



Triangulation: Establishing the Validity of Qualitative Studies¹

Lisa A. Guion²

Has anyone ever questioned whether your evaluation results were true or credible? If so, then the validity of your evaluation study was questioned.

Validity, in qualitative research, relates to whether the findings of your study are true and certain. "True" in the sense of your findings accurately reflecting the real situation. "Certain" in the sense of your findings being backed by evidence. "Certain" means that there are no good grounds for doubting the results; i.e. the weight of evidence supports your conclusions.

Triangulation is a method used by qualitative researchers to check and establish validity in their studies. In this paper, five types of triangulation will be examined:

- data triangulation,
- investigator triangulation,
- theory triangulation,
- methodological triangulation, and
- environmental triangulation.

After studying this paper, you should be able to apply basic methods of triangulation to your qualitative evaluations. So, the next time you are asked to prove whether your qualitative evaluation findings are correct, you will be able to describe how you checked the validity of your findings and

describe why you have confidence in your evaluation results.

Data Triangulation

Data triangulation involves the use of different sources of data/information. A key strategy is to categorize each group or type of stakeholder for the program that you are evaluating. Then, be certain to include a comparable number of people from each stakeholder group in the evaluation study.

For example, suppose you are evaluating an afterschool program that you are overseeing. You would first identify the stakeholder groups such as youth in the program, their parents, school teachers, school administrators, afterschool program staff and volunteers.

You decide to conduct in-depth interviews to gain insight on what the stakeholders perceive as outcomes of the program. You would then interview representatives of each stakeholder group. You would triangulate by looking for outcomes that are agreed upon by all stakeholder groups. The weight of evidence suggests that if every stakeholder, who is looking at the issue from different points of view, sees an outcome then it is more than likely to be a true outcome.

This type of triangulation is perhaps the most popular, easiest to implement, and is particularly

-
1. This publication is FCS6014, one of a series of the Department of Family, Youth and Community Sciences, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication: September 2002. Reviewed by: Susanna Smith, Ph.D., associate professor, Human Development, Department of Family, Youth and Community Sciences. Please visit the EDIS Web site at <http://edis.ifas.ufl.edu>
 2. Lisa A. Guion, Ed.D., assistant professor, Department of Family, Youth and Community Sciences, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

The Institute of Food and Agricultural Sciences is an equal opportunity/affirmative action employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex, age, disability, or national origin. For information on obtaining other extension publications, contact your county Cooperative Extension Service office. Florida Cooperative Extension Service / Institute of Food and Agricultural Sciences / University of Florida / Christine Taylor Waddill, Dean

suiting for Extension given the different stakeholder groups that have vested interest in our programs.

Investigator Triangulation

Investigator triangulation involves using several different investigators/evaluators in an evaluation project. Typically, this would manifest as an evaluation team that consists of your colleagues within your program area/field of study. In order to triangulate, each different evaluator would study the program using the same qualitative method (interview, observation, case study, or focus groups).

The findings from each evaluator would be compared. If the findings from the different evaluators arrive at the same conclusion, then validity has been established. If the conclusions differ substantially, then further study is warranted to uncover the "true" and "certain" finding.

For example, suppose you are conducting pre/post observations of youth in the 4-H public speaking program to assess changes in nonverbal communication and public speaking skills. In order to triangulate, you would line up different colleagues in your discipline/field to serve as evaluators. Each person would have the same observation check sheet for pre- and post-observations. In the final analysis, validity would be established for those same practice changes and skills that were identified by each different observer (per child).

While this is an effective method of establishing validity, it may not always be practical to assemble different investigators/evaluators given time constraints and individual schedules.

Theory Triangulation

Theory triangulation involves the use of multiple professional perspectives to interpret a single set of data/information. Unlike investigator triangulation, this method typically entails using professionals outside of your field of study.

One popular approach is bring together people from different disciplines, however, individuals within disciplines are used if they are in different status positions. In theory it is believed that individuals from different disciplines or positions bring different perspectives. Therefore if each evaluator from the different disciplines interprets the information in the same way (draws the same conclusions), then validity is established.

For example, suppose you are interviewing participants from your nutrition program to learn what diet or healthy lifestyle practice changes they attribute to participating in your program. To triangulate the information, you could then share the transcripts with colleagues in different disciplines (i.e. nutrition, nursing, pharmacy, public health education, etc.) to see what their findings and conclusions are. You would compare those and again, as with other methods of triangulation, you would look for congruence to establish validation in your findings.

As with investigator triangulation, this method may not be feasible in all situations. Also, it may be more time consuming to try to involve individuals from other disciplines.

Methodological Triangulation

Methodological triangulation involves the use of multiple qualitative and/or quantitative methods to study the program. If the conclusions from each of the methods are the same, then validity is established.

For example, suppose you are conducting a case study of one of your Welfare-to-Work participants to document changes in her life as a result of participating in your program over a one- year period. You would not just use one method, but you would use interviewing, observation, document analysis, or any other feasible method to assess the changes. You could also survey the participant, her family members and case workers (quantitative method). If the findings from all of the methods draw the same or similar conclusions, then validity in the finding has been established.

This is also a popular method of triangulation that is widely used. However, in practice, this method may require more resources in order to evaluate the program using different methods. Likewise, it will require more time to analyze the data/information yielded by the different methods.

Environmental Triangulation

This type of triangulation involves the use of different locations, settings and other key factors related to the environment in which the study took place, such as time of the day, day of the week or season of the year. The key is identifying which environmental factor, if any, may influence the information you received during the study. The environmental factor is changed to see if the findings are the same. If the findings remain the same under varying environmental conditions, then validity has been established.

For example, suppose you want to evaluate the effectiveness of your money management program. You want to determine if your program helps participants develop budgets to minimize spending and increase savings. If you evaluate during the holiday season, you may get different results because spending is greatly increased during that time of year. In order to triangulate, you would need to evaluate the budgeting, spending and saving habits of your participants throughout the year in order to gather true and certain information on their behavior changes.

Unlike the other types of triangulation, environment triangulation cannot be used in every case. It is only used when it is likely that the findings may be influenced by some environmental factor.

Conclusion

Five different ways to establish validity for your qualitative evaluations have been explored in this article. After reading this article, you should now be able to use one of these methods, whichever is most feasible and appropriate, to determine whether your findings are valid (true and certain).

Establishing validity will help your evaluation be more credible and provide you with information that you can stand behind with confidence.

References

- Denzin, N.K., and Lincoln, Y. S. 1998. *The Landscape of Qualitative Research*. Thousand Oaks, CA: Sage Publishing.
- Marshall, C., and Rossman, G.B. 1999. *Designing Qualitative Research (3rd ed.)*. Thousand Oaks, CA: Sage Publishing.
- Schwandt, T. A. 1997. *Qualitative Inquiry: A Dictionary of Terms*. Thousand Oaks, CA: Sage Publishing.