

Data Visualization

A Workshop in Bringing Evaluation Data to Life



2023 OSEP LEADERSHIP AND PROJECT DIRECTORS' CONFERENCE





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(Authority: 20 U.S.C. 1221e-3 and 3474)

Workshop agenda

- Introduction (15 minutes)
- Activity (35 minutes)
- Wrap-up (10 minutes)



Workshop objectives

- **Understand** the value of data visualization
- **Learn** considerations for effective data visualization
- **Practice** applying visualization strategies to sample data
- **Receive** resources for effective data visualization



Why data visualization?



Sight is our **fastest** sense.



726954852371235

712403648570207

243986201247813

735278121732562



How many 3s did you count?



726954852**3**712**3**5
71240**3**648570207
24**3**98620124781**3**
7**3**52781217**3**2562



Considerations in choosing a visualization



Research Question

Key outcomes and comparisons



Data

Key variables, level, and structure



Audience

Level of understanding and needs



Tools

Software and production



Considerations in choosing a visualization: TA Center Example



How did student **reading scores** change **after** teacher participation in a workshop series on reading instruction?



Average reading scores at two points in time by domain and classroom



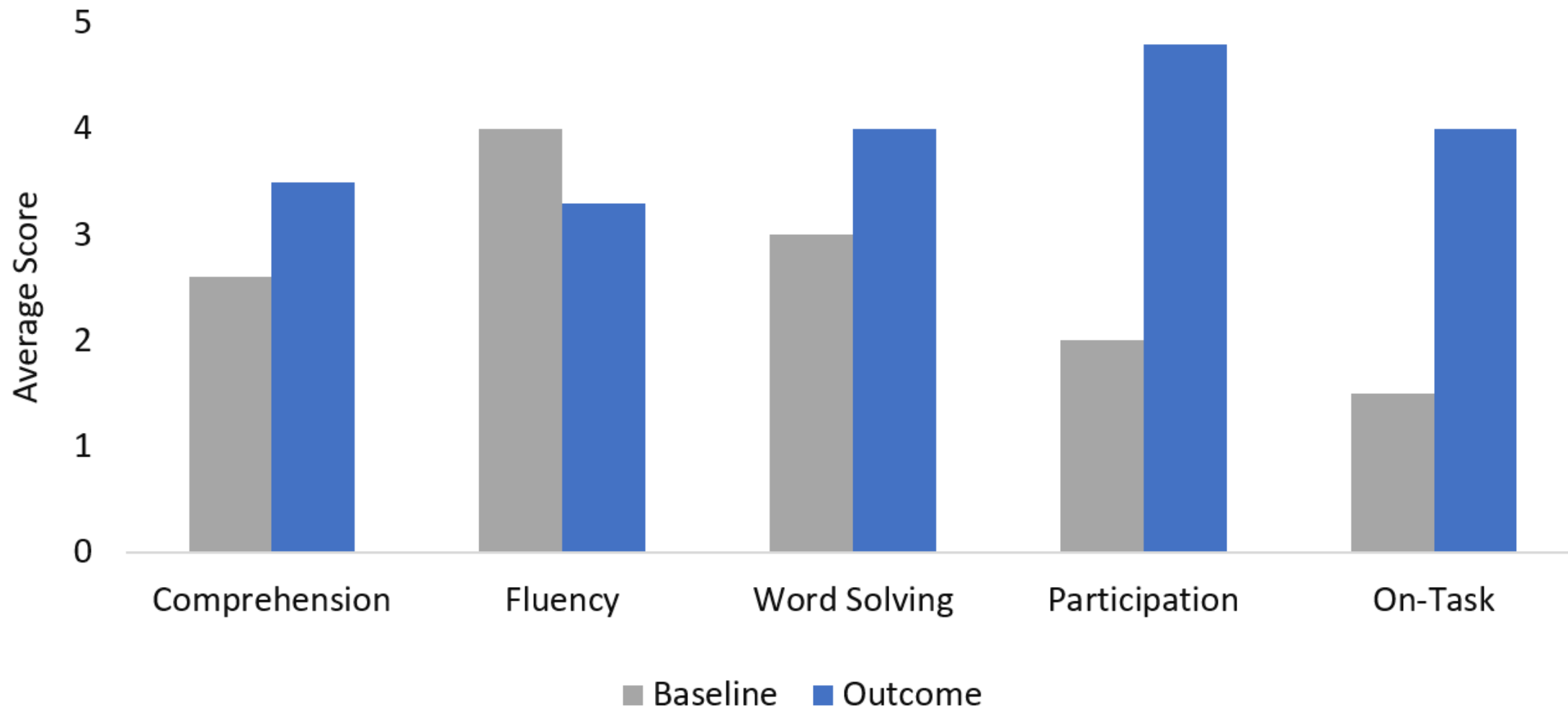
Teachers considering enrolling in similar workshop series



