

## Now What?

### Using Assessment Results to Improve Practice

#### Analyzing Data

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##### Quantitative data

- Organize the data
- Give the data a “onceover,” noting your first impressions
- Calculate descriptive statistics:
  - Mean – the average score (sum of scores/number of scores)
  - Median – the middle score when scores are arranged from lowest to highest
  - Mode – the most common score
  - Standard deviation – the average amount scores deviate from the mean (if it is low, scores tend to cluster around the mean; if it is high, scores cover a wide range of values)
  - Sums and percentages (e.g., number of participants, percentage of participants who agreed or strongly agreed with a given statement)
  - Electronic survey design programs (e.g., Zoomerange, Qualtrics) will calculate most descriptive statistics for you
  - See “Resources” section for guides on how to use Microsoft Excel and SPSS to calculate descriptive statistics
- If comparing two sets of data (e.g., pre-test data and post-test data), use functions in Microsoft Excel and SPSS to calculate inferential statistics:
  - Goal: to answer the question of whether two sets of data are *statistically significantly* different (i.e., whether you can confidently *rule out* the possibility that differences between the two sets of data occurred by chance)
  - Common inferential statistics:
    - Two-tailed *t*-test for independent samples – use when comparing the means of two sets of data *from different groups of participants*
    - Two-tailed *t*-test for dependent samples – use when comparing the means of two sets of data *from the same group of participants*
  - See “Resources” section for guides on how to use Microsoft Excel and SPSS to calculate descriptive
- Take a step back
  - What do the data tell you about your assessment question?
  - What are their implications for policy and/or practice?
  - What, if anything, will you change about the assessment process?



### Qualitative (text or narrative) data

- Organize the data
- Give the data a “onceover,” noting your first impressions
- Categorize the data
  - You can (a) determine the categories ahead of time, (b) allow the categories to emerge from the data, or (c) do both
  - You may end up with “categories of categories” (i.e., categories and subcategories)
  - Remember: this is an *iterative* process
- Determine the relative significance of each category by counting the number of times it occurs
- Note responses that do not fit into the categories
- Take a step back
  - What do the data tell you about your assessment question?
  - What are their implications for policy and/or practice?
  - What, if anything, will you change about the assessment process?

### Tips for Writing Assessment Reports

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- Limit summary reports to 3 pages or less – shoot for a one pager
- Keep it simple. Key sections: 1) What you did 2) What you learned 3) What you’ll do about it – Use narrative (stories) and quantitative data (numbers) together when possible
- Include directions on how to obtain the full report in the summary reports
- Make the reports “reader friendly”
- Make recommendations: *Report writers often assume that the study speaks for itself or that it is inappropriate to write a report that advocates a position or recommended action....The purpose of assessment is to inform policy and practice. In other words, an assessment study fails at its most basic level when recommended actions are omitted* (Schuh & Upcraft, 2001, p. 481).

### Resources

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#### Analyzing quantitative data

- Microsoft Excel:
  - How-to guide: <https://learningstore.uwex.edu/assets/pdfs/G3658-14.pdf>
- SPSS:
  - Access through UI’s Virtual Desktop: <https://virtualdesktop.uiowa.edu/Citrix/VirtualDesktop/auth/login.aspx>
  - How-to guides: <http://www.education.uiowa.edu/centers/statoutreach/short-courses>

#### Analyzing qualitative data

- How-to guide: <http://learningstore.uwex.edu/assets/pdfs/g3658-12.pdf>