

- Much of the research on online learning has been conducted in higher education.
- The strategies we present today may not have been rigorously tested with K-12 students.

Part 1: Student Engagement

Research on student engagement

The research highlights different factors that can improve student engagement in online learning, including:

- Features of software platforms
- Strategies educators can use
- The role of parents or online learning mentors

This part of the webinar focuses on strategies educators can use to support student engagement

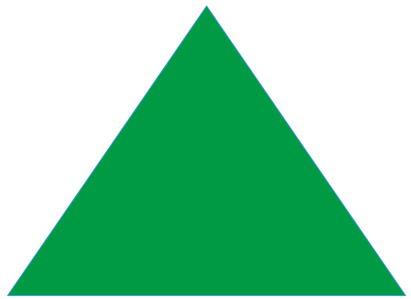
Types of engagement

Behavioral Engagement	Emotional Engagement	Mental Engagement
• Physical energy exerted to complete classwork requirements. • Examples: attendance, participation, completing work, following procedures, time on task.	• Emotional energy associated with feelings about the classwork. • Examples: boredom vs. enjoyment or interest, anxiety/frustration vs. confidence, sadness vs. happiness.	• Mental energy exerted when involved in classwork activities. • Examples: attention, absorption, concentration, persistence, cognitive/metacognitive strategy use.

(Ben-Eliyahu et al., 2018; Borup et al., 2014; Borup et al., 2020)

