

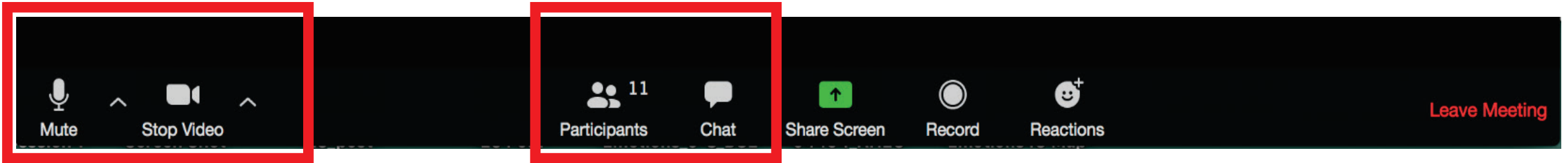
Oklahoma evidence-based blended learning programs and instructional practices

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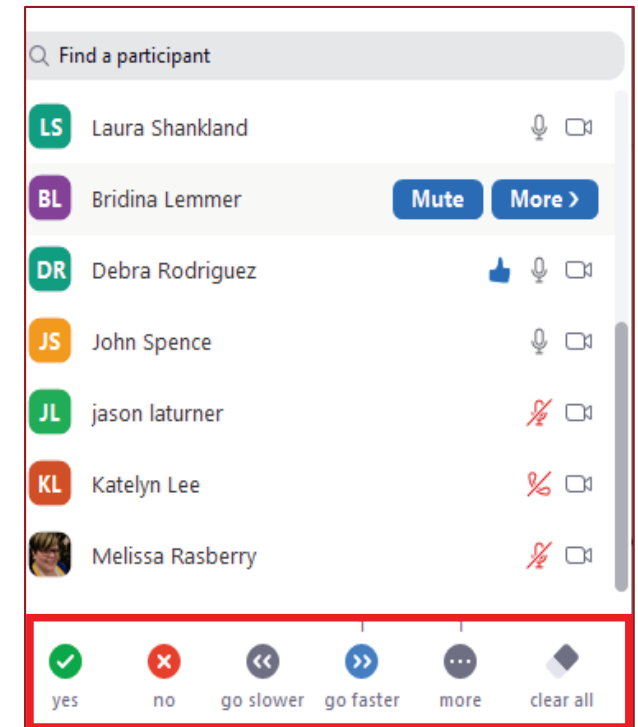
October 26, 2020

Welcome and introductions



- Use the black bar on your screen to control your audio and video and to view the participant list and chat.
 - When you join, your audio will be muted. Please remain muted when you are not speaking.
 - We welcome you to turn on your camera and join us via video.
- Use the buttons on your participant feedback bar to volunteer to speak; the presenter will call on you.
- Use the chat to stay engaged and to contact us about any technical issues.

Participants Lists



Agenda

1. Introduction to the session
2. The “why?” and the “how?”
3. The “what?” and the “so what?”
4. “Now what?”
5. Next steps

Meet the presenters



David Blumenthal

*Researcher,
Research & Evaluation*



Ginger Stoker, Ph.D.

*Senior Researcher,
Research & Evaluation*

Tell us about you!

- Name.
- Organizational role.
- Halloween plans and/or favorite candy.



Today's goals and objectives

- Review the results of the evidence review of blended learning programs and instructional practices.
- Discuss implications for our work with schools and districts.
- Begin planning for training with schools and districts.

