



Research Workshop Series Session 6: Communicating and Using Research Findings

Jill Walston | Sarah Rand

5/14/2018

Workshop Series

2017

September 28 Data, Research, and Evidence

October 24 Surveys

November 15 Focus Groups

2018

January 17 Rubrics

April 24 Data Literacy

May 14 Communicating and Using Research Findings

Meet the presenters



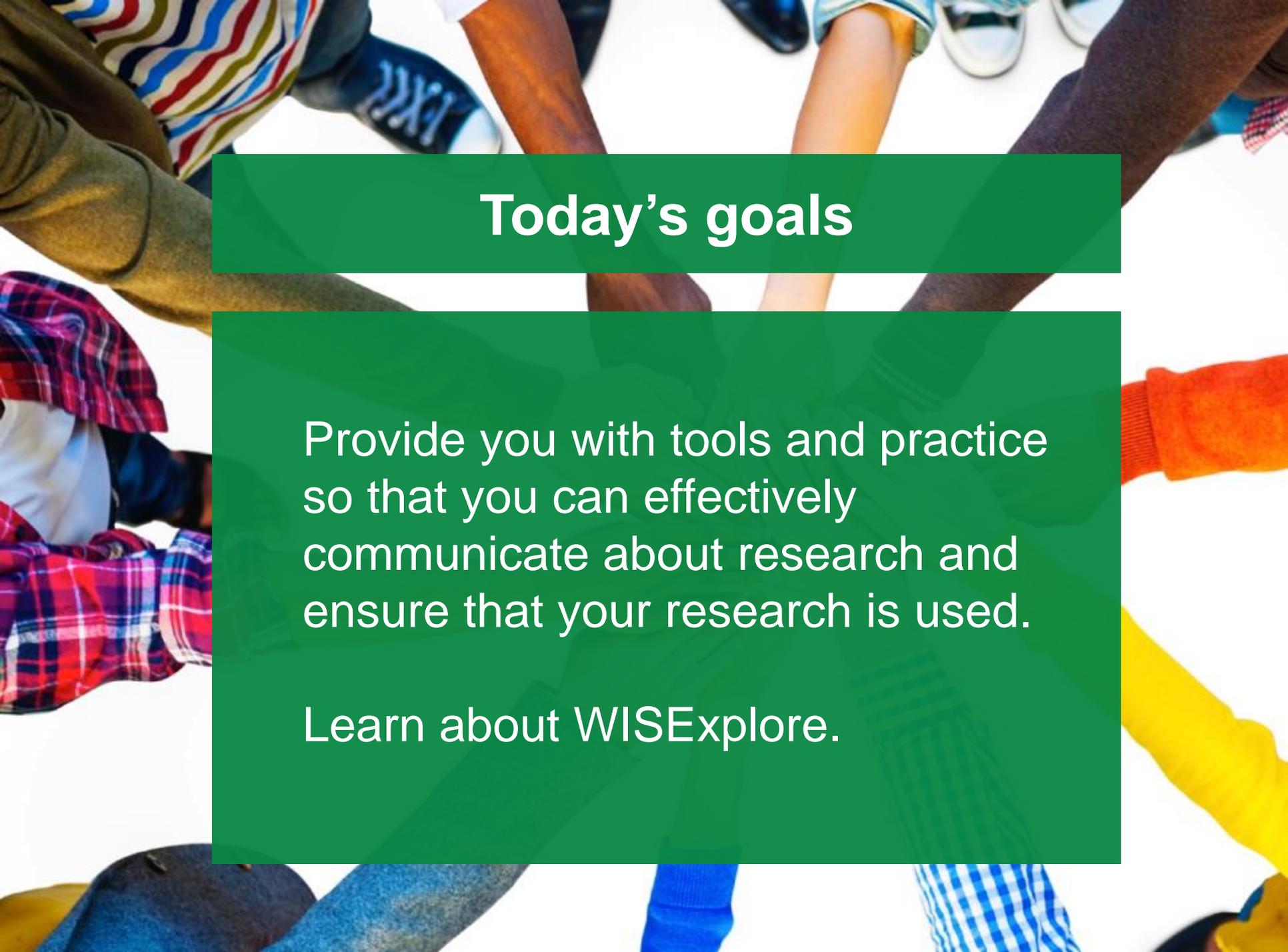
Jill Walston

*REL Midwest
Principal
Researcher*



Sarah Rand

*REL Midwest
Communications*



Today's goals

Provide you with tools and practice so that you can effectively communicate about research and ensure that your research is used.

Learn about WISExplore.

Agenda

1. Introductions
2. Communicating research findings
3. Using research findings
4. WISExplore
5. Discussion and questions
6. Feedback survey

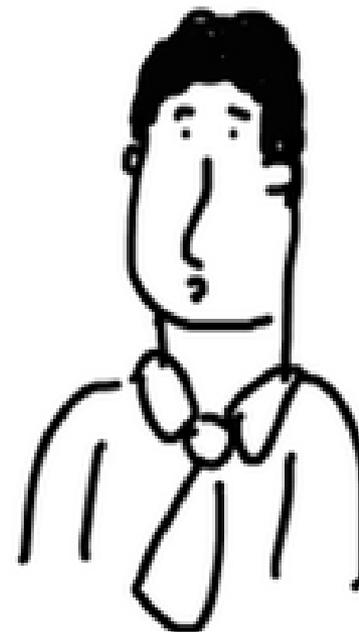
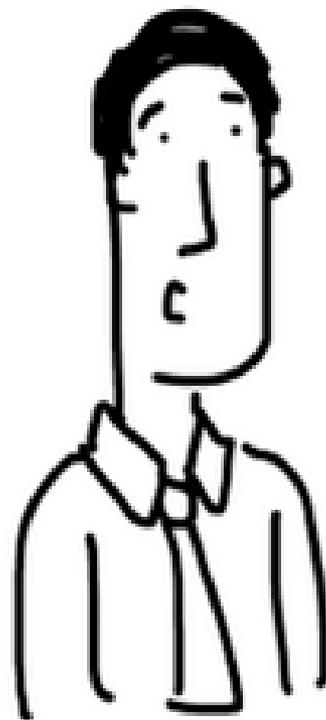


no research is good
unless
communicated

Chi Yan Lam

freshspectrum.com

I just put our long boring report up on a buried web page in a format that requires it to be downloaded.
Yet for some reason, nobody is reading it.



freshspectrum.com



To Do



What is the purpose of sharing this information?



Who is my audience?



Know your audience.

Align format
and style to
audience.



ToDo



What is the purpose of sharing this information?



Who is my audience?



What is the best format to share this information?

Effective research reports:

- ✓ **Include relevant background information.**
- ✓ **Describe methodology.**
- ✓ **Highlight key findings.**
- ✓ **Have clear implications and note limitations.**
- ✓ **Are accessible.**

Who gave them permission to add all of these pictures and charts!

Seriously! It's almost readable. The nerve!



There are many ways to share information and data.

- Text.
- Tables.
- Charts.

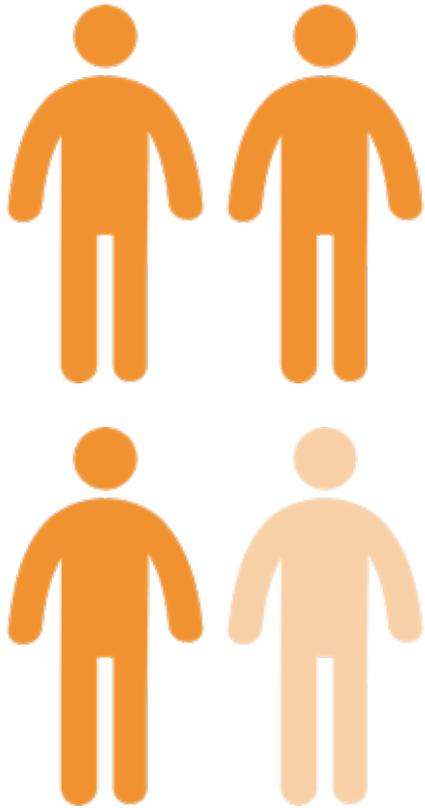


Use text when you are conveying one or two numbers.

