

# The Multiple Key Informant Survey: a method for the comparison of international qualitative data

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## Introduction

Since the unification of Europe, a lot of policy makers from different countries are trying to coordinate their actions. For this purpose they often need to exchange information about organisational, academic, legal, political, etc. aspects of the unique situation in their own country. This process of gathering and exchanging information may give rise to several difficulties: the information gathered might be invalid, incomplete or distorted by the primary source (the "informant"). Secondly, it might be reported in an invalid, incomplete or distorted way. Thirdly, the translation into a foreign language might cause deletions or distortions. Finally, the recipient of the information, unknowingly confronted with this incomplete or distorted information, might "understand" it in a wrong way, filling in the gaps with elements from his own country or culture. Even identical words might be understood in a very different way in different countries (e.g. "democratic elections"). Thus, the validity of information exchanged between different countries or cultures can decrease with every step taken.

Among medical scientists and policy makers there is a growing interest in aspects of health care systems in other countries, but there is also an increasing insecurity in the validity of data collected in different medical contexts, especially since the organisations of health care systems are so complex. Between European countries not only do the health care systems themselves differ: interprofessional collaboration patterns also differ, as do financial options, health care expectations, complaints and patients. The "European Referral Study" (Fleming, 1992) documented differences in referral patterns in European countries. It was concluded that differences within countries were greater than the differences between European countries when taken as overall averages. Comparative ICPC studies (Lamberts, 1991) showed remarkable differences in disease patterns and prevalences in European countries, e.g. hypotonia is used as a disease entity only in German speaking countries, while the liver is considered much more as an origin of diseases in French speaking countries. Both of these phenomena do not exist in the other European countries. The "European Formular Group" (Kochen, 1993) came across big differences in prescribing patterns and in the pharmaceutical products available. Thus, the medical culture in the European countries is so different that understanding other health care systems in terms of ones own is almost impossible.

One of the solutions proposed is the use of a "European glossary of health care concepts" but this is only a partial solution. The question is much broader: it really addresses the issue of how to safeguard the validity of qualitative data. In this paper a method is proposed to safeguard this validity. Thus, the aim of this paper is to describe a number of criteria that should be met in order for qualitative data (on aspects of medical care, health care organisation and professional development) to be considered valid in the international context. These criteria are based on literature and evidence from other disciplines that are more familiar with these problems: anthropology, sociology, education, nursing, etc.

## **The multiple key informant survey**

How should data be gathered? Crabtree & Miller (1992) in their excellent handbook of qualitative research in primary care, describe the so called "key informant interview". This research method historically comes from ethnography. Key informants are individuals who possess special knowledge or status, who are willing to share their knowledge and skills with the researcher and who have access to perspectives or observations denied to the researcher (Goetz & Lecompte, 1984). Key informants therefore are not to be selected randomly, but have to be chosen on the basis of "theory and/or data driven" criteria first (who has access to the data), and "personality" criteria second (who is able, willing, etc.) (Johnson 1990).

The interview with these key informants has to be performed according to specific rules, and might best be described as "non directive" or "speaker centred". This way of data collection is very familiar to general practitioners. For example McWhinney (1989. stated ".. the parallel between the descriptions of ethnographic interviews and "patient centered interviews" in primary care is striking".

We suggest the term "multiple key informant interview" when this type of interview is conducted by many different researchers in many different countries. It brings the extra challenge that all researchers should conform to the same guidelines proposed and use the same methods, in order to enhance the validity or trustworthiness of the data collected. When the data collection relies heavily on questionnaires, we suggest the term "multiple key informant survey".

## **Enhancing validity**

Kuzel & Like (1991) provide four criteria or methods to enhance the validity or trustworthiness of (qualitative) data collected with the (key informant) interview method. These will be described in detail. This part of our paper owes a lot to their excellent 1991 review from which we have used several examples (see also Howe & Eisenhart, 1990; Sanjek, 1990).

