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Ethnographic training assessment : a systemic approach

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**ETHNOGRAPHIC TRAINING ASSESSMENT:
A SYSTEMIC APPROACH**

A Thesis

Presented to

The Faculty of the Department of Instructional Technology
San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Karl David Lueck

August 1997

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ABSTRACT

ETHNOGRAPHIC TRAINING ASSESSMENT:

A SYSTEMIC APPROACH

by Karl David Lueck

This thesis represents the summative evaluation of an ethnographic instructional design project done for the Silicon Valley Cultures Project (SVCP). This research examined the effect of the addition of anchored-guided instruction to the SVCP student researcher training program. A previous year's training, which employed an anthropologically traditional apprentice-like method of instruction, was used as a normative baseline for this study. The primary data source for this study was 1,400 pages of transcripts from 58 ethnographic interviews following the training programs. To date ethnographic interview training has relied on expert opinion for the assessment. Differences of opinion have led to controversies over the nature of the ethnographic skills and appropriate methods of training. This research shows that systemic analysis may be an effective instructional design tool for developing qualitative skills training. The primary goal, however, was to provide the SVCP group with the summative data necessary to make future instructional decisions.

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Chapter 1

Ethnographic Training Assessment: a Systemic Approach

Introduction

This thesis represents a summative evaluation report on an ethnographic instructional design project. Since 1990 the Silicon Valley Cultures Project (SVCP) has been studying the lives and cultures of the inhabitants of the loosely defined area Silicon Valley. Students of San Jose State University have participated in this professional research. Funding from the Institute for the Future (ITF), a nonprofit research organization, has allowed student involvement in a “distributed ethnographic field school” (English-Lueck, 1996, p. 1). In 1996, an attempt was made to design an ethnographic skills training program to improve the outcomes of student researcher interviews.

This thesis seeks to answer the question—Did the ethnographic training program accomplish its instructional goals? In *Designing Effective Instruction*, Kemp (1994) identifies answering this question as one purpose of a summative evaluation. Kemp further states that:

. . . for evaluating instructional design projects, it is not necessary or even appropriate to perform formal research involving control/experimental groups and detailed statistical analysis. All that must be done is to gather evidence relative to accomplishments or change from preinstruction to post-instruction . . . as are considered important . . . to reach conclusions about the success or failure of the instructional program. (p. 287)

The primary audiences for this summative evaluation report, therefore, are the Principal Investigators of the SVCP group and stakeholders at the Institute for the Future (ITF), who must make future instructional development and funding decisions.

Secondary audiences for this work include: instructional designers of qualitative training, ethnographic methods instructors, and students of ethnography,

Instructional Technology is the art of the educationally possible. The immediate instructional needs of the SVCP student researchers cannot wait upon the resolution of the theoretical disputes surrounding the nature of the ethnography and a complete definition of its essential skills. To accomplish the purpose of this research, it has been necessary to operationally define ethnography, a subset of ethnographic skills and a way of measuring the effectiveness of the training. While these definitions remain open to refinement, they provide a serviceable foundation allowing the instructional design and evaluation within this research to proceed.

Analysis of the current data shows that student researchers were more effectively and efficiently trained in ethnographic interview skills using *anchored-guided instruction* (see page 72 for details). Using a previous year's *apprentice-like training* as a normative baseline (see page 74 for details), positive trends are shown in the student researcher's performance. How these two instructional methods differ in design, and how their relative effectiveness was compared, form the body of this report. However, a primary distinction between these two training methods was in the use of instructional design principles in the development of the anchored-guided instructional program. The increases shown for the

student researchers' performance then supports the usefulness of employing instructional design methods with qualitative, ethnographic training.

Background

In recent years the ethnographic interview, also known as the qualitative or open-ended interview, has become a common tool for acquiring information on American society. Originally an anthropological technique for exploring other cultures, it has come to be used in many disciplines including artificial intelligence, education, and social work (Scott, Clayton, & Gibson, 1991; Spindler & Spindler, 1983; Takata & Leiting, 1987; Westby, 1990). The ethnographic interview, though seemingly similar in some ways to the survey interview, requires a far more complex set of skills to be used effectively. Traditional anthropological training in this technique is too slow and involved to meet the new demands for this type of interviewing. Although some instructors have introduced new methods of ethnographic interview training (Millar, Crute, & Hargie, 1992; Rubin & Rubin, 1995; Spindler & Spindler, 1983; Spradley, 1979), the evaluation of these training techniques has lagged behind for a variety of reasons. The current research suggests that systems analysis may provide an assessment tool to fill this gap.

Systems analysis is a form of evaluation that examines systems in terms of their goals and elements, and the elements' functions, relationships, objectives and the achievement of those objectives. Systems analysis has been most useful in describing complex processes and the alternative outcomes of different choices. While van Gigch (1974) suggests using this as a method for measuring "soft systems" like social science, it

has not been used to evaluate qualitative training. In the current research the system being examined is the ethnographic interview. Systems analysis allows this research to define informational objects—descriptions, rules and stories— that were the objectives of the original research. Matching these informational objects to the process behaviors—what the researchers did to acquire these objects—produces a measure of each behavior's use. Comparison to the normative baseline data from a previous year will then produce an evaluation of the effectiveness of the training package.

An informational crisis. A primary cause for the increased use of ethnographic interviewing involves changes within American culture (Spradley, 1979). Governmental agencies that respond to public demands and provide public services, and the disciplines that supply the research and advice for these agencies, are faced with a changing American population. The American cultural landscape has become increasingly complex in recent years.

A tool to help find a solution to this informational crisis was discovered in ethnographic interviewing (Spradley, 1979). Anthropologists had developed this form of qualitative research for exploring the cultures of other people, without imposing their own views and values upon the informant's answers. Governmental agencies and other disciplines found that using ethnographic interviewing led to more valid answers to their questions about what the populace wanted from them. While this technique appears superficially similar to the standardized survey interview, it is based upon a different set of base assumptions and leads to radically different kinds of information.

A standardized survey assumes that the researchers are in control of the interview (Richardson, Dohrenwend & Klein, 1965). In this case, the researchers are the experts demanding answers to their research questions. In such a survey, the researchers will have designed the questions to be asked and an acceptable range of answers. Any response that falls outside this predetermined range will be labeled an *unsatisfactory answer* to be ignored, or discarded, when the data is analyzed. The researchers will also have decided upon the conditions under which the survey is to be conducted and will have attempted to control variables that might affect the interviewee's answers. Two assumptions are hiding here. The first is that the researchers know almost everything, before the interview takes place, about the person being interviewed. Their only interest is in the specific answers to their research questions. The second assumption is that the interview is taking place between two individuals, in isolation, and that anything outside the interview setting can be treated as an environmental variable to be controlled. When most Americans were willing, at least publicly, to accept a relatively standardized American culture, such surveys did appear to produce valid answers to questions about what the people believed and what services government should provide. However, as immigrants began to openly maintain their parent cultural values in America, these surveys started to produce a significant number of answers that fell outside what the researchers thought acceptable. As a result the apparent validity of this type of questioning was soon called into question. Standardized surveys were clearly not appropriate in the light of these changes in American culture. New tools were needed.

Ethnographic interviewing does not assume that the researcher is in complete control of the interview (Agar, 1980). In fact, this technique assumes that the researcher starts the study knowing virtually nothing and must enter the situation as a child, ignorant but willing to learn from the people being studied. Note that even the term ethnographers use to refer to the person involved in the interview, "the informant," differs from that of the standard survey's "the interviewee," the person to whom the interview is being done. An ethnographic informant is assumed to be the expert, who is sharing his or her knowledge with the researcher. The distinct assumptions of the locus of power, control and knowledge should be plain. In most cases, ethnographic researchers may begin their study not even knowing the language to be used, let alone which questions are appropriate to ask. One hazard that anthropological ethnographers met when they turned their attention to studying American culture is the mistaken assumption that they already knew the language. Within some American subcultures, the words may sound the same but have some different meanings for the individual groups (English-Lueck, 1990, p. 5). The ethnographic interview is also not assumed to be an incident isolated from the rest of the informant's, or researcher's life. It is simply one event in a continuing relationship between the researcher and the informant. This relationship may continue over a matter of days, years, or even last a lifetime.

In the last twenty years, anthropologists have turned to studying America as if it were a foreign country (English-Lueck, personal communication, November 1981). One tool they brought to bear in this research was ethnography. Other disciplines found that

this informant-centered interview technique produced the type of information that they were failing to get through standardized surveys. As a result, the other disciplines began using ethnographic interviewing in a wide variety of situations, to discover what the changing American population wanted and needed.

Background of the Current Research

Ethnographic training. Within Anthropology, ethnographic training has consisted of years of apprentice-like mentoring that was vague, idiosyncratic and almost mystical in nature. As a discipline, Anthropologists are very shy of defining the necessary skills too closely, for fear of imposing their own biases upon the neophyte (J. A. English-Lueck, personal communication, July 1995). Being an ethnographer was something one acquired, through years of experience, not something one was taught (Agar, 1980, p 2).

The disciplines that now use ethnography, however, do not have Anthropology's tradition of ethnographic training. In the rush to use this new technique, several new training techniques have been attempted. Little agreement exists on what skills are necessary for doing ethnography nor about which training method is the most appropriate. These and other philosophical conflicts have caused little attention to be paid to the evaluation of these training methods.

The Silicon Valley Cultures Project. In 1995, Drs. J. A. English-Lueck and C. Darrah, anthropological ethnographers, began a long-term research project focused upon the developing techno-cultures of the Silicon Valley area (English-Lueck, 1996). This large area project, called the Silicon Valley Cultures Project, includes sub-projects focused on

specific domains of the Silicon Valley inhabitants' work, identity and relationships, with each other and with the technologies that define their daily life. Two of these projects, the Infomated and Communicated Projects, were done in collaboration¹ with IFTF, a nonprofit organization that seeks to project marketplace trends. For IFTF, the Infomated Project study represented an attempt to discover the personal meanings behind the results of a national standardized survey of peoples' use of technology. The Infomated Project sought to discover how people really used household information technology. This project was followed, a year later, by the Communicated Project focused upon peoples' workplace use of communications technology.

For each project, an initial set of interviews was performed by experienced ethnographers to determine a set of research questions and to generate interview protocols. These protocols were divided so that each project consisted of two ethnographic interviews, each one to two hours long. Both projects employed student researchers in doing the in-depth follow-up interviews using these protocols.

An ethnographic field methods course, given by one of the principal investigators, Dr. C. Darrah, was used to identify promising student researchers. This course, plus one of two other anthropology courses, and a one day workshop to finalize the protocols was assumed to provide the student researchers with sufficient skills for the projects.

¹ IFTF funded these research projects. As a result, the content of the interviews, what the informants said, is proprietary information. However, since this research is focused upon the interviews' structure and the actions of the student researchers, this should not create any difficulties.

Infomated Project training. An anthropologically traditional method of training was employed with the student researchers for the Infomated Project. In addition to the ethnographic field methods courses, training consisted of a one day workshop where the students participated in finalizing the Infomated Project's interview protocols. This unguided participation in a professional activity was followed by independent practice with the protocols. This method, of inclusion without direct instruction, constitutes fairly standard ethnographic training practices, hereafter referred to as apprentice-like training. (The nature of this instructional method and that of the Communicated project's training are more fully developed in chapter three, page 71.)

During the analysis of the Infomated Project's data, Dr. English-Lueck noticed that some student interviews were very *thin* (English-Lueck, personal communication). In ethnography, the terms *thick* and *thin* description refer to the amount of usable data produced during an interview. An experienced ethnographer has the skills necessary to increase the thickness of data that an informant produces during an interview. Although the Infomated Project's interviews were productive, the research team wished to try to improve the students' ethnographic skills and results.

Communicated Project training. The second training set was much more focused on the ethnographic skills the student researchers would need to accomplish their interviewing task. In an attempt to train the students in the ethnographic skills, this researcher collaborated with the project team in producing a sample interview video. During the training session, the student researchers were shown the video which was

stopped at significant points. An expert ethnographer led a discussion and pointed out the interviewer's techniques and attempts to achieve the interview goals and distinctions between query objectives. Additional readings, independent practice and a tour of a highly communicated office, a workplace rich in information technology, completed the training package. This training package, which included the simulated professional activity and expert-guided discussion (the video and professional level skills analysis), may be called anchored-guided instruction.