For example:

45% of special education elementary school teachers have a master's degree.

Consider using icons to illustrate a statistic.

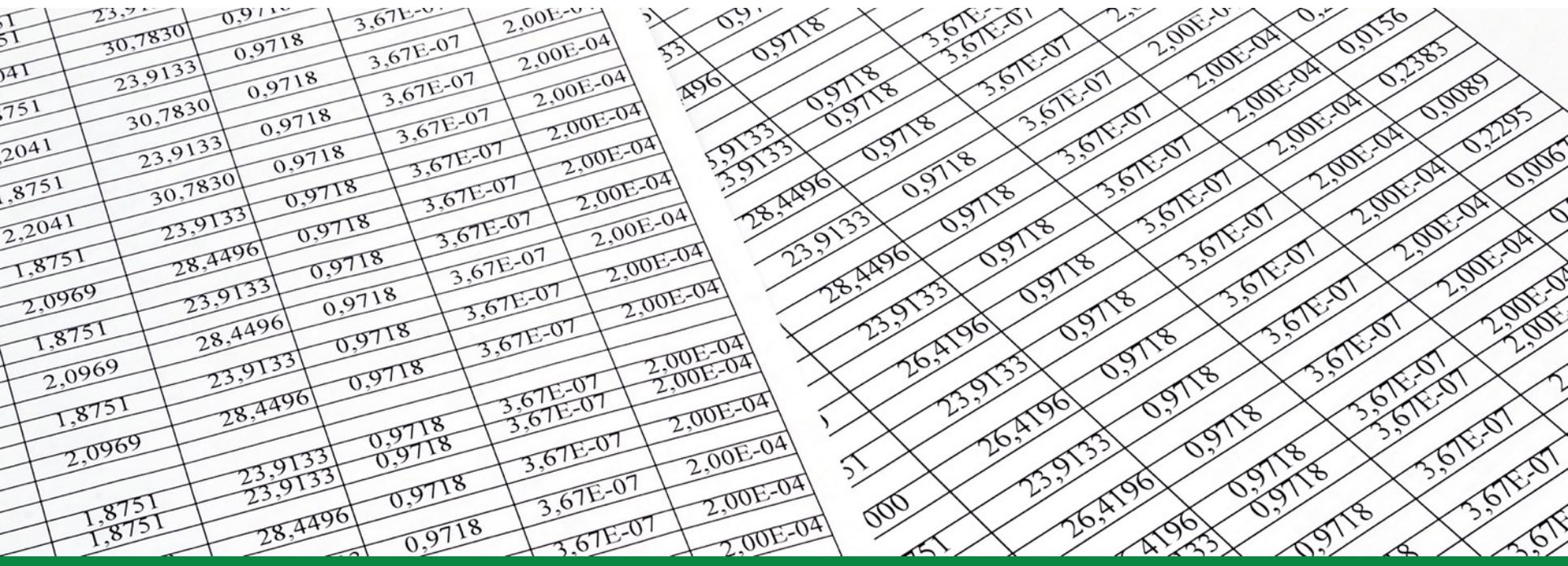


75%

of superintendents are in favor of the new guidelines.

When to use tables

Tables are effective for communicating structured numeric information.



The background image consists of two overlapping spreadsheets. The left spreadsheet has columns with values: 23,9133, 30,7830, 0,9718, 3,67E-07, and 2,00E-04. The right spreadsheet has columns with values: 23,9133, 28,4496, 0,9718, 3,67E-07, 2,00E-04, 26,4196, 0,9718, 3,67E-07, 2,00E-04, and 0,2295. The spreadsheets are tilted and partially obscured by each other.

When to use charts

Charts and graphs help to illustrate trends in the data.



How do graduation rates vary across student subgroups?

How does this compare with graduation rates statewide?

Relationship to graduation rate: Subgroup and race

Percent Graduate On-time

Row Labels- Subgroups	Column Labels- Race/Ethnicity		
	<i>Black</i>	<i>Hispanic</i>	<i>White</i>
<i>Statewide: All students</i>	80.3	83.6	91.1
<i>Statewide: Foster care</i>	71.3	62.9	85.1
<i>Statewide: Homeless</i>	78.2	61.9	77.2
<i>Statewide: Military-connected</i>	81.8	78.2	83.8



So what is the first step?

What is the main idea that you want your audience to know?

So what is the first step?

What is the main idea that you want your audience to know?

Hispanic subgroups have the lowest graduation rates for foster care, homeless, and military connected.

What's the best chart type?

Welcome to Chart Chooser — our favorite tool for improved Excel and PowerPoint charts.

Use the filters below to find the right chart type for your needs, then download as Excel or PowerPoint templates and insert your own data.

Learn more about the origins of Chart Chooser [here](#).

What type of visualization do you need for your data?:

Viewing 17 of 17

Are you a fan?

Share +

For which program?:

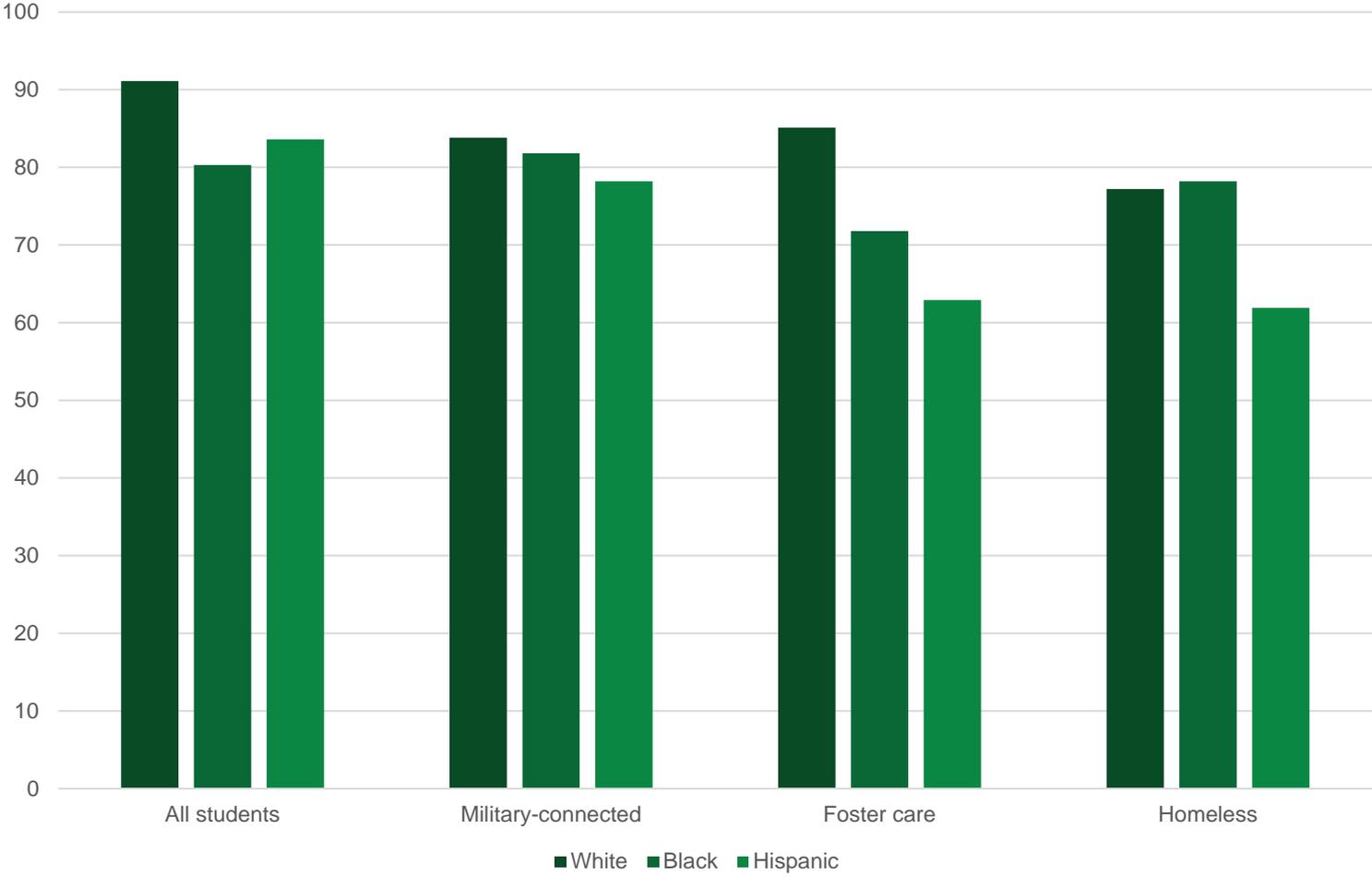
All Comparison Distribution Composition Trend Relationship Table Powerpoint Excel

