Research Workshop Series
Session 1: Data and Evidence

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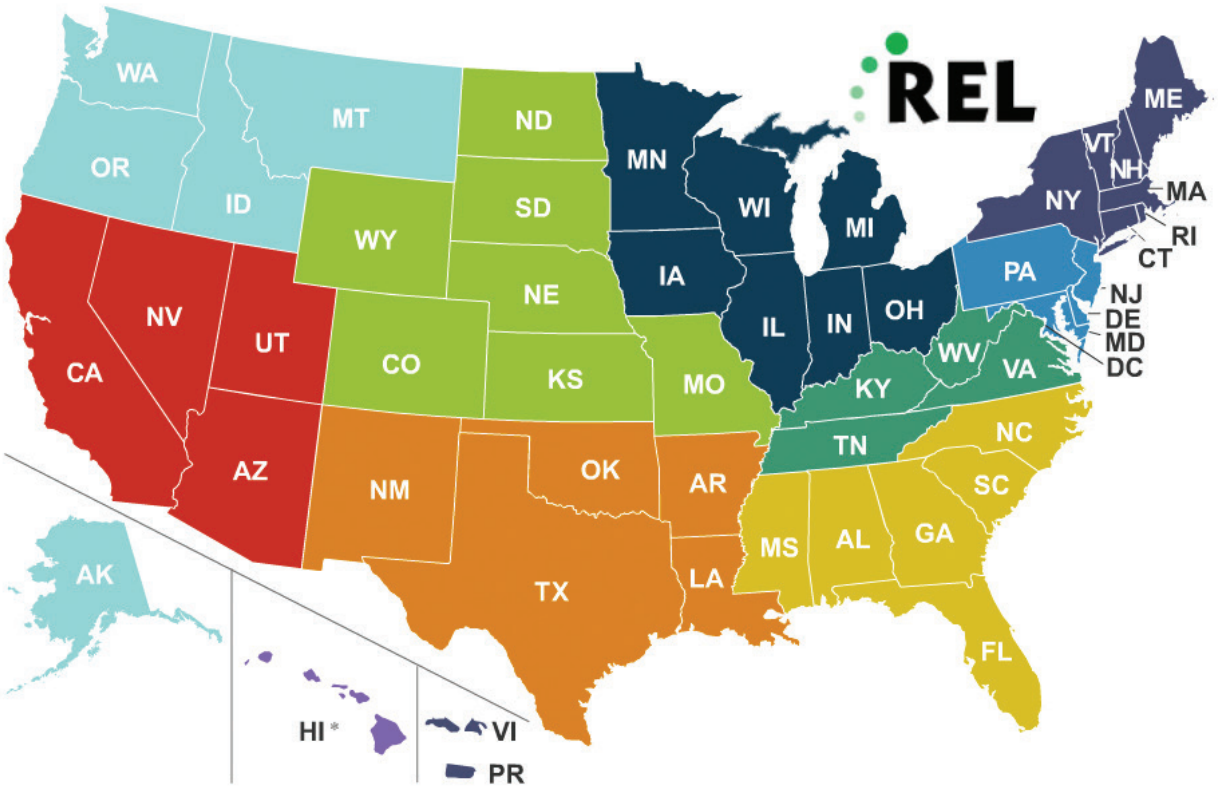
9 / 28 / 2017

REL MIDWEST
Regional Educational Laboratory
at American Institutes for Research

Agenda

1. What is REL Midwest?
2. Overview of training series.
3. Data collection methods.
4. Types of research and levels of evidence.
5. Continuous improvement model.
6. Session close and evaluation.

