



Data Literacy: What do Arizona Teachers and Administrators Need?

2/13/2024



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What is Data Literacy?



The ability to transform information into actionable instructional knowledge and practices by collecting, analyzing, and interpreting all types of data (assessment, school climate, behavioral, snapshot, longitudinal, moment-to-moment, etc.) to help determine instructional steps. It combines an understanding of data with standards, disciplinary knowledge and practices, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn (Gummer & Mandinach, 2015).

Scan the QR Code Take the Survey

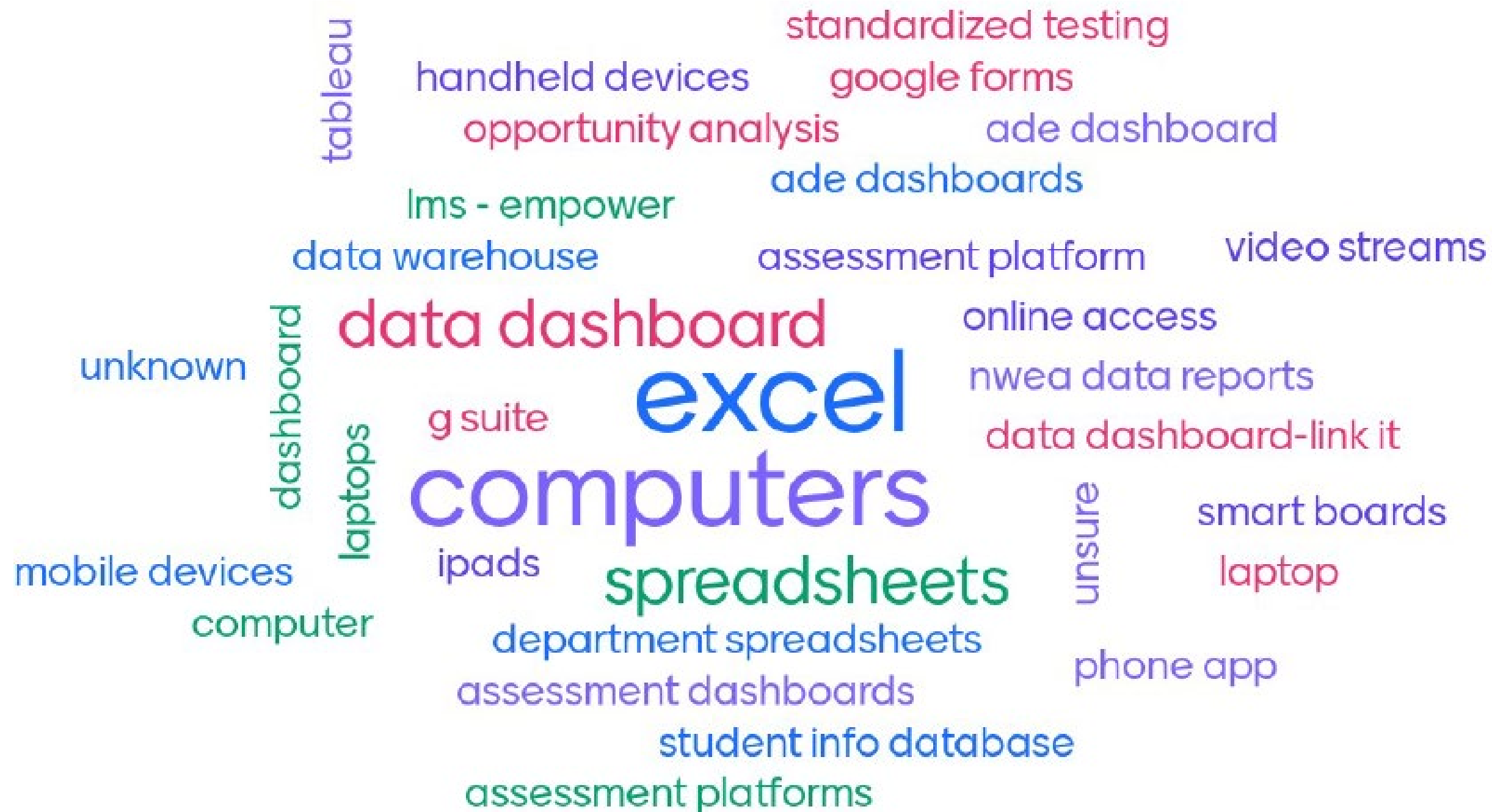
<https://www.menti.com/alhmghn6bhmr>

Initial Questions:



- What types of data do your teachers/principals work with?
- Do you have technology/tools to support their data use?