The screenshot displays the Chart Chooser interface. At the top, there are two filter sections: 'What type of visualization do you need for your data?' and 'For which program?'. The first section has buttons for 'All', 'Comparison', 'Distribution', 'Composition', 'Trend', 'Relationship', and 'Table'. The second section has buttons for 'Powerpoint' and 'Excel'. Below the filters, there is a 'Share' button and a '+' icon. The main area shows a grid of chart type thumbnails. Each thumbnail includes a small Excel icon, the chart name, and a preview of the chart. The visible chart types are: Line chart, Bar chart, Stacked bar chart, Bullet bar chart, Column chart, Stacked column chart, Pie chart, and Pie chart with highlight. A 'Scatterplot' thumbnail is partially visible at the bottom left.

Column chart



Chart Title



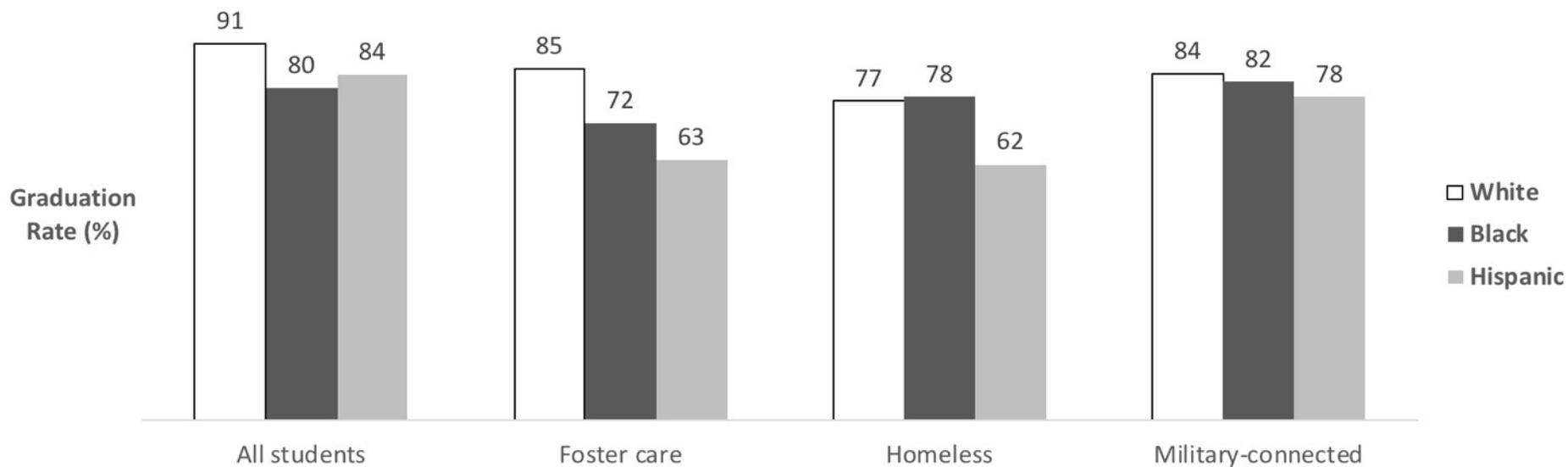
Data Visualization Checklist

by Stephanie Evergreen & Ann K. Emery
May 2016

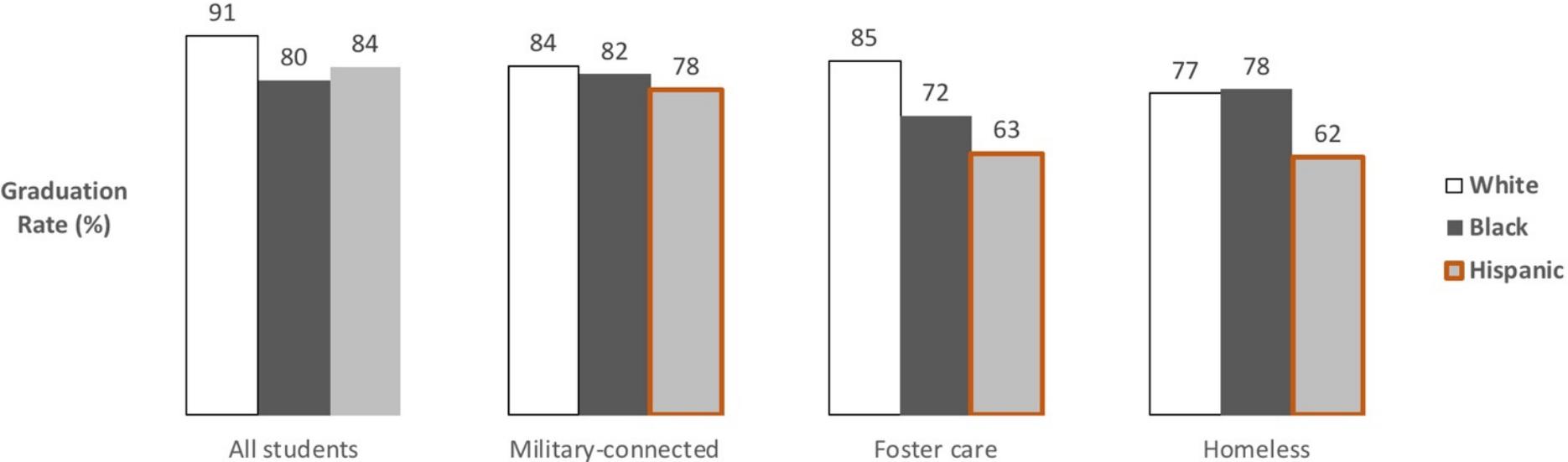
This checklist is meant to be used as a guide for the development of high impact data visualizations. Rate each aspect of the data visualization by circling the most appropriate number, where 2 points means the guideline was fully met, 1 means it was partially met, and 0 means it was not met at all. n/a should not be used frequently, but reserved for when the guideline truly does not apply. For example, a pie chart has no axes lines or tick marks to rate. If the guidelines has been broken intentionally to make a point, rate it n/a and deduct those points from the total possible. Refer to the Data Visualization Anatomy Chart on the last page for guidance on vocabulary and the Resources at the end for more details.

	Guideline	Rating
Text Graphs don't contain much text, so existing text must encapsulate your message and pack a punch.	6-12 word descriptive title is left-justified in upper left corner Short titles enable readers to comprehend takeaway messages even while quickly skimming the graph. Rather than a generic phrase, use a descriptive sentence that encapsulates the graph's finding or "so what?" Western cultures start reading in the upper left, so locate the title there.	2 1 0 n/a
	Subtitle and/or annotations provide additional information Subtitles and annotations (call-out text within the graph) can add explanatory and interpretive power to a graph. Use them to answer questions a viewer might have or to highlight specific data points.	2 1 0 n/a
	Text size is hierarchical and readable Titles are in a larger size than subtitles or annotations, which are larger than labels, which are larger than axis labels, which are larger than source information. The smallest text - axis labels - are at least 9 point font size on paper, at least 20 on screen.	2 1 0 n/a
	Text is horizontal Titles, subtitles, annotations, and data labels are horizontal (not vertical or diagonal). Line labels and axis labels can deviate from this rule and still receive full points. Consider switching graph orientation (e.g., from column to bar chart) to make text horizontal.	2 1 0 n/a
	Data are labeled directly Position data labels near the data rather than in a separate legend (e.g., on top of or next to bars and next to lines). Eliminate/embed legends when possible because eye movement back and forth between the legend and the data can interrupt the brain's attempts to interpret the graph.	2 1 0 n/a

Hispanic subgroups have the lowest graduation rates compared to their Black and White peers



Hispanic subgroups have the lowest graduation rates compared to their Black and White peers



Who is the audience?