Problem

The Silicon Valley Cultures Project is an ongoing, long-term research project, that utilizes student researchers in a distributed ethnographic field school. Those students involved in the Infomated and Communicated Projects, however, will have moved on by the time later sub-projects are in need of more student involvement. This situation necessitates the constant training of new student researchers. The competency of these new researchers is of considerable concern for the research team. As a result, the interviewer training program continues to evolve, using instructional design methods, to improve its effectiveness and efficiency.

During the analysis of the Communicated Project's data, it was Dr. English-Lueck's expert impression that the second set of interviews contained thicker descriptions than the Infomated Project's interviews. The questions remained whether this difference was significant and if the training could, or needed, to be further improved. These deceptively simple questions led into a quagmire of academic and theoretical conflicts.

The nature of the ethnographic interviewing and the skills required for accomplishing them are not clearly defined. Debate is also centered on the most appropriate methods, or even the possibility, of directly training these ethnographic skills. One source of this controversy is the current lack of any assessment tool for measuring the effects of such training, either in the classroom or in the field. Finally, in examining the student researchers' performance in actual ethnographic field interviews, this research is in reality studying the transference of the instructional program's learning from the classroom to actual fieldwork. The question remains—Did the anchored-guided instructional program designed for Communicated Project effectively and efficiently train the ethnographic skills it was intended to teach?

Purpose

The purpose of this developmental research is to provide the Silicon Valley Cultures Project's Principal Investigators, and stakeholders at IFTF, with the summative data necessary to make future instructional program and funding decisions. To date, such assessments have depended entirely upon subjective, expert opinions of very inexplicit qualities within the ethnographic data. By tracking positive trends in the program, and noting deficiencies for possible corrections, the Principal Investigators will be able to make unbiased, objective decisions on future student researcher training (Kemp, 1994).

In an effort to make a more objective evaluation, this research is attempting to use systemic analysis to devise a more quantifiable measure of the training's success or failure. Systemic analysis examines systems in terms their goals, elements, and the elements'

functions, relationships and objectives. In this case, the systemic elements are the student researchers, the informants, the interview protocol queries, the queries' objectives, and the interactions between these elements as displayed in the interview transcripts. This research treats the student researchers' behaviors and the collection of the interview queries' objectives as definable systemic features. Counting the occurrences of these features will produce numeric data that may be regarded as a measure of the ethnographic skills being used. Data from the previous years project, which used an apprentice-like training program, may then be used as a normative baseline for assessing the effects of the instructional changes made to the Communicated Project's training program.

Research Question

This research seeks the answers to several questions. First, is systems analysis an effective tool for the assessment of ethnographic training? Second, if systems analysis produces useful quantitative/qualitative evaluations, can it answer the summative developmental question of whether the anchored-guided instruction employed during the Communicated Project's training program improved the ethnographic outcomes the students achieved? Finally, do the answers to these questions suggest any practical changes be made to improve the ethnographic training program in future years?

Assumptions

In doing this study, the researcher is assuming that by raising the examination of the interviews to the level of a systems analysis several difficulties, regarding the historic

nature of the data, differing content, and the sample of opportunity, will be overcome.²

The researcher is further assuming that any performance differences caused by factors other than the training, such as any significant individual differences among the student researchers, can be identified and sufficiently considered such that the final analysis will still be valid. Finally, the researcher is assuming that the form and styles of the Infomated and Communicated Projects are similar enough that, although the contents of the interviews are different, they will be comparable at the level of a systemic analysis. By looking at the structure of the interviews as conversations, rather than at their content, the fact that each interview employed a different set of protocols should be immaterial.

Limitations

The post hoc nature of this research, and several limitations within the data to be used, prevent this from being an experimental study. However, establishing scientific support for the effectiveness of one method of training over another is not the goal of this research. Practical judgements and suggestions to immediate training decisions and problems are what is sought. Morrison (1994, pp. 42-3), suggests that, when the overall effectiveness of a unit of instruction is used to study the impact of a training product, the results, although context specific, are still of value in devising future effective training tools.

² For any unfamiliar with systems analysis it may seem that this research is comparing apples and oranges when different interviews with different queries are treated as analogous. To carry on the analogy, systemically it does not matter if they are apples or oranges, if the question is how many calories does the *fruit* produce.

Delimitations

The design of this research is not able isolate which element(s) of the instructional package (the expert-guided discussions, the video, the readings, etc.) are responsible for the changes in the student researchers' interviewing behaviors. This research, also, does not attempt to define the entire ethnographic process, only the limited set of specific skills instructed are addressed. Practical solutions to the immediate training development questions of the Silicon Valley Cultures Project are the primary goals of this research.

Significance of the Project

The rapid increase in the use of ethnographic interviewing, by disciplines outside Anthropology, makes the creation of a training assessment method an important and timely issue. The development of an effective evaluation tool for this would add to the body of knowledge on ethnographic pedagogy. Though the study will not be greatly generalizable beyond its intent as summative research, its use of systems analysis as a measurement tool may produce insights and discussion on the pedagogy of ethnography. From this perspective, this research could have broad ramifications for anthropological instruction, and for other fields employing ethnographic interviewing. However, the primary significance for this research is in its immediate applicability to the development of practical and effective training crucial to the success of the SVCP's ongoing research.

Definitions of Terms Used

Anchored-guided instruction students learn skills from an expert through a process of professional enculturation by participating in professional activities, with the addition of simulated authentic activities and expert-guided discussions.

Apprentice-like training students learn skills from an expert through a process of professional enculturation by participating in professional activities.

Authentic activities “the ordinary practice of the [professional] culture . . . accessible to members who move within the social framework” (Brown, Collins, & Duguid, 1989, p. 34).

Clarification a type of follow-up query designed to check the accuracy of the ethnographer’s understanding of what the informant said.

Description (ethnographic) a statement about a feature of the informant’s physical or social environment, which includes not only the names and definitions of objects, behaviors, or people, but also something about their cultural functions in the target society.

Dyad the minimum social unit composed of two interacting individual units, which may be single individuals or groups of individuals acting as one.

Ethnographic interview (definition 1) any conversation between an ethnographer and a member of the culture being studied (Agar, 1980, p. 23).

Ethnographic interview (definition 2) an almost “mystical” learning experience for the ethnographic researcher.

Ethnographic interview (definition 3) a triadic informational exchange, the goal of which—for the ethnographic researcher—is the development of a relationship with the target social unit by systematically investigating the existing dyadic relationships of informants and their social unit. [a working definition for this study]

Informant the person with the information.

Interviewee the person to whom the interview is being done.

Macrocontext using video to create simulated authentic learning environments to bridge the gap between the workplace and the classroom.

Probe a type of follow-up query designed to elicit additional information from the informant.

Probe Opportunity the identified set of circumstances where the informant's conversational flow has provided the student researcher with an occasion to employ the trained ethnographic skills.

Protocol (ethnographic) a list of topical queries designed to elicit particular kinds of information from an informant.

Query (ethnographic) a request for information from an informant which is less forceful or demanding than a direct question. An open-ended question.

Question A closed-ended interrogative statement that implicitly demands an answer.

Response (to a probe opportunity) student researchers' use of the trained ethnographic skills, employed as a measure of the training's effectiveness.

Rules (ethnographic) a statement that defines the values and/or cultural processes of the target culture.

Stories (ethnographic) an informant's anecdote that may show how the cultural rules are enacted in everyday life, possibly in areas that cannot even be thought about *except* as stories (Bohannon, 1995, p. 150).

Summative evaluation measuring how well the major outcomes of a course or program are attained at the conclusion of instruction (posttest) or thereafter on the job.

System an assembly or set of related elements (van Gigch, 1974, p. 2).

Systemic analysis a form of analysis that examines systems in terms their goals and elements, and the elements' functions, relationships and objectives and the achievement of those objectives.

Thick description a qualitative evaluation describing an interview containing a large amount of useable data, ethnographic descriptions, rules and stories.

Thin description a qualitative evaluation describing an interview containing a small amount of useable data, ethnographic descriptions, rules and stories.

Triad a social unit composed of three individuals and three dyads.

Organization of the Thesis

In chapter two, the literature involving ethnographic interviewing is reviewed. Conflicts exist over ethnography's qualitative nature, its definition and even its appropriateness as a method of research. While there exists a large literature on interviewing in general, little is directed specifically toward research *on* ethnography or its training. The related learning theory and instructional design models are discussed and systemic analysis is introduced as a method for the assessment of ethnographic training.

Chapter three discusses the design, data sources, and instrumentation of the current research. Working definitions for ethnographic interviewing, the skills and systemic processes related to this thesis are presented. With these definitions, the use of systems analysis to assess student researcher interview behavior is proposed. The specific details of this research's training and data collection process are also discussed.

Chapter four describes the results of the systemic assessment proposed in chapter three. Evidence establishing a relationship between the acquisition of the informational objectives to the identified ethnographic skills is presented. Further findings regarding improved achievements in specific ethnographic skills taught with anchored-guided instruction are shown.

Finally, in chapter five, the implications of these results for the Silicon Valley Cultures Project are discussed. The use of systems analysis as an assessment tool is supported by this research's findings. Suggestions for changes to the SVCP ethnographic research training and recommendations for future research conclude this thesis.

Chapter 2

Review of the Literature

Introduction

Despite the growing importance of ethnographic interviewing, and an imposing literature pertaining to interviewing in general, the training of interviewers in this technique has received little attention and even less research. This lack has been frequently noted in the literature (e.g., Agar, 1980; Douglas, 1985; Gorden, 1969; Hammersley, 1987; Richardson et al., 1965; Woods, 1987). The deficiency of progress in this area is the result of a number of conflicts over methodological premises, definitions of the term *interview*, and recent disputes over legal and theoretical issues. However, its use by other fields and a recent rise in the use of students as ethnographic researchers has put pressure on traditional instructional methods and brought about the need to develop new methods for teaching ethnographic interviewing.

This research takes the position that the development of ethnographic training cannot wait on the conclusions of the theoretical debates. As a result, an empirical positivist position is taken to allow this research to proceed. It is assumed that by employing instructional technology, it is possible to break down and teach, at least some, ethnographic skills. However, to understand ethnographic interviewing, and its training, requires that it be placed within the “expert” debates on the subject and that it be distinguished from other activities called *interview* in the literature.

Quantitative vs. Qualitative

In *The Practice of Questioning*, Dillon (1990, p. 109) writes, “There are more books in this field than articles in most other fields.” He is specifically referring to survey questioning and he goes on mentions books that cite hundreds of research articles.

However, a glance at Dillon’s bibliography reveals few such articles mentioned in his own work. It may be significant that this is a topic that most authors seem to prefer to address at the book level, rather than at the condensed level of an article. This tendency to cite books, and not articles, seems to be a general trend in the books on interviewing. Many authors appear to agree with Gorden (1969, p. 17) that, “rather than reporting, criticizing and synthesizing these sorts of studies, the writer will present his way of thinking about interviewing problems which has developed partly from his reading but mainly from his own direct experiences in doing, planning, and teaching interviewing.” A nod is given to the research of the past, usually Sudman and Bradburn which lists 1,000 experimental studies in its bibliography (as cited in Dillon, 1990). The authors then go on to describe their own theories and conjectures based upon their own “expert” opinions.

In some fields, for example anthropology, the lack of quantitative experimental research is not necessarily a flaw but a methodological choice. For them, a method like interviewing and the books written about it can only be judged qualitatively. What is the author’s theoretical position? Is the content based upon “field research” or does the author appear to have “made it all up?” Is the content logical and reasonable? In this view of analysis, there is no such thing as a “bad” source. These sources are either rich or

poor in nuggets of knowledge to be mined by the researcher. They may be thick with ideas or so thin as to be hardly worth the time used in close examination. However, a single bit of information from a thin source, that at first glance may have seemed unimportant, could lead to that breakthrough understanding of the whole pattern. That one bit might lead the scholar to the insight that might never have been had one looked elsewhere.

Definitions

How is one to define ethnographic interviewing? Is it significantly different from other forms of interviewing? One barrier to the understanding of the term is the broad variety of definitions employed by the many fields that use interviewing and the widely different activities labeled *interviews*.

