Now What?
Using Assessment Results to Improve Practice

Analyzing Data

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 statistics
- 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

- 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

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://www2.education.uiowa.edu/centers/soc/shortcourses.aspx

Analyzing qualitative data
- How-to guide: http://learningstore.uwex.edu/assets/pdfs/g3658-12.pdf