REL Southwest: Exploring data visualization strategies

Part 2

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Meet the presenters

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Agenda

1. Welcome and reintroductions

   • Review agenda and meeting goals

2. Data visualization fundamentals: A review

3. Building on fundamentals: Addressing key questions

4. Activity: Applying fundamentals to data collected for homework

5. Working with ADE data: insight.ade, Equity Labs, RISE initiative consultations

6. Next steps: Office hours and preparation for session 3

7. Closing

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Reintroductions

To give us a better sense of your work, please share the following (as a reminder for us):

- Your name and where you work within the Arkansas Department of Education (ADE).
- What do you hope to gain from the remaining two sessions?.

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Overview of meeting goals

Session 1 (November 2020)

- Understand data visualization fundamentals and reflect on how these might be applied in your current work context.

Session 2 (Today)

- Understand some of the nuance involved in developing visualizations and begin to apply strategies to data.

Consultations (spring 2021)

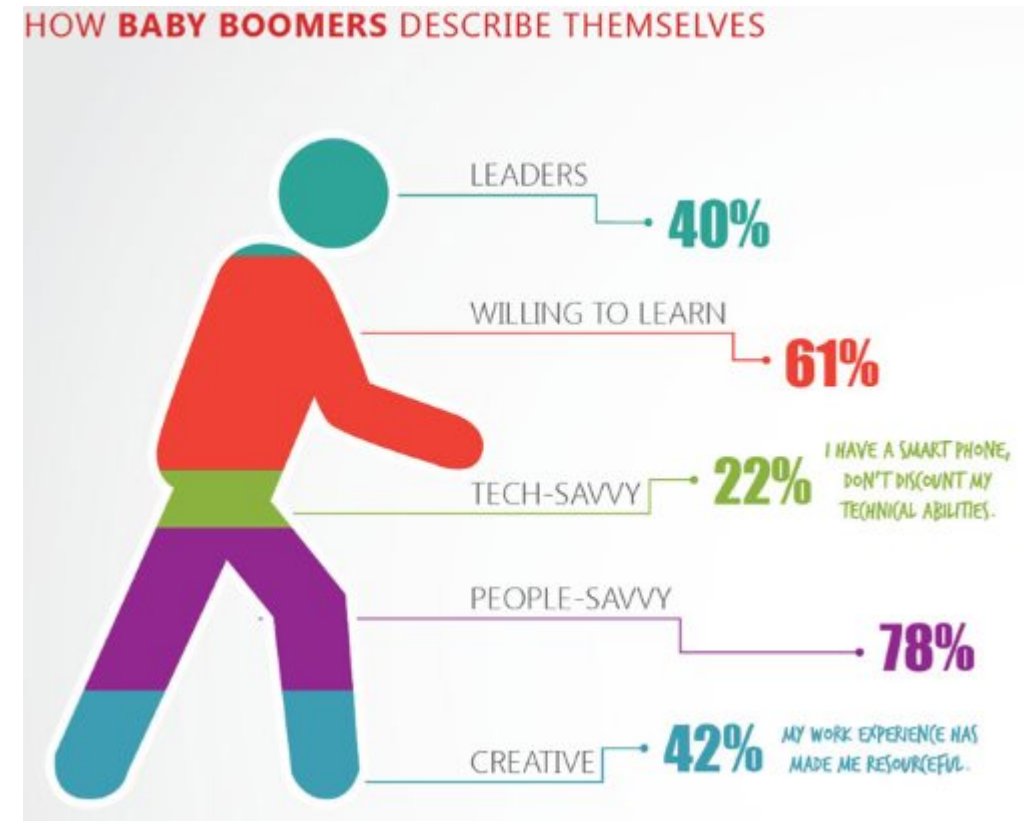- Tailored coaching and feedback to groups applying data visualization strategies to ADE initiatives.

Session 3 (spring 2021, TBD)

- Share progress, gather feedback, and plan next steps.

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Data visualization fundamentals: A review

Practices to avoid

- Manipulating the x or y axis; inconsistent scale.

- Cherry-picking data.

- Picking the wrong chart.

- Overly cluttered charts or graphs.

- "Cute" images that do not add to the content or message.

HOW **BABY BOOMERS** DESCRIBE THEMSELVES

LEADERS 40%

WILLING TO LEARN 61%

TECH-SAVVY 22% I HAVE A SMART PHONE, DON'T DISCOUNT MY TECHNICAL ABILITIES.

PEOPLE-SAVVY 78%

CREATIVE 42% MY WORK EXPERIENCE HAS MADE ME RESOURCEFUL.

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How could you improve this display?

Self-Efficacy, by Number of Years Teaching

Same data, clearer message.

