



Understanding and Using Research Lakes Country Service Cooperative

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Introduce yourself

- Name
- Title
- Describe your work



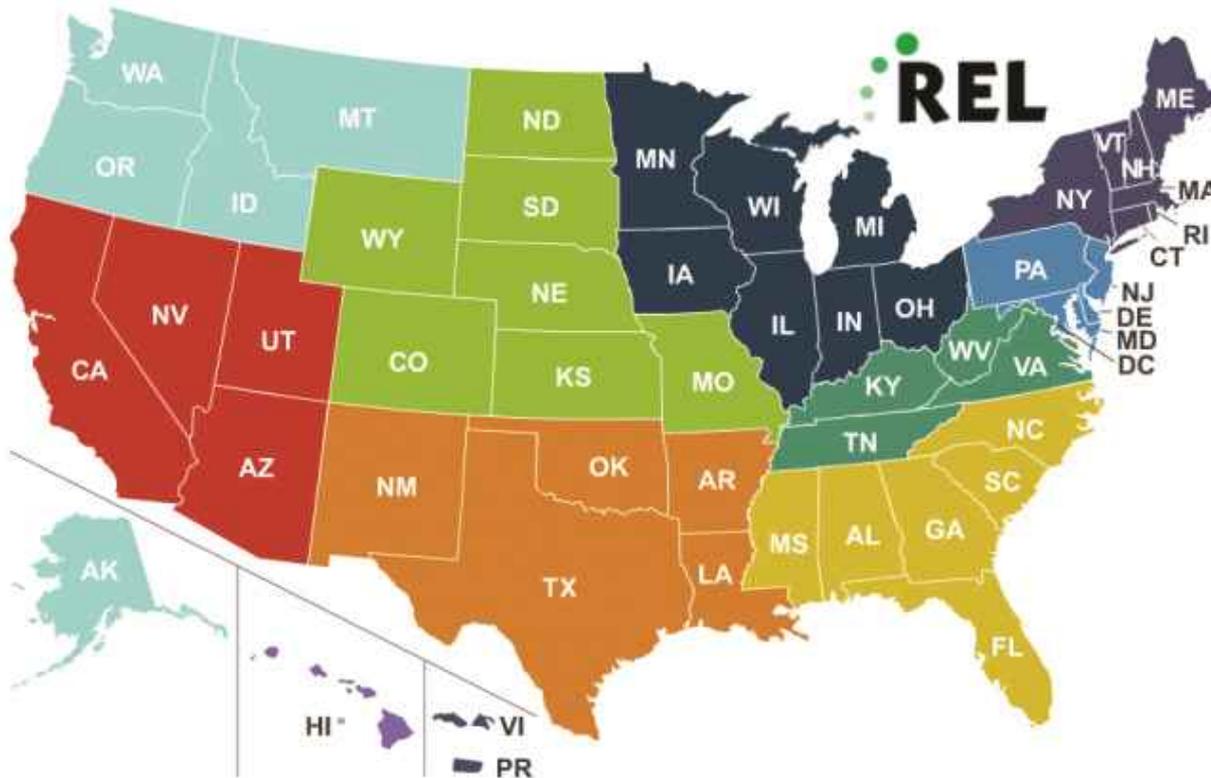
Today's goals

1. Discuss appropriate uses of different kinds of **data collection methods**.
2. Gain an overview of different types of research and **levels of evidence**.
3. Learn and practice accessing research databases and interpreting strength of findings.

Agenda

1. What is REL Midwest?
2. Overview of today's workshop
3. Data collection methods
4. Interpreting and accessing research
5. Continuous improvement model
6. Session close and evaluation

Regional Educational Laboratories



- | | |
|--------------|----------|
| Appalachia | NW |
| Central | Pacific* |
| Mid-Atlantic | SE |
| Midwest | SW |
| NE & Islands | West |

* The Pacific Region contains Hawaii, pictured on the map, and American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, & Yap), Guam, the Republic of the Marshall Islands, & the Republic of Palau, not pictured on the map.