(1) The first method is called "member checking" and is meant to enhance the so called "catalytic validity" (Lather, 1986a). This process tries to tackle the pitfall of unchecked interpretation. During the interview it consists of restating, summarizing or paraphrasing the information from the respondent, making sure that it is still considered correct. At the end of the information gathering process it consists of recycling the preliminary report to the key informants, asking them for comments and incorporating these explicitly in the final report. This process enhances the likelihood that the results of the inquiry really represent the point of view of the respondent (e.g. the key informant). This method is extremely important when one considers the potential biases and dangers that can bring about serious distortion of the information. We take a closer look at some of these dangers.

If we examine more closely some of these dangers, the first lies with the investigator (Miles and Huberman, 1984) who might "interpret events as more patterned and congruent than they really are", or "overweigh data from high-status informants", or "be co-opted into the perceptions and explanations of the informants" (Kuzel and Like, 1991, p. 145).

The second danger lies with the respondent who may "be unfamiliar with, misunderstand, or not be able to understand the information presented. He may believe the information to be biased; perceive the information to be in conflict with his/her self-interest, or have an alternative interpretation of the information. "(Lincoln and Guba, 1985, p. 243; Kuzel and Like, 1991, p. 145).

The third danger consists of interpersonal influences (Lincoln and Guba, 1985, p. 315; (Kuzel and Like, 1991, p. 145): "Are there any gender, racial/ethnic, social class, or power issues that may impact on the dialogue between investigator and respondent? For investigators engaged in a multidisciplinary project,

are the research abilities and contributions of participants equally valued and permitted to enter into the member checking process, or are some investigators "more equal" than others? And among respondents engaged in a group member checking activity, how might group dynamics (e.g., social desirability response sets, competition, conspiracy, anger, fear) shape the types of information and interpretations that are discussed?"

"Rather than controlling for potential "biases" or "threats" solely through the use of traditional methodological devices (e.g., random sampling, random allocation, control groups, matching, and other statistical operations), the investigator enters into a dialogue with the respondents and gives them the opportunity to confirm, clarify, challenge, critique, or correct the researcher's construction of reality. (Kuzel and Like, 1991, p. 146). Thus, rigorous "member checking" is the first method to safeguard the validity of qualitative data.

(2) A second method is searching for "disconfirming evidence". This method was originally suggested by Glaser and Strauss (1967). Lather (1986a) stated : " a proposition deserves some degree of trust when it has survived serious attempts to falsify it". This means the researcher has to *actively seek* accounts from other informants who may differ from the key informant in critical ways. The inclusion of complementary and conflicting data strengthens the validity of the data collected. If the search fails to yield such evidence, the conclusions are relatively stronger and more convincing than if the researcher had never tried to "knock them down." (Kuzel and Like, 1991, p. 146).

To start the search, one might ask a respondent: "Who thinks very differently from you about this subject?" This question makes it clear why this method is also called "negative case finding and analysis" (Lincoln and Guba, 1985). A "negative" case would be a respondent with a different story.

This method has a clear impact on the validity of the data. However, some practical questions arise that may very well be answered in a different way for every new research undertaken, e.g., "When should this search begin, and when should it end?" And given the potential for large amounts of data, "What are the available time and resources for undertaking negative case analyses?"

Miles and Huberman (1984) state: "Check out alternative explanations early, but don't iterate forever" (p. 241).

(3) A third method is called "triangulation", which means the use of multiple data sources, multiple informants and multiple methods (besides the key informant interview method), in order to seek concordance. This way of safeguarding the validity of the data collected, can well be compared with the concept of "concurrent validity" in psychometry.

It is based on the wish to obtain multiple perspectives on a phenomenon - to see it from different angles - in order to create a more complete understanding. Triangulation is most often thought of as referring to obtaining information from multiple sources. Denzin (1978), however, asserts that one may also employ multiple and different methods, investigators, and theories.

