Peck, C. (1991, November). *An introduction to qualitative research methods.* Paper presented at the annual meeting of the Division for Early Childhood, Council for Exceptional Children, St. Louis, MO.

**Some Basic Strategies and Tools for Conducting Qualitative Studies**

**The research question**

Often one doesn't begin with an explicitly formulated research question, much less specific hypotheses. For example, in the Peck, Hayden, Wandscheider, and Richarz (1989) study, we were interested in the processes involved in developing integrated programs. We knew that these programs operated in a complex *ecology*, and we believed that the political dimensions of this ecology were important to understand. Using these *pre-theoretical* notions, we decided to begin by interviewing individuals from various *constituencies* (i.e., parents, teachers, administrators) involved in integrated programs. Our study began with a set of interests, and some sense of the specific aspects of the research situation which we believed were important to study. However, many of the more specific aspects of the design of the study *emerged* as we gathered some initial data, and learned more about what was important.

**Purposeful sampling**

Samples are generally not “drawn” a priori on the basis of statistical algorithms aimed at maximizing representativeness of the sample to some hypothetical population. Instead, qualitative methods emphasize the in-depth study of individuals, and participants are identified for the specific information they may contribute to the study. Patton (1980) identifies six major sampling purposes relative to developing an in-depth understanding of the research situation:

*• sampling extreme or deviant cases* to obtain information about unusual cases that may be particularly troublesome or enlightening

*• sampling typical cases* to avoid rejection of information on the grounds that it is known to arise from special or deviant cases

*• maximum variation sampling* to document unique variations that have emerged in adapting to different conditions .

*• sampling critical cases* to permit maximum application of information to other cases because, if the information is valid for critical cases, it is also likely to be true of all other cases

*• sampling politically important or sensitive cases* to attract attention to the study (or, sometimes, to deflect attention)

*• convenience sampling* to save time, money, or effort

**Data collection**

Most data collection strategies used by qualitative researchers are designed to be *open-ended* and *holistic*. Open-ended techniques are preferred because they allow the researcher to record phenomena that may not have been anticipated at the beginning of the study. This makes the research method particularly well suited for studying situations/phenomena about which little is known. Holistic representation of phenomena is emphasized because parts of complex systems are assumed to have interdependent relations which are manifest only when considered at the level of the whole (Bateson, 1979). Two data collection methods which can be readily designed to meet these criteria are observation and interviewing.

Although a variety of observational methods may be employed in qualitative research, the method most often preferred is participant observation, or some related procedure for collecting narrative descriptions of behavior. Spradley (1979) provides detailed descriptions of participant observation strategies. In our work we have generally employed a version of the form recommended by Campbell and Navarro (1986) to collect this data (attached). The critical characteristic of observational field notes is that they clearly separate objective descriptions of behavior from interpretations and judgments about the meaning of behavior.

Interviews are generally conducted in an open-ended or semi-open-ended fashion to allow informants to develop and clarify issues the researcher may not understand. Spradley (1979) clarifies some ways in which research with informants may differ from traditional research with “subjects”:

|  |  |
| --- | --- |
| RESEARCH WITH SUBJECTS | RESEARCH WITH INFORMANTS |
| I. What do I know about a problem that will allow me to formulate and test a hypothesis? | I. What do my informants know about their culture that I can discover? |
| 2. What concepts can I use to test this hypothesis? | 2. What concepts do my informants use to classify their experience? |
| 3. How can I operationally define these concepts? | 3. How do my informants define these concepts? |
| 4. What scientific theory can explain the data? | 4. What folk theory do my informants use to explain their experience? |
| 5. How can I interpret the results and report them in the language of my colleagues? | 5. How can I *translate* the cultural knowledge of my informants into a cultural description my colleagues will understand? |

A sensible strategy for structuring an open-ended interview is to begin with a *grand tour* question (Spradley, 1979), aimed at gathering a broad descriptive account of the informant's experiences in relation to the research focus. Follow-up questions can be based either on more specific issues of interest which are defined' beforehand, or on issues which emerge from the grand tour (or on both). An example of a semi-structured interview protocol we developed to investigate the implementation of integrated early childhood programs is attached.

**Data analysis**

The emergent character of qualitative research demands that data analysis be initiated as the data are collected. This allows the researcher to make decisions about participants, data collection strategies, and research focus in a manner that is informed by changes in understanding derived from the data which have been collected to that point in time. I have violated this maxim of qualitative research on many occasions, and I've always regretted it.