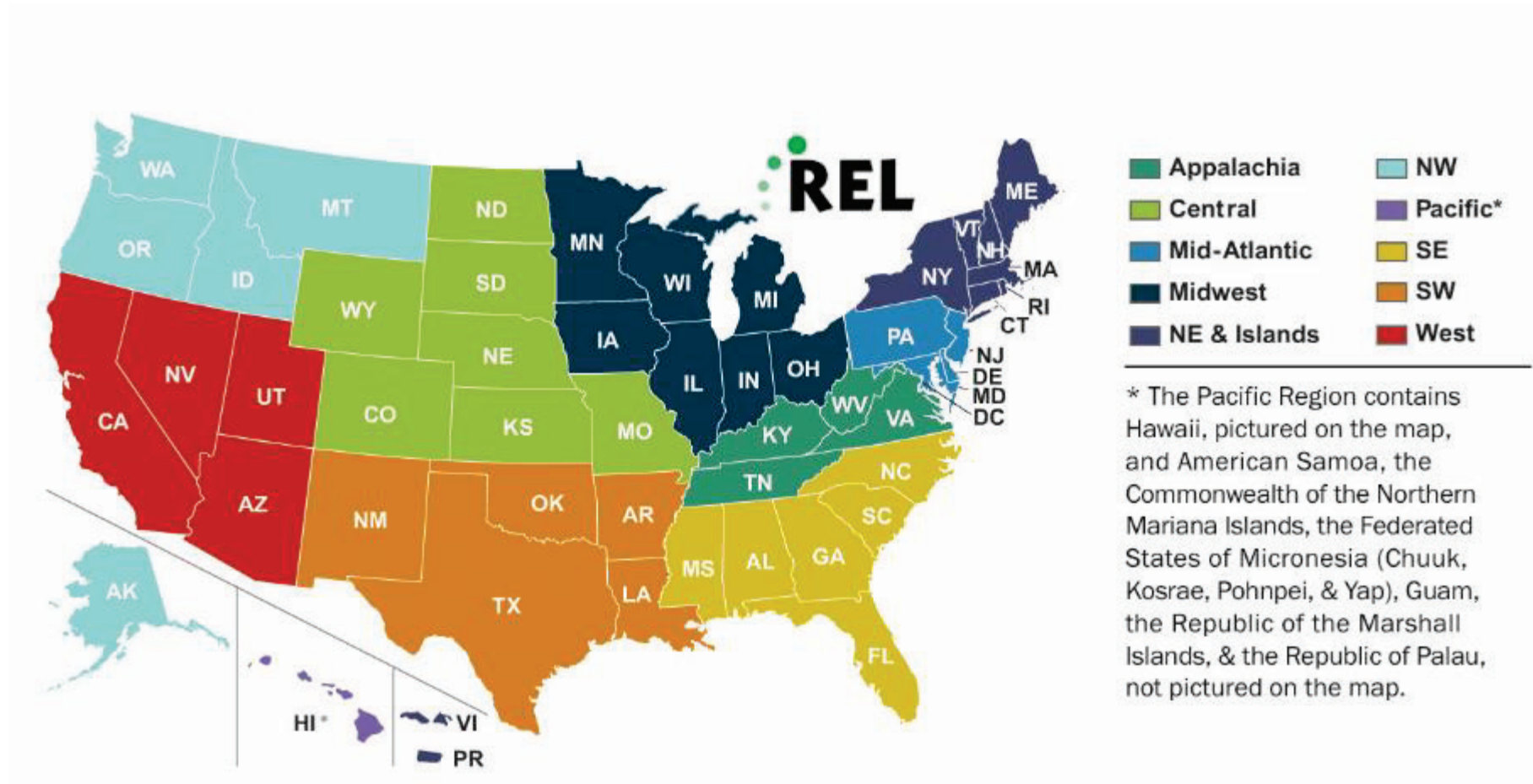


Project timeline



Introduction to REL Southwest

Regional educational laboratories



The REL mission

To support the use of **research and evidence** to help states and districts **improve their education programs** and, ultimately, **student performance**.

This mission is accomplished by increasing individual and organizational capacity to access, understand, interpret, critique, apply, and/or conduct research within state education agencies, local education agencies, and other educational organizations.

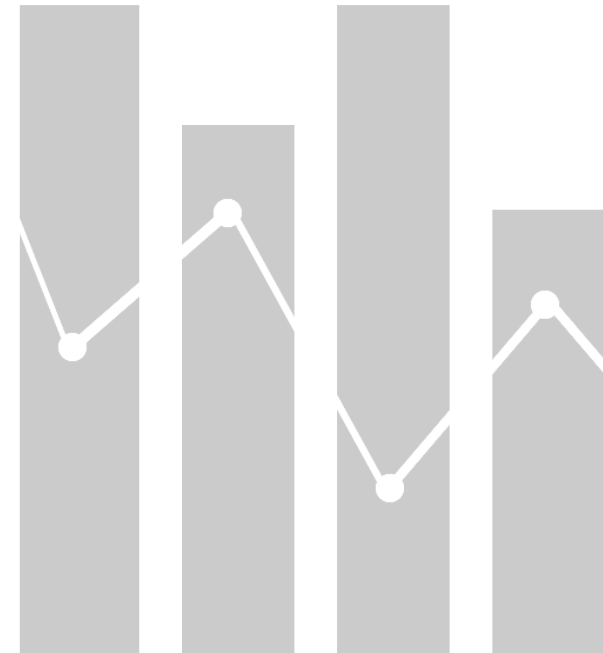
With whom does REL Southwest work?

