Module 4: Analyzing Assessment Data: Goals, Purposes, and General Techniques
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Resources
Cooper & Shelley, Data Analysis (chapter 6 in the Schuh book)
Planning your Data Analyses (handout)
Module 4 Rubric (handout)
Decision Tree Analysis for Quantitative Studies (handout)

A look back…

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1. Asking a question and being clear about your purpose
2. Designing an assessment study
3. Selecting / developing / adapting assessment instruments and assessment methods (surveys, focus groups, data mining / institutional data, rubrics)

Currently your team should be implementing your assessment project / gathering data

**If you are not at this step, please arrange a meeting with me and your SA³ team ASAP**

Overview of Today’s Session

- Easy to get caught up in statistical calculations, transcription, analyzing themes, writing reports…
- Easy to get lost in data analysis if you don’t have a clear plan and a clear goal for your data analyses
- Will save in-depth discussion of specific ways to analyze your data for one of the two sessions later this semester (one QUAL and one QUAN)
Key Questions

1. How will you analyze your data?
2. How will your analysis address your assessment questions and suit the purpose of your project?
3. What resources will you need to complete your analyses (and, which session(s) will you attend this semester)?

Without a plan…

- Data analysis can feel like wandering around in the dark, not knowing where you are going
- Can be easy to miss the big picture in the room (like a giant monster) while fixating on the small object that happens to be in the light of your flashlight (oh look, a squirrel!)
What can happen when you don’t have a plan…

Key to Successful Data Analysis: Have a plan!

Key questions to consider when creating your data analysis plan (see handout):
A. What question will it answer or purpose will it serve?
B. What is the specific goal of the analysis?
C. What technique will be used?
D. What will the results look like?
E. Who will do the analysis and when will it be completed?
F. What additional resources are needed?

A. What question will it answer or purpose will it serve?
- Refer back to your work from module 1
- This is when you will see a payoff from that hard work!
- Use your assessment question(s) to guide your analysis. The purpose statement can also be helpful in deciding how to proceed.
B. What is the specific goal of your analysis?

Quantitative studies
- Describe trends
- Compare groups
- Relationship between variables

Qualitative studies
- Text analysis
- Describing information and developing themes
- Understanding

C. What specific analysis technique will be used? Quantitative Studies

- Where will you get the data files? Into what software program will data files be entered?
- Use a decision tree to choose the appropriate statistical procedure(s) (see decision tree handout from Corston and Colman)
- Should always start with a descriptive analysis and summary – helps to identify issues with the data file and ensure you accurately entered and cleaned your data file
- Are there any specific statistics that you want to calculate that will help make your case regarding your purpose or question?

C. What specific analysis technique will be used? Qualitative Studies

- Will you be transcribing your observations or interviews?
- Who will be involved in the analysis (individual or a group)?
- Will you be coding sections of text? If so, by hand or on the computer?
- How will you analyze documents and other materials collected?
- Are you interested in a few number of people over a long period of time (e.g., narrative), or looking across many people over a short period of time?
- What steps will you use to validate your findings?
D. What will results look like?

- Tables?
- Graphs?
- Rich, descriptive text?
- Short text summaries of statistical tests?
- Pictures, images, videos?
- Having a clear plan in this area can save substantial time later

E. Who will do the analysis and when will it be completed?

- Seems self explanatory...
- Having deadlines and assignments will help keep the project on track

F. What additional resources are needed?

- Resources might include software programs, time, training, consulting, guidance, etc.
- Might also assign a team member to obtain the needed resource
Activity: Planning your Data Analyses

- Work in your groups to complete the worksheet
- If you've already started (or completed) your data analysis, list out what you've already done and what might be your next step
- Be prepared to share your plans with the whole group today
- The focus of your sharing today should be on how your plans for data analysis will address your questions and serve the purpose of your project

Remaining Workshops this fall

- Analyzing Quantitative Assessment Data with Excel: October 2nd, 2:00 in Hidatsa
  – Will summarize the use of Excel as an analysis tool, including descriptive statistics, graphs and tables, and some basic analyses
- Analyzing Qualitative Data for Assessment: October 15, 2:00 in Hidatsa
  – Will provide an overview on coding, creating and interpreting themes, and the different qualitative traditions

Going Forward

- Since we have them for the other modules, I developed a “checklist” for teams to use to plan data analyses
  – Can also use the worksheet
- Goal is not to “check” every item on the list – rather goal is to encourage thoughtful reflection and opportunity to catch errors before they occur