What technology/tools supports data use?



Why data literacy is important:

- An increasing emphasis on rigor, as espoused by the U.S. Department of Education and the Institute of Education Sciences (IES)
- Anecdotes, gut feelings, or opinions should not be the basis for decisions
- Policymakers have begun to emphasize the need for a fundamental philosophical shift from data for compliance to the principles of data for continuous improvement.

Model for data literacy training:

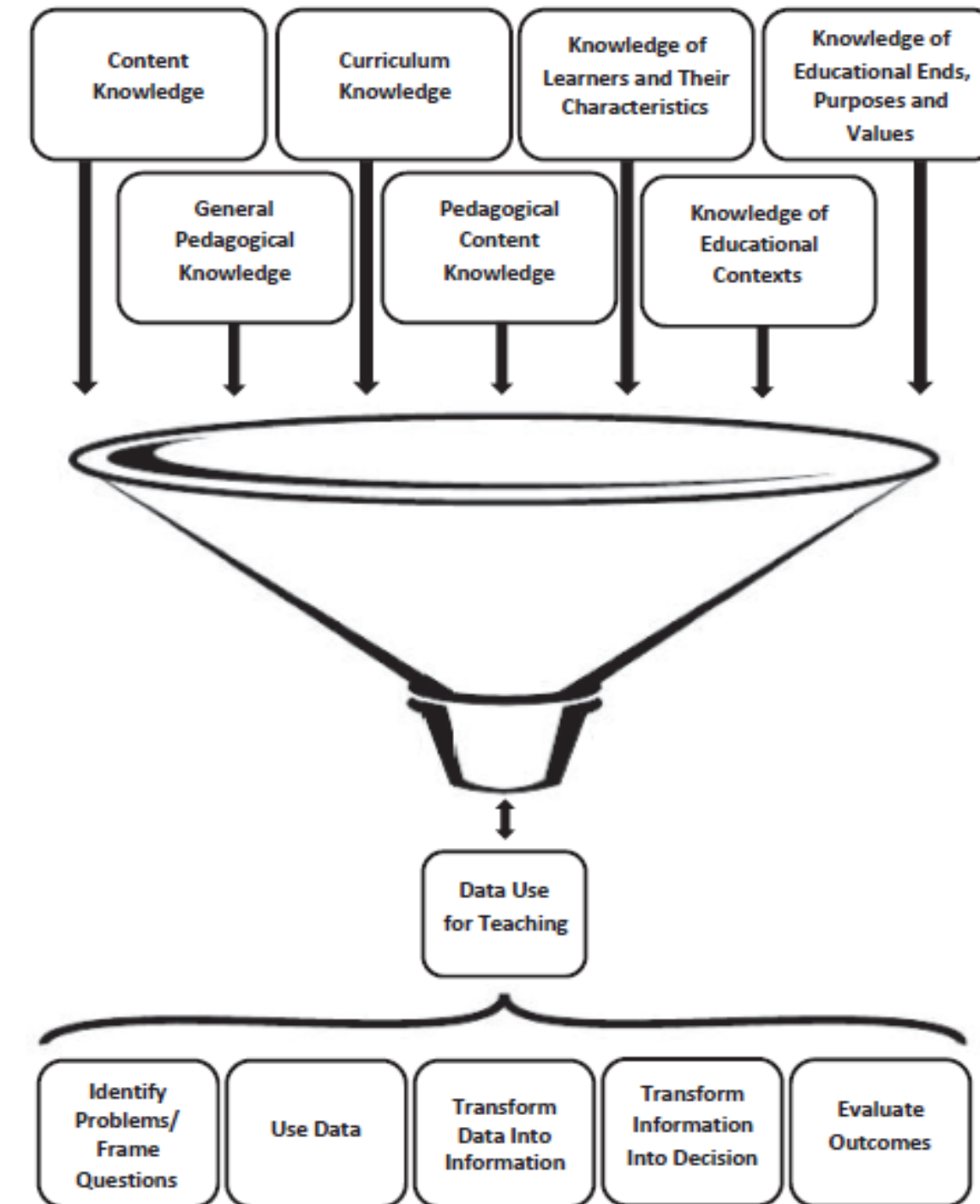
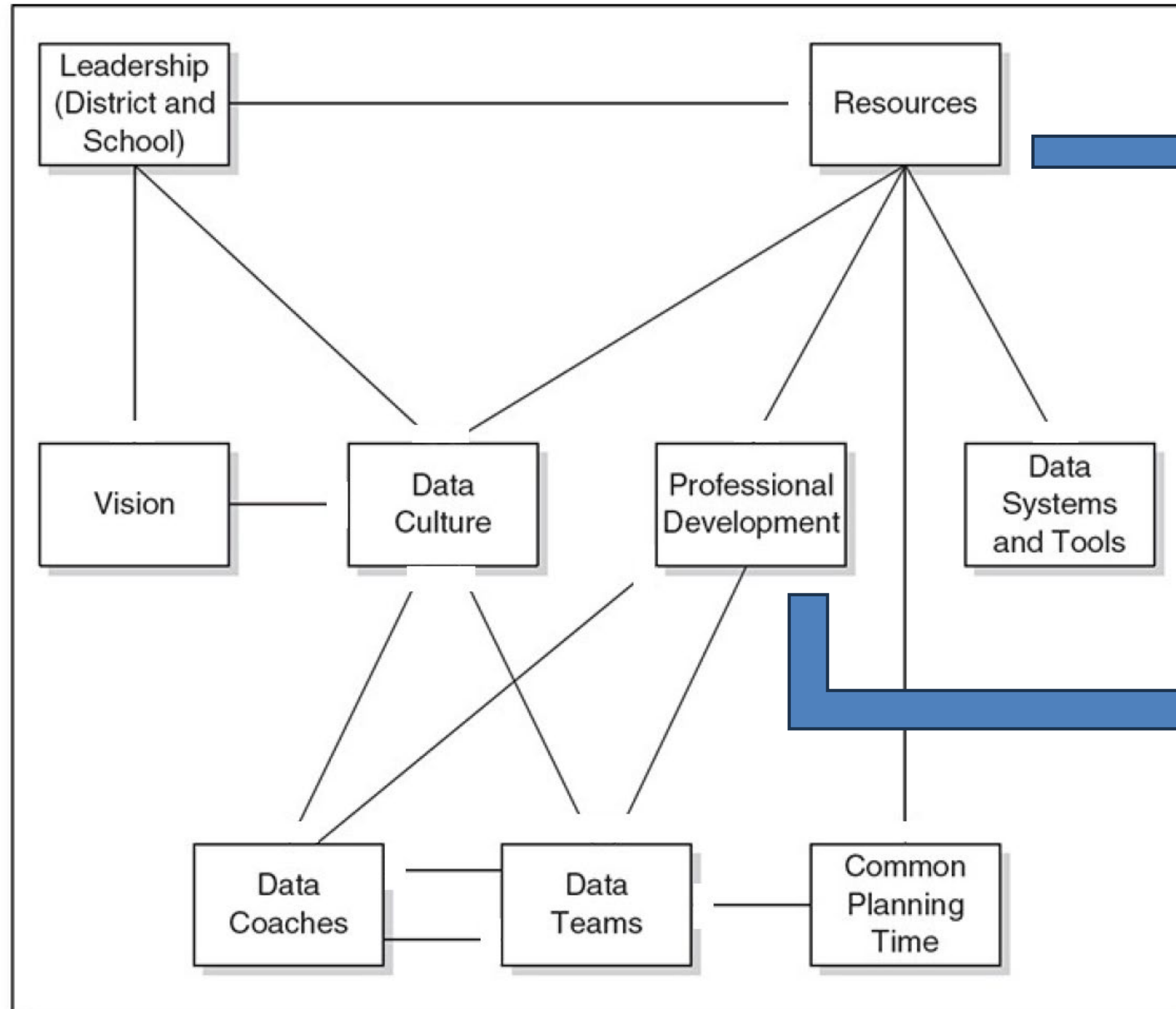