Multiple data sources might include multiple copies of one type of source (such as interview respondents) or different sources of the same information (for example, verifying an interview respondent's recollections about what happened at a board meeting by consulting the official minutes of that meeting) (Lincoln & Guba, 1985).

Multiple methods might include different types of interviews, e.g. (semi-) structured, (not) using a questionnaire, etc.

By using multiple investigators, one is not expecting corroboration of one investigator by another so as to demonstrate replicability and reliability. The notion is rather that a richer, more encompassing

understanding will result from employing several interpreters who collaborate with one another (Lincoln & Guba, 1985)."

(4) The fourth method is called "thick description". This is a thorough description of the way in which the data were collected, including the context and the processes observed that might be relevant to the issue. Not only should the final analysis of the study be described, but also how that analysis was obtained.

"Originally used by Geertz (1973), the term refers to a detailed description of the context and process of a qualitative investigation so as to allow the reader to consider whether the product of the inquiry - the interpretation of the data - may be relevant in another context "(Kuzel and Like, 1991, p. 153).

The more these four criteria are met, the more the data collected can be trusted and deemed valid. To our knowledge, all other methods of safeguarding the validity of qualitative research, can be reformulated as one of the four methods discussed above, or added as "preconditions", e.g. the notion of "personal preparation by the investigator" (Reason & Rowan, 1981, cit. in McWhinney, 1997). Schumacher (1977) stated that "the understanding of the knower must be adequate to the thing known". Thus, McWhinney continues, "one cannot understand a psychological state without the capacity to experience it, or understand a social situation without entering into the experience of those involved. Preparation of this kind requires self-knowledge and the ability to deal with countertransference." (p. 435).

### **The multiple key informant survey: baseline rules.**

A method is proposed, which, as a minimum, is considered to guarantee a good cost / benefit balance, when collecting qualitative data for an international comparison of medical care, health care organisation and professional development. In the European Academy of Teachers in General Practice, the educational board of the European Society of General Practice, the following multiple key informant survey technique was proposed as a minimum. It was discussed and finally adopted as the process by which in future research, qualitative data should be gathered in order to safeguard their validity. There are six steps.

Step 1. Agreement on meanings: the questionnaire (or questions to be asked) must be thoroughly discussed with all of the investigators and key informants of the target countries, to have agreement on the meaning in the local context before data are collected.

Step 2. Key informant survey: all the national key informants selected and prepared as in step 1 fill in the questionnaire (separately from each other).

Step 3. Member checking: data are restated, paraphrased, summarized, and fed back to the key informants, to make sure that the information is correctly understood.

Step 4. Looking for disconfirming evidence: after completion by the first informant, the same questionnaire is sent to at least one other informant per target country, selected because of familiarity with the topic, but independent from the key informant and likely to have a different opinion. The researcher makes a list of all the concordances and differences produced by the two independent informants, for each target country.

Step 5. Triangulation: data that differ amongst the two informants per target country are confronted. If possible both of the informants are confronted with statements, data and opinions from third parties, sources or methods. This confrontation should go on until agreement is reached on all data. (This should always end up with Step 3.)

Step 6. Thick description: for the final report a thorough description is made of the exact procedure that has been followed, with special reference to the information that produced disagreement, explaining in what way agreement finally was found.

## Conclusion

We believe the gathering and comparison of data about information on different elements of the health care systems all over Europe is not only desirable and unavoidable, but also full of dangers. We have described some of these pitfalls and proposed some techniques commonly used in other sciences, to overcome these problems. The ways of safeguarding the validity of qualitative data gathered by member checking, searching for disconfirming evidence, triangulation and thick description are easily transferable to the setting of using surveys among national representatives of international bodies, as long as the rules are strictly followed. We suggest that the process is adopted for all studies in European bodies using multi-national comparative data collection.