Districts, state education agencies,
and other education organizations in
Arkansas, Louisiana, New Mexico,
Oklahoma, and Texas



What does REL Southwest do?

Applied research, technical support,
and engagement activities to help
partners understand and use research
and evidence



The “why?”

The need for the project, goals, and proposed outcomes

Why do we care about using evidence-based practices?

- Schools identified for targeted supports must implement at least one intervention that meets **promising** evidence under the ESSA.
- Some federal grant programs (such as Striving Readers and Promise Neighborhoods) require interventions that meet **strong** and **moderate** evidence.
- Other activities require interventions that at least **demonstrate a rationale**.
- And of course, evidence provides understand for what practices are likely to improve student outcomes!

Pop quiz!

Match the ESSA tier of evidence that is the highest rating that would be possible for each study design.

ESSA tier		Study design	
1	Strong evidence	A	Provides a well-specified logic model informed by research
2	Moderate evidence	B	Correlational study with statistical controls for selection
3	Promising evidence	C	Experimental study
4	Demonstrates a rationale	D	Quasi-experimental study

Pop quiz answers!

Match the highest ESSA tier of evidence rating the study design can possibly meet in the following table:

ESSA tier		Study design	
1	Strong evidence	C	Experimental study
2	Moderate evidence	D	Quasi-experimental study
3	Promising evidence	B	Correlational study with statistical controls for selection
4	Demonstrates a rationale	A	Provides a well-specified logic model informed by research

Project goals and outcomes

Short-term outcome: Increase understanding of evidence-based practices associated with learning outcomes in blended learning.

Medium-term outcome: Improve implementation of evidence-based practices among targeted support schools in Oklahoma during the 2020/21 school year.

Long-term outcome: Increased use of evidence-based practices during blended instruction and improved student learning in core academic subjects.

The “how?”

The evidence review process: criteria, tiers of evidence, searches, and categories

The screening process

REL Southwest began with a list of 932 studies that looked at distance learning strategies. To be included, studies had to meet the following criteria:

- Conducted within the last 20 years in the United States.
- Described interventions that could feasibly be used for blended learning (a component that could be completed on a computer, could be completed by students from home, and required minimal teacher interaction).
- Included elementary, middle, or high school students.
- Demonstrated significant and positive effect on (or association with) the outcomes of interest.
- Included a treatment group and a comparison group.

ESSA tiers of evidence

	Tier 1: Strong evidence	Tier 2: Moderate evidence	Tier 3: Promising evidence	Tier 4: Demonstrates a rationale
Study design	Experimental study	Quasi-experimental study	Correlational study with statistical controls for selection	Provides a well-specified logic model informed by research or evaluation

Source: U.S. Department of Education (2016, p. 12).

ESSA tiers of evidence

	Tier 1: Strong evidence	Tier 2: Moderate evidence	Tier 3: Promising evidence	Tier 4: Demonstrates a rationale
WWC standard	Meets WWC evidence standards without reservations	Meets WWC designs standards 2.1 or higher with reservations	N/A	N/A

Source: U.S. Department of Education (2016, p. 12).

ESSA tiers of evidence

	Tier 1: Strong evidence	Tier 2: Moderate evidence	Tier 3: Promising evidence	Tier 4: Demonstrates a rationale
Favorable effects	Shows a statistically significant and positive effect of the intervention on a student outcome or other relevant outcome	Shows a statistically significant and positive effect of the intervention on a student outcome or other relevant outcome	Shows a statistically significant and positive effect of the intervention on a student outcome or other relevant outcome	Relevant research or an evaluation that suggests the intervention is likely to improve a student outcome or other relevant outcome

Source: U.S. Department of Education (2016, p. 12).

ESSA tiers of evidence

	Tier 1: Strong evidence	Tier 2: Moderate evidence	Tier 3: Promising evidence	Tier 4: Demonstrates a rationale
Other effects	Is not overridden by statistically significant and negative evidence from other findings in studies that meet WWC evidence standards with or without reservations	Is not overridden by statistically significant and negative evidence from other findings in studies that meet WWC evidence standards with or without reservations	Is not overridden by statistically significant and negative evidence from other findings in studies that meet WWC evidence standards with or without reservations	An effort to study the effects of the intervention, ideally producing promising evidence or higher, will happen as part of the intervention or is under way elsewhere

Source: U.S. Department of Education (2016, p. 12).