Formal data analysis typically begins with reading the interview notes/transcripts, field notes, and related documents over several times, and beginning to conceptualize themes or categories into which the data may be organized. There are several strategies for doing this, all of which are essentially inductive. That is, categories are formed by comparing segments of data (descriptions of events observed, interview statements, etc.) which have possible relevance to the research focus/question, and identifying those which appear alike. A variety of inductive data analysis strategies are described by Goetz and LeCompte (1984), Lincoln and Guba (1985), Miles and Huberman (1984), and Fetterman (1989).

*Constant comparative method.* One specific approach to this process developed by Glaser and Strauss (1967) is termed the “constant comparative method”. A modification of this process has been proposed by Lincoln and Guba (1985). In general, the constant-comparative process involves the following steps:

1) Unitizing the data. Meaningful segments of observation notes, interview transcripts, document texts, etc., are identified and coded (in computer analysis) or transferred onto index cards.

2) Categorizing the data. Data units are categorized in sequential fashion, using the first card as an example of a first (unnamed) category, and comparing the second card to the first, judging whether this card is alike or different than the first. If different, the second card becomes the first member of a second category, and so on.

3) Conceptualizing/defining categories. As categories accumulate a substantial number of cards, the researcher stops and attempts to identify the properties of the category, to specify rules for inclusion, and to develop a name for the category which reflects the essence of this rule. The rule/definition of the category will usually be modified to accommodate new and somewhat different data units as the categorization process continues. Data units which do not cluster into the developed categories are placed in an “other” pile.

4) Category saturation. This categorization process is iterated until the data are exhausted, or until additional data units do not result in substantial changes to category definitions. The data analysis process will sometimes lead to identification of the need to collect additional data.

5) Category analysis. The categories are reviewed and revised as needed to reflect data units, and the “other” data units are reviewed for possible inclusion in existing categories. If the percentage of total data units which are not assignable to a category are excessive (Lincoln and Guba suggest 5-7%), the category system should be reviewed and/or the basis for unitizing the data should be reviewed. Categories should be reviewed for overlap, and indications that additional data need be collected.

Lincoln and Guba (1985) and Miles and Huberman (1984) describe additional procedures for aggregating data from multiple sites and from multiple data analysts working independently.

*Memos.* Throughout the data analysis process, the researcher will have theoretical and methodological insights about the study. These should be recorded systematically as “theoretical notes”, “methodological notes”, and “analytic memos” (Glaser & Strauss, 1967). Theoretical notes clarify some aspect of the phenomena under investigation. Methodological notes reflect ideas about how the study itself should be conducted (e.g., a change in interview protocol, the inclusion of new participants, etc.). Analytic memos are more extended writings, which may develop/explore explanations or interpretations of the data which appear promising. The process of reflecting and writing about the data is considered to be an important aspect of the analysis process. All TNs, MNs, and Analytic Memos should be referenced to the data, and compiled carefully. A data analysis log should be kept which describes the major steps of the analysis process as conducted.

**Establishing the credibility of the study**

The conceptualization and evaluation of reliability and validity is usually different for qualitative studies than for traditional research, depending on the specific assumptions underlying the investigation (LeCompte & Goetz, 1982; Lincoln & Guba, 1985). Considerable difference of opinion exists regarding how these constructs should be applied to qualitative work. However, establishing the credibility of qualitative studies is essential if they are to be of value. Lincoln and Guba (1985) gather many of these concerns under the term “trustworthiness”, and suggest the following techniques be employed to address them:

TABLE 11.2 Summary of Techniques for Establishing Trustworthiness

|  |  |  |
| --- | --- | --- |
| *Criterion Area* |  | *Technique* |
| Credibility | (1) | Activities in the field that increase the probability of high credibility (a) prolonged engagement (b) persistent observation (c) triangulation (sources, methods, and investigators) |
|  | (2) | Peer briefing |
|  | (3) | Negative case analysis |
|  | (4) | Referential adequacy |
|  | (5) | Member checks (in process and terminal) |
| Transferability | (6) | Thick description |
| Dependability | (7a) | The dependability audit, including the audit trail |
| Confirmability | (7b) | The confirmability audit, including the audit trail |
| All of the above | (8) | The reflexive journal |

**Presentation of findings**

Findings from qualitative studies can be presented in a variety of formats, and at a variety of levels of abstraction. .