Model of student engagement in online learning

Mental



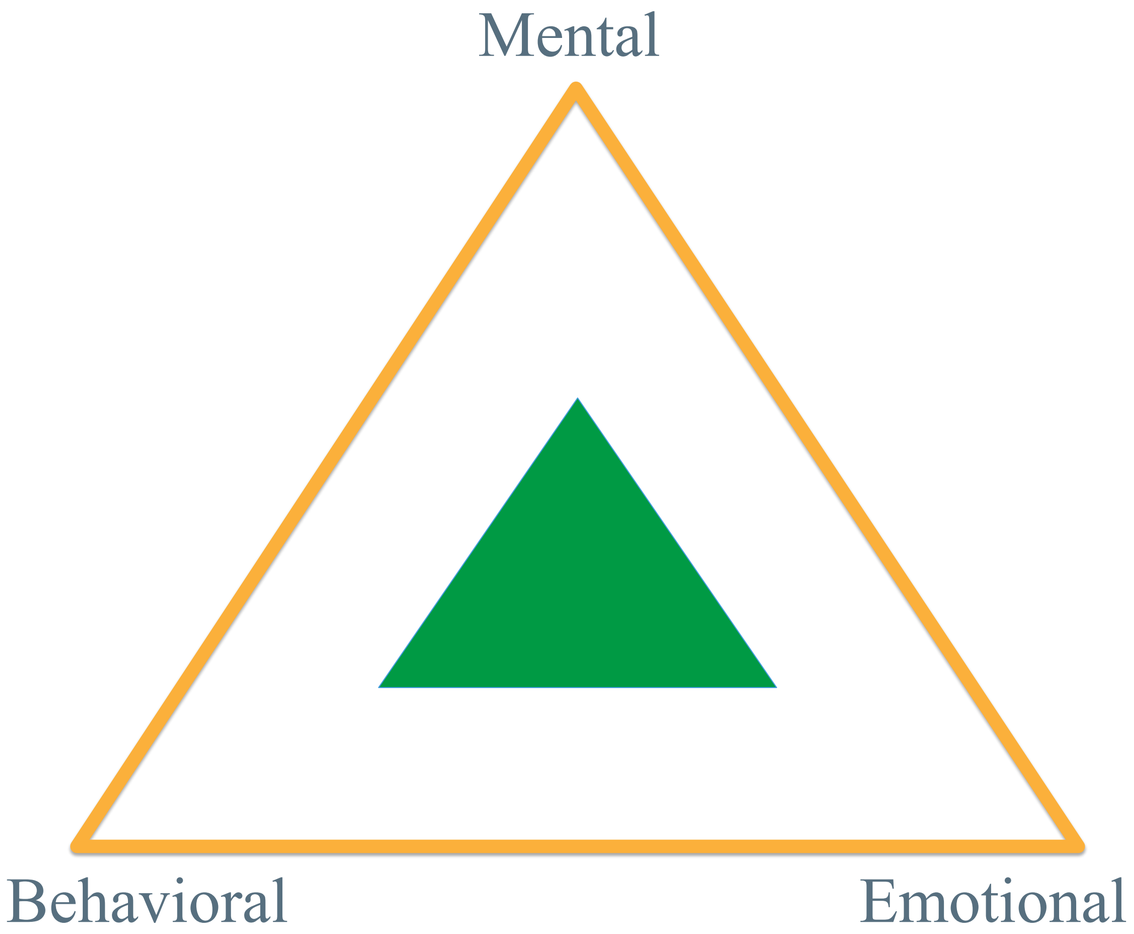
Behavioral

Emotional

- The green triangle represents student engagement independent of support from others.

(Borup et al., 2020)

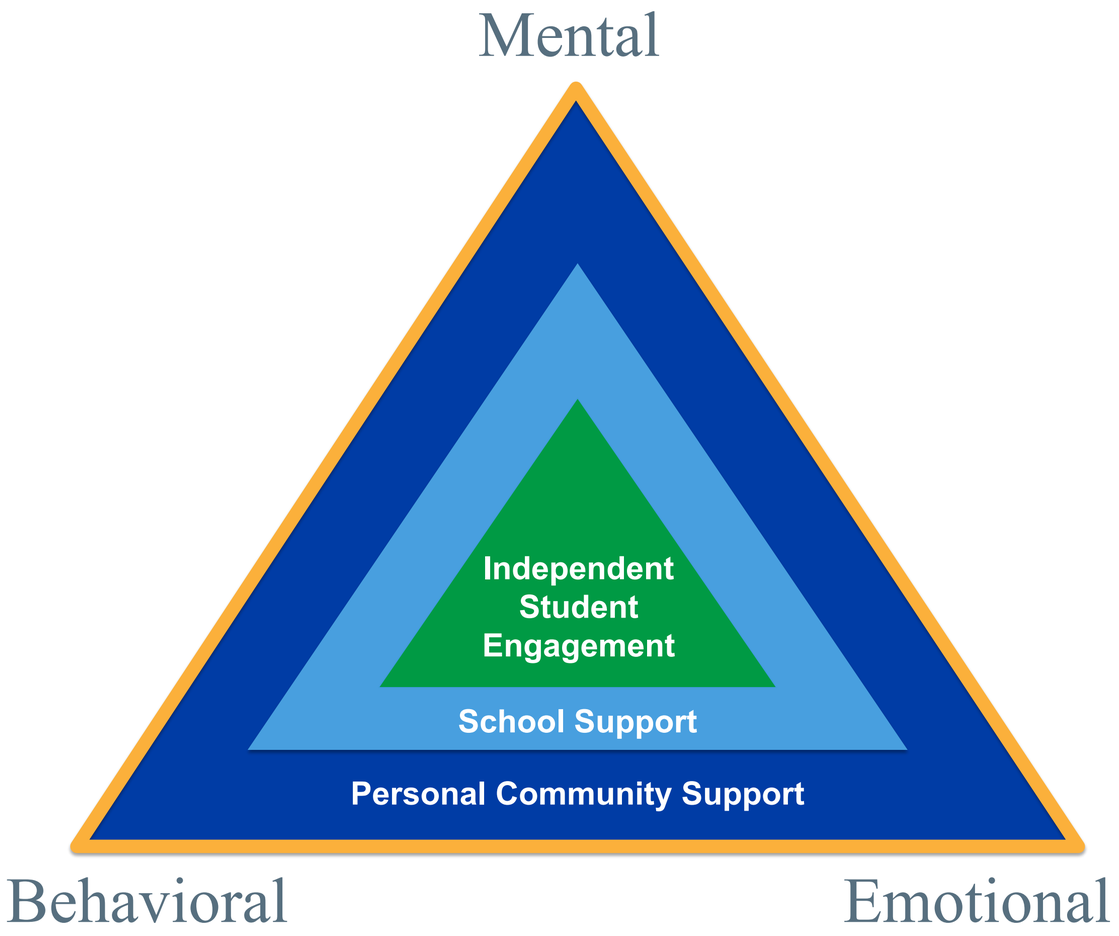
Model of student engagement in online learning



- The green triangle represents student engagement independent of support from others.
- The yellow triangle outline represents the amount of student engagement necessary for academic success.

