Serving on Groups That Make Decisions
Section 6: Using Data as Information
October 27, 2022
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Agenda
• Serving on Groups Overview
• Section 6 – Using Data as Information
  o What is data?
  o How can I learn more about data groups use?
  o What are the 8 stages of data use?
• Resources

Serving on Groups Overview
• Developed due to an identified need
• Collaborative effort by stakeholders
• Audience – parents, educators, students, others
• www.servingongroups.org
What is Data?

Data...
- Is factual information
- Helps groups make decisions
- Must be:
  - Reliable
  - Valid
  - Accessible

Confidentiality

- A set of rules or a promise
- Limit access or put restrictions on certain types of information
- When working with data as a group, it is important to state if certain information should not be shared with others outside of the group.

Forms of Data

Quantitative Data
- Typically numbers
- Answers the questions:
  - How much? How often? When? Where?

Qualitative Data
- Typically descriptions
- Answers the questions:
  - What is it like? What do you observe about it?
Stages of Data Use

1. Planning & Preparing to Use Data
2. Collecting Data
3. Organizing Data
4. Analyzing Data
5. Developing Hypotheses & Making Recommendations
6. Creating an Action Plan
7. Displaying & Sharing Results
8. Continuous Monitoring for Progress & Improvement
Stage 1: Planning & Preparing to Use Data

What do we want to know?

Tips
- Ask focusing questions
- Use a variety of methods & sources
- Find data already out there - baseline
- Try to find gaps
- Pinpoint possible roadblocks
- Ask others knowledgeable of the data

Stage 2: Collecting Data

Answer questions to make an informed decision and act.

Data from Schools

- Student Learning Data
- Student Demographic Data
- School Perception Data
- School Process Data

Families as a Data Source

- Surveys
- Focus Groups
- Participants or Attendees
- School Perception Data

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Stage 3: Organizing Data

Aggregated Data:
a whole set of data formed by combining several parts

Disaggregated Data:
a whole set of data separated into its categories or subgroups

Youth 20–24 Neither Enrolled in School Nor Working with HS Diploma by Race/Ethnicity

Triangulated Data:
Use of multiple independent sources of data to establish the truth & accuracy of a claim.
Stage 3: Organizing Data

Tips for Interpreting Graphs
Read all labels.
- What is…
  - in each COLUMN?
  - in each ROW?
  - the RANGE OF VALUES?
- Where was…
  - the MOST change or growth?
  - the LEAST change or growth?

Serving on Groups That Make Decisions

A Snapshot in Time

2021 Post High School Outcomes
(5,071 students responded Statewide)

- Higher Education
- Competitive Employment
- Other Postsecondary Education or Training
- Other Employment
- Indicator 14 Categories Not Met

https://www.indicator14wi.org/

Stage 3: Organizing Data

Comparisons

2012-2013 Elementary Enrollment
Total = 603 students

- Number of Students
- Grade Level
- Enrollment
Stage 3: Organizing Data

Trends

Percentage of District Students Scoring Proficient or Advanced in Reading

<table>
<thead>
<tr>
<th>Year</th>
<th>all Students</th>
<th>EL</th>
<th>EL Eng.</th>
<th>advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>32.5%</td>
<td>21.5%</td>
<td>12.8%</td>
<td>64.4%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>33.5%</td>
<td>22.1%</td>
<td>13.5%</td>
<td>66.8%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>34.4%</td>
<td>22.7%</td>
<td>14.3%</td>
<td>68.4%</td>
</tr>
<tr>
<td>2013-2014</td>
<td>35.3%</td>
<td>23.3%</td>
<td>15.1%</td>
<td>70.0%</td>
</tr>
<tr>
<td>2014-2015</td>
<td>36.2%</td>
<td>24.0%</td>
<td>15.8%</td>
<td>71.6%</td>
</tr>
</tbody>
</table>

Tips to Validate the Findings

To make sure the data are sound:
- Use trusted sources
- Follow-up with questions
- Use different ways of gathering data
- Ensure everyone agrees and accepts the findings

Stage 3: Organizing Data

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Stage 4: Analyzing Data

Look for Relationships in the Data
- Each view provides unique insight
- Look from many viewpoints
- Understand the parts as well as the whole
- Strengths and challenges
- Don’t draw conclusions too soon
- Record information as it appears in the source