Microsoft Excel

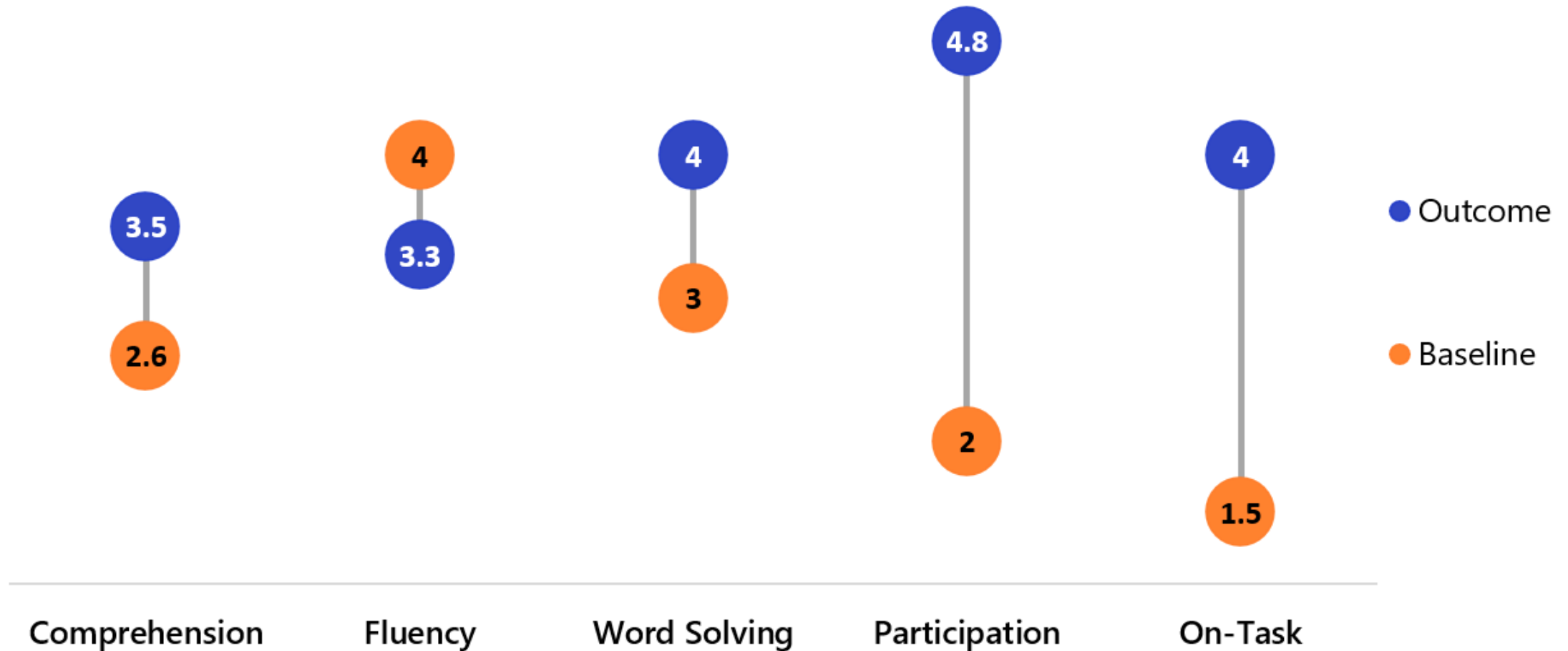


Average Student Baseline and Outcome Reading Scores by Domain



Average student reading scores increased across most domains of reading **after** teacher TA participation

*Scale of 0-5, with 5 representing "Excellent."



Considerations in choosing a visualization: TA Center Example (cont'd)



How did student **reading scores** change **after** teacher participation in a workshop series on reading instruction?