(Borup et al., 2020)

Model of student engagement in online learning



- The green triangle represents student engagement independent of support from others.
- The yellow triangle outline represents the amount of student engagement necessary for academic success.
- The light blue triangle represents student engagement resulting from school support.
- The dark blue triangle represents student engagement resulting from personal community support.

(Borup et al., 2020)

Poll

Think about the students you work with now and the modalities being used for teaching. Which type of engagement do you think is the *easiest* to influence in an online environment?

- **Behavioral**: Energy exerted to complete classwork assignments.
  - Examples: attendance, participation, completing work, following procedures, time on task.
- **Emotional**: Energy associated with feelings about the classroom.
  - Examples: boredom vs. enjoyment or interest, anxiety or frustration vs. confidence, sadness vs. happiness.
- **Mental**: Energy exerted when involved in classwork activities.
  - Examples: attention, absorption, concentration, persistence, cognitive/metacognitive strategy use.

(Borup et al., 2014; Borup et al., 2020)

How to promote *behavioral* engagement: *1. Troubleshooting and orienting*

- Make sure students have the technology they need.
- Provide support for accessing and navigating courses.

1

(Borup et al., 2020; Quality Matters & the Virtual Learning Leadership Alliance, 2019)

How to promote *behavioral* engagement: *2. Organizing and managing*

- Direct instruction in using self-regulated learning strategies.
- Implement structures to support student use of self-regulated learning strategies.

1

(Abrami et al., 2011; Chambers et al., 2020; Means et al., 2009; Quality Matters & Virtual Learning Leadership Alliance, 2019)

How to promote *behavioral* engagement: *3. Monitoring and encouraging progress*

- Communicate frequently regarding student progress.
- Engage in ongoing, open, proactive, and continuous communication with parents and counselors.
- Communicate study practices that parents can use to support students' learning.
- Provide clear feedback to students that explains how their work does or does not demonstrate mastery.

1

(Borup et al., 2020; Means et al., 2009; Quality Matters & Virtual Learning Leadership Alliance, 2019)

How to promote *emotional* engagement:
1. Facilitating communication and developing relationships

- Cultivate social presence.
- Develop relationships with students and families by communicating with them outside of class.
- Add synchronous elements when the class is primarily asynchronous.
- Engage in deliberate rapport building.
- Develop ways for students to engage with each other.

1

(Abrami et al., 2011; Banna et al., 2015; Bernard et al., 2009; Borup et al., 2020; Dixon, 2010; Kerhrwald, 2008; Murphy & Rodriguez-Manzanares, 2008; Quality Matters & Virtual Learning Leadership Alliance, 2019)

How to promote *emotional* engagement: *2. Instilling excitement for learning*

- Provide opportunities for social interaction through fun activities.
- Incorporate daily motivational videos into the schedule.
- Communicate with students about their interests and provide instruction aligned with those interests.

(Abrami et al., 2011; Banna et al., 2015; Bernard et al., 2009; Borup et al., 2020; Dixon, 2010; Kerhrwald, 2008; Murphy & Rodriguez-Manzanares, 2008; Quality Matters & Virtual Learning Leadership Alliance, 2019)

1

How to promote *mental* engagement:
1. Using varied instructional techniques

- Offer office hours for feedback and extra help.
- Use various feedback formats (such as written or verbal).
- Provide clear, accurate feedback about students' developing competencies, expertise, and skills.
- Create opportunities to both challenge students and for them to be successful.
- Develop relevant tasks and instructional materials to help students identify with the school and content to be learned.
- Incorporate multimedia learning principles.
- Engage students in active learning.

1

(Abrami et al., 2011; Borup et al., 2020; Dixon, 2010; Quality Matters & Virtual Learning Leadership Alliance, 2019)

How to promote *mental* engagement:
2. Providing opportunities for collaboration

- Support discourse that focuses on importance and utility of content and activities.
- Include opportunities for structured group work and cooperative learning.
- Provide clear guidelines about the content for online discussions.
- Model good interaction in online discussion groups.