Your turn!

(with these data or your own data)

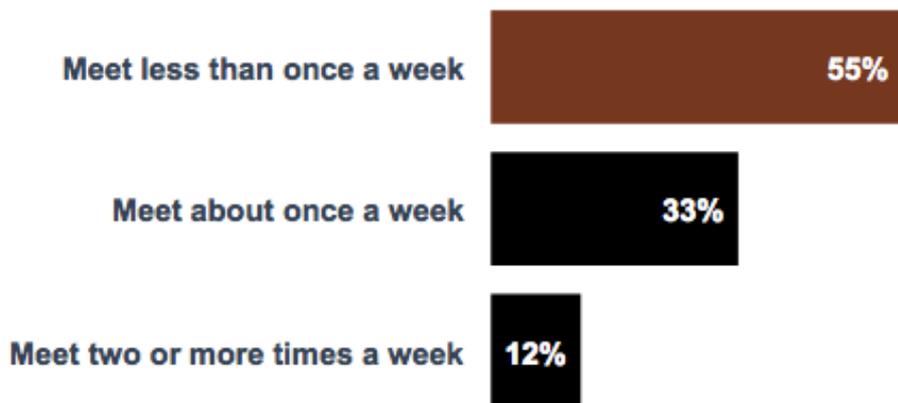
Percentage Distribution of the Frequency Teacher Teams Meet, by School Type: Fall 2012

	Less Than Once a Week	About Once a Week	Two or More Times a Week
Total (N = 681)	32%	38%	30%
Elementary school (N = 355)	25%	43%	32%
Middle school (N = 144)	28%	36%	36%
High school (N = 182)	55%	33%	12%

Note: Percentages may not add to 100% due to rounding.

Teacher teams in high schools tend to meet less frequently than teams in elementary and middle schools.

Most High School Teacher Teams Meet Less than Once a Week



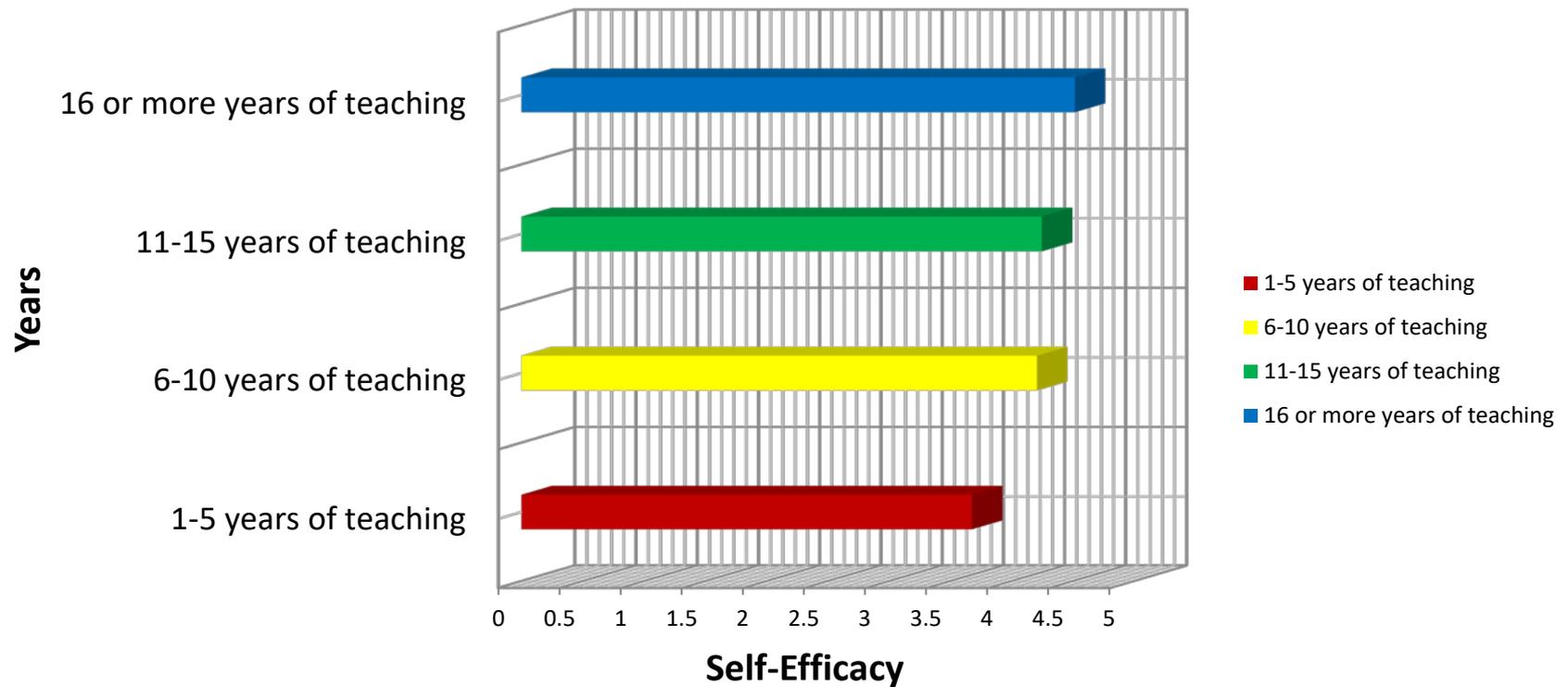
Many Elementary School Teacher Teams Meet Once a Week



Fix this chart!

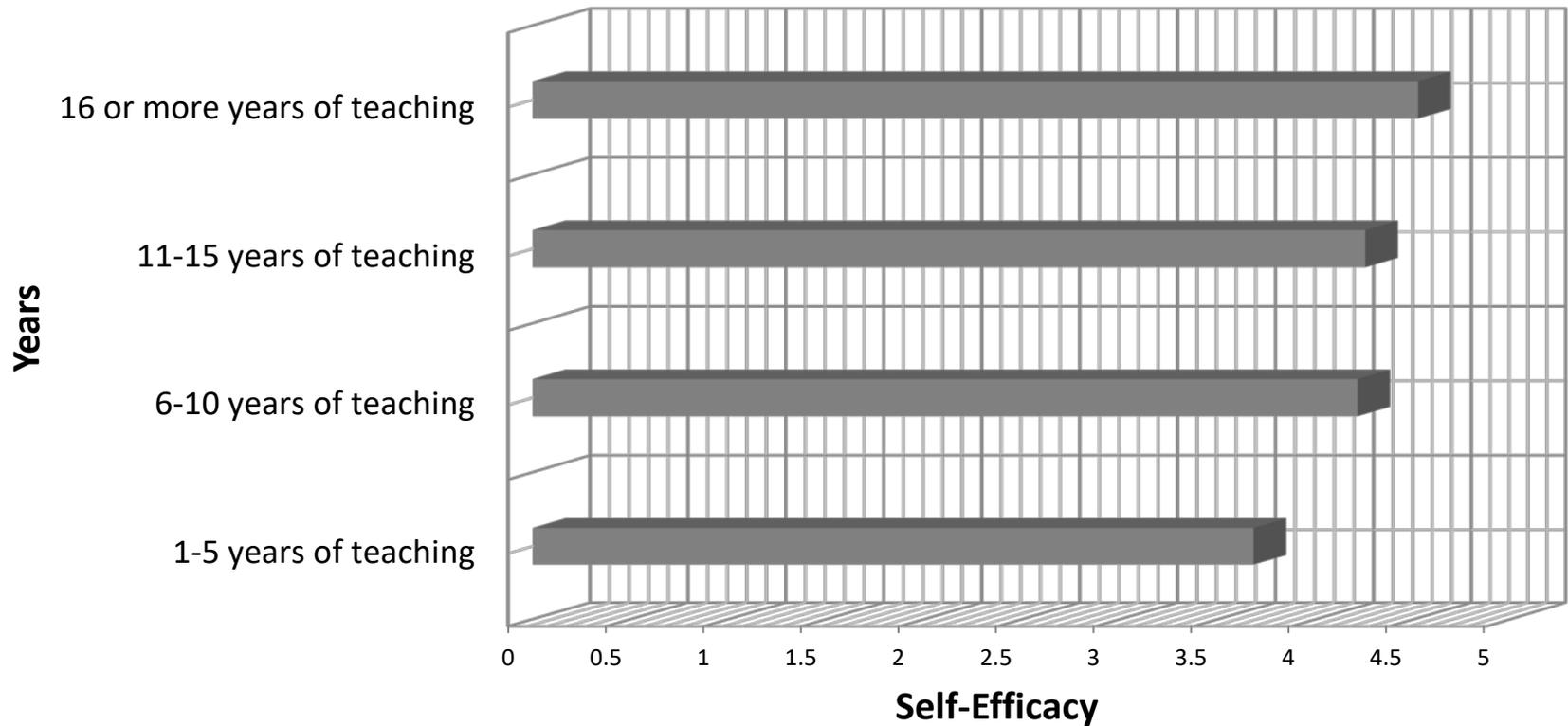
(Or fix your own chart)