Presentation formats range from descriptive case study reports written in everyday language, to highly analytic and formal taxonomic classifications of phenomena likely to be of interest to researchers only.

Case studies are often presented in narrative form. This allows much of the rich and holistic quality of the data to be preserved in describing the phenomena of interest. We used a modified case study presentation to describe the benefits of developing relationships with peers who have severe handicaps some as these were described to us by adolescents we interviewed (Peck, et al., 1990):

**Darrell**. In contrast to Kevin, Darrell was a student who participated extensively in the traditionally high status student roles In the high school. He was a “star” varsity basketball player, successful in his academic coursework, and identified by his peers as belonging to the “popular” group at the high school. He described his initial attitude toward people with disabilities as predominantly negative and stereotyping:

I remember my view on handicapped kids was totally stereotyped. I looked at them all the same and I stayed away from them.

I wasn’t sure about it at first, because basically I never interacted with him (a peer with severe handicaps) at all. I’d seen him like through a glass door because I’d stayed away from him. Whenever they approached me, I stayed away from that … because they were different.

Darrell commented on his initial reactions to Anthony’s physical appearance:

I pushed Anthony up there, but I didn’t know that’s who I was going to be working with. She (the physical therapist) said “Help me get him out of his chair … that is who you’ll be working with.” I couldn’t believe it … he had slobber drooling down his face.

Darrell's description or his experiences with peers who had severe disabilities ref1ected a number of personal changes over time, These centered particularly on growth in his understanding or other people and in his tolerance for people who looked or behaved differently:

And after a while I just, it was no big deal, but I got him out of his chair by myself, and there was towel handy and I wiped his face when he got messy. It didn’t even bother me at all.

He understood me when I was talking to him—he understood. So I would joke around with him, he’d laugh. And I could just see that he was a normal person. And I didn’t feel sorry for him because I figured that’s the last thing he wants … And, you know you just make the best of it. We just had fun with what we were doing.

An alternative approach to presenting findings is to organize these around specific hypotheses/interpretations which have emerged from the study. We used this approach to present hypotheses and supporting data for the same study. This is one table we developed to present some of our findings:

TABLE 3: Self-Concept: Growth in Understanding and Appreciation of One’s Own Characteristics

“It has made me more confident and like going up to people and like talking to them saying ‘Hi’ or something. I’ve gotten a lot more confident….”

“It makes me feel good that I can help.”

“I’m a lot friendlier after this summer (working with kids with disabilities). I’ve learned to lighten up and be a little happier.”

“They make you feel happy, where you feel happier about yourself.”