1

(Abrami et al., 2011; Chambers et al., 2020; Lou et al., 2001)

Guest speakers: Engagement

What are some of the methods that teachers used to successfully engage students during remote or hybrid learning?

What advice do you have for educators about how to engage students as we move into the next school year?

Part 1 Wrap-up

Summary

Three types of engagement:

- Behavioral
- Emotional
- Mental

Different strategies are used to support different types of engagement.

2

Check-in

Chat:

A strategy I have used to successfully engage students in a remote setting is…

Part 2: Monitoring Student Progress and Providing Feedback

Four formative assessment practices

Clarify learning

- Identify learning targets.
- Support students to understand success criteria.

Monitor student progress

- Gather information about where students are in their learning.

Provide feedback

- Support students to move forward with their learning.
- Promote reflection and identification of future outcomes.

Activate learners

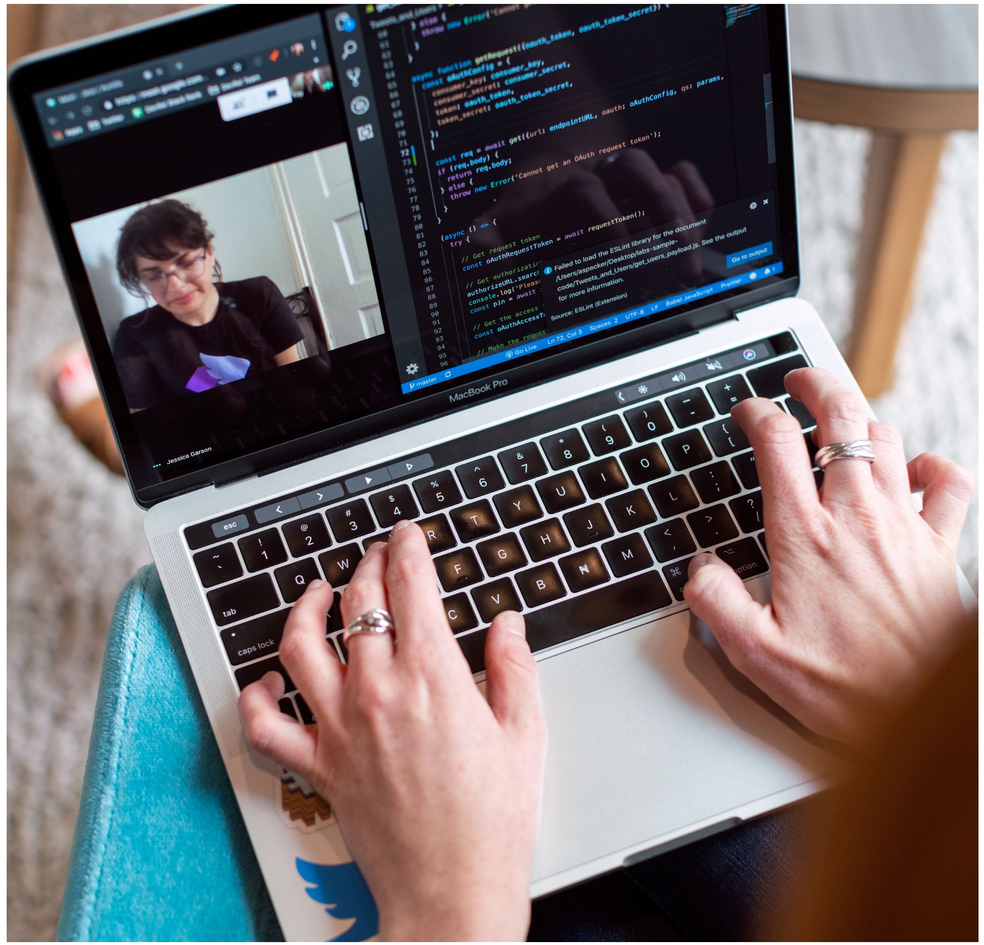
- Support students to set their learning goals and monitor their progress.
- Empower students to be resources for each other.