Other disciplines' definitions. Disciplines—for example psychology, communications, and sociology, etc.—which have written about interviewing have attempted their own definitions. Some definitions are as simple as Gorden's "a conversation with a purpose" (as cited in Millar et al., 1992, p. 2) or "a method for collecting data" (Richardson et al., 1965, p. 7). Other definitions are complex and include the technical jargon of the particular discipline. Examples of this type of definition are Stuart and Cash's "a process of dyadic communication with a predetermined and serious purpose designed to interchange behavior and involving the asking and answering of questions" (1974, p.7) and Millar et al.'s:

A face-to-face dyadic interaction in which one individual plays the role of the interviewer and the other takes the role of the interviewee, and both roles carry clear expectations concerning behavior and attitudinal approach. The interview is requested by one participant for a specific purpose and both participants are willing contributors. (p. 3)

Some authors further break down their definitions of interviewing by the purpose, function or setting of the particular interview. Examples of these types of categories are: “expression, persuasion, therapy, ritual, informational” (Gordon, 1969, p. xi); “survey, journalistic, employment, performance appraisal, counseling, and persuasive interviews” (Stuart & Cash, 1974, p. 5); and “counseling (or helping), selection (or employment), research, medical and appraisal” (Millar et al., 1992, p. 5). Additional criteria, which have been mentioned as significant, include the amount of prior arrangement and the intended length of the interview (Kemp & Ellen, 1984, p. 231). Other writers simply ignore the issue entirely and write as if there could be no conception of an interview beyond their own (Benjamin, 1987).

Finally, many interviews are defined by their questioning approach. Various called directive/non-directive (Stuart & Cash, 1974), scheduled/unscheduled (Richardson et al., 1965), or closed/open-ended (Pelto & Pelto, 1970); these approaches describe the amount of control involved in the selection of topics during the interview and the range of acceptable answers. In a directed/closed interview the order, and even the wording, pacing and tone, of each question may be set before the interview has even begun. Acceptable or appropriate answers may also have been predetermined. In the non-directive/open-ended interview the interviewee controls the topics and answers to be discussed. Between these two extremes lays a range of styles that vary in the amount of the interviewer’s control and the interviewee’s freedom in answers. These distinctions have direct implications for the development of any potential training strategies.

Anthropological definitions. Where does the ethnographic interview fit into these competing definitions? For some, “any conversation between an ethnographer and a member of the culture being studied is an interview” (Werner & Schoepfle, 1987, p. 302).

Anthropological ethnographers strongly resist the use of structured interview surveys, because of the basic assumptions and implications involved with this kind of research.

Burgess (1984) states that structured surveys assume that:

. . . there is no long-term relationship between the researcher and the research population. It is assumed that the interviewer can manipulate the situation and has control over a set list of questions that have been formulated *before* the interview and which are to be *answered* rather than considered, rephrased, reordered, discussed and analyzed. . . . It would, therefore, appear that there are ‘rules’ about ‘proper’ interviewer behavior which should be friendly but not over-sociable in order to overcome problems associated with ‘bias.’ (p. 101)

Burgess’ position should be apparent from the special emphasis that he puts on words he finds objectionable. For him, and for many other social scientists, the interviewer is not a stranger with a set of questions demanding answers, but “a friend and confidant who shows interest, understanding and sympathy in the life of the person with whom a conversation occurs” (Burgess, p. 103). The difference between these styles of gathering information was discussed earlier in this chapter as the overall open or closeness of the interview. The individual questions/requests for information themselves may be opened or closed even in a single interview. Cohen (1984) further clarifies the reasoning behind this ethnographic position.

[With] the ethnographic interview . . . the anthropologist . . . is using conversations with informants largely to discover the appropriate questions to ask. . . . Were we simply to pursue a schedule of our own devising we should then merely be displaying the contrivances of our own minds. (p. 225)

Agar (1980) defines the ethnographic interview as “. . . informal, [where] everything is negotiable. The informants can criticize a question, correct it, point out that it is sensitive, or answer in any way they want to” (p. 90). In this situation, the ethnographer becomes the informant’s apprentice seeking (a) descriptions, (b) rules and (c) stories that characterize a range of situations from an informant’s point of view.

The process, of the researcher learning the target culture, “yields what Geertz calls ‘thick description’—a detailed view of the layers of reality and the many-sidedness of situations” (as cited in Woods, 1987, p. 304). However, the definition of the ethnographic interview, as an almost “mystical” learning experience for the researcher, is as close as most ethnographers care to come to a specific definition. The general feeling among anthropological ethnographers is that “to define it too closely is to kill it, once you nail it down it can no longer grow, change or adapt” (J. A. English-Lueck, personal communication, Nov. 27, 1996).

Empirical Research on Interviewing

As should be apparent from the discussion, the unpredictability of ethnographic interviews makes it difficult to produce the kind of data that is amenable to quantitative research. Most of the quantitative research done on interviewing has focused on interviews near the closed-ended, tightly controlled end of the interview spectrum. The reasons for this should be obvious. Quantitative research is based upon the assumption that the researcher can control all of the extraneous variables and look only at the independent variable in isolation. An interview style where the interviewer is in control is ideal for this type of study.

Research from other disciplines. Researchers in a variety of fields, psychology and sociology for example, have used these empirical techniques to study a range of factors affecting the validity and reliability of an interview's results. Some of these factors have been identified as interviewer variables, these include: (a) age, (b) sex, (c) race or perceived ethnicity, (d) attitude, (e) empathy, (f) experience, and (g) status of the interviewer. Other research has studied how interviewee characteristics, such as (a) peer or family pressures, (b) age, (c) dress, (d) race, or (e) perceived cooperativeness, have affected the interviewee's answers or the interviewer's perception of the interview (for example, Gordon, 1969). Researchers in the field of communications have also closely studied (a) the effects of the exact phrasing and lengths of individual questions, (b) the effects of fillers (words like "mm-hmm" and "I see"), and (c) the effects of an interviewer's silence on the length of an interviewee's answers (Dillion, 1990, chap. 13). These kinds of variables may only be studied quantitatively if the manner of the interviewer is highly reliable and consistent over multiple interviews with many different interviewees. Recent attempts at this kind of research include works by (a) Prewett-Livingston, Field, Veres and Lewis (1996), (b) Kleinke and Williams (1993), (c) Howard and Ferris (1996), and (d) Greenstock and Pipe (1995).

Prewett-Livingston et al. (1996) were researching the effects of race upon panel employment interviews. This reasonably sound quantitative study concluded that, at least for black and white police officers, a clear tendency for rating people of one's own race higher than others was shown. This study has a clear implication that the interviewer-interviewee relationship was a significant factor.

Kleinke and Williams' (1993) study looked at peer support and the questioning of abused children. They found that misleading questions affected the accuracy of recall in young children (5-7), but that peer support made no significant difference, even for older children (8-10). This article demonstrated that the interview protocol itself could have a serious impact upon the data collected. Other research articles found in this area, Howard and Ferris (1996), and Greenstock and Pipe (1995), appeared to be seriously flawed or irrelevant to this study.

The anthropological ethnographic view. Ethnographic interviewers do not totally ignore the results of such quantitative studies on interviewing. They are aware that the "overt characteristics of the interviewer . . . [may] create an immediate impression of the interviewer and will, in part, place limits on the role that an interviewer may adopt" (Burgess, 1984, p. 105). However, according to Agar (1980), for the ethnographer:

. . . the problem is what kind of bias exist—how do they enter into ethnographic work and how can their operation be documented. . . . An ethnographer can try to deal with them as part of methodology and . . . acknowledge them when drawing conclusions during analysis. (p. 42)

The empirical research of other disciplines is simply another source of information to be used, as appropriate, to further their own research goals.

Ethnographers try "to maximize validity and . . . reliability through . . . an eclectic mix of research operations, . . . blending . . . relatively nonstructured, long-term observations and interviews . . . [with] more formalized procedures" (Pelto & Pelto, 1970, p. 34). However, "hypotheses-testing . . . leads you to ask questions that miss the point of . . . ethnography" (Agar, 1980, p. 13). In the end, most would agree with Deng Xiaoping's pragmatic slogan, "It does not matter if the cat is black or white, as long as it catches mice" (English-Lueck, 1997).

Roadblocks

What is significant about these recent empirical research articles on interviewing is not their varying quality, but the fact that they were done in the fields usually distant from primary academic research—employment and social work. While Greenstock and Pipe, as social psychologists are an exception, their geographic isolation at the University of Alaska may be significant in this issue. In the mid-1980's two British educational sociologists, Hammersley (1987) and Woods (1987) exchanged a flurry of articles expressing the need for “stage three,” or quantitative, research on ethnographic methods. Their arguments on this issue were based on long standing theoretical conflicts and debates over the validity and nature of interviewing. Few answered the call. What happened in the major research fields that research into ethnographic interviewing has dropped off dramatically, even in the fields that accept quantitative, empirical methods?

Theoretical conflicts. One cause of this absence of research has been the relatively recent rise in disputes over some very basic philosophical, theoretical and methodological issues. During the nineteenth and early twentieth centuries, social science, and science in general for that matter, was based upon a philosophy of positivism, “a certain philosophical attitude to human knowledge [that] does not prejudge questions about how men arrive at knowledge. But is a collection of rules and evaluative criteria referring to human knowledge . . .” (Kolakowski, 1993, p. 2). With the majority in agreement upon these ground rules, scientists could devise theories and methods and then debate the finer points in overall agreement.

During the latter half of the twentieth century, however, three theories, structuralism, feminism and postmodernism challenged the standard thinking about science. For Structuralists, “any set of phenomena . . . is treated not as a mechanical agglomeration but as a structural whole, and the basic task is to reveal the inner . . . laws of the system” (Jakobson’s *Retrospect*, 1971, p. 711, as cited in Sills & Merton, 1991, p. 103). Feminists set about the task of reinterpreting science in terms of its gender politics. Postmodernists “abandon the rational and unified subject postulated by much modern theory in favor of a socially and linguistically decentered and fragmented subject.” (Best & Kellner, 1991, ch. 1). These ideas brought the “appropriateness of positivism [for social science], with its emphasis on empirical data, evidence, confirmation of hypotheses, and cause and effect relationships . . . into question. . . . Rather than being objective and value-neutral, ethnographic research was accused of culture and gender bias . . .” (Barrett, 1996, p. 141). Little research could be accomplished while the debate raged over the very goals and conclusions of science.

Structuralism, which started the whole controversy, by first questioning positivism, seems to have talked itself into a philosophical corner and has almost “reduced” itself out of existence. Feminism, with its focus on gender politics, women’s empowerment and a “distinctive” epistemology and methods, seems to have created a place of its own. In anthropology, the question remains as to whether this place is merely one more theoretical orientation or an entirely new paradigm. Postmodernists came close to advocating an end to fieldwork altogether. In their view, ethnographers could no longer “speak” for people

in other cultures. Ethnography then becomes a fictional “literary text” with the writer’s “fragmented, disjointed, and incomplete” views and opinions of “the other” as its central focus. Through this whole conflict a “sort of underground anthropology, consisting of the conventional approaches, . . . continued to thrive.” While Barrett calls this “no-name anthropology” (Barrett, 1996, ch. 6), the rank and file ethnographers have started to call it “post-postmodern” (English-Lueck, 1997) or “neo-Boasian,” because of Franz Boas’s emphasis on fieldwork (J. A. English-Lueck, personal communication, Nov. 27, 1996).

The neo-Boasians share the stage of the written ethnography with their informants, allowing them to speak in their own words, but filling in the context and implied meanings for the reader. They would agree, in part, with sociological “grounded” theorists, that the purpose of qualitative research is to generate new theory. In this sociologic perspective, quantitative and qualitative research are not irreconcilable opposites, but different aspects of the research process. After throwing out the old theories, the qualitative researcher seeks new categories and questions that may be explored in detail by the quantitative researcher (Henwood & Pidgen, 1993). However, concerned with reinventing the wheel, the neo-Boasians do not reject previous theories, but add to and adapt them in the light of new data. In their view, theories are not the static pronouncements of universal rules, but an organically growing understanding of how things work. The ethnographer’s job is to explain to the reader of the written ethnography the variety of cultural solutions possible. While they may identify individual solutions as effective or ineffective, it is not their place to pass value judgements (J. A. English-Lueck, personal communication, Nov. 27, 1996).

This grounding of theory in data allows the neo-Boasians to move onto more practical and productive activities, like gathering new data or training their students in necessary methodological skills, like interviewing.