ESSA tiers of evidence

	Tier 1: Strong evidence	Tier 2: Moderate evidence	Tier 3: Promising evidence	Tier 4: Demonstrates a rationale
Sample size and overlap	Includes a large sample and a multisite sample, overlapping with populations and settings proposed to receive the intervention	Includes a large sample and a multisite sample, overlapping with populations OR settings proposed to receive the intervention	N/A	N/A

Source: U.S. Department of Education (2016, p. 12).

Questions?



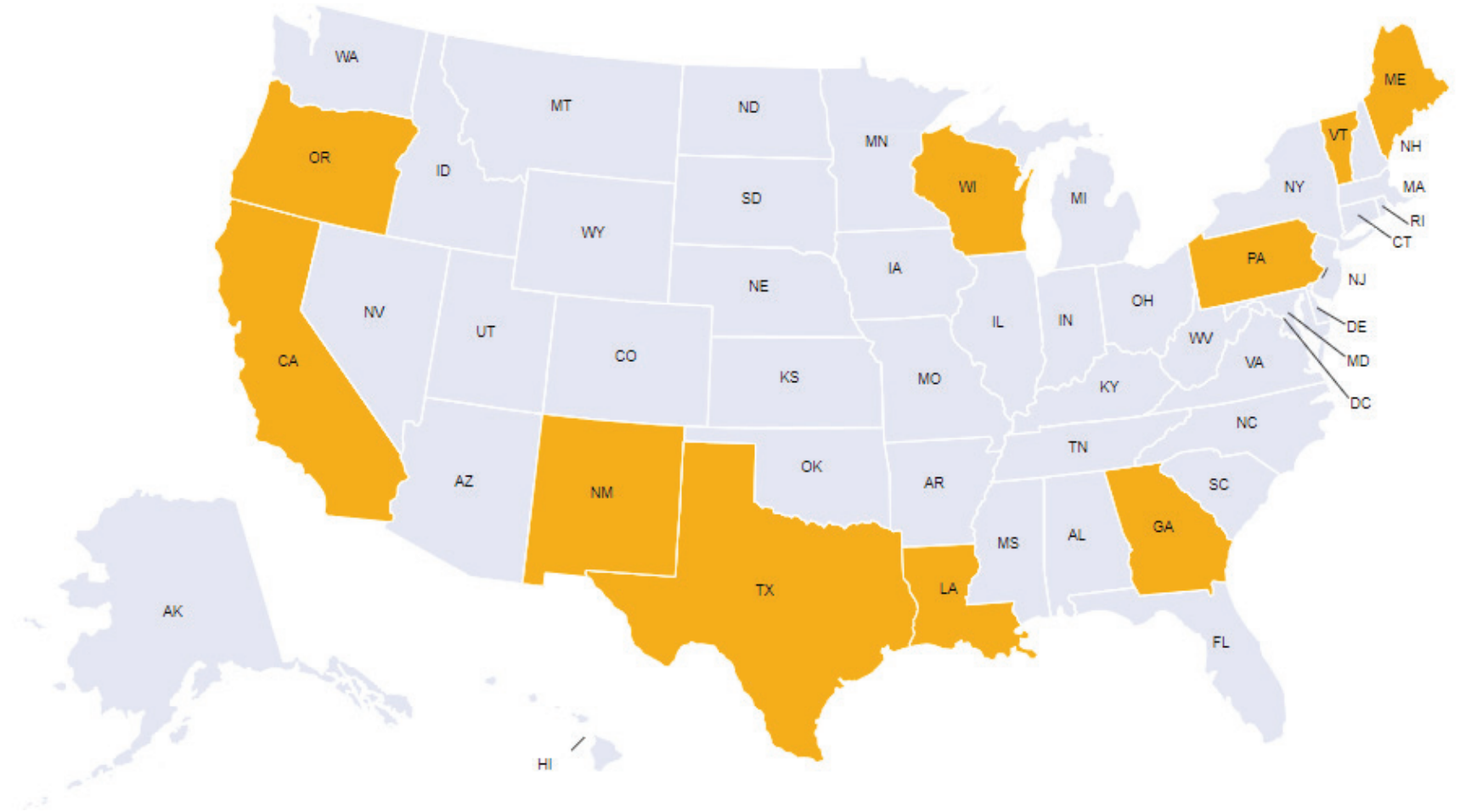
The “what?”

