Now What?

Using Assessment Results to Improve Practice

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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, Websurveyor) 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)
  + C:\Users\Suzanne\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\IVWNV42F\MC900130271[1].wmfCommon 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](https://virtualdesktop.uiowa.edu/Citrix/%20VirtualDesktop/auth/login.aspx)
  + How-to guides: <http://www.education.uiowa.edu/statoutreach/shortcourses/>; <https://www.washington.edu/uware/spss/docs/SPSS%20Statistics%20Brief%20Guide%2017.0.pdf>

**Analyzing qualitative data**

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