Ethnographic Training

Ethnographic interviewing, when it is taught at all, gets little attention in most methods classes. Such courses tend to concentrate on readings, research designs and data analysis techniques, with data gathering procedures getting brief coverage and little *guided* practice. The frequently stated opinion is that one can only learn ethnographic techniques by doing them (Agar, 1980; Janesick, 1983; Kronenfeld, 1989; Takata & Leiting, 1987). Gorden (1969) suggested that this preconception is in part because of “an unfortunate tendency to consider data gathering as a lower status activity than data analysis or theorizing about the data” (p. 3). Even books designed specifically to instruct ethnographic interviewing techniques (Ruben & Rubin, 1995; Spradley, 1979) suggest that these skills may only be learned in the context of doing ethnographic interviews, preferably in the field. The assumption behind this is that the skills and processes of ethnography can only be learned holistically. Richardson et al. (1965) suggested that other reasons lie in the lack “of a clear-cut definition of the characteristics desirable in an interviewer, the measurement of his performance . . . relatively little research has been done on the problem” (p. 269). They go on to further suggest that different interview styles may involve substantially different skills and that training in one technique may not impart skill in a different form of interviewing.

Ethnographic skills. Like the problems involved with defining interviewing, little agreement exists on which skills are necessary for performing an interview and how these skills should be taught. Some simply throw up their hands and say, it is “simply common sense” (e.g., Douglas, 1985, p. 11) or it is “not something you could train people for. You [have] to do it, and then exchange knowing glances with others who had been initiated” (Agar, 1980, p. 2). As R. F. Ellen (1984) stated it:

[Ethnographic] “training” has characteristically involved little formal instruction in methods prior to fieldwork. Often, the preference appears to have been for a “sink or swim” approach, supplemented by anecdotes and advice, sometimes verging on the absurd and eccentric. . . . There is no ideal set of guidelines, no strict body of scientific rules; but . . . some helpful reminders, checklists and hints. . . . suggestions for profitable field research. (pp. 155-7)

This lack of specific skills training has been noted numerous times (see Agar, 1980). This apprentice-like training is essentially the same technique used by Malinowski with Hortense Powdermaker (1966) in the 1920s.

Sixty-five years has not really changed this training situation. At the American Anthropology Association meeting in November of 1996, only one session dealt with training ethnographic methods. This turned out to be not a discussion on training ethnography, but a defense by eight universities of how they had spent an NSF grant of \$50,000 for training their students in ethnographic methods. Most had only used the money to ship students out to the field, alone, to learn by experience.

Interviewing skills. In the books on interviewing from other disciplines, some experts present a list of skills and/or techniques for the interviewer. Sometimes these are lists of vague skills in listening and observing (e.g., Fenlason, Ferguson, & Abramson,

1952), or idiosyncratic reflections (e.g., Benjamin, 1987). Others produce long check lists. For example, Stewart and Cash (1974, pp. 118-9) provides a list of 42 skills that consists of tips, hints and suggestions for the new interviewer, rather than an organized skill set. A few authors include various attempts at systemic models of the communication or the structural activities involved in an interview, trying to make sense of this complex topic (Millar et al., 1992; Stewart & Cash; Werner & Schoepfle, 1987).

However, most of the books from other disciplines—like psychology, communications and sociology, etc.—sidestep ethnographic interviewing. Even those authors who acknowledge its existence—as non-directed, open-ended, unscheduled or unstructured interviewing—and admit that it requires different skills from other types of interviews, then choose to ignore it in favor of discussing the highly structured survey interview (Dillion, 1990). Gorden (1969) addresses it as a topic of self-improvement for the interviewer. Richardson et al, (1965) recommends that if the researcher has to do this kind of interviewing that only experienced interviewers should be hired or that these interviews should be done by the principal investigator or a trusted colleague.

Empirical research on interviewing. The only empirical research to be found on interview training has been in the appendix of Richardson et al. (1965) and a survey on the use of interview training in medical schools in America (Novack, Volk, Drossman & Lipkin, 1993). Richardson's study was directed at the personality characteristics of social science field workers. While Richardson found that the skills of nonstandardized interviewing were unrelated to observation, the number of variables and small sample size

of his study did not justify his use of statistics, nor the conclusions he draws from them. The study by Novack et al. was focused on the broader picture of the institutionalization of medical interview training. They reveal that *some* schools do train future doctors in interviewing. This kind of interviewing is closer to the closed/scheduled end of the interview spectrum, but still contains some elements of open questioning. However, they concluded that while training in medical interviewing was better than it was, it remains piecemeal and inconsistent.

Instructional technology could help in this instance. The study by Novack et al. (1993) does not explore the value which the differing training methods employed in instructing medical interviewing in the various schools. They also fail to make a distinction between a complex high performance task and a task that is truly open-ended. A close analysis of the actions and decisions a doctor makes during a medical interview would identify actions that are a clear, though complex, process of noting symptoms and eliminating possibilities, and which processes required more sensitivity to what the patient is, or is not, saying. With these tasks clearly articulated it would be possible to choose an effective instructional method to teach these tasks.

Pursuing this topic in the literature proved to be a frustrating exercise. When tantalizing hints of empirical research on this subject were tracked down, they turned into chimeras. As far as this researcher has discovered, little recent empirical research has been done on this subject that would be of benefit for an educator trying to improve this kind of training.

Ethnographic interview skills training. It seems a significant difference exists in the skills required for ethnographic interviews, as opposed to tightly controlled interviews. A scheduled interviewer must concentrate on asking exactly the same questions, in exactly the same order and exactly the same way to many individuals to prevent interviewer biases from creeping into the research (Richardson et al., 1965). “The non-scheduled interviewer must be able to do an instantaneous evaluation of the information received . . . to recognize information as relevant or irrelevant, adequate or inadequate in terms of the interview objective . . .” (Gorden, 1969, p. 314) and then respond appropriately. All of this while in the midst of the myriad of activities involved in doing and recording the interview. “In this case the goal is to remain with the topic . . . by asking a probing question. . . . Development of the ability to probe further . . . is of importance for interviewers” (Millar et al., 1992, p. 131; see also Jenkins, 1995).

How is this ability to ask probing questions to be developed? Many authors have left it up to the student to develop this skill on their own, or give systematic advice in the form of *their* book (Agar, 1980; Benjamin, 1987; Ellen, 1984; Gorden, 1969; Spradley, 1979). These approaches beg the question of how to *train* new ethnographic interviewers.

Learning theory. Cognitive learning theorists have attempted to define and devise ways of instructing these types of skills. However, there is as little agreement here as in other fields. Do these ethnographic skills represent an empirically definable set of intellectual/motor skills and cognitive strategies as Gagné would describe them? If so, then

they may be broken down into simpler component skills, organized into a hierarchy of learning objectives and sequenced for instruction (Aronson & Briggs, 1983). Kemp (1994), basing his judgement on Bandura's social learning theory, would define the same skills as interpersonal skills and recommend the same type of instructional design. Situated cognition theorists feel that this breakdown ". . . assume[s an illegitimate] separation between knowing and doing, treating knowledge as . . . independent of the situation in which it is learned and used" (Brown et al., 1989, p. 32).

Situated learning theorists would argue that the students could only learn ethnographic skills through a process of professional enculturation. Participation in "authentic" professional activities allows the student to ". . . pick up . . . the ambient [professional] culture rather than [through] explicit teaching." For these theorists, a learning activity is only authentic if it is ". . . the ordinary practice of the [professional] culture . . . accessible to members who move within the social framework." "School work is . . . thus not fully productive of useful learning" (Brown et al., p. 34).

Many ethnographic authors mention practice interviews and "learning by doing" (Jenkins, 1995, p. 21; see also Janesick, 1983; Miller et al., 1992; Takata & Leiting, 1987, Wolcott, 1994). It has been noted that interviews which are "real-world" (i.e., research that is connected to the surrounding community, rather than just another class assignment) are significantly more motivating to students (J. A. English-Lueck, personal communication, April 1996; see also Takata & Leiting, 1987). This factor and the pressure many academics feel to combine teaching with research are causing a rise in the

use of students as researchers (Rushing, 1984). These methods are essentially those proposed by the situated learning theorists. However, the demands of the real-world require more than untrained students to accomplish valid ethnographic research. This difficulty was noted by Fonsino (1980) in relation to his students' oral history interviews. Not every student, even with some training, produced useable results. The traditional training methods are too slow to meet the demands of the new situation.

The increased use of ethnographic techniques by disciplines without anthropology's tradition of apprenticeship training has also created a need for a more directed training method than has been used in the past. Millar et al. (1992), however, warns against sending out interviewers with insufficient training. What kind of training, however, would be the most effective and/or efficient in teaching a skill like asking probing questions during an interview? Stewart and Cash (1982) suggest "a training session and special written instructions" (p. 121) is sufficient. Millar et al. (1992) recommend the use of "'model' video- or audio-tape which have been produced to illustrate the use of the skill in a relevant professional setting" (sic, p. 143).

In instructional technology, the selection of an appropriate teaching method/media for a particular content area depends, in a large part, upon the base learning theory employed by the designer. Situated learning theory appears very similar to anthropology's tradition of apprentice-like ethnographic training. This theory contains elements of Bandura's social learning theory and Carl Rogers' experiential learning theory. Ethnography, though, is not like cobbling shoes, where the expert may "make explicit their

tacit knowledge or model their strategies for the students in authentic activity” (Brown et al., 1989, p. 39). To have a student attend the professional’s ethnographic interview, as implied by situated learning, would change the nature of the interview. One variant of situated learning that escapes this dilemma is anchored instruction. This instructional model employs the use of video as “. . . realistic ‘macrocontext’ to recreate some of the advantages of in-context learning that are available . . . in apprenticeships” (The Cognition and Technology Group at Vanderbilt [CTGV], 1993, p. 52). By using video to create *simulated* authentic learning environments this model seeks to bridge the gap between the workplace and the classroom. This theory contains explicit elements of Bruner’s constructivist theory, with the idea that the learner must construct their own understanding of the knowledge. The Gagné-Briggs’ empirically based conditions of learning theory (Aronson & Briggs, 1983) and Kemp’s (1993) model, based on social learning theory, also prescribe video as an appropriate instructional media for the instruction of this type of skill.

Each of the instructional models—situated learning, anchored instruction, social learning and Gagné’s empirical model—make assumptions about the nature of the instructor that also have design implications. Situated learning assumes that the instructor is an expert in the field (Brown et al., 1989). Tripp (1993), however, notes the difficulties in adapting situated learning to the instructional design process, because of the conflict between unconscious expertness and being able to express abstract representations of the task. One of the things that makes them experts is that they do not think about how they do the task anymore, they just do it.

This conflict, between expert knowing and expressing the abstract representations, is one of the reasons for the development of Instructional Technology as a separate field of expertise. Most instructional design models include a step called task/knowledge analysis with the goal of getting at this kind of information. In addition, Scott et al.'s description of "a productive knowledge-acquisition interview [as one] requir[ing] a careful balance of control between the expert and the . . . interviewer" (1991, p. 434), sounds very much like they are trying to describe ethnographic interviewing. The implication here is that a conscious application of ethnographic interviewing skills to the process of task/knowledge analysis may overcome the difficulties perceived by Tripp.

Proponents of anchored instruction relegate the instructor to the role of a coach, as the learner constructs their own learning and understanding of the task (CTGV, 1993). If anchored instruction is to remain connected to the situated learning model, as opposed to becoming wholly constructivist, "the teacher needs to be a master or to expose the students to masters if the apprenticeship approach is to succeed" Tripp (1993, 1993, p. 73). For Kemp's instructional design model, while it would be helpful for the teacher to be an expert in the subject content, it is not a requirement. Like Gagné's empirical model, it is expected that the instructor is generally not an expert in the subject being taught. These models make the assumption that there is a distinction between content expertise (knowing how to) and expertise in teaching (instructing how to). These models intend that a well-planned lesson would provide the teacher with sufficient information that they could pass for an expert, at least for the course of the lesson. These last two models,

however, also assume that the subject content is satisfactorily described (or can be, given sufficient time, money and research) that the instructor passing as an expert is possible.

Although the anchored learning model, Kemp's model and Gagné's model would each define ethnographic interview skills differently, they all recommend the use of video as an appropriate instructional media (CTGV, 1993; Kemp, 1994; Aronson & Briggs, 1983). How these videos would be employed also varies greatly between these instructional design models. An anchored learning design would use it for a macrocontextual story problem for the student to interact with and solve. For Kemp and Gagné's models, video would be also be included, combined with instruction and other media, to actively model processes which could not be described in other ways easily.

Media influences debate. Videotapes have been used in ethnographic training before, but their use has generally been confined to brief activities for developing the students' observational skills (e.g., Spindler & Spindler, 1983, p. 192; Wolcott, 1994, p. 383). While it is this researcher's position that separating the instructional media from the instructional method may not be possible, not all learning theorists agree. There is a lively debate in the field of instructional technology about whether or not the use of video media influences and enhances students' learning. In 1994, *Educational Technology Research and Development (ETR&D)* devoted an entire issue to the topic. Two articles by Kozma and Clark presented the positions that media will/will never influence learning. These were followed by several articles with much discussion, reframing of the debate, and partial research results in favor of one position or the other (Ross, 1994).

