Data Visualization Practices in Education

Recommendations for Philanthropic Efforts

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What makes some data visualizations good? How can we create *better* visualizations *more often*?
Findings

There are guidelines and principles for good data visualization design

© Use the appropriate *marks and channels*

- Points
- Lines
- Areas

- Position
- Length
- Angle
- Shape
- Size
- Color hue
Findings

There are guidelines and principles for good data visualization design

- Use the appropriate *marks and channels*
- Take advantage of *layouts and structure*

![Small multiples diagrams](image)
Findings

- There are guidelines and principles for good data visualization design
  - Use the appropriate *marks and channels*
  - Take advantage of *layouts and structure*
  - Avoid *chartjunk*
Findings

- There are guidelines and principles for good data visualization design
- User research on educational data visualization is insufficient to support good practice

Parent Engagement

ESSA requires States to consult with parents as States develop their report cards. States may do this in a variety of ways, including the following:

- Holding meetings with parents
- Creating a report card committee that includes parents
- Publishing drafts for feedback

Through this consultation, parents are able to advise States on the best way to display the required information. Parents can also explain what information parents need in order to understand how schools are doing.
Findings

- There are guidelines and principles for good data visualization design
- User research on educational data visualization is insufficient to support good practice
  - Academic researchers usually target a different set of audiences than practitioners

Practitioners

Academics

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Recommendations

◉ Easy-to-Access Resources for User Research
◉ Let people talk: collaboration across sectors
◉ Disruptive innovation: eliminating constraints
  ◎ Visualization capacity building
  ◎ Technology that automates visualization with human insight
  ◎ Democratizing data visualization
Takeaways from the experience

◉ Exposure to a whole new world
◉ Importance of cross-sector and interdisciplinary conversation
◉ Accessibility of academic research and discourse
Findings

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