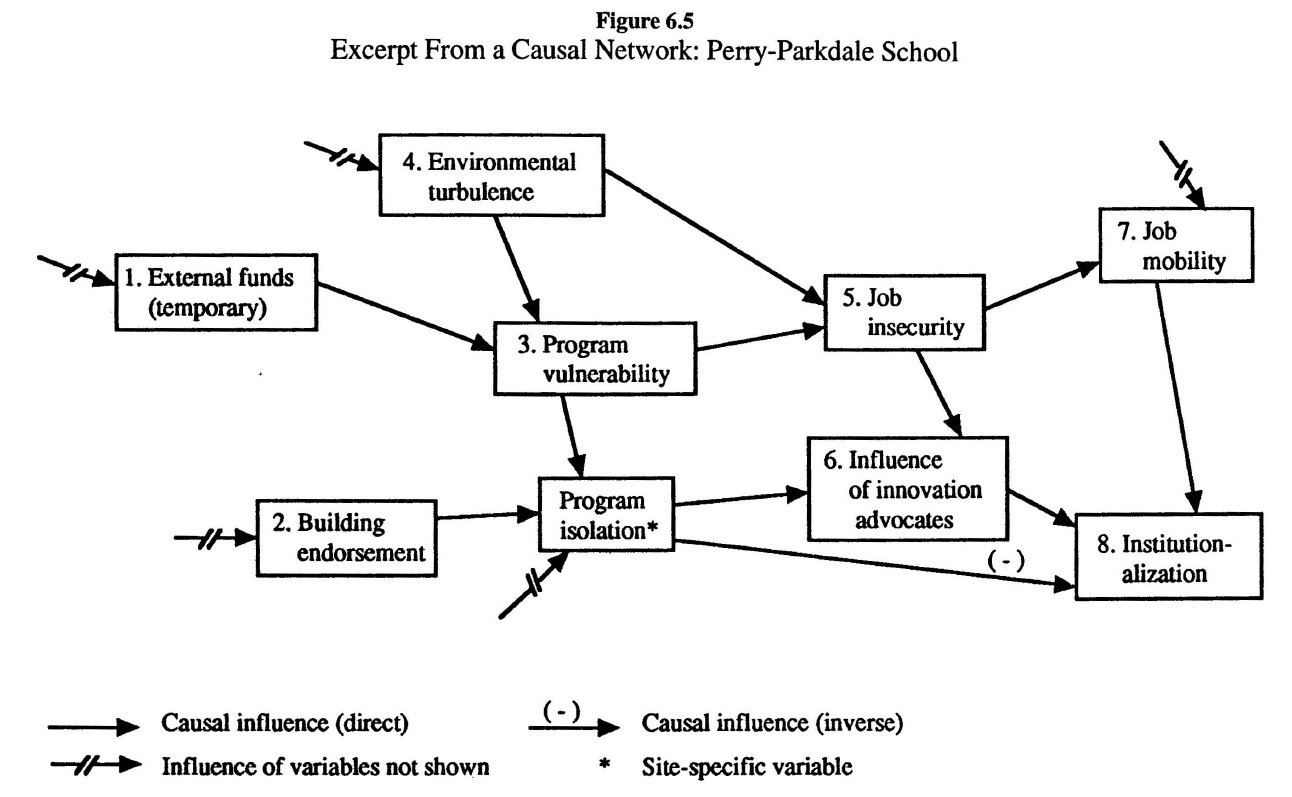
“…just probably the experience of being able to help somebody … it makes both people fell good that they can work together to get it done.”

“I’m a lot more patient than I was before, and I understand a lot more things than I did…”

“(I learned ) that I can stay and do one more thing, keep my mind on one thing at a time … and that I have a lot of patience when I know I need it.”

“Well, I’ve learned a lot about myself and the disabilities that I have and the things I can’t do … And it helps me understand the things that I can’t do … that I don’t have to put myself down every time I can’t do it.”

Findings may also be clarified through use of figures and other graphic representations of relationships. For example, Miles and Huberman (1984) illustrated multiple sources of influence on the implementation of innovations in educational settings using flowcharts:



Levels of abstraction also vary widely. Spradley (1979) has characterized six levels at which qualitative data may be presented. Data are typically presented at many of these levels within a given report. As Spradley's examples show, findings reported at higher order levels of abstraction must be supported by data presented at more concrete levels to be credible:

LEVEL ONE: Reciprocity among human beings is balanced where two people give to each other over time, each giving and each receiving. Such reci­procity occurs in all societies.

LEVEL TWO: Tramps, like those who live in tribal villages, depend on one another in time of need, They expect others to reciprocate, A Kwakiutl Indian will give in a potlatch and later receive gifts at someone else's potlatch, A tramp will give to another tramp and also beg from another tramp.

LEVEL THREE: Tramps engage in much more reciprocal exchange than do other members of the larger society. This kind of exchange takes many forms.

LEVEL FOUR: A tramp in the Seattle City Jail will exchange goods and services with other tramps, If he is a trusty in the jail, he might exchange a service for money with someone in lockup.

LEVEL FIVE: *(Informant's statement)* “Yes, a tramp will beg from other tramps, If you're panhandling you can expect another tramp to give you money or a cigarette if he has it. You realize that sometime he will need something and then it will be your turn.”

LEVEL SIX: It was a dull Tuesday afternoon and a slight mist of rain was blowing gently in from the Puget Sound, Joe had become a kickout an hour earlier; several minutes ago he walked off the elevator on the first floor of the Public Safety Building and found his way to the street. Pulling the collar of his worn tweed jacket up around his neck, he hunched his shoulders slightly and headed downtown, wondering where he would find money for a drink or even a cigarette, He might have to make a flop under the bridge on Washington Street tonight to stay out of the rain, He saw a man approaching him as he headed slowly down James Street, obviously another tramp. Looked like a home guard tramp, but he couldn't tell for sure, “Can you spare a quarter for a jug?” he asked. “I just got a kickout.” “No, I'm flat on my ass myself,” the other man said, “but how about a smoke. All I got are Bull Durhams,” After taking a light too, Joe started on down James Street looking for a tourist or businessman to panhandle.