REL Midwest States



Data collection methods

Data collection options

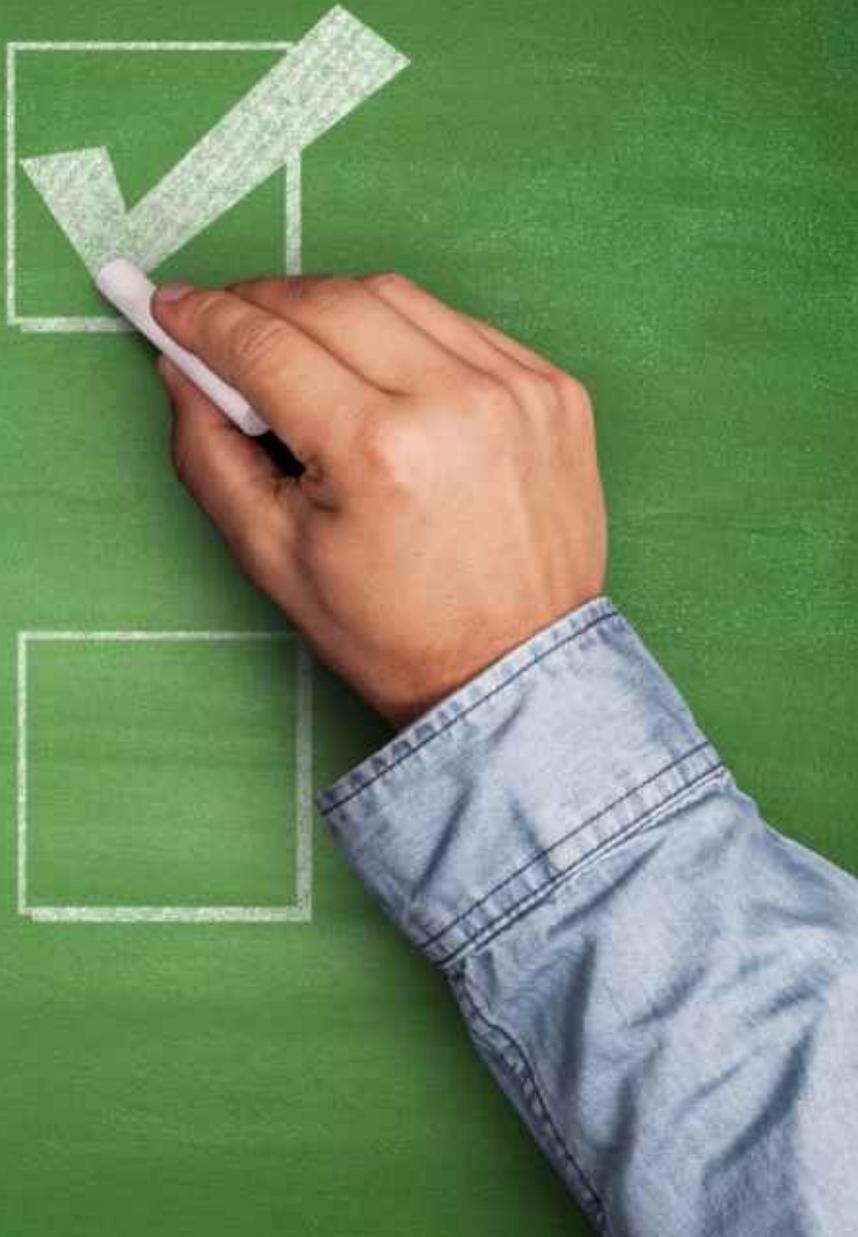
Interviews?
Focus groups?

Surveys?

Observations?

Access
existing data?





Surveys are appropriate data collection tools for many purposes ...

A survey can produce **quantitative descriptions** of the characteristics and viewpoints of a population.

- Describe current practices or behaviors.
- Understand attitudes.
- Evaluate the outcomes of a program or an initiative.
- Explore perceptions.

Focus groups



Help formulate and pretest survey items.

Explore quantitative survey findings.

Use as a stand-alone data collection method.

Interviews are suitable for investigating complex or sensitive topics.



Observations



Rubrics

	No implementation	Partial implementation	Full implementation
1.			
2.			
3.			
4.			

Analyzing existing data





Methods can work together to create better research tools and more comprehensive findings.

Activity: Research methods selection

Work in your group to select a data collection method (or combination of methods) that would be appropriate for each data need scenario.