Both of the original authors, Kozma (1994) and Clark (1994), cite the work of Salomon extensively to support their side of the argument. If the empirical research has been done correctly, or the arguments employing it are logical and valid, both sides of an issue cannot claim the same research as proving opposite points. Shrock (1994) points out that “Clark . . . cites numerous research studies with nonsignificant differences and confounding instructional methods to support his point . . .” (p. 49). One study that Clark cites is Salomon’s 1984 “Television is ‘easy’ and print is ‘tough.’” However, in 1989 this same journal, *ETR&D*, published a Dutch study that replicated Salomon’s work. This article seems well founded and researched. While they did their best to follow Salomon’s methods exactly, their results did not match Salomon’s. They found only one significant effect for television being perceived as being more lifelike than books. Otherwise, they found Salomon’s measures to lack internal consistency and that “the perceived self-efficiency appears to depend not on the medium itself but on the interaction of medium and topic” (Beentjes, 1989, p. 56).

The authors of most of the other articles in *ETR&D*’s special issue defined key terms in and out of existence/importance and could not seem to break free to really look at the problem (Ross, 1994). It is exactly this kind of intellectual controversy, *experts* defining question as solved/unsolvable and preventing further progress, that makes anthropological ethnographers cautious about being too tight in their definitions. One article, by Morrison (1994), escapes this intellectual tail chasing by suggesting that it is:

. . . more productive to consider the effectiveness of the whole unit of instruction rather than the individual components. . . . This developmental research

perspective, then, is used to study the impact of the product on student learning. . . . The emphasis is on the synergism created through the interaction of the components and the instructional environment. Although context specific, the results would be of value. (pp. 42-3)

This conclusion conforms with the practical, empirical basis of this research. With the overall effectiveness of the training package as the objective, it may be possible to determine if there is a difference between the traditional ethnographic apprentice-like training and instruction that combines simulated professional activity with expert-guided discussion, without getting so bound up in trying to separate the variables that nothing useful can be accomplished.

Evaluation

Although there is much tangential literature, little research, either quantitative or qualitative, is focused specifically on the training of interviewers conducting open-ended, ethnographic, qualitative research. Interviewer training, and validity, has been established by tradition, not research. While this tradition has been challenged, the use of these techniques has expanded into fields outside Anthropology. However, despite this growing utilization, little explicit, guided training has been developed and validated by educational research. In part, this reflects upon the complexity of the task, such that research has often gotten locked into micro-debates of perhaps trivial issues.

The books directed at teaching ethnographic interviewing contain the hidden assumption that only the individual researchers can assess their own skills and development. Spradley's *The Ethnographic Interview* (1979) includes several chapters on interviewing skills, but he clearly intends that this book should not even be read until one

is out in the field and doing real field research. After each reading, the students are expected to go out and do the next ethnographic research step before reading the next chapter. They are also expected to be able to self-assess their experience and bring any problems they encountered to group discussions. This technique assumes a high level of self-awareness and an expertness in the techniques that the student cannot possibly have. Students, who did not know what they should be doing or experiencing, could go for years thinking they were doing everything correctly. This belief would leave them nothing to say in a group discussion of “problems.” These must be some way to step outside this loop and look at these experiences objectively.

Most instructional design models emphasize the importance of assessing the results of the training, both formatively and summatively. “Summative assessment permits you to reach unbiased answers to . . . decide whether the instructional program is achieving the goals it was originally intended to reach” (Kemp, 1994, p. 286). An approach to making this appraisal is to employ systems analysis to define the ethnographic process and the student researchers’ success at using these skills in achieving the system’s objectives.

Systems analysis. While van Gigch suggests using systems analysis as a method for measuring the effectiveness of *soft systems*, like social science, he also notes “the problem of determining the extent to which certain variables can be quantified and measured” (1974, p. 146). Some systems, like the physical processes of a factory, produce tangible, countable outputs. In this case, it is relatively easy to describe the physical processes involved, as raw material moves through the factory, and measure the

differing results that occur when alternative choices are made during the procedure. Other systems, like education, tend to produce more difficult to count quality-like outcomes.

As a student moves through the process of education, how would different choices in lessons or instructional methods effect the person who comes out? Which variables are important or even measurable? For this research, the only measure of consequence, or possible at this stage, is an assessment of the transference of the ethnographic skills they learned in the training to the professional, ethnographic field interviews they did afterwards. However, to succeed it is necessary to define and describe the systemic process and elements of ethnography.

“A system is an assembly or set of related elements” (van Gigch, p. 2). Systemic analysis is a form of inquiry that examines systems in terms of their goals, elements, and the elements’ functions, relationships, objectives, and process outcomes. In the case of the student researchers’ interviews, the elements of the system are the information gathering goal, the students, the informants, the protocol queries and their objectives and the achievement of the queries’ objectives as the students use the ethnographic skills in the conversation called an interview.

Using systems analysis, it is possible to operationally define the elements that are involved in these quality-like definitions of description (van Gigch, 1974). Once these systemic outcomes are identified they may then be tabulated. An alternative choice point occurred when the SVCP group made the instructional design decision to change the student researchers’ training. Tabulating and comparing the differing outcomes that

resulted from these choices shows the effect of this educational choice. Using the previous year's training as a baseline measure, this systemic method of describing the process and counting the defined outcomes will provide a means quantifying and assessing the effect of introducing anchored-guided instruction to the ethnographic training.

Summary

The ethnographic interview, though similar to the survey interview, is a distinct technique that requires a complex set of skills and training to be used effectively. Historical attitudes, and disputes over methodology, definition, theory and training related to interviewing, have arrested research in this area. However, the rise in the use of ethnography by fields outside of Anthropology, and the employment of students as ethnographic researchers, has brought about the need to develop appropriate instructional methods for teaching this type of interviewing.

Instructional technology is a utilitarian discipline and has much to offer in this situation. The practical instruction of the needed skills cannot wait upon the settlement of any theoretical debates. Instructional design is a continuous cyclic process of try-check-and adjust. The anchored-guided instruction employed in the Communicated Project's researcher training borrows elements from three different instructional models. Enculturation to a community of practice (Brown, 1989, p. 33), simulated macrocontextual video (CTGV, 1993, p. 52), and expert-guided discussions (Kemp, 1994, p. 150) are combined. Although it was not employed in the current design, further development would include Gagné's events of learning (Aronson & Briggs, 1983).

Theoretical purists may argue with this combination of models; however, it is the empirical, measurable results of the training that will decide the theoretical issues.

In chapter three, the design and data sources of this research are more fully explained. Definitions of the systemic elements and target interviewing skills are defined and justified. The relevant process involved in an ethnographic interview is outlined and the instructional design of the different training program is described. Finally, the process outcome variables to be counted are defined and explained.

Chapter 3

Methodology

Introduction

This chapter addresses the design and data sources used by this research to produce a summative evaluation of the Communicated Project's training program. This research is attempting to use systemic analysis in a new way to accomplish this assessment. As a result, there follows detailed definitions and explanations for the systemic elements and process involved in an ethnographic interview. Details of the design for each projects' training program and this research's data collection procedures conclude the chapter.

As should be clear from the review of literature, a great deal of controversy surrounds this topic. The differing disciplines that have come to employ ethnography are unable, or unwilling, to agree on even the most basic of definitions. This current research is not seeking global solution, but practical answers to immediate training problems. As a result, this research formulates the working definitions necessary to accomplish its developmental goals, and does not attempt to find definitions that all the disciplines will accept. Some might, then, argue that the conclusions reached will not be generalizable beyond this study. However, this consideration is not of practical concern. The issue, here, is the summative assessment of the effectiveness of this training. Did the anchored-guided instruction of the Communicated Project teach the ethnographic interview skills it was intended to instruct?

Design of the Study

Kemp (1994) identifies five issues that may be considered important in the summative evaluation of an instructional program. These issues are the program's effectiveness, efficiency, cost, reactions and long-term benefits. Kemp further suggests that all of these issues do not need to be addressed. He states that, "All that must be done is to gather evidence relative to accomplishments or change from preinstruction to post instruction . . . as are considered important . . . to reach conclusions about the success or failure of the instructional program" (p. 287). For the current project only the effectiveness and/or efficiency of the training is considered to be of importance.

For Kemp (1994) the effectiveness of an instructional program answers the question—"To what degree did students accomplish the learning objectives prescribed for . . . the course?" He further suggests that the efficiency of a program is the time required to achieve the learning objectives. Kemp recommends that these measures may be ascertained by gathering data from "test scores, ratings of projects and performance, and records of observations of learner's behavior" (p. 288). He further states that ". . . it is not a necessary or even appropriate to perform formal research involving control/experimental groups and detailed statistical analysis. All that must be done is to gather [sufficient] evidence . . . to reach a conclusion" (p. 287).

The Silicon Valley Cultures Project may be viewed as one of van Gigch's soft systems (1974). The systemic goal of this project is the collection of ethnographic information on the inhabitants of Silicon Valley. Each subproject and its training program

may be viewed as an alternative pathway through of the larger project's systemic process. Van Gigch suggests that by comparing the outcomes of each alternative, in this case the information obtained by each projects' interview sets, the effectiveness of choosing each alternative may be measured.

In both the Infomated and Communicated Projects, the student researchers tape-recorded their interviews with each informant and transcribed the results as a semi-verbatim transcript. In this case, semi-verbatim implies that the length of pauses and *most* nonverbal communication (physical actions, nonword vocalizations, etc.) were not included in the transcripts. However, the nonverbal communication that the student researcher felt was significant was included within the transcript. This has resulted in there being a fossil record of their performance and interview behavior.

An experienced ethnographer can look at the transcript of an ethnographic interview and tell if it contains Geertz's thick description or if it is the thin transcription of an inexperienced interviewer (J. A. English-Lueck, personal communication, April 1996). The systemic goal of an ethnographic interview is to gather information. Each query in an interview protocol systemically seeks three informational objectives—the descriptions, rules, and stories of the informant. The student researchers' actions may also be identified and described. If these systemic elements are given definitions, they may be treated as informational objects that may be coded, tabulated and used as a measurement.

To increase the comparability between the protocol sets, five queries from each, which sought all three objectives, were selected as a sample. (See page 76 for details on

the selection process and Appendix A for the matched sets of queries.) Coding the transcript sample for these informational objects produces a measurement of the student researchers' effectiveness in achieving the interview's ethnographic informational goal.

The transcripts were also coded for the student researchers' behavior during the interview sample. Each of the student researchers' actions had two aspects, the type of query they asked (or did not ask) and its motivational source point. The combinations of these characteristics fell in seven categories: (a) queries from the protocol, (b) protocol probes in response to the informant, (c) student directed probes, (d) student probes in response to the informant, (e) clarifications, and (f) clarifications with null-probes, and (g) null-probes (or unasked questions). (See page 78 for the discussion on how these categories were created.) An examination of the tabulations for these defined features show differences in the student researcher's behavior and ethnographic success between the two training methods employed.

The analysis of the transcripts produced a measure of each student's informational gathering achievements and their actions during the interviews. While the features in the transcript data are defined by nominal categories, the counted instance of each category within each interview produced interval data. The use of mean tabulations will be an appropriate statistical method for reporting the central tendencies of the outcomes.

The Infomated Project employed an anthropologically standard apprentice-like method of training. An analysis of the student researchers' accomplishments and behavior during these first interview sets may, therefore, be taken as normative baseline

measures. If these results are then used as a measure of the student researchers' pretraining performance, then the results of the second interview sets, from the Communicated Project's interviews, may be used as a postinstruction measure. A comparison of these pre- and postinstructional measures will show the change resulting from the anchored-guided instructional program of the Communicated Project.

The time-series design of this study has been primarily driven by the sample of opportunity and the nature of the data. This design is complicated by the limited number of observations before and after the training, the small number of student researchers, and a slight variation in the make up of the training group. Of the five original student researchers, one dropped out after the first project to be replaced by a second student for the second project. As a result, for these two students this is a cohort design. However, the interpretation of the results for these two designs, time-series and cohort, are similar enough that it makes little *practical* difference.

Beyond the theoretical barriers and disagreements discussed in chapter two, the data's historic nature results in there being a lack of pretraining controls on the samples. These factors prevent this research from attempting quantitative analysis of this data. However, using systems analysis to examine the interviews, and quantifying variables that have previously been analyzed only qualitatively, produces interesting insights and discussions on the nature of the training. Although issues of anonymity prevent the discussion of individual student researcher cases, the central tendencies of their generated scores show trends in the data that have not previously been apparent.