Self-Efficacy, by Number of Years Teaching



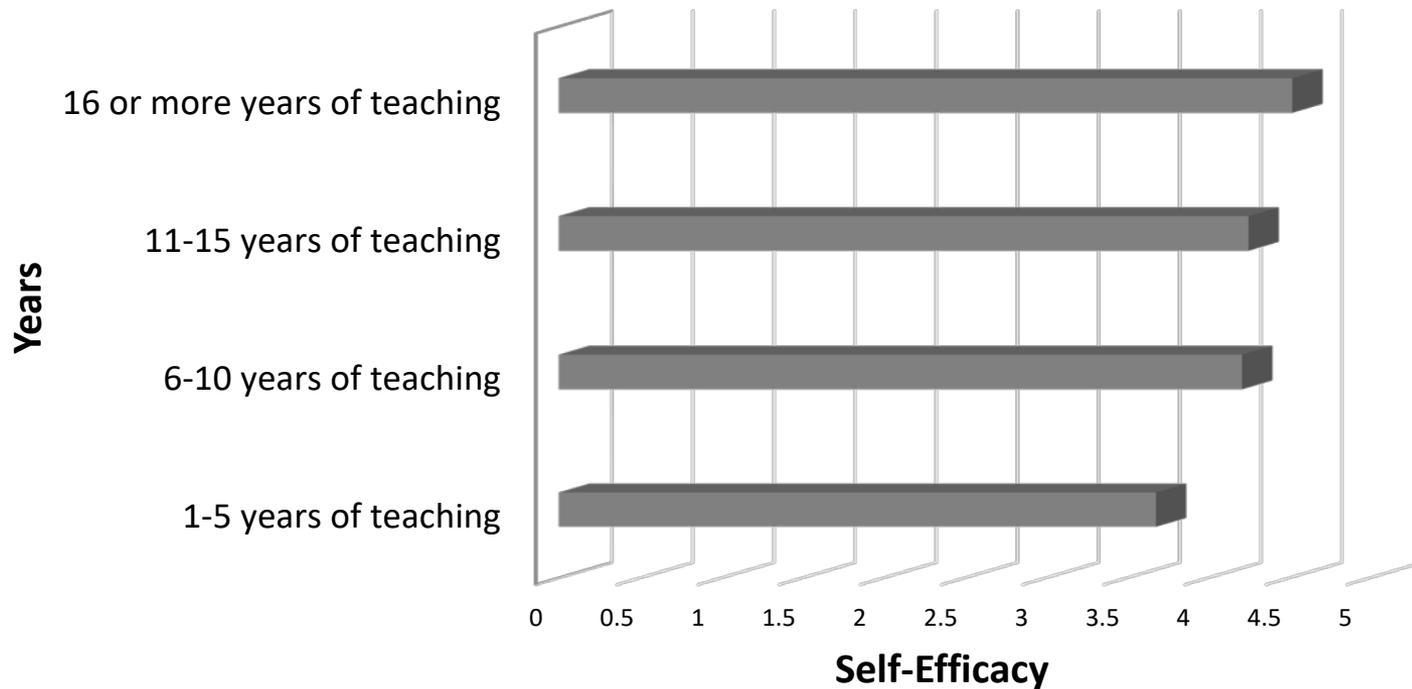
Remove excess lines

Self-Efficacy, by Number of Years Teaching



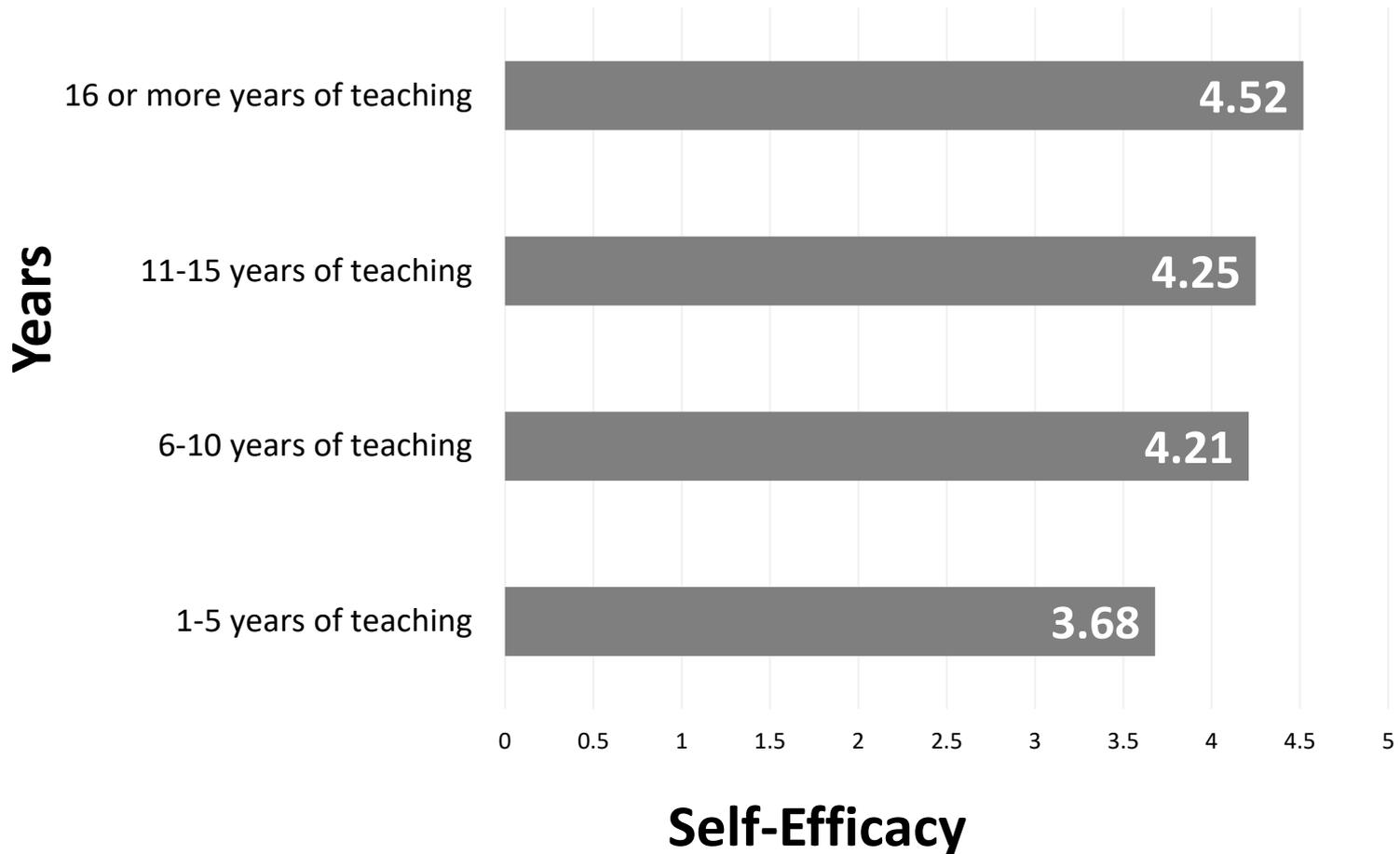
Avoid three-dimensional charts

Self-Efficacy, by Number of Years Teaching



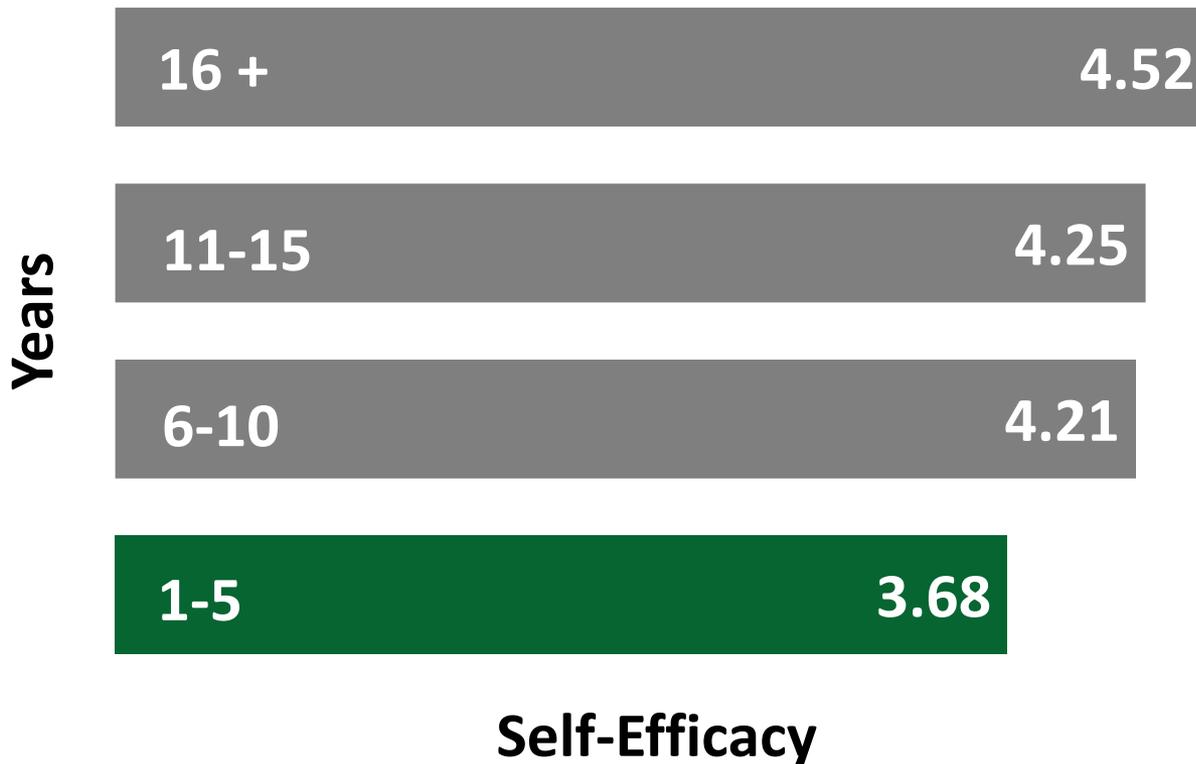