Fig. 1. Conceptual framework for DLFT.

Systems Map of Data Culture



Helios Decision Center for Educational Excellence:

Decisioncenter.asu.edu

Department of Educational Psychology:

Coe.Arizona.edu/edp



Possible roles for a culture of data literacy:

PRINCIPALS

- Create a culture of data-driven decision making
- Make explicit expectations for data use
- Model data use
- Motivate staff to use data

DATA COACHES

- Help educators to use data
- Integrate data tools
- Train educators to use data
- Motivate colleagues

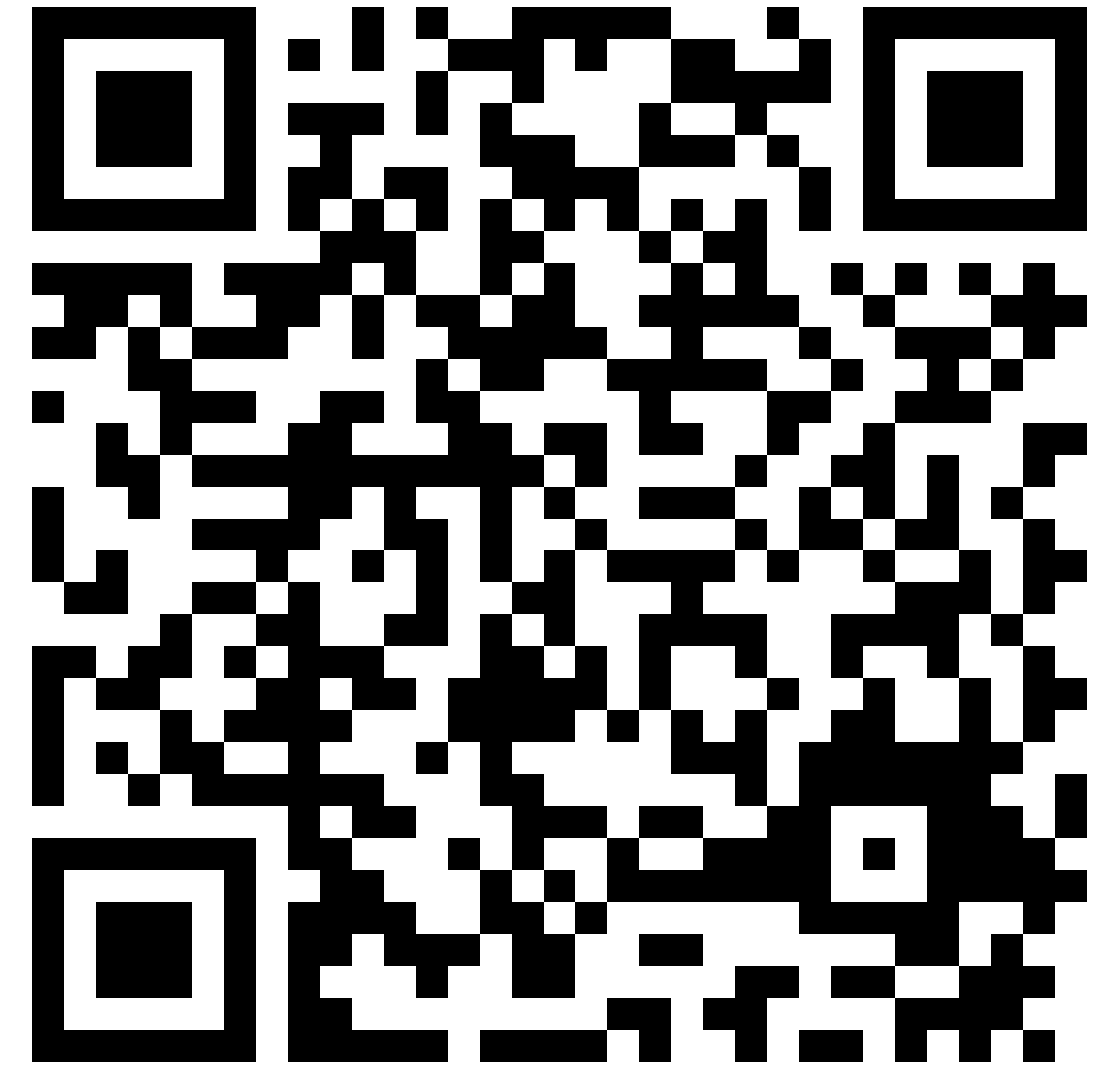
TEACHERS (DATA TEAM)

- Examine data to inform instruction and other decisions
- Work with other educators to help them use data
- Data visualization for stakeholders, including partnering with families and communities

Scan the QR Code
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<http://tinyurl.com/jjsummers906>

RESULTS



How should data be used?