Interpreting research and levels of evidence

How do we decide what programs, practices, and policies will be effective?

- Anecdotal evidence.
- Qualitative evidence.
- Descriptive analysis.
- Comparison of outcomes for those with and without the intervention.
- Causal analysis.

What is descriptive and what is causal?

Descriptive analysis

- Tells us about trends.
- Summarizes “snapshot” data or longitudinal trends.
- Does not account for all other potential influences in results.
- Has correlations or associations among data.

Causal analysis

- Highest level of rigor in analysis.
- Carefully planned and executed Randomized Control Trial or Quasi Experimental Design research design.
- Analysis can cover longitudinal or specific time frame (for example, a single year or relationships over several years).

Levels of evidence in the Every Student Succeeds Act (ESSA)

Tier 1 Strong evidence

- At least one well-designed, well-implemented **experimental** study
- Significant favorable outcomes
- Large sample
- Similar types of students and settings as intended application

Levels of evidence in the Every Student Succeeds Act (ESSA)

Tier 1 Strong evidence	Tier 2 Moderate evidence
<ul style="list-style-type: none">• At least one well-designed, well-implemented experimental study• Significant favorable outcomes• Large sample• Similar types of students and settings as intended application	<ul style="list-style-type: none">• At least one well-designed, well-implemented quasi-experimental study• Significant favorable outcomes• Large sample• Similar types of students or settings as intended application

Levels of evidence in the Every Student Succeeds Act (ESSA)

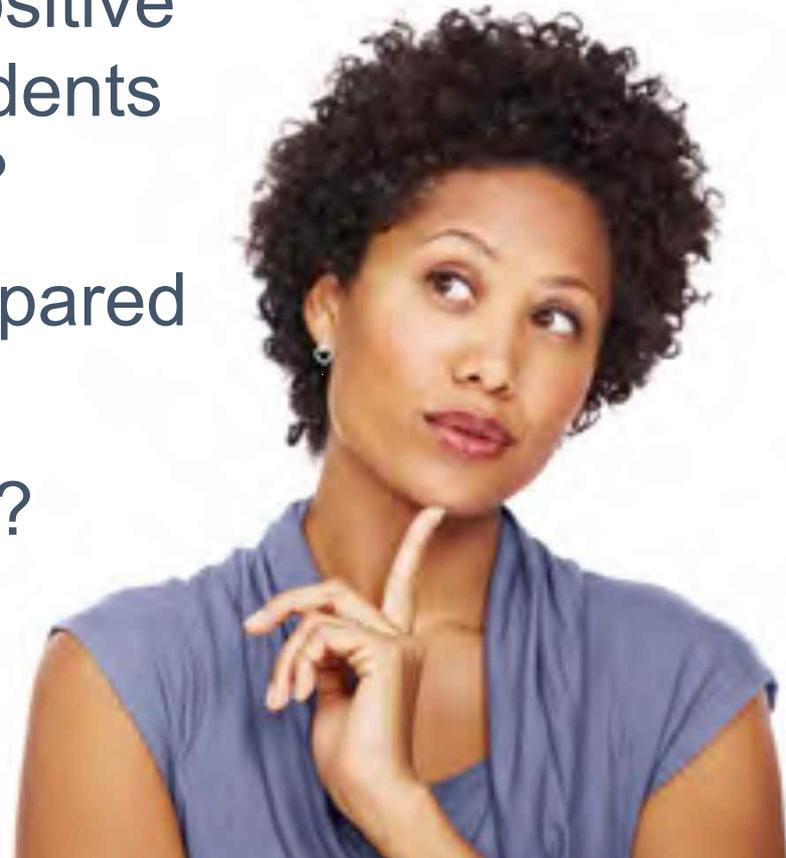
Tier 1 Strong evidence	Tier 2 Moderate evidence	Tier 3 Promising evidence
<ul style="list-style-type: none">• At least one well-designed, well-implemented experimental study• Significant favorable outcomes• Large sample• Similar types of students and settings as intended application	<ul style="list-style-type: none">• At least one well-designed, well-implemented quasi-experimental study• Significant favorable outcomes• Large sample• Similar types of students and settings as intended application	<ul style="list-style-type: none">• At least one well-designed, well-implemented correlational study• Significant favorable outcomes

Levels of evidence in the Every Student Succeeds Act (ESSA)

Tier 4 Demonstrates a rationale
<ul style="list-style-type: none">• Includes a well-specified logic model• Efforts to study the effects are planned or under way

Questions to consider about a program or intervention

- What kind of research has been done?
- Does the research show positive effects? If so, for which students and under what conditions?
- How large is the effect compared with other programs?
- How strong is the evidence?