Sources of Data

The primary data source consists of 1,439 pages of Infomated and Communicated Project transcripts. Following initial ethnographic interviews, experienced anthropological ethnographers wrote the interview protocols for each project. Each project involved two interview sets, each with its own protocol of 45-50 queries and principal investigator-generated probes. Student researchers were selected and given ethnographic training (see page 71 for details). Each student was to interview three informants, twice, for each project. For the Infomated Project both interviews were done at the informant's³ home. For the Communicated Project the interviews were conducted in and around the workplace. Other information for this study was obtained from the students' interview protocols, course syllabi, training documents and discussions with an SVCP principal investigator, Dr. J. A. English-Lueck.

For the Infomated Project, the five student researchers completed 30 interviews. Between the two projects one student researcher left the area, to be replaced by a new student for the second project. During the Communicated Project the five students (four original students plus the new one) completed 28 interviews. An informant dropping out at the last minute produced the difference in interview numbers. The vagary of informants is a common hazard of the ethnographic style of research. If the informant has control over the interview, one of their options is not to talk at all.

³ For the Infomated Project, the ethnographic informant was the entire family living in the household. See the discussion below, page 52-3, for an explanation of why this is ethnographically equivalent to interviewing a single individual

Instrumentation

Little work has been done on measuring the effectiveness of ethnographic training. Systems analysis offers the possibility of providing such a method. Systems analysis looks at the whole of a situation in terms of elements, processes and goals. The examination of the student researchers' behavior and accomplishments within the interviews as a system attempting to achieve its goals appears to be a fruitful approach. To reach the goal of creating an assessment method to measure their behavior and ethnographic success, or failure, requires that these elements, processes and goals be clearly defined. For this, three questions must be answered—How does ethnographic interviewing differ from other types of interviewing? What are the ethnographic interview skills the student researchers were taught? Finally, how is the student researchers' use of these skills to be measured using systems analysis?

The difficulty of answering these questions has prevented significant research from being done on this topic. To succeed in this task *generating a working definition of the ethnographic interview is necessary*. During the review of the literature, this researcher concluded that the present definitions were ambiguous and missing a significant feature necessary for understanding the nature of the ethnographic interview. This research attempts to correct this deficit.

It is not this researcher's goal, however, to operationally define all of the skills necessary for ethnographic interviewing. Only those practical skills that were included in the Communicated Project's student researcher training are addressed. Creating a method

of measuring the student's acquisition of these ethnographic skills, as displayed within the transcripts, is also an indispensable necessity.

Using systems analysis, the interview transcripts may be viewed in terms of the structure and functions served by elements within the dialog. Focusing on these elements' functions, relationships and objectives, rather than on the content in these portions of dialog, may isolate instances where the students should have used the ethnographic skills they were taught. Knowing this, it should then, be possible to decide whether they employed these skills.

Toward a working definition of the ethnographic interview. In the literature, there seemed to be a general agreement that ethnographic interviewing was different from other kinds of interviewing. Little agreement, however, existed on how or why this was the case. This project could not proceed effectively without, at least, a working definition of ethnographic interviewing to clarify its overall purpose.

Interviewing is a process. This logically leads one to the idea of a systems definition. Such a definition would include not only a description of the elements of an interview but their relationships and their functioning toward a goal. What are the elements of ethnographic interviewing, and what is its systemic goal?

In many definitions written for interviewing, the dyadic [two person] nature of the interview was emphasized. In *How Cultures Work* Bohannan (1995) uses systemic analysis to map out human relations. He states that the minimum social unit is the dyad, which is two individual units interacting. These units may be single individuals or groups

of individuals acting as one. Systemically this relationship may be represented by what Bohannan (1995, p. 24) calls “a dumbbell” (see Figure 1). The two poles of this dumbbell represent the two individuals and the connecting line of the relationship between them. In a dyadic interview this line represents the conversation of the interviewer and the interviewee and any other feedback, visual, auditory, etc., that the two exchange.

Figure 1 Bohannan’s “dumbbell,”
two individuals and the relationship
between them

This type of definition has the hidden assumption that it is what is inside of the other person’s head that is the object of study. Interviews, such as surveys, ask questions about the other person—“What do *you think* about politician X?” “How do *you feel* about this decision?” “*Will you* buy our new product?” Things that are not part of the two individuals or of their *present* conversation are considered part of the environment, not the interview.

In standardized interviewing, the conditions of the room, or the location where the interview is taking place, the timing of the interview, the person’s past personal experiences or the expectations of family and friends, are all outside the interview situation. These factors are to be ignored as unimportant or treated as part of the overall

environment to be controlled. Stuart and Cash systemically represented this idea of interviewing with the diagram in Figure 2.

Figure 2 The Cash-Stewart model of interviewing.
(Stewart & Cash, 1982, p. 45)

Note that buried within Cash and Stuart's model is Bohannon's dumbbell—the circles labeled R/E and the line connecting them. (The R/E in the circles refers to the interviewer, the one who asks the questions, and the interviewee, the one who answers the questions.) For Stewart and Cash (1982), the people involved are constantly switching from one role to the other during the course of the interview. In examining this model, such dyadic definitions clearly hinge upon the assumption that what is outside of individuals and their conversation, the arrows pointing in from the outer edge, is not part of the interview.

While ethnographic interviews may appear physically identical to survey interviews, two people talking to each other, anthropological ethnographers tend to ask their informants fundamentally different kinds of questions—“How are *you related* to the world around you?” “How do *you identify* with the people who surround you?” “*How does your society* do things?” These questions have the hidden assumption that the interview is not taking place, simply, between two people in a closed room, but that there is a third “thing” involved in the interview. This is a significant difference from the definitions put forward by the other disciplines. One possible reason for this difference is suggested by the work of Paul Bohannan (1995, pp. 24-25). He says that, while the dyad is the basic building block of social organizations, “the triad is the next most vital structure in society.” Bohannan’s triad “is composed of three individuals and three dyads.” He explains that “each dyad in the triad is *refereed* by the third party.” In other words, each individual monitors the relationship of the other two. This idea leads to this systemic graphic (see Figure 3 below).

Figure 3 Participants in a triadic ethnographic interview.

Portions of this system seem very similar to Agar's (1980, p. 90) description of the relationship between the ethnographic interviewer and the informant. While the ethnographer is attempting to learn the appropriate questions to ask about the informant's culture (arrow pointing right), the informant is free to correct the ethnographer's understanding when the ethnographer fails to grasp the things that are obvious to the informant (arrow pointing left). This dance of three individuals and their interlocking influences is the thing that makes ethnography different from other kinds of interviewing. This also explains why it has been so resistant to being described in terms of a controlled two person interview.

One question needs to be answered before going any further—What is the *goal* of an ethnographic interview? Why should anyone gather ethnographic information in the first place? If pressed, many anthropological ethnographers would say that they wished to understand the informant's culture. Ethnographers seek to collect as much information as possible about how the informant's culture works and how they see the world around them. Culture, however, is not something that is simply in the informant's head or floating around in the air, it is embodied in the other members of the informant's group/social unit, and in the material culture as well. When an ethnographer starts a study, he or she is on the outside of the informant's culture/group/social unit looking in. (From here on the informant's culture/group/social unit will be referred to simply *social unit* for brevity). To the outsider, the informant and his or her social unit are inseparable. The newcomer does not know enough about the situation to distinguish the one from the many. Systemically this

relationship is modeled with one pole of the dyad being the combined dyad of the informant and the social unit (see Figure 4).⁴

Figure 4 Relationship of the ethnographer to the informant and the culture at the start of a research project (adapted from Bohannan, 1995, p. 26).

Through the use of ethnographic tools, including the interview, the ethnographer begins to have a relationship with the informant and the informant's social unit. The ethnographer begins to discover which features the informant considers important and distinguish one thing from another. Slowly a relationship develops between the ethnographer and the informant and the new social unit. At first, these relationships are very thin (see

⁴ Dr. English-Lueck points out that implicit in this model is the assumption that the ethnographer's pole of the dyad in Figure 4 is a second combined dyad of the ethnographer and his or her own social unit. As ethnographers study the relationship of the informants to their own social unit, the ethnographers come to understand the existing relationship they have with their own culture more fully (personal communication, January, 1997).

Figure 5A). However, as the relationship with the informant develops, by observing and learning the right questions to ask about the informant's relationship with his or her own social unit (see Figure 5B), the ethnographer strengthens the connection with the other social unit.

Figure 5 The development of the ethnographer's relationships with the informant and the culture/group/social unit.

As can be seen from Figure 5B, the object of ethnographic study is not, exclusively, the informant, but the entire dyad of the informant, their social unit, and the relationship between the two. The interviewer's conversation may be with the informant, but the ethnographer's gaze is on the ethnographic goal of understanding the dyadic relationship. The goal of this understanding is the development of the ethnographer's own relationship

with the informant's social unit (N. B.: see footnote page 57 for a second implied goal).

There has been serious debate in Anthropology if this process of enculturation can ever be complete, or is even possible. In most cases, the ethnographer may never become a member of the other group, but must always be in the role of the visiting "outsider."

The ethnographer's growing understanding of, and relationship with, the informant's social unit is monitored and corrected by the informant (see Figure 5C). To repeat what Agar (1980) has said, "informants can criticize a question, correct it, point out that it is sensitive, or answer in any way they want to" (p. 90).

The final arrow from Figure 3 [on page 55], the one pointing down, represents the monitoring by the informant's social unit of the growing relationship between the ethnographer and the informant (see Figure 5D). Although not, usually, physically present during the interview, this third party may still be an active member of the conversation and may exert a profound influence on the situation. Previous definitions have dismissed this as an influence outside the interview that must be controlled. However, in ethnographic interviewing understanding the effect this third party has on the developing relationship leads to a greater understanding of the informant's dyadic relationship with his or her social unit. Thus understanding this third party is not something outside the interview but part of the goal of the interview. Further, it should be understood that an ethnographic interview is not something isolated from the rest of the lives of either the ethnographer or the informant. A story may clarify this point. In 1988 Dr. English-Lueck, a professional ethnographer, was interviewing Chinese intellectuals about their visions of the future. As

the informants came to the foreigners' hotel their names and the time they spent with the foreign ethnographer was recorded at the front desk. This procedure was entirely normal and open, for China constantly monitors all foreign contacts. Although no official observer was present in the room, both parties in the interview were aware that their communication during the interview must remain acceptable to the larger society. Failure to abide by this restriction was not without risk.

A working definition. If a defining feature of the ethnographic interview is the triadic nature of its interactions, then a working definition for this project could be stated as: *A triadic informational exchange, the goal of which—for the ethnographic researcher—is the development of a relationship with the target social unit by systematically investigating the existing dyadic relationship of an informant and the social unit.* This definition emphasizes the following features: (a) That the researcher's goal in the interview is to explore/understand/build his or her own connection with the informant's social unit. (b) That the dyadic relationship of the informant and the social unit is the object under ethnographic examination. (c) That the ethnographic interview is not an isolated conversation but only one event in an ongoing relationship between the ethnographer, the informant, and the target social unit. Implicit, in this definition, are the ideas that (d) the informant is a cultural expert assisting the ethnographer's understanding by suppling information about the social unit, (e) the target social unit's culture is embodied by the individual people that make up the group, and (f) that the social unit, although not physically present, is not an outside force, but an active participant in the

interview. While a global systemic model and a working definition may grant an understanding of the forces and overall goal of the ethnographic process, the immediate functional and systemic goal of the interview must also be defined.

Systemic goal. There are several types of ethnographic interviews, each with its own systemic goals and functions. The initial interview(s) establishes contact and seek to discover the informant's cultural patterns. This task requires a complex and specialized set of skills, because it requires the ethnographer to suspend his or her own cultural beliefs and to learn from the informant like a child (Agar, 1980). Once the ethnographer is able to see what the appropriate questions are, follow-up interviews seek to fill the gaps in the overall picture by seeking: (a) the descriptions, (b) rules, and (c) stories of the informant. While this task requires some of the complex skills of the initial interview, it also includes some more standard communication/social skills. Finally, there are informal interviews. For many ethnographers any contact with any member of the target social unit constitutes an interview. The reasoning behind this is that the way one is treated in a passing greeting may lead one to an insight about how that culture works. Therefore, in ethnography, no contact may be treated as insignificant.