Results of the evidence review

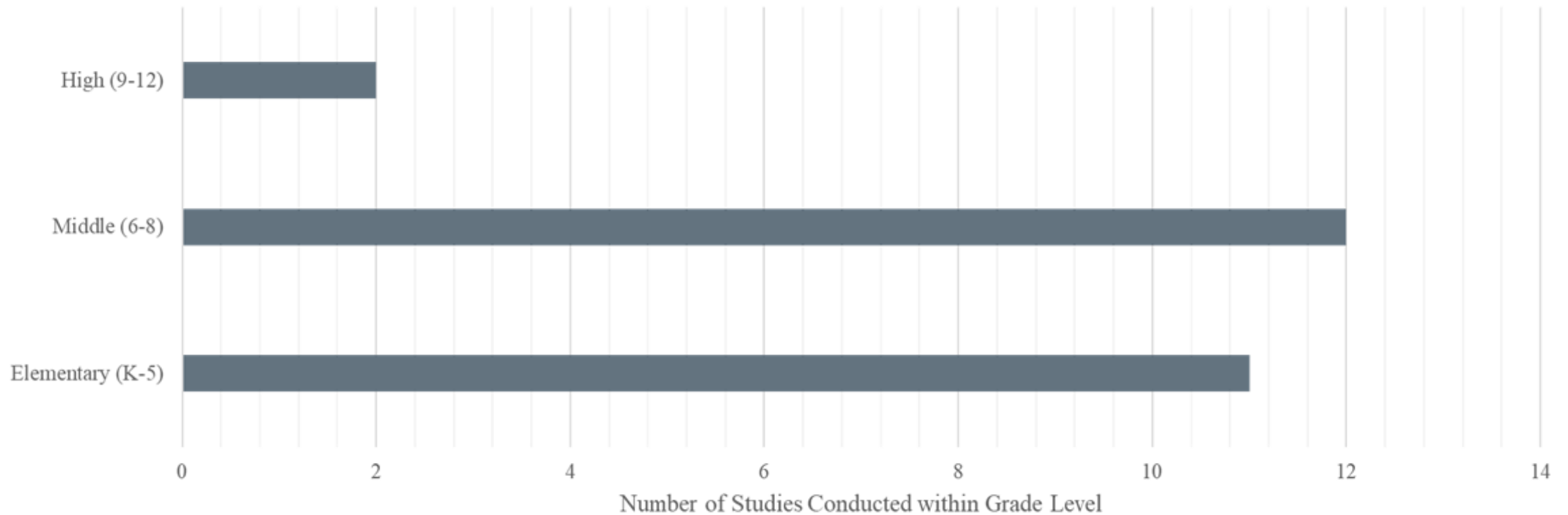
Where was the research conducted?

States identified in reviewed studies

Additional studies did not specify states but noted the location as: the Midwest, New England (3 studies), the Southeast, or no specific geographic region.



What grade levels were included in the research?



Blended learning strategies: Mathematics achievement

- *Mathematics games*
 - Math video games
 - Math Snacks
 - Spatial-Temporal Math
- *Mathematics curriculum*
 - DreamBox Learning
 - Class.com Algebra I
 - SimCalc
 - Enhanced Anchored Instruction
- *Mathematics problem sets*
 - ASSISTments

Blended learning strategies: Mathematics engagement

- *Mathematics problem sets*
 - Tenmarks Math

Blended learning strategies: Reading achievement

- *Online reading tutoring*
 - Intelligent Tutoring of the Structure Strategy
- *Supplemental reading instruction*
 - Reading Plus
 - READ 180
 - Passport Reading Journeys
 - Achieve3000
 - Imagine Language & Literacy
 - Affable Reading Tutor
 - Improving Comprehension Online

Blended learning strategies: Science achievement

Online science units: Project eText Supports for Collaborative Online Learning and Academic Reading