Accessing existing research

What Works Clearinghouse

What types of ...

Interventions are reviewed?

- Programs, policies, practices.
- Academic, behavioral, student subgroups, teacher excellence, dropout prevention, postsecondary success.

Studies are reviewed by this clearinghouse?

- Experimental and quasi-experimental designs.
- Qualitative research is NOT reviewed.

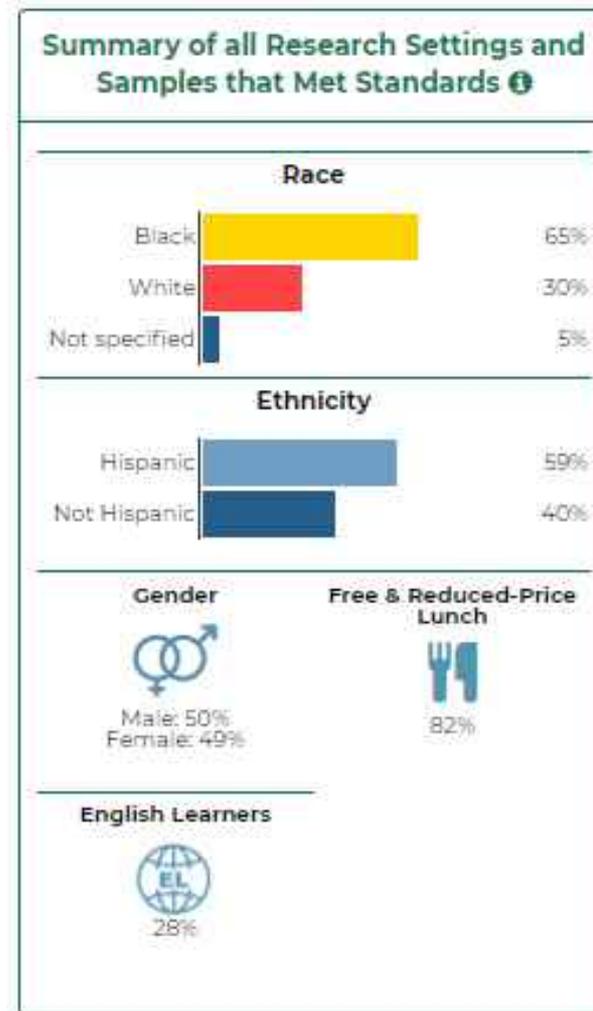
What Works Clearinghouse

- What **information** does it provide on sample size, population, and setting?
 - Intervention report and evidence snapshot pages provide sample size, setting, and student demographic breakdowns for each intervention.

WWC: Contextual information provided

Evidence snapshots

- Summary of all research settings and samples from studies meeting standards can include the following:
 - Race/ethnicity
 - Gender
 - English learners
 - Free/reduced-price lunch
 - Delivery method
 - Locale



<https://ies.ed.gov/ncee/wwc/>

Other resources to access research

- [ERIC \(Education Resources Information Center\)](#)
- [Ask A REL](#)
- [Google Scholar](#)
- [Web of Science](#)
- [JSTOR](#)
- [PubMed](#)
- [Database of promoting health effectiveness reviews](#)
- [Himmelfarb Health Sciences Database tool](#)

Search Tips

- Use relevant keywords
- String terms together without using “and”; use colons to indicate author or year (keyword author:Bradley)
- If looking for a specific study, try keywords and year or author’s last name (keyword
- Databases capture different categories of research; try multiple sources!

Questions to consider when interpreting research

- What methods were used? Were they appropriate?
- What were the findings? Was there statistical significance?
- Do the authors interpret findings in a reasonable way?



Activity: Assessing research

Read the research summary.