Regional Educational Laboratories



* 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

Workshop Series

2017

September 28	**Data, Research, and Evidence**
October 24	**Survey Development and Administration**
November 15	**Interviews and Focus Groups**

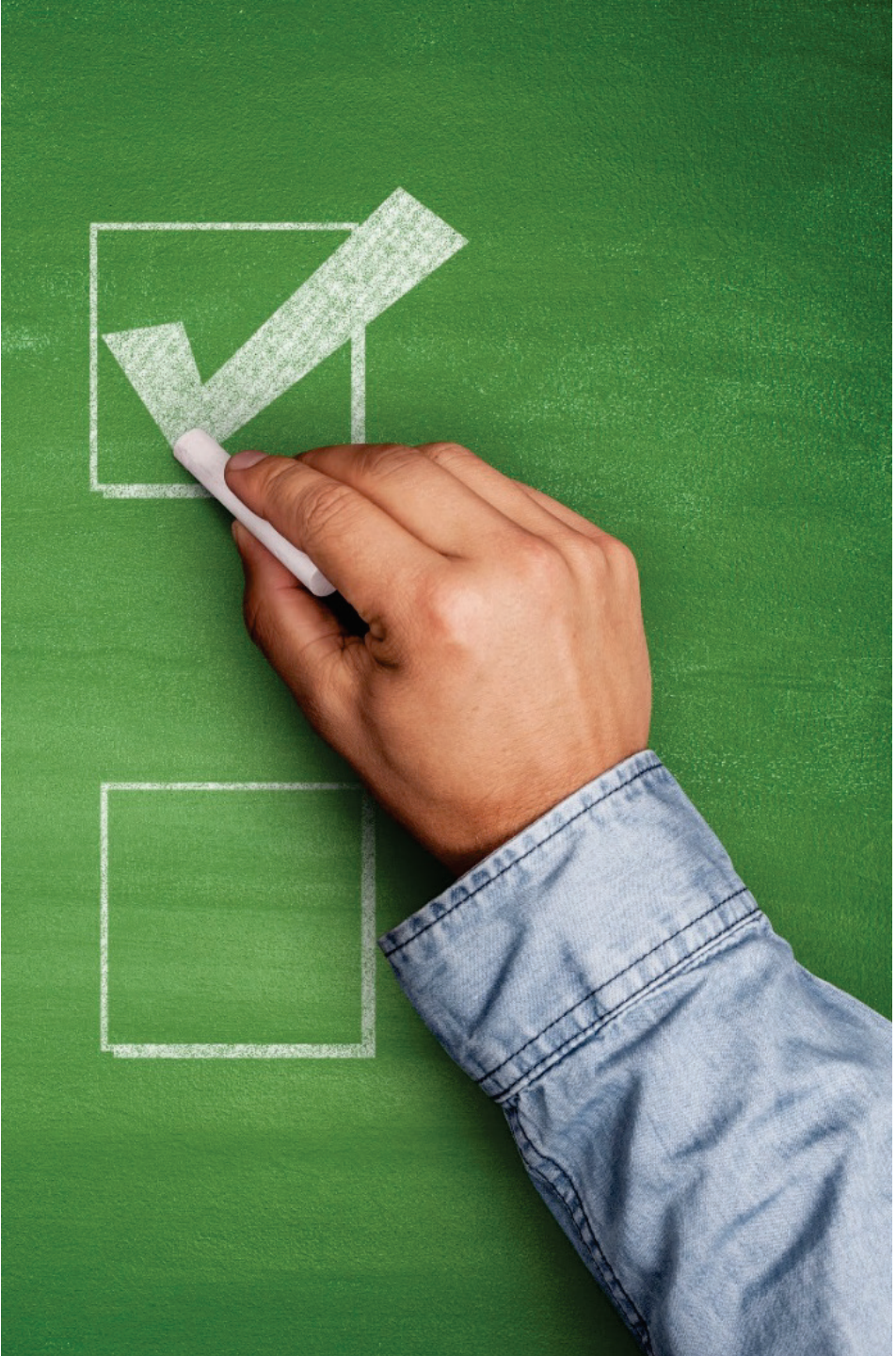
2018

January 17	**Observations and Rubric Development**
March 8	**Data Analysis**
April 25	**Communicating Research Findings**

Today's Goals

1. Discuss appropriate uses of different kinds of data collection methods.
2. Present overview of different types of research and levels of evidence.
3. Discuss how DPI uses data and evidence in the context of a continuous improvement cycle.

Data Collection Methods



Surveys are appropriate data collection tools for many purposes …

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

Think about how survey results will be used.

Other Data Collection Options

Focus Groups

Participant interaction can provide a rich description of views and experiences.

Focus Groups

Help formulate and pretest survey items.

Explore quantitative survey findings.