(Hattie, 2009; Moss & Brookhart, 2009; Northwest Evaluation Association, 2016)

Formative Assessment: Monitoring Student Progress

Digital tools for monitoring student progress and how to use them

- Chat and poll features in your conference platform
- Data from instructional technologies
- Other digital tools



Using chat and polls to monitor student learning and behaviors

Assessing levels of understanding	Assessing attitudes and behaviors
Recall	Student perspective
Conceptual understanding	Confidence level
Application	Monitoring
Critical thinking	

3

(Dabbagh et al., 2019)

Using data from instructional technologies

Instructional technologies* often provide information such as:

- Time spent on activities.
- Information about questions answered correctly or incorrectly.
- Whether students got an item right on the first try, or if they took multiple attempts.
- Which incorrect answers students give most frequently.
- Frequency with which students access course content.

**Available data varies depending on the technology being used.*

(Molenaar & Knoop van-Campen, 2018; Schifter et al., 2014; Xhakaj et al. 2017)

Using other digital tools for monitoring student progress

Why use other technology?	Examples
Incorporate engaging activities that still allow you to monitor students in real-time.	**Kahoot** is a game-based software that engages students while providing teachers with necessary data.
Integrate with Google Classroom and other learning management systems to facilitate data sharing across existing programs.	**Nearpod** allows teachers to integrate interactive lessons and activities with Google Slides.
Provide students with additional opportunities to share their learnings.	**Padlet** provides an online "wall" where students can share their learning in creative ways. **Wakelet** allows students to build their own portfolios to showcase their work.
Save time on data collection and grading through automatic assessment and polling features.	**Poll Everywhere** and **Answer Garden** allow teachers to create polls for students and display the results.

Example technology for monitoring student progress: Nearpod

Compare the rainfall in Seattle, WA, Austin, TX, and Johnson City, TN. If you liked the rain, which city would you want to live in and why?

Student	Answer	PARTICIPATION 67%
Eva	It seems to rain a normal amount here in Johnson City. I have never been to Seattle or A…	Share
Sarah	Seattle gets more rain than the other two places. I would want to live in Austin, TX beca…	Share
John	NO ANSWER	

Formative Assessment: Providing Feedback

Pop quiz: Using the chat, what are the characteristics of effective feedback?

Activity: What are the characteristics of effective feedback?

Effective feedback is:

- Focused on the task rather than the student.
- Used to enhance learning, rather than just information about accuracy of responses.
- Clear and specific.
- Not too complex.
- Offered in manageable amounts.
- Linked to learning goals.
- Delivered when there is still time to use it.
- Tailored to meet students' varying needs.

(Shute, 2007)

3

Two time-saving feedback strategies

- Targeted response
- Micro-conference

3

(Johnson, 2020)

Time-saving ideas for providing feedback in a remote setting

- Targeted Response: Focus your feedback solely on one or two targeted learning goals and make the most of software already in use.

My summer vacation was pretty weird, this year. Because of COVID I could't go to camp like I usually do and instead I was stuck at home most of the time. It was good because, I got to sleep late and because, I could stay up late too. But I missed my summer friends.

Time-saving ideas for providing feedback in a remote setting

- Micro-conference: A one or two minute, focused, carefully structured conversation.
- Conferring one-on-one with students can be valuable for four reasons:
  1. Provides an opportunity for individualized instruction and feedback.
  2. Misconceptions can be cleared up.
  3. Relationships are built.
  4. Students feel heard by a caring adult.

(Johnson, 2020)

Research on audio and video feedback

- Students have positive perceptions of audio and video feedback.
- Students were motivated by audio and video feedback.
- Students perceived audio and video feedback to be more personal than written feedback.
- Teachers need not put a lot of effort into editing audio or video files.
- Audio feedback may be as effective as written feedback.

