What is Data

Data is information about a theme or topic. In education, it is usually information about people or their behaviors that might help clarify questions like who, what, when, where, how, and why. Data can take many forms, it can be words, numbers, colors, or feelings.

What is Big Data

Big data is when multiple data sources are combined. For example, what type of bus card people use AND time of riding the bus.

How are data created

Data is most often ‘collected’. Sometimes data is collected directly from people, sometimes a data set already exists and it utilized for a second purpose. The process of accessing data, directly or indirectly, should have a purpose. E.g. demographics to report summary back to state or federal government for continued funding, or to check whether student body reflects surrounding community.
Data Construction and Processing

Indicators:

- Aggregate - this means summary data, or a snapshot of what the points in the data set look like as a group. Personal information is removed from this type of data or report.
- Identifiable - this means data that have the personal information included in the data. Typically used for case studies, or in-depth stories of individual people or a small group.

Levels

- Individual - about a specific person e.g. report card,
- Classroom/group/focused population - about a small group e.g. grade level
- System - about multiple groups, or the way that different groups interact with one another

Data Analysis

STATISTICS: how does 'this' relate to 'that'
PREDICTIVE ANALYTICS: assumptions about if ‘this,’ then ‘that’ from past patterns of statistics
Unpacking Data Driven Decisions

Use of data: Inform decision making

Change. Data is used to outline unacceptable status quo to prompt change, or to outline acceptable status quo to promote sustainability and growth.

Conversation using data should follow a general understanding of what the data are, how they came to be, and what the analysis process was to arrive at the numbers presented.

Misuse of data: perpetuated violence with data

- Uninformed/not explained. Data are misused when people talk about data without understanding what the data are, how they came to be, and what the analysis process was to arrive at the numbers presented.
- Extrapolation. A small group of data are used as an example and said to represent the experience of a wider population.
- Non-consensual. Data are used in analysis after date agreed upon by consenting parties.
- Dishonest or inappropriate methods of analysis. Researchers/evaluators make assumptions about data sets that are inaccurate.
- Meaning making with the data are done so without representatives from the community.
- Data sets are constructed with intent to frame continued failure and support an agenda for dehumanizing people.
Communities for Ethical Data Use

Monitoring and Evaluation

- The field encouraging informed conversations utilizing data for change.
- Change processes often utilize the language of program improvement, continuous improvement, quality, impact, needs assessments, community readiness.

Data Sharing

- Community Benefits Agreements - what commitments/benefits does a data share have for the people whose data is being shared?
Data Advocacy

What questions could I be asking if I am unsure about what is going on with my data?

- **About participating in studies**
  - Tell me about what this project is.
  - Why do you need this information?
  - What will you do with this information?
  - Who else, or what other entities may have access to this information?
    - E.g. Subcontractors, external auditors, external evaluation supports, funders
  - How is this data stored?
  - Who has access to that platform?
  - Will I be notified if my data is used in any report, including in summary?

- **About ongoing monitoring and evaluation**
  - What do you record from my/my child's time in this program?
  - (for every data point) Why do you need that information?
  - What role can I play in verifying the information is correct?
  - How is that information used?
  - How will I be notified if or when my/my child's information is used, including in summary?
  - What role will I have in making decisions that are informed by this information?

- **About reports**
  - What is this number? What does this mean (e.g. ask about labels on graphs, how percentages or ratios were calculated)?
  - Where does this data come from?
  - How does this data link to the recommendations?
Data Advocacy 2.0

How do I notice red flags?

- No clear need for the information gathered.
- If data are stored in a school system, people should offer a clear description and understanding of who has access to the area where the data are stored. For example, in schools health professionals such as social workers or nurses may have a section specifically for their meeting notes that only they have access to; this keeps the information confidential from other school personnel who do not need to know that information.
- Who has the ability to edit the information; are the participants able to access and review their own data?
- Words like “objective” or “neutral” that try to represent the data as entirely values-free

Who do I go to about red flags?

- Principal Investigator listed on the consent form. This is the person in charge of the study.
- Ethical oversight, such as Institutional Review Boards (IRBs), whose job it is to weigh the risks and benefits of proposed data collection, processing, and/or data sharing
- There may be a need for community-based IRBs. Some studies have started discussing that a single community member may not represent the diversity of experiences in a system. Thus, it may make sense to build community-based ethics boards for ongoing conversations about the potential risks and benefits of research and evaluation happening in their communities.
- School or district leadership