Use as a stand-alone data collection method.

When to Use Focus Groups Instead of a Survey

Focus Groups

Interviews are suitable for investigating complex topics without well-defined research questions.

Observations

Rubrics

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

Analyzing Existing Data

Activity: Handout 1

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

Research
and Levels of Evidence

Different Types of Research Contribute to Our Knowledge in Different Ways.

Let’s say you are interested in early elementary programs aimed at advancing students’ digital literacy skills.

Foundational, Exploratory Research

- Supports development of a theory.
  - *Describes what digital literacy means for K-3 children. Determines how K-3 children interact with and understand technology and digital devices.*
- Establishes initial connections to outcomes of interest.
  - *Examines what activities and experiences relate to higher levels of digital literacy.*

Design and Development Research

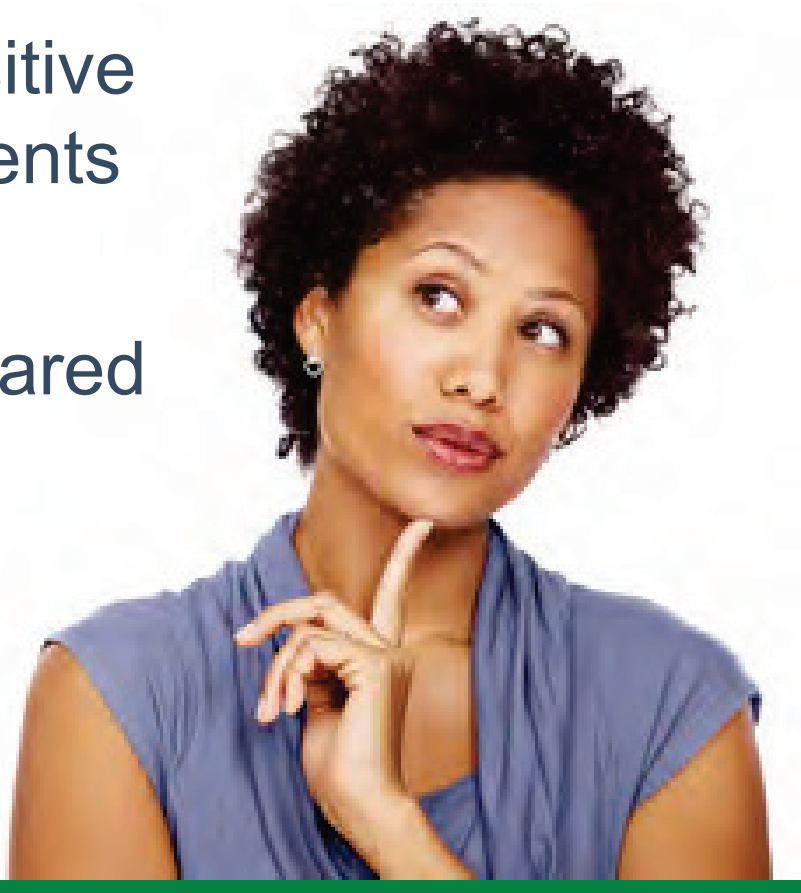
- Develops interventions or strategies based on theory.
  - *Designs a program to integrate digital literacy activities into K-3 curriculum. Develops measures to track implementation.*
- Tests components of intervention to inform the development process.
  - *Examines data from teachers about implementation challenges. Measures students' skill development. Refines components of program.*

Impact Research

- Determines if a well-defined program achieves its intended outcome and estimates impact.
  - *Conducts a large scale study comparing digital literacy skills (using a reliable and valid assessment) for students in a randomly-selected group of schools implementing the program and those in a group of schools that are not.*

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?



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

Tier 1
Strong Evidence

- at least one well-designed and 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
• at least one well-designed and well-implemented **experimental** study • significant favorable outcomes • large sample • similar types of students and settings as intended application	• at least one well-designed and 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
• at least one well-designed and well-implemented **experimental** study • significant favorable outcomes • large sample • similar types of students and settings as intended application	• at least one well-designed and well-implemented **quasi-experimental** study • significant favorable outcomes • large sample • similar types of students and settings as intended application	• at least one well-designed and well-implemented **correlational** study • significant favorable outcomes

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

Tier 4
Demonstrates a Rationale

- includes a well-specified **logic model**
- efforts to study the effects are planned or underway

Where Can We Find Information about Evidence-based Practices and Programs?