(Anson, 2015; Bialowas & Steimel, 2019; Henry et al., 2020; Morris & Chickwa, 2016; Parkes & Fletcher, 2016)

Tools for audio and video feedback

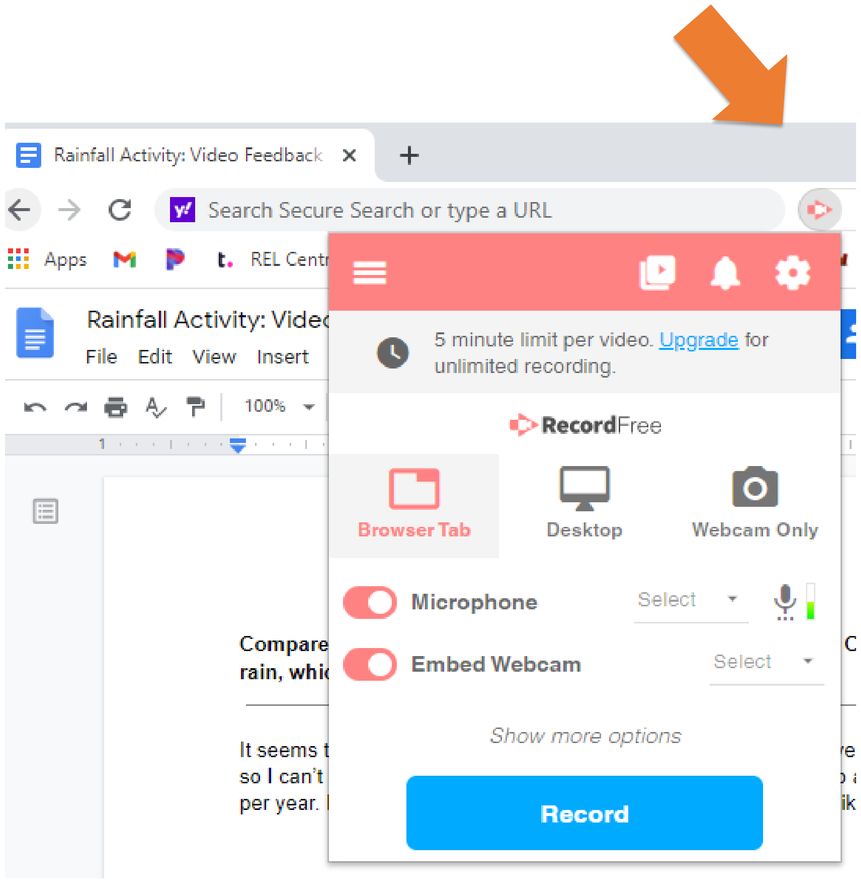
Your computer may already include recording tools and screen capturing capability. Other platform examples include:

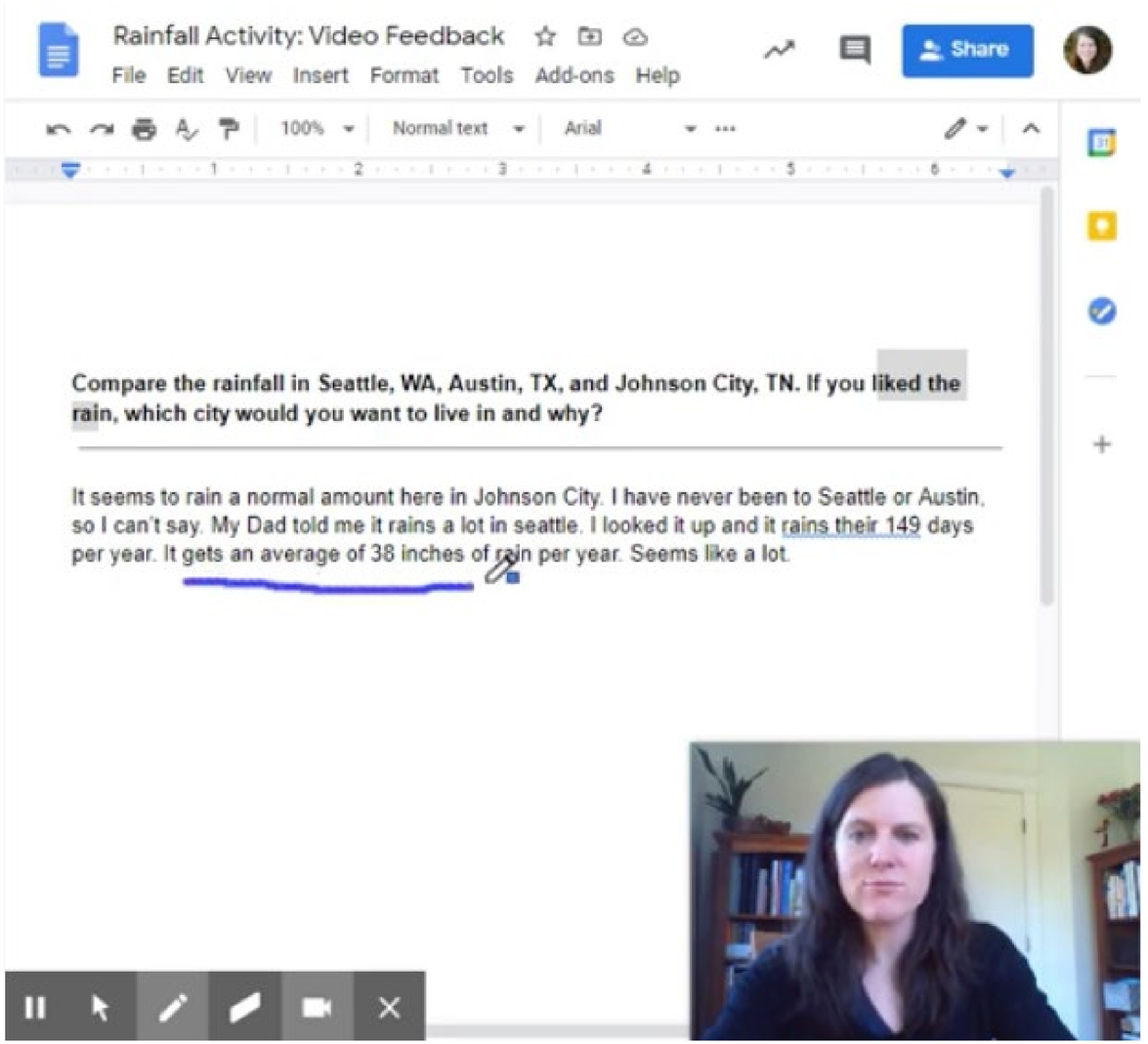
- Screencastify
- Hippo
- Tinytake
- ScreenRec
- Screencast-O-Matic

4

Example of video feedback: **Screencastify**

[Link to Example]





Research on benefits of peer feedback

- Empowers students to serve as resources for each other.
- Increases students' understanding of subject matter.
- Exposes students to different approaches to an assignment.
- Supports students to engage in self-reflection.
- Improves students' motivation to improve their own work.
- Supports students to develop critical thinking skills.
- Supports students to improve their communication skills.

(Hwang et al., 2018; McCarthy, 2017)

Considerations when implementing peer feedback

Support students to give good quality feedback

Research suggests students can provide more detailed or accurate feedback when teachers provide scaffolds, such as rubrics or feedback forms.

Consider whether to make peer feedback anonymous

Research suggests students give feedback of similar quality when they were anonymous or identified. However, students may prefer to give anonymous feedback.

(Double et al., 2020; Kobayashi, 2020; McCarthy, 2017)

Tools for peer feedback

- Learning management systems
  - Canvas
  - Google Classroom
- Form generators
  - Google Forms
- Whiteboards
  - Google Jamboard
  - Miro
- Peer feedback platforms
  - Peer Grade
  - Peer Studio

Google Forms for peer feedback

View the feedback in summary report or download to Google Sheets:

Email address	Which city would your peer want to live in if they liked the rain?	How did your peer describe the rainfall in Seattle?	How did your peer describe the rainfall in Austin?	How did your peer describe the rainfall in Johnson City?	What is your assigned peer number?
###	I don't know	Average days per year of rain, Average amount of rain per year	Did not know	A normal amount	10

Guest speakers: Formative assessment in a remote setting

What are some of the methods that teachers used to successfully monitor students and provide feedback during remote or hybrid learning?

What advice do you have for educators about how to best monitor student and provide feedback as we move into the next school year?

Part 2 Wrap-up

Check-in

My best ideas for monitoring students and providing feedback are...

Wrap-up

For our growth…

We appreciate your feedback as we continue to improve our work to meet your needs!

Thank you!

https://ies.ed.gov/ncee/edlabs/regions/appalachia

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tinyurl.com/subscribe-REL-AP

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