## References

- Addison, R. B. (1989a). Evaluating an interpretive account. In M. J. Packer & R. B. Addison (Eds.), *Entering the circle: Hermeneutic inquiry in psychology*. Albany: State University of New York Press.
- Addison, R. B. (1989b). Grounded interpretive research: An investigation of physician socialization. In M. J. Packer & R. B. Addison (Eds.), *Entering the circle: Hermeneutic inquiry in psychology*. Albany: State University of New York Press.
- Agar, M. H. (1980). *The professional stranger: An informal introduction to ethnography*. Orlando, FL: Academic Press.
- Becker, H. S. (1970). *Sociological work: Method and substance*. New York: Aldine.
- Bernard, H. R. (1988). *Research methods in cultural anthropology*. Newbury Park, CA: Sage.
- Bogdan, R. C., & Biklen, S. K. (1982). *Qualitative research for education: An introduction to theory and method*. Boston: Allyn & Bacon.
- Brody, H. (1987). *Stories of sickness*. New Haven: Yale University Press.
- Burkett, G. L., & Codkin, M. A. (1983). Qualitative research in family medicine. *Journal of Family Practice*, 16, 625-626.
- Campbell, D. T. (1975). "Degrees of freedom" and the case study. *Comparative Political Studies*, 8, 178-183.
- Candib, L. (1988). Ways of knowing in family medicine. *Family Medicine*, 20, 133-136.
- Cobb, A. K., & Hagemaste, J. N. (1987). Ten criteria for evaluating qualitative research proposals. *Journal of Nursing Education*, 26(4), 138-143.
- Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods*. New York: McCraw-Hill.
- Fetterman, D. M. (1989). *Ethnography: Step by step*. Newbury Park, CA: Sage.
- Fielding, N. G., & Fielding, J. L. (1986). *Linking data*. Newbury Park, CA: Sage.
- Galazka, S. S., & Eckert, J. K. (1986). Clinically applied anthropology: Concepts for the family physician. *Journal of Family Practice*, 22, 159-165.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Gilchrist VJ (1992). Key informant interviews. In: Crabtree BF & Miller WL (Eds.) *Doing qualitative research*. California: Sage Publications, 1992.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine.
- Goetz, J., & LeCompte, M. (1984). *Ethnography and qualitative design in educational research*. New York: Academic Press.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Education, Communication and Technology Journal*, 29, 75-91.