Individual reading scores at two points in time by domain and classroom



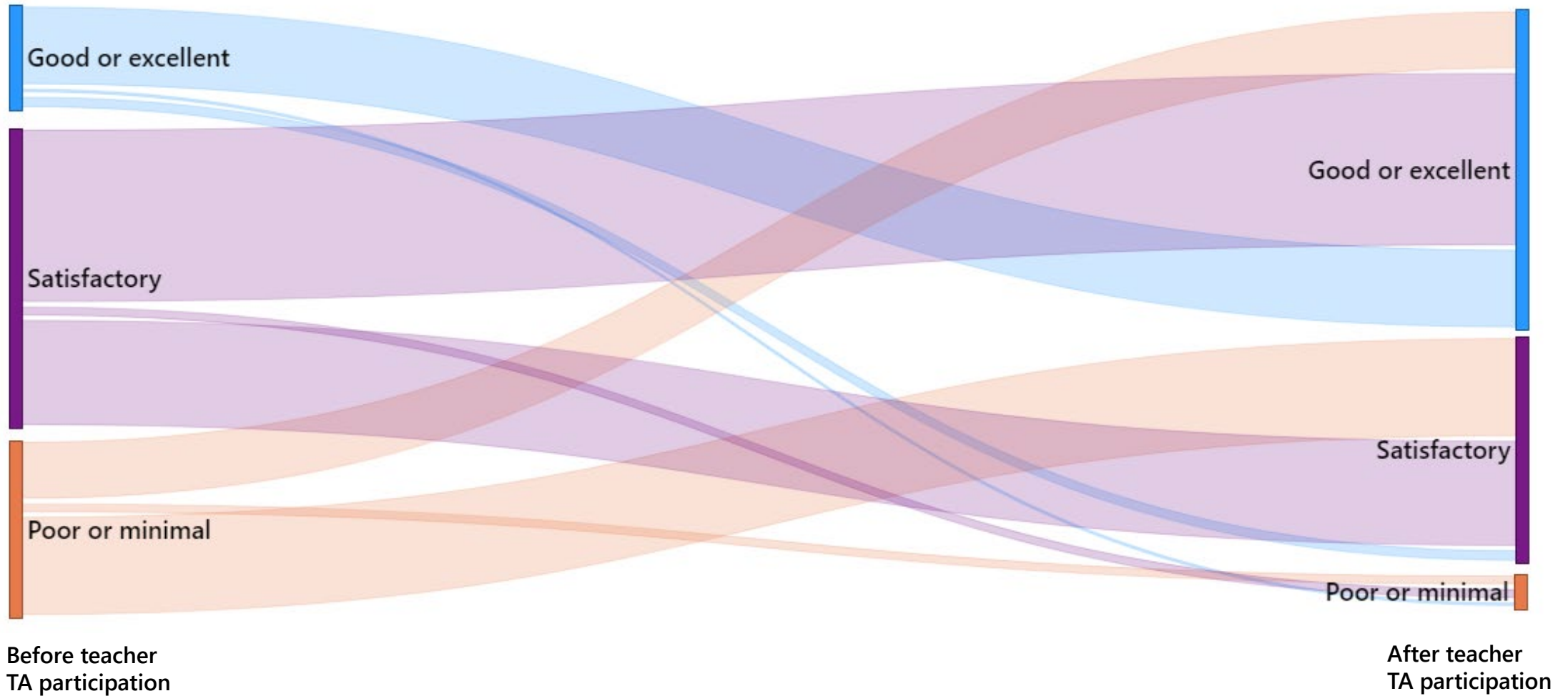
Teachers considering enrolling in similar workshops



Power BI



Most students with **satisfactory** or **poor or minimal** baseline reading scores reported improved reading scores after teacher TA participation



Activity: Build your own visualization

1. Review scenario and discuss pre-build questions in groups (10 min)
2. Work together to design and build a visualization (25 min)
3. Discuss post-build questions (10 minutes)



Resource Spotlight

- Data Visualization: Bringing Your Evaluation Findings To Life (forthcoming)
- [Effectively Communicating Evaluation Findings](#)
- Individuals with Disabilities Education Act (IDEA) website
 - Brings together IDEA information and resources from the Department and its grantees.
 - <https://sites.ed.gov/idea/>
- IDEAS That Work
 - For information from research to practice initiatives funded by OSEP that address the provisions of IDEA and ESSA. This website includes resources, links, and other important information relevant to OSEP's research to practice efforts.
 - <https://osepideasthatwork.org/>





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