Add data labels

Self-Efficacy, by Number of Years Teaching



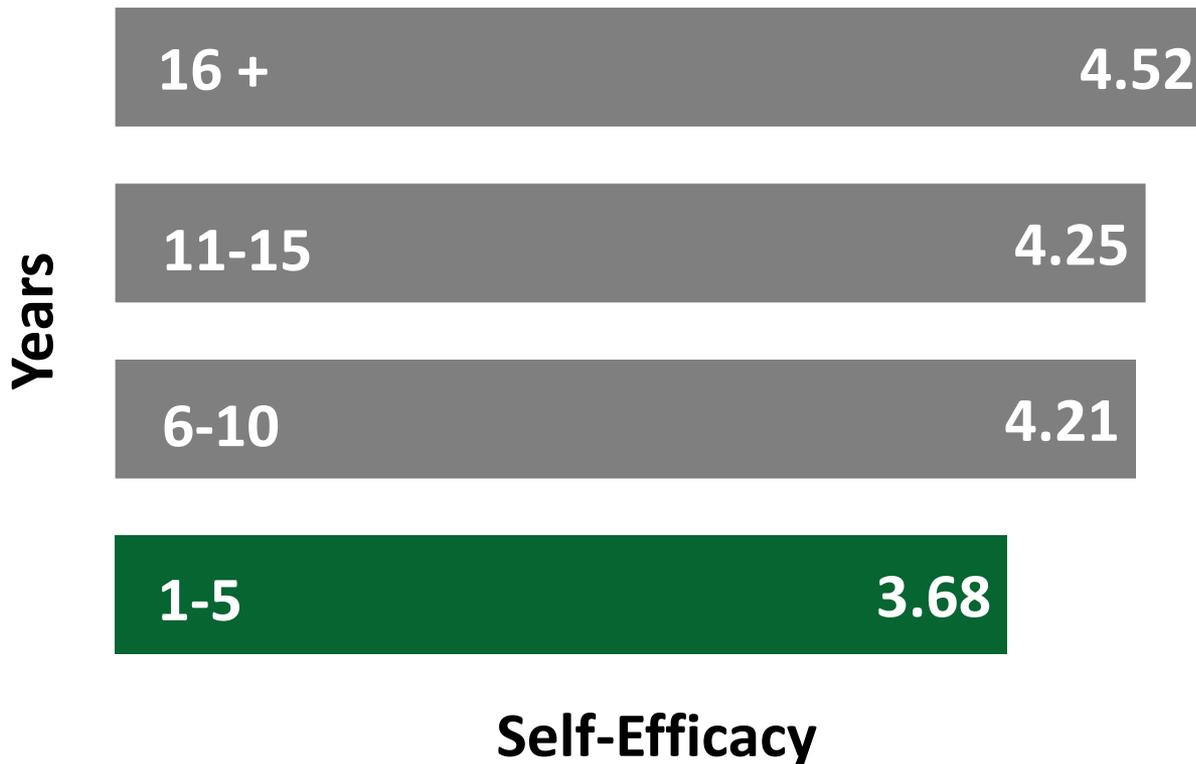
Keep it clean and emphasize with color

Self-Efficacy By Number of Years Teaching



Add a statement figure title

The **least** experienced teachers have the lowest self-efficacy



Oh!