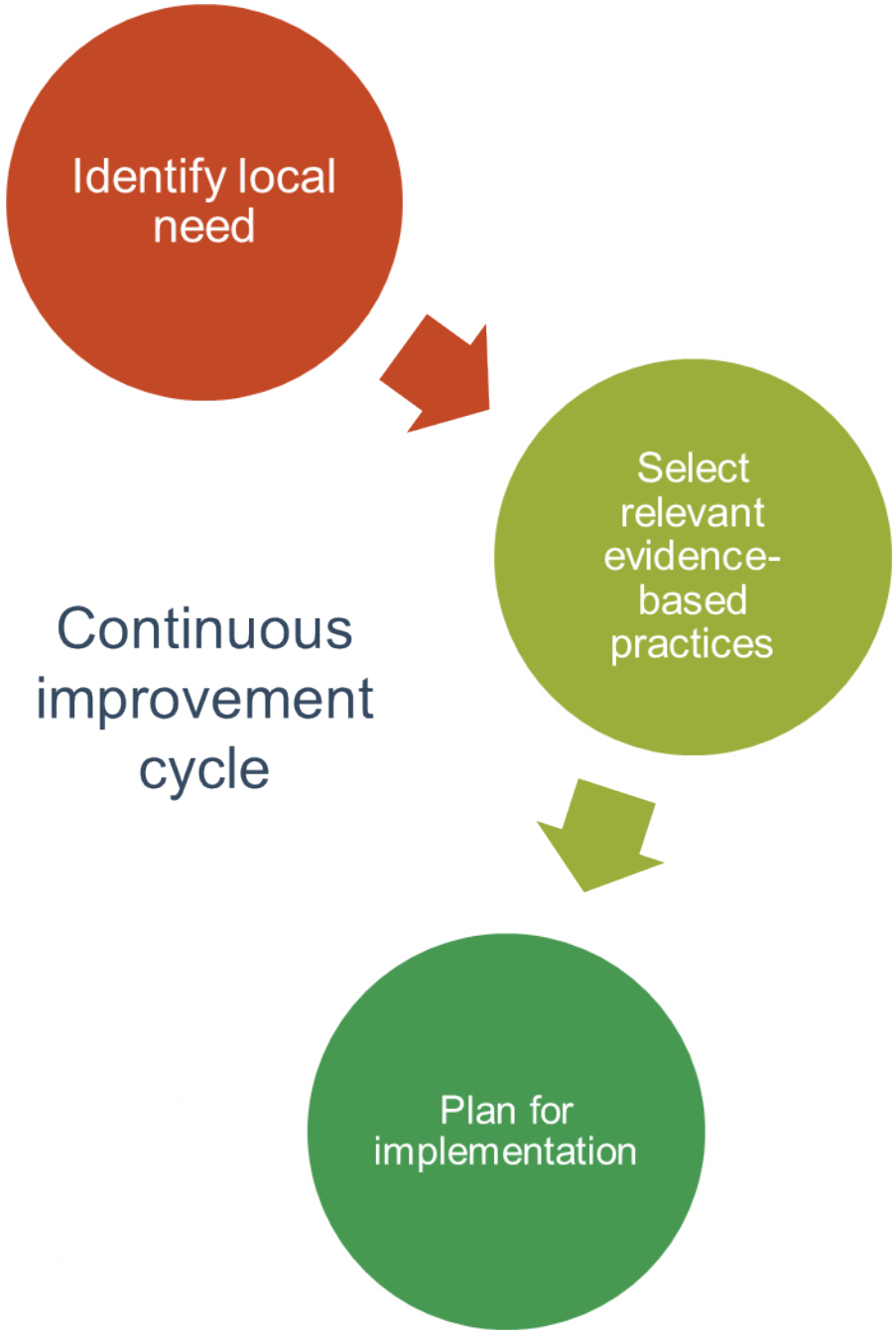
- What Works Clearinghouse
  https://whatworks.ed.gov