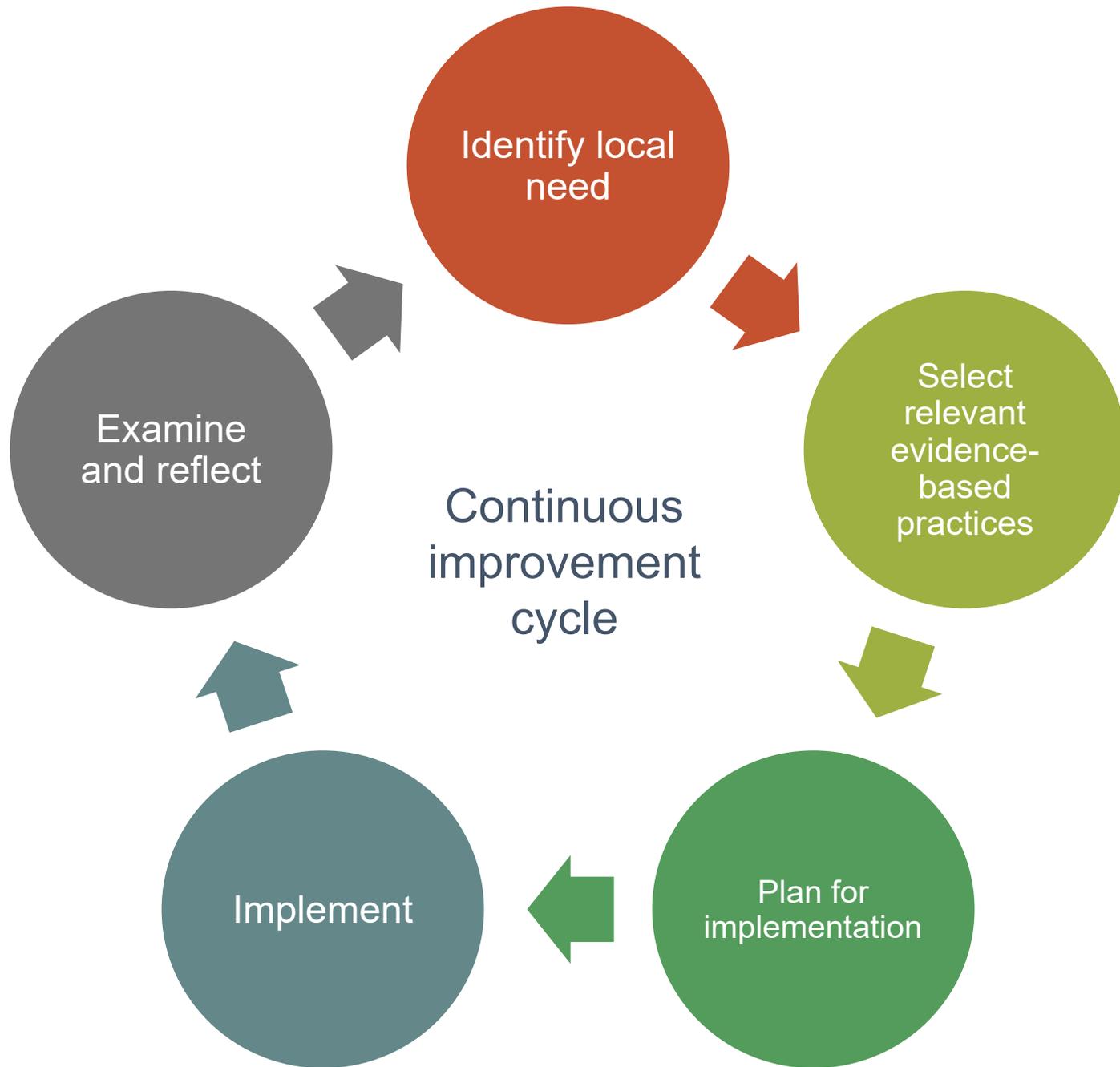
Discuss at your table:

- What type of research design was used?
- What methods were used, and were they used appropriately?
- What questions do you have about the findings?

Take a break



Continuous improvement cycle



Activity: Developing a research agenda

Work with colleagues to:

- Identify a pressing issue
- Brainstorm possible research questions
- Develop a potential research agenda

Closing



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