Data Literacy Guidance

GROWING DATA LITERACY SKILLS

Schools are data rich, making data literacy a critical skill for intentional actions in Illinois schools. Data literacy is "the ability to understand and use data effectively to inform decisions." Data literate educators can transform large amounts of quantitative and qualitative data into useful information for purposeful actions to best serve every student.



Data Insight 1: Why is data literacy important in schools?

Strong data literacy facilitates better understand of:

- Student learning patterns, and
- Educators instructional practices to keep, adjust, add, and stop.

Schools are data-rich, busy places so strong data literacy can help avoid data fatigue, while supporting strategic actions.

Data Insight 2: What opportunities does data support?

Exploration of data:

- Provides a window into effectiveness of effort and systems
- Unveils previously unseen information, and
- Creates insight for purposeful action.

Data Insight 3: How do schools explore data and grow data literacy?

High-quality data is evidence of student learning, educator practices, and school wellness. Transforming raw data into knowledge for purposeful actions to best serve every student requires skill and follows predictable steps.²

Set the Purpose

Determine the goals and questions for the inquiry.

Select a Data Source

Align data source criteria to the purpose. They should be of high quality and cover multiple years.

Collect and Organize Data

Format data displays to spur transformation of data into information.

Analyze and Interpret Data

Determine facts, biases, and inferences from multiple views.

Make Decisions and Create Plan

Align decisions to the original purpose. Plan should include instructional action and monitoring of adult and student progress.

Evaluate Data

Evaluate the data inquiry process to improve data literacy skills.

Data Insight 4: What Is the Data Mindset of Stakeholders?

Educators' dispositions about data use varies. Before leaping into a data exploration, it is helpful to acknowledge the data mindsets of group members. There may be educators within a group who are:

- Data advocates with high data literacy,
- Novice data users,
- Curious about developing data literacy.
- Data reluctant, and more.

All educators, regardless of data mindset, bring a valuable voice to data exploration and sense-making.

¹ Mandinach, E. B., & Gummer, E. S. (2013). A systemic view of implementing data literacy in educator preparation. Educational Researcher, 42(1), 30–37.

² Beck, J. S., & Nunnaley, D. (2021a). A continuum of data literacy for teaching. Studies in Educational Evaluation, 69, 100871.