- Best Evidence Encyclopedia
  http://www.bestevidence.org/

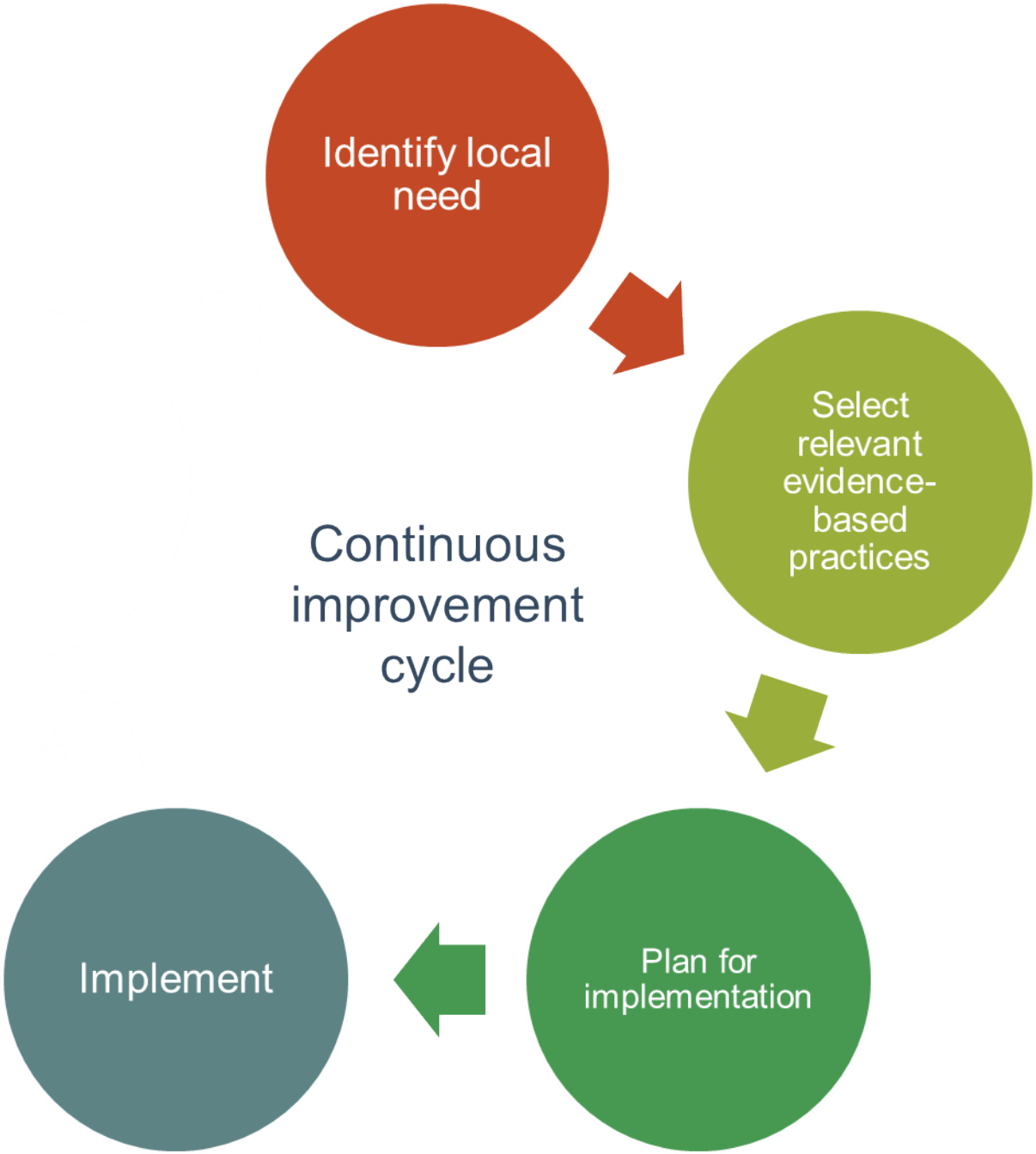
Continuous Improvement Cycle

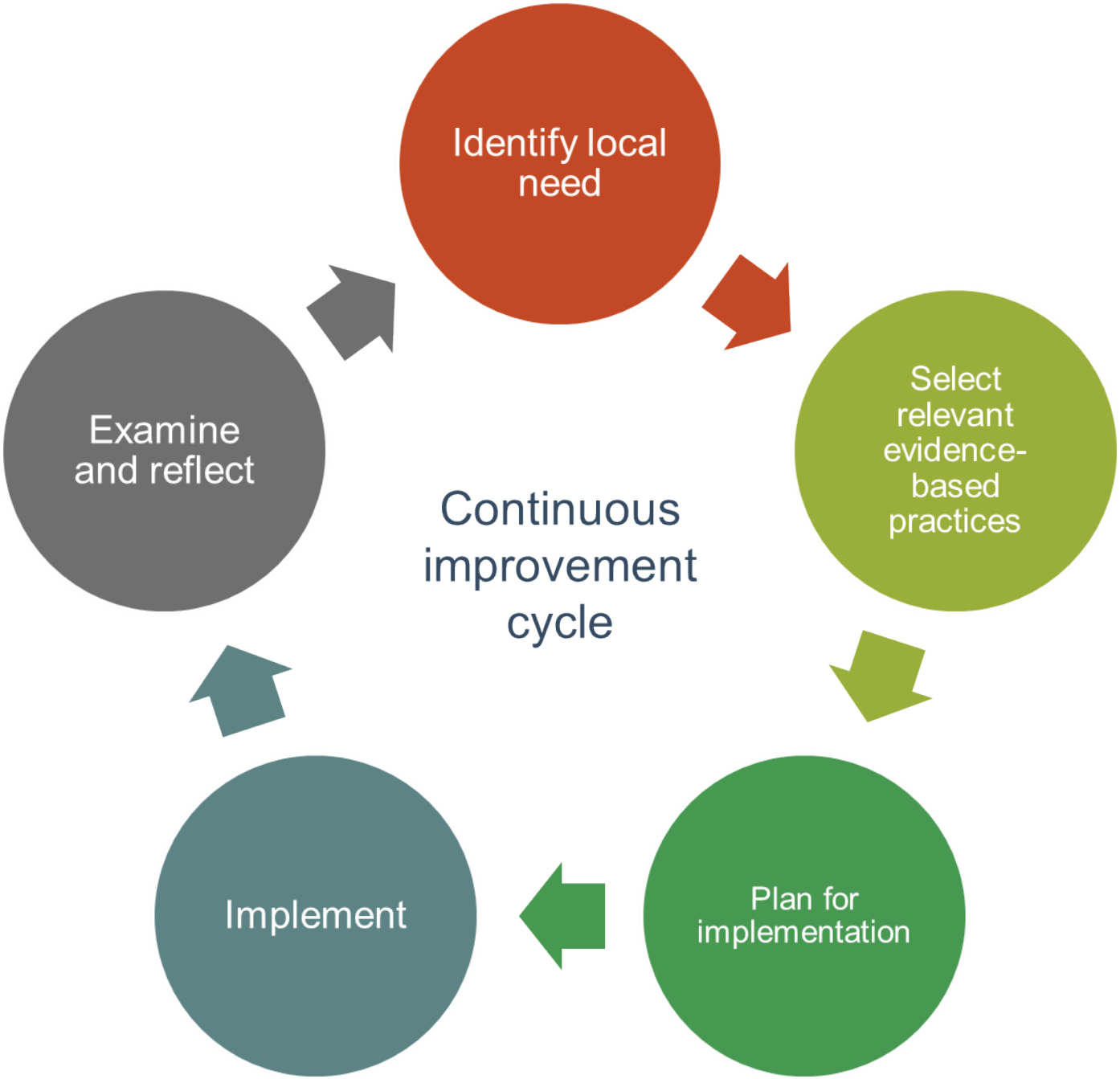
Continuous improvement cycle

Continuous improvement cycle



Continuous improvement cycle


Identify local need
Select relevant evidence-based practices
Plan for implementation
Implement
Continuous improvement cycle


Identify local need
Select relevant evidence-based practices
Plan for implementation
Implement
Examine and reflect
Continuous improvement cycle

Activity

Work in your group to identify examples of where your division is currently using locally collected data and/or evidence-based research to inform different elements of the continuous improvement cycle.

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