



EBL 101

Research Methods: Content Analysis

Virginia Wilson
Liaison Librarian, Murray Library
University of Saskatchewan
Saskatoon, Saskatchewan, Canada
Email: virginia.wilson@usask.ca

Received: 27 Oct. 2011

Accepted: 27 Oct. 2011

© 2011 Wilson. This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 2.5 Canada (<http://creativecommons.org/licenses/by-nc-sa/2.5/ca/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

Content analysis, a method which can be used qualitatively or quantitatively for systematically analyzing written, verbal, or visual documentation, goes back to the 1950s and the study of mass communication (White & Marsh, 2006, p. 22). Key themes emerge from the documents after they are classified and coded. The content can come from a wide variety of sources: books, manuscripts, drawings, photographs, recorded conversations, videotaped events, messages on electronic mailings lists and online forums, blog posts, etc. Content is analyzed by breaking it up into conceptual chunks that are then coded or named. Qualitative analysis develops the categories as the analysis takes place. The results are used to make inferences about the messages in the text. Quantitative analysis starts with a hypothesis and a predetermined coding scheme that is designed to test the hypothesis. The results are described using statistics. Kimberly Neuendorf and Klaus Krippendorff are two of many contemporary scholars in the area of content analysis. Neuendorf sees the method as

primarily quantitative, while Krippendorff believes that counting is not a prerequisite of content analysis. Verbal categories and the listing of quotes are considered as valid as numbers and counting.

There are two types of content analysis: conceptual analysis and relational analysis. Conceptual analysis is largely what was described above: the content is coded for certain words, concepts, or themes, and the analyst makes inferences based on the patterns that emerge. Relational analysis builds on conceptual analysis by delving into the relationships between the concepts and themes that surface from the analyzed text. Relational analysis is popular because of its flexibility, but this flexibility can also be a drawback when reliability and trustworthiness are necessary in the research. When the analysis is too flexible, the research becomes impossible to replicate. Therefore, a codebook, a coding form, rules, and often more than one coder are necessary to give stability to the content analysis process.

Content analysis is a method commonly used in the social sciences and is therefore a viable choice for LIS research. In fact, there are many published LIS research studies that have used the content analysis methodology. I have selected a few as an illustration:

Dahl, C. (2001). Electronic pathfinders in academic libraries: An analysis of their content and form. *College & Research Libraries*, 62(3), 227-237.

Du, Y., Stein, B., & Martin, R.S. (2007) Content analysis of an LIS job database: A regional prototype for a collaborative model. *Libri*, 57, 17-26. Retrieved from <http://www.librijournal.org/pdf/2007-1pp17-26.pdf>

Julien, H., McKechnie, L. & Hart, S. (2004). A content analysis of affective issues in library and information science systems work [Summary of a research note delivered at the ISIC 2004 conference, Dublin, 1-3 September, 2004], *Information Research*, 10(1). Retrieved from <http://InformationR.net/ir/10-1/abs6>

Koufogiannakis, D., Slater, L., & Crumley, E. (2004). A content analysis of librarian research. *Journal of Information Science*, 30(3), 227-239. doi: 10.1177/0165551504044668

Morais, Y., & Sampson, S. (2010). A content analysis of chat transcripts in the Georgetown Law Library. *Legal Reference Services*, 29(3), 165-178.

Yontar, A., & Yalvac, M. (2000). Problems of library and information science research in Turkey: A content analysis of journal articles 1952-1994. *IFLA Journal* 26(1), 39-51.

The basic steps a researcher takes in approaching a content analysis is as follows:

1. Develop a research question (if using qualitative analysis) or a hypothesis (if using quantitative analysis).

2. Define the population. This step can take place at several places during the course of the study: at the research question development state or later in the process depending on what is returned from choosing a particular population. Then there are different methods of choosing a sample: random sampling methods (simple random sampling, systematic random sampling, cluster sampling, stratified sampling) and non-random sampling (purposive sampling, convenience sampling).
3. Select a research design. There are several tasks to be accomplished in this step: choose units of analysis to study; create a coding scheme; and, in the case of quantitative analysis, develop a numbering system.
4. Gather data: Quality control is a major concern when coding. Agreement tests must be conducted between coders to insure acceptable levels of inter-coder reliability. The researcher must try to avoid subjectivity and the appearance of subjectivity.
5. Interpreting the evidence: Findings must directly address the research question or hypothesis. Tables, bar graphs, numbers, etc., all must be explained and interpreted in light of the question asked. (Adapted from Beck & Manuel, 2004, Chapter 3)

In practice, content analysis can be “time-consuming and labour-intensive” (Beck & Manuel, 2004, p. 37). Using this research method can help to reveal trends and themes, but it cannot attribute cause. However, it is one of the top research methods used in LIS research, and can be just the thing when an analysis of multiple texts is required. Coming up in the next issue, a look at using focus groups.

Works Consulted

Course content page from the University of Texas School of Information. Retrieved from

[http://www.ischool.utexas.edu/~palmq
uis/courses/content.html](http://www.ischool.utexas.edu/~palmq
uis/courses/content.html)

Hsieh, H-F., & Shannon, S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15, 1277-1288, doi: 10.1177/1049732305276687

Recommended Reading

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage.

Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage.

White, M.D., & Marsh, E.E. (2006). Content analysis: A flexible methodology. *Library Trends*, 55(1), 22-45, doi: 10.1353/lib.2006.0053

References

Beck, S.E., & Manuel, K. (2004). *Practical research methods for librarians and information professionals*. New York: Neal-Schuman.

White, M.D., & Marsh, E.E. (2006). Content analysis: A flexible methodology. *Library Trends* 55(1), 22-45 doi: 10.1353/lib.2006.0053