- Guldner, A. (1972). *The coming crisis of Western sociology*. New York: Basic Books.
- Hartwig, E., & Dearing, B. E. (1979). *Exploratory data analysis*. Newbury Park, CA: Sage.
- Helman, C. G. (1984). *Culture, health and illness: An introduction for health professionals*. Bristol: Wright.
- Jahoda, M., Deutsch, M., & Cook, S. W. (Eds.). (1951). *Research methods in social relations. Part 2: Selected techniques*. New York: Dryden Press.
- Kidder, L. H. (1981). Qualitative research and quasi-experimental frameworks. In M. B. Brewer & B. E. Collins (Eds.), *Scientific inquiry and the social sciences*. San Francisco: Jossey-Bass.
- Kuzel, A. J. (1986). Naturalistic inquiry: An appropriate model for family medicine. *Family Medicine*, 18, 369-374.
- Kuzel, A. J. (in press). Stranger in a strange land ... *Family Medicine*.
- Like, R. C., & Steiner, R. P. (1986). Medical anthropology and the family physician. *Family Medicine*, 18, 87-92.
- Like, R. C., & Zyzanski, S. J. (1986). Patient requests in family practice: A focal point for clinical negotiations. *Family Practice*, 3, 216-228.
- Like, R. C., & Zyzanski, S. J. (1987). Patient satisfaction with the clinical encounter: Social psychological determinants. *Social Sciences and Medicine*, 24, 351-357.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. In D. D. Willianis (Ed.), *Naturalistic evaluation. New Directions for Program Evaluation*, 90. San Francisco: JosseyBass.
- Lofland, J., & Lofland, L. (1983). *Analyzing social settings*. Belmont, CA: Wadsworth.
- Marshall, C., & Rossman, G. B. (1989). *Designing qualitative research*. Newbury Park, CA: Sage.
- McCall, G. j., & Simmons, J. L. (Eds.). (1969). *Issues in participant observation*. Redding, MA: Addison-Wesley.
- McCracken, G. (1988). *The long interview*. Newbury Park, CA: Sage.
- McWhinney, I. (1989). An acquaintance with particulars ... *Family Medicine*, 21, 296-298.
- McWhinney, IR (1997). *A Textbook of Family Medicine*. Oxford University Press (2<sup>nd</sup> ed.)
- Miles, M. S., & Huberman, A. M. (1984). *Qualitative data analysis: A sourcebook of new methods*. Newbury Park, CA: Sage.
- Patton, M. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage.
- Pelto, P. j., & Pelto, C. H. (1978). *Anthropological research: The structure of inquiry* (2nd ed.). Cambridge, UK: Cambridge University Press.
- Popkewitz, T. S. (1981). The study of schooling: Paradigms and field-based methodologies in educational research and evaluation. In T. S. Popkewitz & T. Tabachnik (Eds.), *The study of schooling.. Paradigms and field-based methodologies in educational research and evaluation*. New York: Praeger.
- Powdermaker, H. (1966). *Stranger and friend: The way of an anthropologist*. New York: W. W. Norton.
- Predo, E., & Feinberg, W. (1982). *Knowledge and values in educational research*. Philadelphia: Temple University Press.
- Rainsberry, R. P. (1986). Values, paradigms and research in family medicine. *Family Practice*, 3, 209-215.
- Rosenblatt, P. C. (1981). Ethnographic case studies. In M. B. Brewer & B. E. Collins (Eds.), *Scientific inquiry and the social sciences*. San Francisco: Jossey-Bass.
- Rosenthal, T. T. (1989). Using ethnography to study nursing education. *Western Journal of Nursing Research*, 115-127.
- Smith, J. K. (1989, March). *Alternative research paradigms and the problem of criteria*. Paper presented at the International Conference on Alternative Paradigms for Inquiry, San Francisco.
- Smith, J. K., & Heshusius, L. (1986). Closing down the conversation: The end of the quantitative-qualitative debate among educational inquirers. *Educational Researcher*, 15, 4-12.
- Spradley, J. P. (1979). *The ethnographic interview*. New York: Holt, Reinhart & Winston.
- Stein, H. (1985). *The psychodynamics of medical practice*. Berkeley: University of California Press.
- Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive measures: Nonreactive research in the social sciences*. Chicago: Rand-McNally.
- Werner, O., & Schoepfle, M. (1986). *Systematic fieldwork*. Newbury Park, CA: Sage.

Using proper techniques ensures that qualitative data are collected in a scientific and consistent manner. 1. Improving data collection techniques will enhance the accuracy, validity, and reliability of research findings. There are many forms of data collection; for the purposes of this course, we define these modes as follows. Surveys are fixed sets of questions that can be administered by paper and pencil, as a Web form, or by an interviewer who follows a strict script. Each data collection method addressed a different aspect of the research. The project team analyzed the data from military personnel files in order to quantify the number and proportion of women in newly opened occupations and in newly opened units.

I. Qualitative Data Collection Methods. Exploratory in nature, these methods are mainly concerned at gaining insights and understanding on underlying reasons and motivations, so they tend to dig deeper. Since they cannot be quantified, measurability becomes an issue. This lack of measurability leads to the preference for methods or tools that are largely unstructured or, in some cases, maybe structured but only to a very small, limited extent. Unlike the open-ended questions asked in qualitative questionnaires, quantitative paper surveys pose closed questions, with the answer options provided. The respondents will only have to choose their answer among the choices provided on the questionnaire. (+) Similarly, these are ideal for use when surveying large numbers of respondents.