

Proving East Asian Medicine

William Morris, DAOM, PhD, LAc

East Asian medical research focuses on quantitative means of proof. This affects the information obtained, thus what become considered best practices. I maintain that the world of East Asian medicine might also be understood through qualitative means. In this article, I address the thinking behind these forms of research and to provide some examples of, and resources for, qualitative methods.

Quantitative Research

The traditional scientific approach to research has its underpinnings in what is called *positivist philosophy*. As a paradigm, positivists consider that true knowledge is scientific and measurable. The methods of positivism are informed by a set of principles including:

Value-freedom. Human beliefs and interests should not influence the choice of what and how to study a problem. Rather, it should be determined by objective criteria.

Causality. Research should identify causal explanations and fundamental laws.

Operationalization. The methods should enable facts to be measured quantitatively.

Independence. The researcher is independent of the subject.

Reductionism. Problems are better understood if they are reduced to the simplest possible elements.

Qualitative Research

Qualitative researchers consider that human beliefs and interest form the bedrock of decisions about what should be researched. The focus upon fundamental laws creates general information, and causes may change when applied to the individual human being. Qualitative methods of capturing information can often provide rich depth compared to quantitative. Regarding independence, qualitative research represents the researchers' participation in, and influence upon, research and its outcomes. For Chinese medicine, which is a model of care that embraces complex systems and conditions, reductionism might miss the point.

In the hierarchical scheme of knowledge for evidence-based medicine, the randomized controlled trial sits at the top of the pyramid. This comes from a positivist point of view and does have value. The application of pharmaceutical treatments and population studies for risk-benefit assessment make the randomized controlled trial vital.

The extension of the resulting assumptions into social systems and individual lives poses a problem, however. Speaking about the world of human experience requires an extensive commitment in terms

of time and dedication to process. However, this world is often dismissed as subjective and regarded with suspicion. Small qualitative studies are not generalizable in the traditional sense, yet have redeeming qualities that set them above that requirement.

Qualitative research investigates the why, not the how. Often, data is unstructured and can involve interview transcripts, e-mails, notes, feedback forms, photos and videos. Qualitative data can be used to gain insight into people's attitudes, behaviors, value systems, concerns, motivations, aspirations, culture or lifestyles. Here, I will present six methods of qualitative research including case study, grounded theory, phenomenology, ethnography, narrative methods and historical research. Last, I will briefly present models for mixing qualitative and quantitative methods.

Case-study research is a form of qualitative descriptive research that looks intensely at an individual or small participant pool, drawing conclusions only about that participant or group and only in that specific context. Researchers do not focus on the discovery of a universal, generalizable truth, nor do they typically look for cause-effect relationships. Instead, emphasis is placed on exploration and description. Developing a case study involves gathering all the data, organizing it into an approach to highlight the focus of the study. Then, a case study narrative is developed. The narrative might be validated by review from program participants. Further, a case study series might be cross-compared to isolate any themes or patterns. The writings of Robert Stake and Robert Yin should be seriously considered by anyone wishing to employ case studies and case series in their graduate work.¹⁻⁴

Grounded theory is a systematic generation of theory from data. Rather than beginning with a hypothesis, the first step is to collect data via qualitative or quantitative means. Key points are identified in the data and marked with codes and grouped into categories which become the basis for the development of theories and reverse-engineered [hypotheses](#). Grounded theory is gaining strength in the area of medical research and there are medical research projects receiving funds from the NIH.^{5,6}

Phenomenology involves describing the structures of experience as they present themselves to consciousness, without recourse to theory, deduction, or assumptions from other disciplines. Phenomenology studies the structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate enabling conditions.⁷⁻⁹

[Ethnography](#) is a form of research focusing on creating meaning through close field observation of sociocultural phenomena. Typically, the ethnographer focuses on a community that may occur geographically or in cyberspace, They may be practitioner groups, patient groups and provider networks. From these groups, informants are selected who are known to have an overview of the activities of the community. Such informants are asked to identify other informants representative of the community, using chain sampling to obtain a saturation of informants in all empirical areas of investigation. Informants are interviewed multiple times, using information from previous informants to elicit clarification and deeper responses upon re-interview. This process is intended to reveal common cultural understandings related to the phenomena under study.¹⁰⁻¹²

[Historical research](#) involves the systematic collection and objective evaluation of data related to past occurrences in order to test hypotheses concerning causes, effects or trends of these events that may

help to explain present events and anticipate future events.¹³ Historical research involves developing an understanding of the past through the examination and interpretation of artifacts such as texts, physical remains of historic sites, recorded data, pictures, maps recordings and other forms of evidence. The historian's job is to find evidence, analyze its content and biases, corroborate it with other evidence, and use the evidence to develop an interpretation of past events that has some importance for the present. Historians use libraries to locate primary sources (firsthand information such as diaries, letters and original documents) for evidence find secondary sources, historians' interpretations and analyses of historical evidence verify factual material as inconsistencies arise.

Narrative research methods involve the researchers collecting and telling stories about people's lives, and writing narratives of individual experiences. As a distinct form of qualitative research, a narrative typically focuses on studying a single person, gathering data through the collection of stories, reporting individual experiences, and discussing the meaning of those experiences for the individual.

Mixed-methods research provides for quantitative and qualitative points of view to be used simultaneously. Mixed methods research refers to methods, design and philosophical assumptions. There is a good deal of discussion about philosophical assumptions that guide the direction of the collection and analysis of data.¹⁴

There are other forms of qualitative inquiry. The ones I presented here are representative of more common methods and applications. I hope that the tools presented here can further the dialog.

References

1. Yin R. *Applications of Case Study Research*. Thousand Oaks, Calif.: Sage, 2003.
2. Yin R. *Case Study Research: Design and Methods*. Thousand Oaks, Calif.: Sage, 2002.
3. Stake R. *The Art of Case Study Research*. Thousand Oaks, Calif.: Sage, 1995.
4. Stake R. *Multiple Case Study Analysis*. New York: Guilford Press, 2006.
5. Glaser BG, Strauss A. *Discovery of Grounded Theory. Strategies for Qualitative Research*. Edison, N.J.: Aldine Transaction, 1967.
6. Bryant A, Charmaz K, eds. The Sage Handbook of Grounded Theory. In: *The SAGE Handbook of Qualitative Research*. Thousand Oaks, Calif.: Sage Publications, 2007.
7. Merleau-Ponty M. *Phenomenology of Perception*. New York: Routledge, 1962.
8. Husserl E. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. Boston: Kluwer Academic Publishers, 1991.
9. Moustakas C. *Phenomenological Research Methods*. Thousand Oaks, Calif.: Sage Publications, 1994.
10. Denzin NK. *Interpretive Ethnography: Ethnographic Practices for the 21st Century*. Thousand Oaks, Calif.: Sage Publications, Inc, 1996.
11. Denzin NK. *Interpretive ethnography for the next century*. *J Contemp Ethnography* Oct 1, 1999;28(5):510-9.
12. Heivilin D, MacColl G, Jackson E, Edwards T. Federal Programs: Ethnographic Studies Can Inform Agencies' Actions. www.gao.gov/cgi-bin/getrpt?GAO-03-455.
13. Gay LR. *Educational Research. Competencies For Analysis and Application*. Prentice-Hall, Inc., 1996.
14. Clark VLP, Creswell JW. *The Mixed Methods Reader*. Thousand Oaks, Calif.: Sage Publications, 2008.

