# Answers to Study Questions for Chapter 17

(Don't forget that the companion website also has multiple choice questions for each chapter that you can take for practice. You will find them here: http://www.southalabama.edu/coe/bset/johnson/dr johnson/2mcq.htm)

#### 17.1. What is interim analysis?

<u>Interim analysis</u> is the cyclical process of collecting and analyzing data during a single research study.

#### 17.2. What is memoing?

Memoing is the recording of reflective notes about what you are learning from the data.

#### 17.3. Why is it important to transcribe qualitative data when possible?

So that you can import the text file into a qualitative data analysis software program to facilitate data analysis. Also, so that you can analyze the data line-by-line.

### 17.4. What is the difference between segmenting and coding?

<u>Segmenting</u> is the process of dividing data into meaningful analytical units; <u>coding</u> is the process of marking segments of data with symbols, descriptive words, or category names.

#### 17.5. What is the difference between inductive and a priori codes?

<u>Inductive codes</u> are generated by a researcher by directly examining the data; <u>a priori codes</u> are developed before examining the current data.;

### 17.6. What is the difference between co-occurring and facesheet codes?

<u>Co-occurring codes</u> are codes that partially or completely overlap; <u>facesheet codes</u> are codes that apply to a complete document or case.

## 17.7. Explain the process of enumeration.

Enumeration is the process of quantifying data (frequencies, percentages, cross-tabulations).

• For example, you may count the number of times that a particular word occurs or you may count the number of times a category appears in your data.

# 17.8. What is a hierarchical category system, and why can it be useful to construct hierarchical systems?

A hierarchical category system not only includes categories, it also puts categories into subsets. A hierarchy by definition includes more than one level. Hence, a hierarchical category system includes categories taken to be at more than one level. Creating a hierarchical category system can be a very effective way to make sense of your data. You can see an example on page 512 (Figure 17.2).

#### 17.9. How do qualitative researchers show relationships among categories?

One way is to create a hierarchical category system which is an example of the strict inclusion form of relationship. Many other types of relationships are given in Table 17.6 (p. 514): spatial, cause-effect, rationale, location for action, function, means-end, sequence, and attribution. The key is always not just to come up with an unordered list of categories, but, instead, to determine how the categories can be related to one another to find patterns in the data and to help make sense of the data. In Figure 17.3 (p.516) we showed how you can come up with new categories by crossing two dimensions of categories; in Table 17.7 (p.517) we showed some categories organized by time or sequence.

#### 17.10. How are network diagrams used in qualitative research?

A network diagram is yet another way to organize categories. It is done pictorially. These diagrams can be used in both qualitative and quantitative research. These diagrams are especially helpful for showing hypothesized causal relations or relations that occur over time. One example of a network diagram is shown in Figure 17.4 (p. 518).

# 17.11 What are the five types of validity that are of potential importance in qualitative research, and what are their definitions?

- 1. Descriptive validity the factual accuracy of an account as reported by the researcher.
- 2. Interpretive validity accurately portraying the meaning given by the participants to what is being studied.
- 3. Theoretical validity the degree to which a theoretical explanation fits the data.
- 4. Internal validity causal validity.
- 5. External validity generalizing validity.

# 17.12. What are the thirteen strategies that are used to promote validity in qualitative research, and what are their definitions?

They are shown in the following Table from the earlier chapter that was on the validity of research results:

■ TABLE 8.2 Strategies Used to Promote Qualitative Research Validity

Strategy	Description
Researcher-as- detective	A metaphor characterizing the qualitative researcher as he or she searches for evidence about causes and effects. The researcher develops an understanding of the data through careful consideration of potential causes and effects and by systematically eliminating rival explanations or hypotheses until the final case is made beyond a reasonable doubt. The detective can utilize any of the strategies listed here.
Extended fieldwork	To provide for both discovery and validation researchers should collect data in the field over an extended time period.
Low-inference descriptors	The use of description phrased very close to the participants' accounts and researchers' field notes. Verbatims (i.e., direct quotations) are a commonly used type of low-inference descriptors.
Triangulation	Cross-checking information and conclusions through the use of multiple procedures or sources. When the different procedures or sources are in agreement you have corroboration.
Data triangulation	The use of multiple data sources to help understand a phenomenon.
Methods triangulation	The use of multiple research methods to study a phenomenon.
Investigator triangulation	The use of multiple investigators (i.e., multiple researchers) in collecting, analyzing, and interpreting the data.
Theory triangulation	The use of multiple theories and perspectives to help interpret and explain the data.
Participant feedback	The feedback and discussion of the researcher's interpretations and conclusions with the actual participants and other members of the participant community for verification and insight.
Peer review	Discussion of the researcher's interpretations and conclusions with other people. This includes discussion with a disinterested peer, (e.g., with another researcher not directly involved). This peer should be skeptical and play the devil's advocate, challenging the researcher to provide solid evidence for any interpretations or conclusions. Discussion with peers who are familiar with the research can also help provide useful challenges and insights.
External audit	Using outside experts to assess the study quality.
Negative-case sampling	Locating and examining cases that disconfirm the researcher's expectations and tentative explanation.
Reflexivity	Involves self-awareness and critical self-reflection by the researcher on his or her potential biases and predispositions as these may affect the research process and conclusions.
Pattern matching	Predicting a series of results that form a distinctive pattern and then determining the degree to which the actual results fit the predicted pattern or "fingerprint."

# 17.13. What are some of the capabilities of computer programs for data analysis?

Segmenting, coding, enumeration, drawing of network diagrams, drawing hierarchical category diagrams, doing advanced searches using Boolean operators, searching for various kinds of relationships in the data (e.g., see Table 17.6), integrating data from multiple files (e.g., different interviews, field notes, memos, etc.), etc.

## 17.14. What are some of the leading qualitative data analysis computer programs?

NUD\*IST (i.e., Nonnumerical Unstructured **D**ata Indexing Searching and Theorizing), Ethnograph, and Nvivo.

• These and a couple more programs along with their websites are shown in the following table that was not included in the text.

### **Bonus Table:**

# Websites for Qualitative Data Analysis Programs

Program name Website address

AnSWR (freeware) <a href="http://www.cdc.gov/hiv/software/answr.htm">http://www.cdc.gov/hiv/software/answr.htm</a>

ATLAS <a href="http://atlasti.de/">http://atlasti.de/</a>

Ethnograph <a href="http://qualisresearch.com">http://qualisresearch.com</a>

HyperResearch <a href="http://researchware.com">http://researchware.com</a>

Nvivo <a href="http://www.qsrinternational.com">http://www.qsrinternational.com</a>

NUD-IST http://www.qsrinternational.com