



UNDERSTANDING THE ROLE OF TRIANGULATION IN RESEARCH

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ABSTRACT

Triangulation is a powerful technique that facilitates validation of data through cross verification from two or more sources. In particular, it refers to the application and combination of several **research** methods in the study of the same phenomenon. *This research throws light on the role of triangulation in research. Understanding the role of a triangulation will enable us to do better research.* Triangulation involves using multiple data sources in an investigation to produce understanding. *We could then look to the bright future in light of the past. To make the research result bias free, valid and generalised triangulation plays an important role in this area by increasing the rate of certainty and bringing neutrality. It is process of using more than one method, theory, researcher and data collection method & technique to make the research findings more valid, reliable and generalisable.*



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Data triangulation is different because it does not so much integrate results that show more validity; instead, it helps give you a better understanding while you make sense of data and information. The process of the triangulation of data, strengthens your paper by increasing the overall validity and credibility of the data sets and information you use. This method of combining different aspects of research from multiple places, theories or methods is easily undertaken for any type of research you conduct.

Denzin (1978) and Patton (1999) identify four types of triangulation:

Methods triangulation–To check the consistency of findings that is got by different methods of data collection. It is common to have qualitative and quantitative data in a study. These elucidate complementary aspects of the same phenomenon. Often the points where these data diverge are of great interest to the qualitative researcher and provide the most insights

Triangulation of sources - examining the consistency of different data sources from within the same method. For example: at different points in time; in public vs. private settings; comparing people with different view points

Analyst Triangulation - using multiple analyst to review findings or using multiple observers and analysts. This can provide a check on selective perception and illuminate blind

spots in an interpretive analysis. The goal is not to seek consensus, but to understand multiple ways of seeing the data

Theory/perspective triangulation - using multiple theoretical perspectives to examine and interpret the data

Need of the Study:The main *reasons to triangulate are:*

A single method can never adequately shed light on a phenomenon.

Using multiple methods can help facilitate deeper understanding. By combining multiple observers, theories, methods, and empirical materials, researchers can hope to overcome the weakness or intrinsic biases and the problems that come from single method, single-observer and single-theory studies.

It helps the researchers to choose relevant data collection methods, minimises uncertainty reducing bias, minimising personal effects on the research findings. ‘However, it is important that the research question is clearly focused and not confused by the methodology, adopted and that the methods are chosen in accordance with their relevance to the topic.’ (Ticehurst and Veal ,2000:51).

As the triangulation ‘can produce a more complete, holistic and contextual portrait of the object under the study’ (Ghauri, *e t al*, 1995:94) it provides advantage to the research. Even it can be useful technique in complex phenomena. (Cohen and Manion, 1989:277)

Triangulation is employed for a number of reasons. Sarantakos (1998) shows the reasons and summarises its importance in the research. It allows the researcher:

- to obtain a variety of information on the same issue;
- to use the strength of each method to overcome the deficiencies of the other;
- to achieve a higher degree of validity and reliability; and
- to overcome the deficiencies of single-method studies.

Objectives

- To find out whether triangulation plays a crucial role in research.
- To identify the areas where triangulation is necessary and relevant.

Assumptions

- I Triangulation is an] attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint
- Cohen and Manion
- II The triangulation techniques can be incredibly useful for giving insight into a particular aspect of studying, but relying solely on one is a big mistake.

Operational definitions

Understanding: Getting to the deeper and more intense meaning.

Role of triangulation: to minimize bias

Research Methodology

This research was done on the basis of descriptive method.

The descriptive method has many methods.

This was done by the Survey method.

Population

In this research work, the population consisted of 150 research students and 50 teachers.

Sample

Using 'probability sample method' the sample was selected by lottery method.

50 Students and 10 teachers were selected as samples.

Research tool

A questionnaire (semi structured) prepared by the researcher.

Oral interviews conducted by researcher.

Observations (non-participant) were done by the researcher.

Numerical technique

Percentage, Average.

Analysis

The data was analysed using percentage, average.

Conclusions:

All the samples are of the opinion that triangulation gives their work more worth.

They believe that authentic results are obtained when the qualitative results are completed with triangulation.

The purpose of triangulation is not necessarily to cross-validate data but rather to capture different dimensions of the same phenomenon.

Triangulation is not only useful, but also beneficial to the research and the research process.

Recommendations and suggestions:

There are a number of benefits of data triangulation:

The triangulation of data strengthens your research and allows you to write a better research paper because of the following benefits.

- Additional sources of information often give more insight into a topic
- Inadequacies found in one-source data is minimized when multiple sources confirm the same data

- Multiple sources provide verification and validity while complementing similar data
- More comprehensive data is obtained
- Data and information is supported in multiple places/types of research, which makes it easier to analyze data to draw conclusions and outcomes
- Inconsistencies in data sets are more easily recognized

Combine different techniques that balance each other out: quantitative vs qualitative, individual vs group, face-to-face vs remote, self-reported vs facilitated, short engagement vs long engagement etc. This is central to the idea of triangulation.

The right tool for the right job It is important to know what each is good for and ask the right questions in each.

A kind of triangulation can also be achieved by having two (or more) people on the project. This helps immensely in terms of making observations, taking notes, analysis and making sense of the matter. Because unless the two researchers are very similar, they are likely to have quite different perspectives on what they are seeing and hearing, thus giving them different theoretical platforms from which to interpret and analyse. As well as simply allowing them to capture more data, the researchers balance each other out.

Layer upon layer is another way of achieving a kind of triangulation is to conduct your research in successive layers of detail. Start off with a very broad piece of investigative research to identify top level issues and to provide better scope for the next layer. That next layer would be more detailed and focus on a smaller area than the first level.

Feedback findings into later methods to help validate or flesh out issues that have already come up. Using multiple researchers will make this easier,

Visiting the same people at multiple times throughout the research can give good results. It is often said that any research is better than no research, and largely this is true, but you need to take account of the fact that your methods may have limitations, such as bias. Triangulation is a very useful means of capturing more detail, but also of minimizing the effects of bias and ensuring a balanced research study, no matter how big or small that study may be.

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