Most Important:

- **Better serve students with disabilities**
- **Provide better services to at-risk students**
- **Determine if particular programs, curricula, or interventions are making a difference**

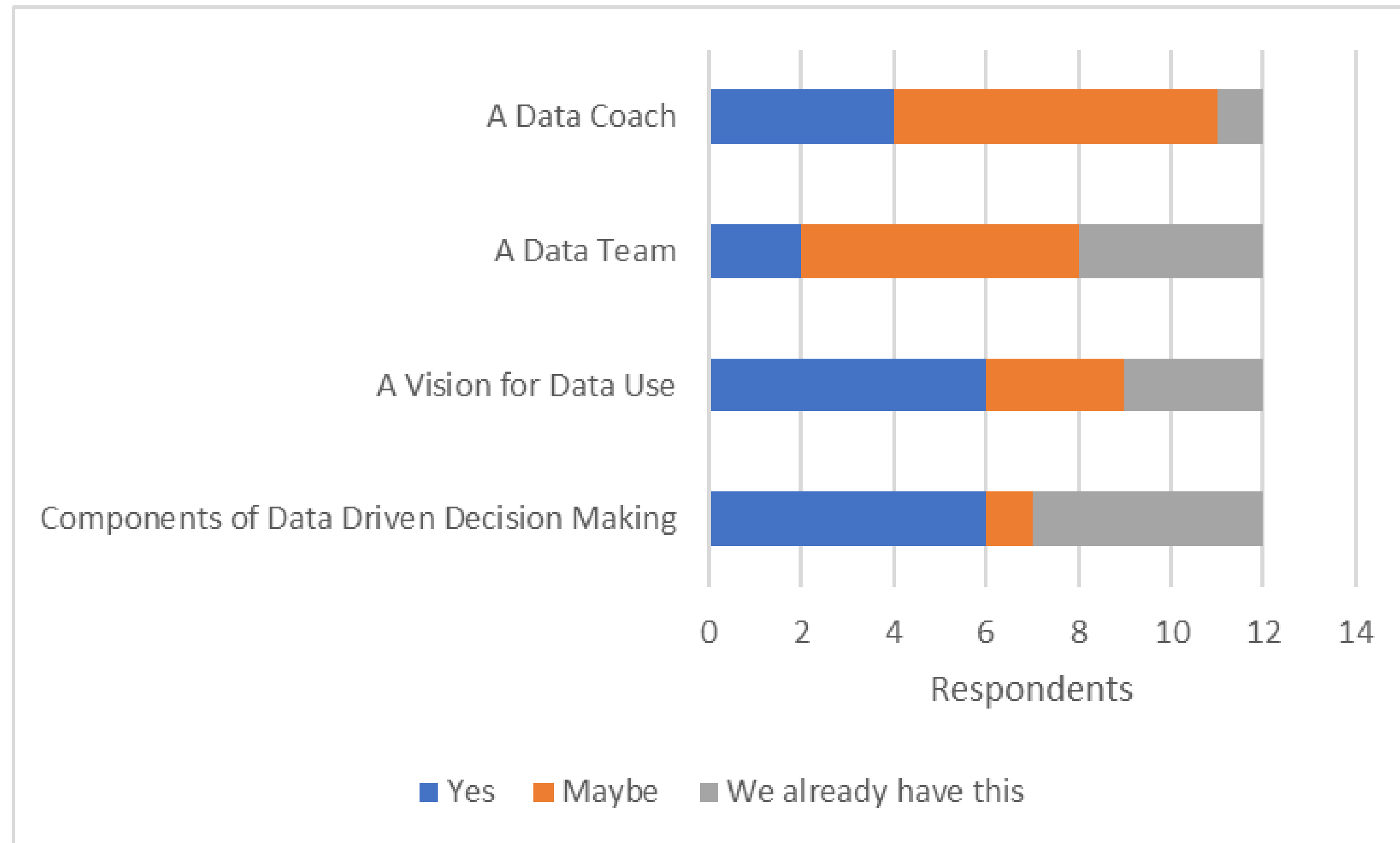
Moderately Important:

- Improve the teaching and learning process
- Decrease the achievement gap
- Help students better prepare for college

Least Important:

- Achieve accountability mandates
- Provide enrichment opportunities for gifted and talented students

What would you like in your schools?



What data literacy skills do principals need?

Most Important:

- **Analyze Data**
- **Summarize Data**
- **Synthesize data**
- **Prioritize data**
- **Make data-based decisions**
- **Implement data-based decisions**
- **Execute data-based decisions**

Moderately Important:

- Organize/prepare data
- Data reflection
- Interpret data
- Modify instruction with data
- Identify problems with data
- Monitor progress

What data literacy skills do teachers need?