Stage 4: Analyzing Data

Terms when Working with Numbers
- **MEAN** – average of a group of numbers
  \[ \frac{1+2+3+4+5}{5} = 3 \] is Mean
- **MEDIAN** – middle value
  2, 1, 8, 3, 6, 10, 2, 6, 7, 3, 3, 2, 2
  3 is Median
- **MODE** – most frequent value
  2, 1, 8, 3, 6, 10, 2, 6, 7, 3, 3, 2, 2
  2 is Mode
- **RANGE** – difference between lowest & highest
  1, 2, 2, 2, 3, 3, 6, 6, 7, 8, 10
  10 minus 1
  9 is the Range
- **OUTLIER** – very high or very low number
  2, 1, 8, 3, 6, 10, 2, 27, 6, 7, 3, 3, 2, 2
  27 is outlier
- **STATISTICALLY SIGNIFICANT** – results true & not because of chance

Stage 4: Analyzing Data

Examples of Working with Numbers

<table>
<thead>
<tr>
<th>January Reading Scores</th>
<th>Student A's Reading Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean = 817.3</td>
<td>Outlier</td>
</tr>
<tr>
<td>Median = 825</td>
<td></td>
</tr>
<tr>
<td>Mode = 880</td>
<td></td>
</tr>
<tr>
<td>Range = 665</td>
<td></td>
</tr>
</tbody>
</table>
**Stages of Data Use**

1. Planning & Preparing to Use Data
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5. **Developing Hypotheses & Making Recommendations**
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**Stage 5: Developing Hypotheses & Making Recommendations**

**Hypotheses (if, then, because)**
- Understand why we think it is happening
- Look at other data
- Ask additional questions
- Agree upon the conclusions
- Figure out possible solutions

**Recommendations**

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Stage 6: Creating an Action Plan

1. Bring key people together
2. Figure out:
   - What
   - Who
   - When
   - Where
   - Resources
   - Communication
3. Review completed action plan
4. Follow through
5. Communicate
6. Keep track of progress
7. Celebrate!

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Stage 7: Displaying & Sharing Results

Displaying Results

- Make Sure the Report is:
  - Appealing
  - Accessible
  - Accurate
  - Audience-specific
- Be Fair and Objective
Stage 7: Displaying & Sharing Results

Sharing Results

- Know the Purpose of your Report
  - Does it need to provide information?
  - Is it to raise awareness?
  - Will it be used to make decisions?
- Know your Audience
  - What do they already know about the topic?
  - Do they need the big picture or lots of details?

Stage 7: Displaying & Sharing Results

Make the Data Come Alive

Social Math
- Relating data numbers to what is familiar and concrete to your audience.

Data Stories
- Compelling narrative
- Audience-Specific
- Be objective
- Don’t censor
- Explain the data

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Stage 8: Continuous Monitoring for Progress & Improvement

Check Your Work
- Regularly revisit the plan
- Identify challenges
- Make changes as needed

Evaluate the Action Plan
- Collect the same TYPE of data from the same data SOURCE

Stage 8: Continuous Monitoring for Progress & Improvement

Process Begins Again

Ask yourself:
- To what extent has the initial question been answered?
- What new concerns or questions have come up?
- Which factors are clearly understood and which ones need more data?
- Has the situation improved?
Section 6 Resources

- Data-driven Decision Making (video 3:28)
  https://www.youtube.com/watch?v=9le
  https://www.youtube.com/watch?v=5St2

- What is Data-Driven Decision Making? (video 4:17)
  https://www.youtube.com/watch?v=SeF2

- WISEdash (WI Information System for Education Data Dashboard)
  http://wisedash.dpi.wi.gov/

- Intro to WISEdash (video 3:27)
  https://www.youtube.com/watch?v=IMt

- National Center for Education Statistics
  Kids’ Zone
  https://nces.ed.gov/ncksids/

- Profile of Your State/County
  https://data.census.gov/cedsci/profile?g

- Data about Children in Your State
  http://datacenter.kidscount.org/

- Data Use (Institute of Education Sciences)
  https://nsu.edu/ncee/edlabs/project

- Sample Confidentiality Policy
  https://www.councilofnonprofits.org/si

- Constructing a Hypothesis
  https://www.youtube.com/watch?v=i

- Continuous Improvement - A Tool Kit
  https://ies.ed.gov/ncee/edlabs/regions

- National SEPAC Guide
  https://www.parentcenterhub.org/wp

Where to Go From Here?

Sections 1 – 6. Contact Lori Karcher for recordings and handouts: lkarcher@wifacets.org


Register: http://wifacets.org/events
Thank you!
Please complete the evaluation!

https://www.surveymonkey.com/r/DSQQ32S