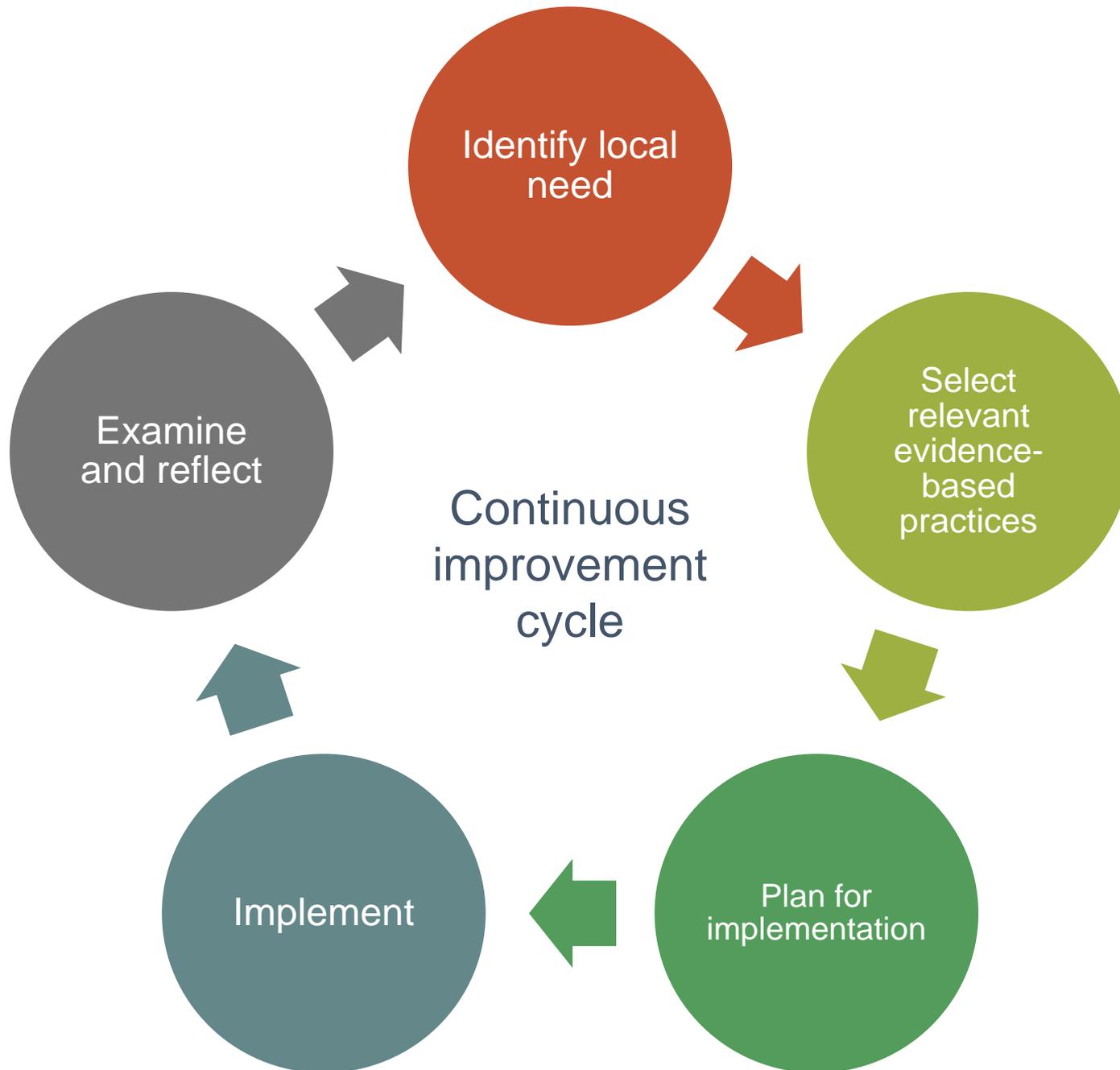
**Light bulb moments?
Questions?**

Using research findings

In addition to communicating your findings effectively, you should provide guidance about what it all means and how the audience can use the findings to make decisions.



Discuss the implications, appropriate cautions, and recommendations for future action based on key findings.



WISEdash



Wisconsin Information System for Education
Data Dashboard

Academic Performance
Attendance
Enrollment
Graduation
Discipline
School Staff
Courses
Finance

How can districts and schools examine the data, make sense of the data, and use the data to support effective decision-making about school improvement?

10-minute break

DPI partners with the Cooperative Service Education Agency (CESA) Statewide Network (CSN) to develop a common **data inquiry process** for teachers and school leaders statewide. This team is called...



<https://dpi.wi.gov/wisexplore>

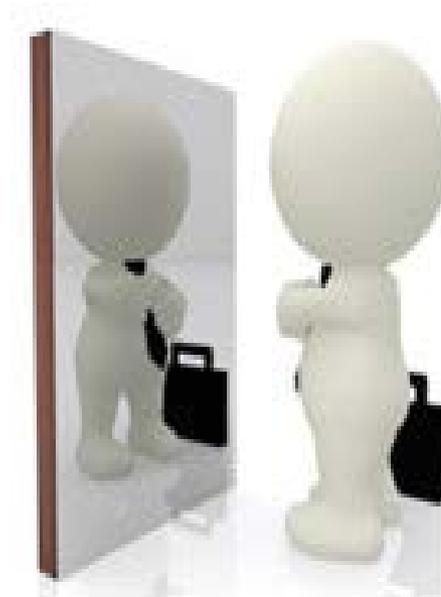
WISExplore Content Team



- WISExplore Content Team -- Inquiry work
 - Professional development (training, webinars ...) for WISEcoaches in every CESA (12 CESAs)
 - Train on data tools and inquiry processes (coaching)
 - Stronger linkages with Continuous Improvement (TA Network - all relevant consultants)

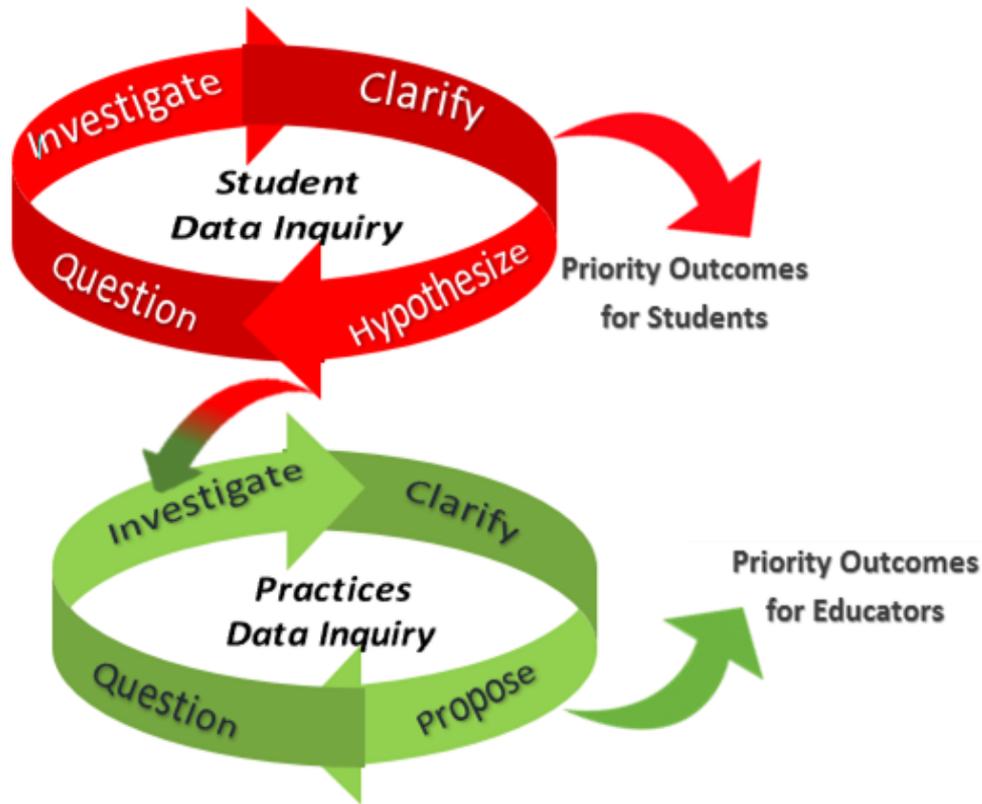


Inquiry about their learning ...



Inquiry about our work ...