Most Important:

- **Interpret data**
- **Modify instruction with data**
- **Monitor progress**

Moderately Important:

- Analyze data
- Implement data-based decisions
- Seek data-based solutions

What else to principles and teachers need?

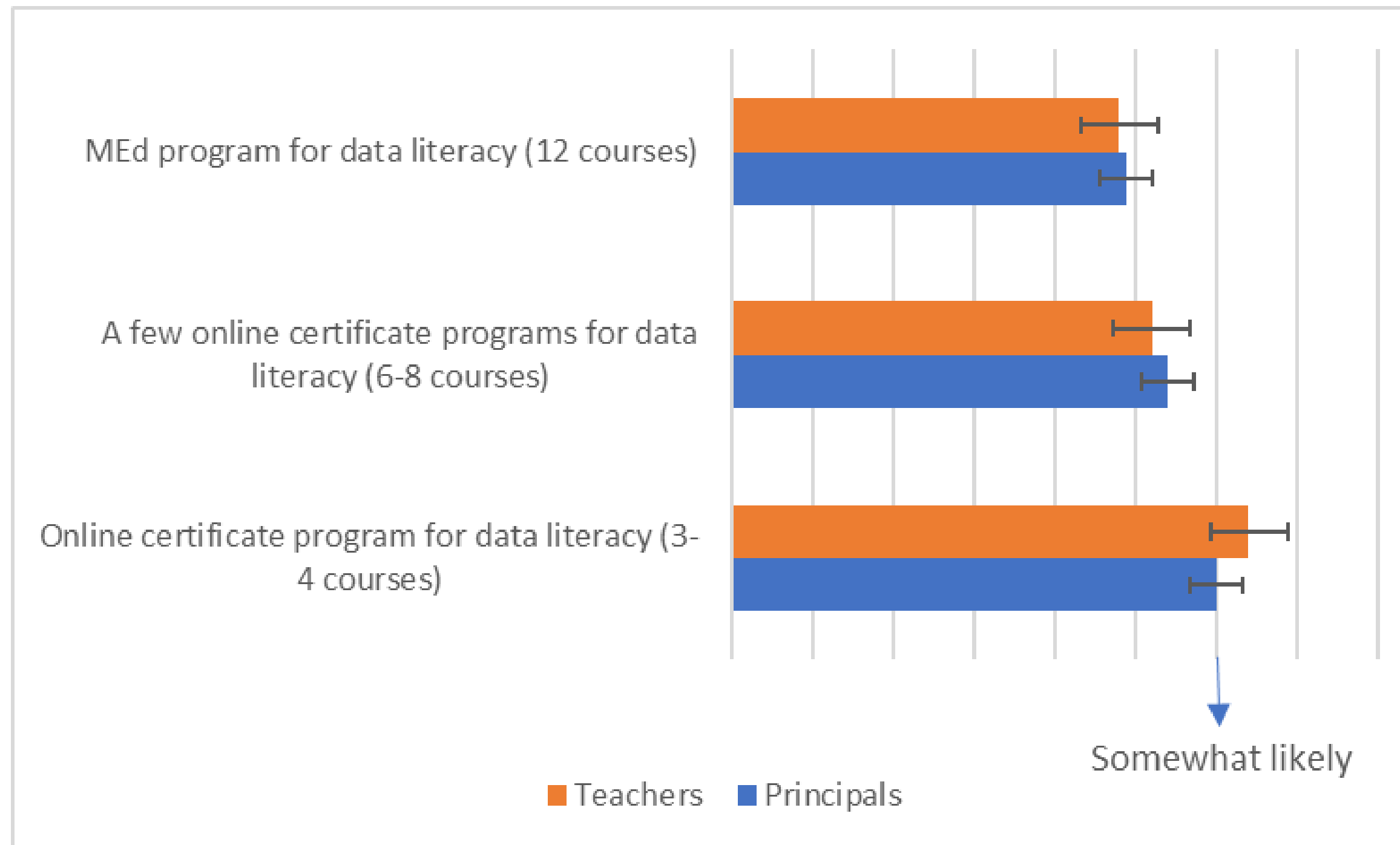
Principals:

- **Creating visuals**
- **Understanding literature**
- **Technology tools**
- **Understanding data problems**
- **Population specific data**
- **Teacher retention data**

Teachers:

- **Basic statistics**
- **Understanding literature**
- **Technology tools**
- **Understanding variability**
- **Formative assessment**
- **Intervention effectiveness**

In what programs would personnel enroll?





Thank you

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