The systemic goal for the ethnographic projects involved in this study were to gather the descriptions, rules and stories of the targeted populations. A nationwide survey, done for IFTF, identified a statistically significant group, who have since been called the Infomateds (English-Lueck, 1997). In an attempt to explore the personal meanings behind this statistical difference, the SVCP group was asked to explore the

community ethnographically. Experienced ethnographers completed initial interviews with the target populations and wrote a set of interview protocols the first project. For the Infomated Project the target population was—families with five or more Infomated technologies (computers, cell-phones, FAX machines, VCRs, etc.). The following year, a second target population was identified and again initial interviews were followed by written protocols. For the Communicated Project the target population was—workers who used communications technology in their jobs. The SVCP student researchers were involved with doing follow-up interviews for these two projects.

Ethnographic protocols are different from an interview schedule (see Richardson et al., 1965). An interview schedule is a list of questions for which the researchers are seeking answers. A *question* assumes that one knows enough about a topic to know that an answer exists. A protocol, on the other hand, is a set of general, sometimes vague, domain *queries* on topics that the ethnographer would like the informants to explain or to provide additional information. The primary difference between a query and a question is in the attitude, authority and assumed knowledge of the informant relative to the information seeker. With a query, the asker is requesting knowledge from the one who has it, not demanding answers. The objectives of a protocol are the descriptions, rules, and stories of the informants that will help the ethnographer understand the target culture.

Each query in a protocol has its own objective, which may be distinct or combined with another level of objective. Some queries seek only descriptions of the informants' physical and social environment. What are the objects, behaviors, and people who

surround the informants in their daily life? A description includes not only the names and definitions of objects, behaviors, or people, but also something about their cultural functions in the target society. Other queries seek knowledge about the rules, which define the values and cultural processes of the target culture. How do the informants organize the objects around them? How are they related and expected to react to the people they live with? Finally, some queries seek the stories of the informants.

Informants' anecdotes may show how the cultural rules are enacted in everyday life.

People live by stories—they use stories to organize and store cultural traditions. Changes in people's stories not only reflect changes in cultural reality; they actually create them. . . . With stories and poems, people can work cultural changes in areas they cannot even think about *except* as stories. (Bohannan, 1995, p. 150)

For the student researchers, the systemic goal of the interviews was to elicit this type of information and achieve the objectives of each of the protocol topics.

Defining ethnographic interview skills. The ethnographer must employ many complex communication/social skills effectively to complete the protocol's objectives during the follow-up interview. Defining the complex and specialized skills necessary to accomplish an initial ethnographic interview, or even all of the skills necessary to conduct a follow-up interview, is beyond the scope of this study. For this research, only skills that were both deliberately taught to the student researchers and that would also leave evidence of their use in the transcripts will be operationally defined. The ethnographic skills that meet these criteria, within the projects' data, are active listening, requesting clarifications and probing for more details.

A skill that is vital to the process of ethnographic interviewing, but very difficult to teach, is active listening. For the student researchers to apply any of the other ethnographic skills involved in doing ethnographic interviewing, they needed to learn to listen and respond to what the informant was saying. This skill includes not only attending to the conversational topic, but in constantly assessing how the content matches the ethnographic objectives and which of the topics and objectives still need to be addressed.

Requesting a clarification is a type of follow-up query designed to define local meanings of a word or phrase, or to check the accuracy of the ethnographer's understanding of what was said. If the ethnographer suspects that he or she may not have completely understood what the informant said, or if the way in which something was said was puzzling, then a clarification should be requested. In ethnographic interviewing, this is done by echoing the statement or by rewording it and reflecting it back to the informant. While this technique may be used anytime during the interview for testing understanding, it is also thought to prompt the informant to reveal more of the cultural description surrounding the topic. In the conversational flow of the interview, the ethnographer must recognize when the informant's words are ambiguous and immediately, and politely, request elucidation.

Probing for more details is a second type of follow-up query designed to elicit additional information from the informant. During an ethnographic interview, an informant may brush by a topic on the protocol and be preparing to move on without fulfilling the objective(s) of that query. The ethnographer must be ready to recognize this

situation instantly and pursue the topic's objectives by coaxing the informant to divulge more about the subject. Once an informant has moved on to a new topic, bringing them back to it later is very difficult, when in the informant's opinion the subject had already been covered satisfactorily. If the researcher misses the opportunity to follow-up on the opportunity to probe, it may become an Unasked Question. Even experienced ethnographers in reading the transcripts of their interviews spot missed opportunities where the right question at the right time might have induced the informant to reveal a deeper level of information (J. A. English-Lueck, personal communication, 1997). A probe may also be used when an informant runs out of conversational steam. If the ethnographer is sure that this pause represents more than just a long thoughtful break, a related topic may be brought up or the protocol list may be tapped for topics that have not been covered and used as a probe to induce the informant to continue.

In the Infomated and Communicated Projects, an attempt was made to teach these skills to the student researchers. The question remains, how does one gauge the effectiveness of this instruction. It is Dr. English-Lueck's experienced, but untested, impression that the second set of interviews contained thicker ethnographic description than the first set of interviews. The implication, then, is that the anchored-guided instruction was more effective than the anthropologically traditional apprentice-like training. How, though, is this qualitative variable "thickness" to be measured?

Measuring the training. In anthropologic ethnography, an interview is said to have thick or thin description depending upon the useable data in the transcript. Thick

data refers to the number and richness (completeness) of the descriptions, rules and stories the informant has related during the interview. In an initial ethnographic interview comparing these factors over multiple sessions would be impossible. The reason for this is that the informants in such interviews have control of the conversational topics so that each would be unique. However, this task is possible for follow-up interviews where the topics of interest have been identified in an ethnographic protocol so that there is some comparability of topics between interviews.

The topics on the protocol lists were written with intended objectives in mind by the Principal Investigators. Whether or not these objectives were met could be taken as a measure of the ethnographic training's success. The ethnographic goals of each protocol query were descriptions, rules and/or stories. Therefore, if the goal of ethnographic research is defined as the process of gathering definable informational objects—the informants' descriptions, rules and stories—it should then be possible to count the instances when the student researchers succeeded in this task

Assessing the content of the informant's utterances for their match to the ethnographic goal is usually easy. *Descriptions* tell about things in a general way. *Rules* tell about why things are the way they are or the reason something is done one way rather than another. *Stories* talk about a *specific* instance or event. However, simply using criteria as a test of the students' behavior is complicated by the informant-directed nature of ethnographic interviewing. An informant's response to a single probe might fulfill the objectives of several topics on protocol's list or none at all. To be used as a measure of

the intended skills, identifying the set of circumstances where the informant's conversational flow has given the student researchers an opportunity to employ these ethnographic skills is necessary. The student researchers' *responses* to these opportunities may be evaluated as a measure of the skills training. In this way, it is possible to quantify the student researcher's gathering of qualitative data and obtain a numeric measure of their ethnographic success. This number could then be linked with operationally defined ethnographic skills which the training programs were attempting to instruct. The tallies of the student researchers' responses should provide a valid measure of the student researcher's performance. A systemic flowchart may clarify this (see Figure 6 below).

Flowchart. This flowchart is not intended to chart every possible behavior and conversational decision in a typical ethnographic interview. The number of decisions and processes involved would lead to an impossibly complex and confusing flowchart. Only the target behaviors and choice points included in the Communicated Project's anchored-guided instruction are outlined. At the beginning of the interview, the ethnographer may initiate the conversation by inquiring about the topic of most general interest to the ethnographer (an initial probe). This global topic is usually the first item on the protocol's list [Step 1]. After the initial probe, the ethnographer must participate in the conversation, while at the same time actively listening, or attending, to the content of the informant's conversation for its fit with the protocol's list of topics [Step 2]. This task of assessing the conversational content is further complicated in the control the informant has over the interview. In an initial ethnographic interview the informant is given almost complete

Figure 6 Flowchart of clarification and probe opportunities.

control over what is to be talked about and in which order. For a follow-up interview the researcher must make a fine choice on how much to steer the informant. The informant may cover several topics on the protocol's list without any interference or further prompting by the ethnographer. However, if the informant's conversational topic does not match the protocol list, a decision must be made on whether to wait for the conversation to return to a topic of interest or to take the next opportunity to change the topic with a probe.⁵ An opportunity-to-probe includes the concept that the informant has paused speaking long enough for the researcher to get a word in edgewise. With some informants this is not always a common occurrence [Step 3]. If the current content matches a protocol topic, the ethnographer must then determine if the information being provided is clear and meets the protocol query's objective(s). This continuation of the active listening process is a complex set of decisions. First the ethnographer must determine the lowest level of objective for the topic. Is the objective for the topic a description, a rule, or a story [Step 4]? Second, the ethnographer must decide whether there are any unclear meanings in what the informant is saying. Is there any indication that the words or concepts are being used in an unexpected way? If there is any confusion, this

⁵ The decision to skip ahead to Step 11 actually defeats the nature of doing ethnography and as a result is not to be taken lightly. In the informant's ramblings the researcher may find topics that were not of interest only because their very existence was unknown to the researcher. However, in a follow-up interview, being slightly more directed, there is the researcher's desire to *get through* the protocol's list of queries. Which choice should be made is a judgement based on experience, assessment of the probability of interesting new information and the possibilities of fulfilling the protocol's objectives at a later interview.

leads to the second opportunity, ②, for a follow-up query [Step 5]. The correct course of action for this situation is to formulate and deliver a request for clarification and, then, to attend to the informant's response (return to Step 2)[Step 6]. If there is no confusion about the meaning of the conversational topic, the ethnographer must decide if the content fulfills the query's current objective. If it does not, or if the informant shows a sign of leaving a topic before the query's objective(s) are met, this leads to the third opportunity, ③, for a follow-up query [Step 7]. The correct course of action for this situation is for the ethnographer to formulate and deliver a probe type follow-up query and, then, to attend to the informant's response (return to Step 2) [Step 8]. If the conversational content fulfills the current query objective the ethnographer checks to be sure that there is not another level of objective to be met for that query. If the objectives are being met, the researcher continues to attend to the informant's conversation (return to Step 2) [Step 9]. If the informant stops talking for an extended time, the ethnographer must decide if this pause represents an extended conversational lull or if the informant has run out of conversational steam. An ethnographer should be comfortable with listening to a very long silence without having to fill it with a query [Step 10]. However, if the pause represents a conversational stop, and the informant has not covered all of the items on the protocol's list, this is the fourth opportunity, ④, for a follow-up query [Step 11]. The correct course of action here is for the researcher to take one of the protocol's queries that has not been addressed and use it as a probe to restart the conversation. A second possible action at this point is for the researcher to generate and deliver a probe on a related topic. (In

probing on related topics, which were not included in the protocol lists, the student researchers were actually jumping to probing opportunity **A**, and taking on the role of a principal investigator by setting the protocol's agenda. The possibility of directly teaching this behavior was considered beyond the scope and reach of the projects' training.

However, in analyzing the transcripts it was apparent that the students were beginning to display this form of probing behavior) [Step 12]. Finally, if all of the protocol topics have been covered, the interview is ended [Step 13].

Student Researcher Training Methods

There are very close parallels between what the situated learning theorists call the enculturation to a professional culture (Brown et al., 1989) and the process of doing ethnography as described above. Both Bohannan (1995) and Brown et al. (1989) note the importance of conversation and narratives in transmitting information about the culture, professional or otherwise. However, Tripp (1993) is correct in pointing out the difficulty in adapting this process to an instructional design model. If training is to be more than a set of "'war stories' to be added to the collective wisdom of the [professional] community" (Brown et al., p.40) then some attempt to move beyond this point and design some direction to the instruction.

The students involved in the Informed and Communicated Projects were selected for inclusion because they had shown the most promise in previous student interview activities. Before beginning both projects, all of the student researchers had taken San Jose State University's ANTH 149. This ethnographic methods course was an

introduction to “basic concepts in social science research, . . . [and] ethnographic collection methods (un-, semi-, and structured interviewing and observation) [with an objective of being] able to conduct interviews and perform direct observations of social settings . . .” (Darrah, 1993, p. 1). In addition to required readings of Agar (1980), Bernard (1988), Powdermaker (1966), and a course reader, the students participated in four data collection exercises. These exercises included: (a) participant observation, (b) two lengthy semi-structured interviews, and (c) an Ethnographic Futures Research interview (a specialized form of ethnographic interview). All of the student researchers had also taken ANTH 142, Culture and Personality, which included a complex critical incident interview, or ANTH 146, Culture and Conflict, which included an extended Ethnographic Futures Research interview. With this as their base training in ethnographic methods, they received the additional project training before going out into the field to do actual professional interviews.