**Science, Hermeneutics and Social Action:**

**An Integrative Framework**

The problem of clarifying the knowledge sources which should inform social action is a difficult one. Arguments about these matters are often charged with highly contentious rhetoric, as proponents of different positions argue from disparate and largely unresolvable ontological assumptions. In considering the problem of how we might best act in the context of ongoing uncertainty, it seems advisable to analyze the possible functions of various modes of knowledge as these may contribute differently our choices about policy and practice. A broad analysis of this type has been developed over the past two decades by Habermas (1971; 1984). He distinguishes three types of knowledge which are constructed in service of what he terms “cognitive interests”.

First, Habermas identifies cognitive interests in control as reflected in the traditional empirical/analytic sciences. Emphasis within this knowledge system is on technical interests, defined in terms of prediction and control over the objective world. Research modes relevant to this type of knowledge emphasize clarification of causal relationships between phenomena.

A second cognitive interest lies in communication, and formal knowledge of this type is achieved through interpretivist or hermeneutic sciences. Habermas identifies this cognitive interest as grounded in the practical need to establish understanding between actors in the coordination of daily life. He notes that it is access to meaning that is not established through technical control over objectified processes.

Finally, Habermas identifies cognitive interests in emancipation as implying a third form of knowledge. This knowledge is constructed through a methodology of self-reflection and critical analysis of social conditions impacting one’s life. Its purpose is to identify those conditions which have been defined through uncritically accepted ideology as *givens*, and to transform those conditions into targets for critique and change.

The importance of Habermas’ framework lies in its clarification of the function and value of diverse types of knowledge which are often simply viewed as mutually antagonistic. In making decisions regarding how we should act in the world, it is clearly of value to know how we may exercise control over phenomena. It is also of value to understand the social meanings of our behavior and the behavior of people with whom we must live. Finally, it is of value to identify social structures and beliefs which have been accepted uncritically within our society, but which may be subject to change. The table following depicts each of the three cognitive interests identified by Habermas, their relevant methodological tools, and an example of work reflecting each of these interests from within our field.

|  |  |  |
| --- | --- | --- |
| Cognitive Interest | Tools for Knowledge Construction | Example |
| Technical control | Experimental research | Odom & Strain, 1986 |
| Communication/understanding | Interpretivist/qualitative research | Schnorr, 1990 |
| Emancipation | Self-reflection; dialogue; teacher-directed research | People First; ? |

**References**

Bateson, G. (1979). *Mind and nature: A necessary unity.* New York: Ballantine.

Campbell, D. & Navarro, R. (1986). Qualitative methods in educational research. Paper presented at the annual meeting of the American Educational Research Association. San Francisco, April.

Fetterman, D.M. *Ethnography: Step by step.* Beverly Hills, CA: Sage.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago: Aldine.

Goetz, J. P. & LeCompte, M. D. (1984). *Ethnography and qualitative design in educational research.* New York: Academic Press.

Habermas, J. (1971). *Knowledge and human interests.* Boston: Beacon Press.

LeCompte, M. D., & Goetz, J. P. (1982). Problems of reliability and validity in ethnographic research. *Review of Educational Research,* 52, 31-60.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage.

Miles, M. B. & Huberman, A. M. (1984). *Qualitative data analysis: A sourcebook of new methods.* Beverly Hills, CA: Sage.

Patton, M. Q. (1980). *Qualitative evaluation methods.* BeverlyHills, CA: Sage.

Peck, C. A., Donaldson, J., & Pezzoli, M. (1990). Some benefits nonhandicapped adolescents perceive for themselves from their social relationships with peers who have severe handicaps. *Journal of the Association for Persons with Severe Handicaps,* ~, 241-249.

Peck, C. A., Hayden, L., Wandschneider, M., & Richarz, S. A. (1989). Development of integrated preschools: A qualitative inquiry into sources of resistance among parents, administrators, and teachers. *Journal of Early Intervention,* 13, 353-364.

Spradley, J. P. (1979). *The ethnographic interview.* New York: Holt, Rhinehart, & Winston.