Intervention rating by intervention type

Intervention	Intervention type	Author	Grades			Location	State	ESSA	
			K-5	6-8	9-12			Tier eligible	Rating finalized
Mathematics achievement									
Mathematics games									
Math video games	Online mathematics games	Chung, G. K. W. K., Choi, K., Baker, E., & Cai, L. (2014)		X		Rural, urban, suburban	CA	Tier 1, Strong Evidence	Yes
Math Snacks	Online mathematics games	Wiburg, K., Chamberlin, B., Valdez, A., Trujillo, K., & Stanford, T.B. (2016)	X			ns	NM	Tier 1, Strong Evidence	No
Spatial-Temporal Math	Game-based instructional mathematics software	Wendt, S., Rice, J., & Nakamoto, J. (2019)	X			ns	Multiple	Tier 2, Moderate Evidence	No
Mathematics curriculum									
DreamBox Learning (mathematics)	Adaptive online mathematics curriculum	Wang, H., & Woodworth, K. (2011)	X			Urban	CA	Tier 1, Strong Evidence	Yes
Class.com Algebra I	Online algebra course	Heppen, J. B., Walters, K., Clements, M., Faria, A., Tobey, C., Sorensen, N., & Culp, K. (2012)		X		Rural	VT, ME	Tier 1, Strong Evidence	Yes
SimCalc	Interactive software-based curriculum	Roschelle, J., Shechtman, N., Tatar, D. G., & Hegedus, S. (2010).		X		ns	TX	Tier 1, Strong Evidence	Yes
Enhanced Anchored Instruction	Blended learning mathematics curriculum	Bottge, B. A., Ma, X., Gassaway, L., Toland, M. D., Butler, M., & Cho, S. (2014)		X		ns	ns	Tier 2, Moderate Evidence	Yes

- Excerpt from draft evidence review memo.
- Memo will be updated when the all ESSA ratings are finalized (when WWC reviews are completed).

Discussion questions

1. What is a *surprising* about this evidence review?
2. Do you recognize the interventions that have been included in the evidence review?
3. Are there other blended learning interventions that you had hoped would have rigorous evidence for their effectiveness?
4. What is an *interesting* finding of the evidence review?

Poll question: To what degree do you feel the districts and schools with which you work are currently implementing evidence-based practices?

1. Most or all districts and schools are currently and successfully implementing evidence-based practices.
2. Some or a few districts and schools are currently and successfully implementing evidence-based practices.
3. Hardly any or no districts and schools are currently implementing evidence-based practices.
4. My districts and schools are not prepared to implement evidence-based practices.
5. I am not sure.

The “so what?”

Implications for working with local education agencies

Breakout group discussion

Breakout discussions (part 1)

1. What are the primary challenges to implementing new evidence-based practices faced by our districts and schools during normal time periods (for example, staff capacity, infrastructure, leadership support, resources, other)?
2. What specific challenges are present because of the effects of COVID-19?

The background of the slide features a blue-tinted image of a desk. On the right side, there is a large, round analog clock with a white face and black hands. To the left of the clock, a pen is lying horizontally. The overall scene is dimly lit, with the clock and pen being the primary focal points.

Take a break

See you in 30 minutes.

Now what?

What can be adapted by local education agencies?

Breakout discussions (part 2)

1. What challenges are districts having with providing effective instruction in a blended learning environment?
2. How could this evidence review be useful to your districts and schools?
3. What other types of supports need to be provided to ensure that districts and schools are prepared to implement at least one new evidence-based blended learning program or practice?
4. How will you measure the level of implementation at your districts and schools?

Keeping pace: Strategies for ensuring equitable continuity of learning during the COVID-19 pandemic

1. Use curriculum-based assessment and measurements.
2. Establish community homework centers.
3. Plan alternative scheduling models.
4. Provide ongoing, real-time, synchronous feedback and interaction with teachers.
5. Implement a universal social and emotional learning program

Source: REL Mid-Atlantic (2020).

Next steps

Where will we go with this work?

Project timeline



Next steps

1. Read through the evidence review and identify which strategies would be potential candidates for your districts and schools.
2. Read the two handouts: the **REL Mid-Atlantic Fact Sheet** on ensuring equitable continuity of learning and the **REL Southeast Research Brief** on strategies when students and teachers are physically distant for additional information.
3. Attend the debrief session on Monday, November 2, to discuss the strategies and takeaways.

Questions?



Contacts

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References

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- REL Southeast. (2020). When teachers and students are separated: Strategies from research on social presence for teaching at a distance [Research Brief]. Retrieved October 12, 2020 from https://ies.ed.gov/ncee/edlabs/infographics/pdf/REL_SE_When_Teachers_and_Students_are_Separated.pdf
- U.S. Department of Education. (2016). *Non-regulatory guidance: Using evidence to strengthen education investments*. Retrieved October 12, 2020, from <https://www2.ed.gov/policy/elsec/leg/essa/guidanceuseinvestment.pdf>.

Thank you!



<https://ies.ed.gov/ncee/edlabs/regions/southwest/index.asp>



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