DATA LITERACY AND MAVED

WHAT IS THE ROLE OF DATA LITERACY IN MAVED AND WHY IS IT IMPORTANT?

Data literacy is the ability to **find, evaluate, extract, clean, analyze, and interpret data** from diverse sources in order to draw meaningful conclusions and make informed decisions. At UNO, data literacy is now one of the **four fundamental skills** in MavEd.

Key components include:

- Locating and accessing reliable datasets
- Cleaning and preparing data for analysis
- Using tools (e.g., Excel, Tableau, GIS, AI) to **visualize and interpret** data
- Understanding data context and limitations
- Communicating findings clearly and ethically

What Data Literacy Is *Not*

- It is **not just using numbers** in a generic way or doing basic arithmetic.
- It is **not the same as statistical theory**, though it may use some basic statistics.
- It is **not confined to a single discipline**—data literacy is broadly applicable across sciences, business, health, social issues, and more.

It is **not about memorizing formulas**, but about working meaningfully with real-world data.

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HOW IS DATA LITERACY DIFFERENT FROM QUANTITATIVE LITERACY

Aspect	Data Literacy	Quantitative Literacy
Focus	Working with data: sourcing, cleaning, analyzing, interpreting	Applying math to solve problems using numerical data
Skills	Data extraction, transformation, visualization, interpretation	Arithmetic, algebra, reasoning, constructing/justifying arguments
Common Tools	May include Excel, Tableau, GIS, Python, etc.	May include graphs, equations, tables, statistics
Typical Activities	Often uses real-world, messy datasets from diverse domains	Often uses clean, structured problems or hypothetical scenarios
Data Structure	Analyzing trends, making decisions based on data patterns	Solving problems, justifying conclusions with quantitative logic
Core Questions	Creating a dashboard to explore wage disparities by demographic	Calculating mortgage payments and explaining financial tradeoffs

Why This Distinction Matters

- UNO includes **both** skills as distinct elements in the general education curriculum to ensure students can:
- Apply **mathematical reasoning** to structured problems (quantitative literacy), **and**
- Handle **real-world data** to inform decisions in an increasingly data-driven society (data literacy).

Together, they empower students to become **critical consumers and producers of information**, well-equipped for today's professional, civic, and academic demands.

Additional Resources at MavEd.unomaha.edu

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