The least experienced teachers have the lowest self-efficacy
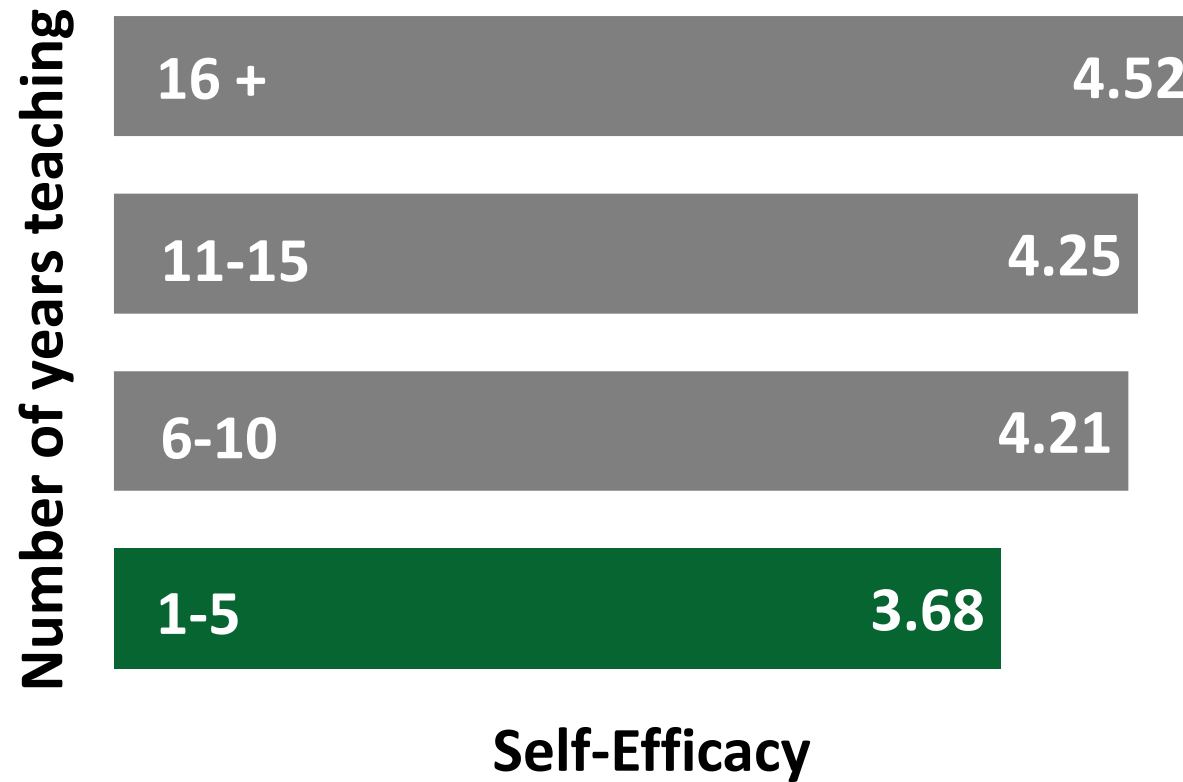
Practices to consider for data visualization

- Be clear about "the point."

- Understand your audience.

- Pick a visualization strategy that highlights the message you wish to convey (for example, comparisons, correlation, trends, relative performance).

- Keep the visual simple.

- Use color meaningfully.

- Consider visual appeal and engagement.

Building on fundamentals: Addressing key questions

Purpose

- Why are you doing this project?

- Who is your audience?

- What is the message you want to convey?

- What do you want your audience to walk away with?

- Is there an action item? What is it?

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Data

- How are you getting the data (quality, completeness, format)?

- Are the data easy to work with? Or do you need the data formatted to work with more easily?

- How often will the data be updated?

- Is this a one-time visual or something that needs to be regularly updated?

- Will the data structure change in the foreseeable future?

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Timeline

- Is there a deadline for the project you have in mind? What is driving the timeline?

- Backwards map from end product: clean data, create design, iterate, launch, disseminate.

- How long will the project be "active?"

- How do you see the project changing after a "launch?"

Medium

- Where will this project reside (website, mobile app, printed brochure, on broadcast television, a presentation)?

- If a website, does this project need to be compatible on a smartphone?

- If for a presentation or for print, will it be regularly updated (printed annually)?

- What resources are required (designer expertise, tools/software availability)?

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Audience

- Who are the main stakeholders for this project?

- Are they considered tech savvy (can you make an explorative tool that has more advanced features or do you need to keep the content very simple)?

- Do they have ready access to the medium you defined in the last slide?

Case study: Boston Public Schools visualizing the school system's budget