Data Inquiry Process



Data Inquiry Process

To Identify Local Needs for Students and
Root Causes in Practices

Data Inquiry Journal



FOCUS

Purpose:

Content:

QUESTION

SOURCES

Investigate

Filter Criteria:

Group by:	District: [
School Type:	School:
Grade Level when Tested:	Race/Ethnicity:
Gender:	Disability Status:
Primary Disability:	ELL Status:
Test Type:	School Year:
Test Subject:	FAY District:
FAY School:	School Cohort:
Student Cohort:	

Image Data:

Clarify

Finding

Persist

Priority

HYPOTHESIZE AND ACT

Cause

Category

Action

Control

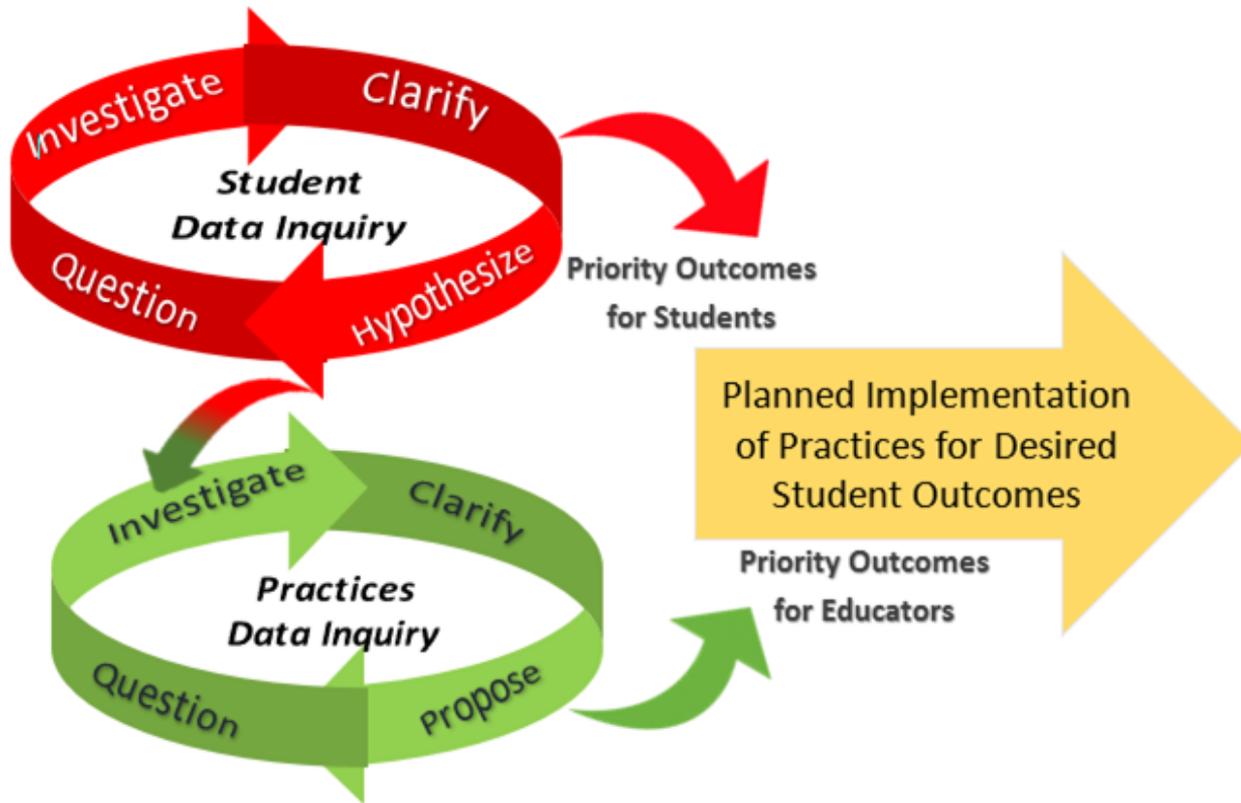


Practices Data Inquiry



- Determine data needs to answer questions
 - surveys, observations, focus groups, reports
- Investigate and clarify instruction practices data
- Investigate and clarify leadership practices data
- Identify outcomes for educators
- Propose solutions

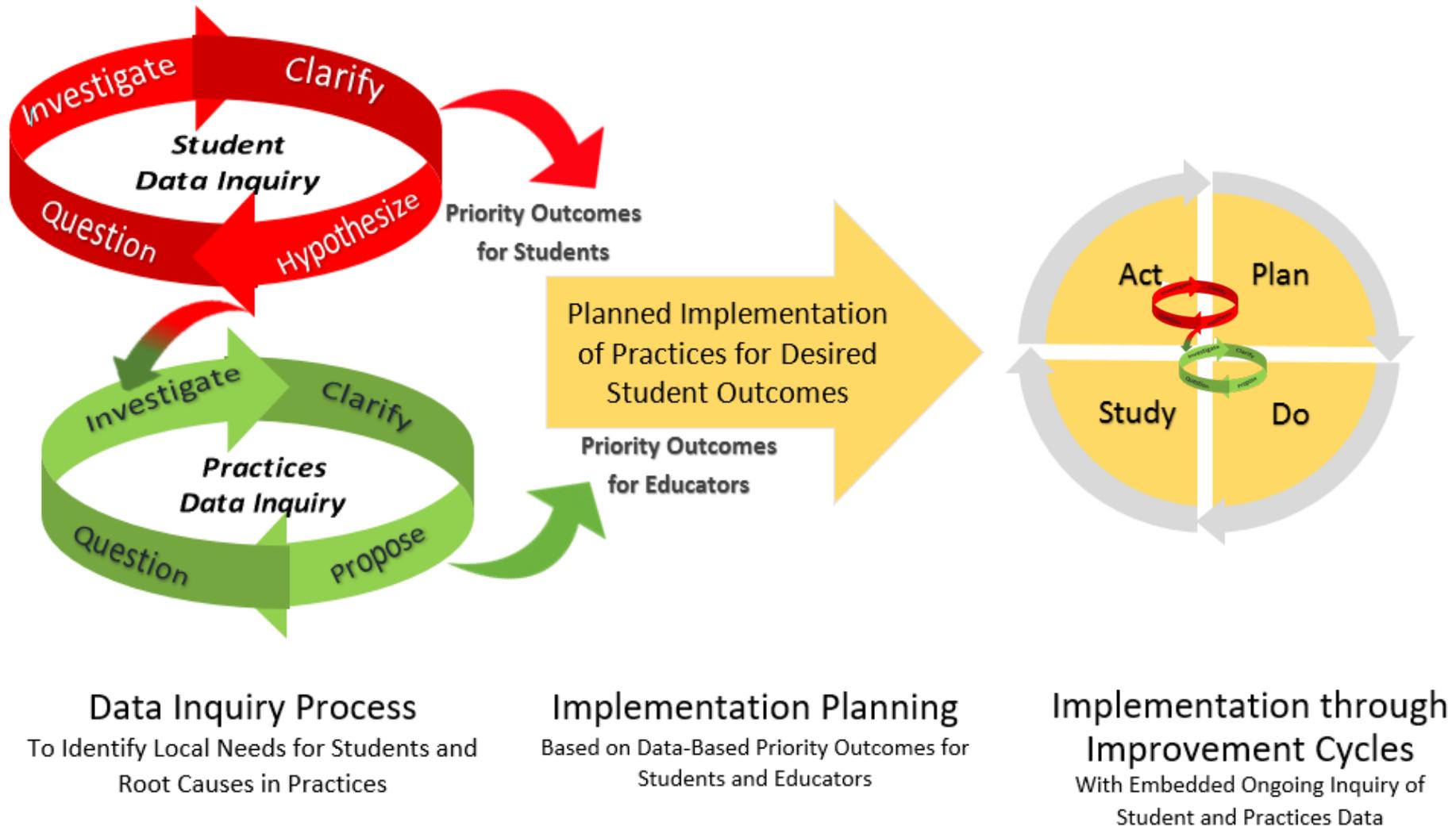
Implementation Planning



Data Inquiry Process
To Identify Local Needs for Students and
Root Causes in Practices

Implementation Planning
Based on Data-Based Priority Outcomes for
Students and Educators

Continuous Improvement



Data Inquiry Process

To Identify Local Needs for Students and Root Causes in Practices

Implementation Planning

Based on Data-Based Priority Outcomes for Students and Educators

Implementation through Improvement Cycles

With Embedded Ongoing Inquiry of Student and Practices Data

Resources



- For WISEcoaches
- For all educators
- Webpage: <https://dpi.wi.gov/wisexplore>
- Stand-Alone Resources Moving to [WISElearn](#)
- Data Inquiry Process [Slides](#) pdf
- Data Inquiry Process [Slides](#) - Google
- Data Inquiry Journal



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