The Infomated Project’s apprentice-like training. This training set could be considered not consciously designed from an instructional technology perspective. The Principal Investigators, both expert ethnographers, employed the same apprentice-like training methods which were used to train themselves. They originally considered the students’ anthropology class interview exercises sufficient experience for the level of interviewing required of the student researchers. As a result, it was deemed unnecessary to do a substantial amount of pretraining for the Infomated Project interviews. Primary training for this project consisted of involving the student researchers in the process of

finalizing the protocol list. This involving of the students in authentic professional activity in a cognitive apprenticeship is what is proposed by the situated learning theory (Brown et al., 1989). Each query's objectives were discussed at a professional level and possible follow-up probes were debated and written. The expert ethnographers would answer any questions posed, but did not directly instruct the students on how to achieve the interview objectives. The student researchers were then told to independently practice with the two protocol lists until they felt comfortable with them.

This apprentice-like training, followed by self-directed experiential learning, is a very standard practice in anthropological ethnographic field methods training. As pointed out above, there are very close parallels between this style of teaching/learning and doing ethnography. When ethnographers enter a new society there is usually not a cultural teacher waiting at the door to enlighten them about the subtleties of their new social environment. The general professional attitude is that if a new ethnographer cannot figure out the profession on their own how can they expect to enter and comprehend a different culture? (J. A. English-Lueck, personal communication, April 1997). Seen in this light, the very unguidedness of the apprentice-like training is one of the professional lessons to be learned. However, if students, or others, are going to be employed in professional ethnographic research the validity of their results cannot wait upon the students constructing the entire ethnographic practice for themselves. Some things must be taught.

In the year between the two projects, one student researcher dropped out to be replaced by a second. Of the remaining four students each continued to have interview

experiences in the interim. Two were employed as interviewers, under supervision, in social research projects. The final two students were involved in unsupervised interviews related to their academic projects. None of these four students had further directed interview or training. Although there may be some experiential learning in the students' continued practice, for this research, it is assumed that they merely maintained their level of competency over this period.

The Communicated Project's anchored-guided instruction. Noting the student researchers' poor use of active listening, clarifications and probe queries in the Infomated transcripts, the Principal Investigators decided to attempt to directly train these skills for the second project. (This training program also included data management, transcription and computer skills, but they are not the issues of concern for this summative evaluation report.) Irregular funding for this project left a very brief time for instructional development. This fact led to the use of a rapid prototyping design model (Gentry, 1994). Following the prioritization of the program's instructional goals, a design hypothesis was generated. It was decided that appropriate elements for this design should included—text, video, and guided discussions on the desired ethnographic skills. A reading on ethnographic interview skills was selected (Rubin and Rubin, 1995, ch. 8) and an instructional video was prepared. This video was no more than a documentary of an actual interview. After a very abbreviated formative assessment and adjustments, the instructional unit was presented to the student researchers. The actual lesson consisted of a discussion of the reading and an expert-guided examination of the events on the video.

The students were shown a video tape of a practice interview. The expert ethnographer-instructor then stopped the tape every five to ten minutes and professionally critiqued the interviewer's use, or lack of use, of the target skills to generate student discussion on the ethnographic skills. Through this expert-guided discussion the students were led to focus on the decision-making process of identifying and obtaining each type of query objective. Distinctions between the levels of objectives, and how the interviewer might have pursued objectives, with follow-up queries, were emphasized. Instructions to practice the interview protocols individually and a tour of a high-tech work place, with demonstrations and stories of the uses of communications technology concluded this portion of the training. This training session lasted four hours and the field trip an additional two hours. Midway through the project, individual tutorials, based on an analysis of the first interview transcripts, were also given to each student researcher.

The instructional development time for this training was very short. This project was funded by business and the confirmation that the research would occur came only a few weeks before the first interviews were to occur. At the time the video was created there was not the time, money, or exact definition of the skills to be trained to make an edited instructional video. One purpose of this research is to generate the summative data that will allow the Principal Investigators to decide whether to continue to produce a more finished instructional training video product is worth the time, effort and expense.

This anchored-guided instruction attempted to bring the student researchers' instruction as close to Brown et al.'s authentic profession activity as possible (1989). To

actually bring a student into an ethnographic interview would shift the focus to the teacher-student relationship and away from the informant-social unit dyad. When the interns crowd around the doctor making a diagnosis is the attention really focused on the patient? A camera man, though, is just a big, living tape recorder and does not have the same disruptive effect on the interview. This simulated macrocontext (CTGV, 1993) allowed the expert to do a professional ethnographic diagnosis without disrupting the flow of the interview.

Data Collection

Copies of the interview transcripts were examined based on protocol topic objective(s), follow-up query opportunities, and students' responses. Each skill under examination left a footprint in the interview transcripts. Although some information has been lost in this analysis (pregnant pauses, the tone of voice and other such verbal and visual cues which do not end up in a written transcript), generally the behavior, content and intent of the informants' and student researchers' statements were clear. Like playing chess over someone's shoulder, it is always easier to see, from a historical perspective, what one should have done, rather than what seemed correct while engaged in doing the activity.

In an attempt to increase the comparability of the protocols, matched sets of five queries were selected from each interview set for this analysis. Each of the interview protocols contained approximately 50 queries and sub-queries. These sub-probes were suggested possible probes supplied by the Principal Investigators for many topical domains

of interest. The matched sample selection was based three features: (a) similar levels of query objectives (each sought all three levels of objective—descriptions, rules and stories), (b) an estimated similar potential for providing probing opportunities, and (c) a limited number of principal investigator-provided probes. This last condition was included because it was felt that queries with many principal investigator-provided probes might inhibit student initiated probes in that domain. The matched sample was validated by an experienced ethnographer and was about a tenth of each protocol.

Measuring the objectives. The informant's speech was marked for (a) topic by protocol query number, (b) the ethnographic objective(s) met and (c) whether it produced an opportunity to ask a follow-up query. In marking the informant's conversational topics, marginal cases were excluded. These were cases where related queries, outside the sample, brought up opportunities to probe on a later sample query. Exceptions to this exclusion came when the informant had clearly taken a definite conversational turn toward that topic and away from the initiating query. In all four sets of interviews, these cases usually resulted in a missed opportunity to probe; however, in a few cases some student researchers did follow up on these conversational shifts. The informant's responses to the student researcher's queries were also coded for further probing opportunities and query objective goals met. When all three of the current query's objectives had not been met, the informant's conversation was marked as a further probing opportunity on that topic. In cases where the informant shifted the conversational topic or all three of a particular query's goals had been met, the segment was not marked as a probing opportunity.

Measuring listening skills. To assess the student's active listening skill, the transcripts were marked for the student's responses to the informant's conversational topics. Opportunities to ask a follow-up query were identified by breaks in the conversation that allowed the student to speak. Codes for the student response to each probe opportunity were either placed on the segment following or the same line as the opportunity. In cases where the student researcher responded to the informant's conversational topic the response code was placed on the student's following speech segment. Where the student researcher's conversational topic took a sharp turn from what the informant had been saying, the code was put on the same speech segment. Examples of the conversation taking a sharp turn included occasions in which the student: (a) interrupted the informant to ask the next protocol query, (b) asked a student generated query on a related but tangential topic, or (c) missed the opportunity entirely and having the protocol query become an unasked question. This coding system allowed the differentiation between instances where the student researchers were listening and responding to what the informant was saying or acting on some other impulse. The number of instances where the student researcher responded to what was said may be taken as a measure of their attention to the informant's conversational topic.

Measuring use of clarifications and probes. The student's responses were further coded for their use of clarifications and probes. The permutations of all of the relevant possible opportunity/response combinations resulted in the creation of seven

response categories.⁶ When the informant's conversation turned to a protocol topic, did the student follow the informant's lead or was the opportunity to probe further missed? When the student did respond to what the informant had just said, did the response follow-up on the current topic, take a sharp turn in the conversational flow, or was it a verbatim protocol query? Was the student researcher's utterance seeking a clarification of something that the informant had said, or was it a probe, seeking an unmet ethnographic objective? (It should be noted that there are other types of utterances that the student researchers produced, and other skills that have been passed over, but they are not of concern for the current thesis.) This process resulted in three possible sources being identified as initiating a response from the student researchers. They were: (a) the protocol, (b) listening and responding to what the informant was saying, or (c) from the student researcher themselves.

During the coding process it was noted that clarifications produced radically different informant behavior from the student researcher's probe queries. Although the student's use of clarifications was consistent with their training, it was also noted that often they used clarifications where a probe would have been more effective in achieving the query's objectives. Such cases were coded as a clarification with a null-probe, an unasked question.

If the student researcher's utterance was a probe query, a judgement was made whether it came directly from the protocol list, or from a student who had formulated and asked a probe from his or her own knowledge of the overall ethnographic goal. Finally, in the

⁶ (a) queries from the protocol, (b) protocol probes in response to the informant, (c) student directed probes, (d) student probes in response to the informant, (e) clarifications, and (f) clarifications with null-probes, and (g) null-probes.

later case, the student's probe was assessed as stemming from the conversational flow of the informant, an informant led response, or as tangential to what the informant had been talking about, a student directed query.

The process of identifying and marking each of these cases in the transcripts produced an assessment of the student researcher's behavior during the interviews. While a subjective assessment of the effectiveness or ineffectiveness of the student's responses is possible within this system of analysis, it is not the main thrust of the current research. Although this subjective assessment was marked during the coding process, it was not considered during the analysis. For this study only the presence or absence of the student's attempt and the probable motivational source were of concern, not the effectiveness or quality of their attempts at clarifications and probes.

Where any ambiguity existed, on the objective level met by a particular segment of an informant's speech or in the rating that should be assigned to a student's researcher's behavior, final assessment was judged by an experienced ethnographer. The transcript coding was extensively cross-checked for miscodings, errors and intra rater reliability. Since this research was not attempting to rate the student researcher's probes as good or bad, few ambiguous cases arose in this coding. Unasked questions simply had no responses, protocol queries usually appeared verbatim from the list, and student probes were usually clearly based on the last thing the informant had said or not. One response area that was more ambiguous and therefore, far more extensively cross-checked, were the instances marked as clarifications or clarifications with a null-probe. With the loss of auditory and visual cues, it was sometimes

very difficult to distinguish a clarification from a probe for a descriptive objective. All segments thus marked were carefully compared for consistent coding. Finally, the codings of ethnographic objectives met, query opportunities and student researcher response scores were tabulated and compiled.

Summary

This research project was designed to provide the Principal Investigators of the SVCP with the summative data needed to make developmental instructional program decisions. For this intended purpose, Kemp (1994) states that a formal research methodology is not necessary, only that it be sufficient to make an instructional design decision. To accomplish this goal, data from two ethnographic projects were examined for changes in the ethnographic success and variations in student interviewing behavior. The Infomated Project had employed an apprentice-like training and its data was used as a normative baseline to investigate the instructional design changes instituted in the Communicated Project's training program. This project had employed a method of anchored-guided instruction that used video to create a simulated professional activity and expert-guided instruction to more directly teach the ethnographic process and skills.

The systemic goal of an ethnographic interview is to gather information. The informational objects—descriptions, rules, and stories—have been defined and the acquisition of each was counted as the students ethnographic success. The behaviors the student researchers employed in acquiring these informational objects have also been defined and counted. The results and analysis of this process appear in chapter four.

Chapter Four

Results

The results of the systemic analysis appear to have a strong tendency toward supporting the effectiveness of the anchored-guided instruction program used during the Communicated Project. The investigation of the outcomes suggested that an increase in the number of query objectives achieved coincided with a rise in the student researchers' use of active listening, and their increased use of clarification and probing queries. Comparison to the apprentice-like training used in the previous year's project, used as a normative baseline, also indicated that these increases coincided with the introduction of the Communicated Project's training. In addition, this summative systemic evaluation turned up an instructional deficit and a collateral learning effect.

Making the Connection

An essential assumption that needs to be tested is the connection between any evidence of increases in the number of query objectives achieved with any evidence of increases in the student researchers' use of the target skills. A scattergram is a useful tool for discovering hidden connections between apparently unrelated data sets. When increases in the student researchers' use of protocol probes²¹ and null-probes were plotted against the query objectives' outcomes for both projects, only a random scattering of data points was created. However, when the total objectives achieved for both interviews are

²¹ These probes were usually quoted verbatim from the protocols.

plotted against increases in the students' uses of the target behaviors²¹ a very different picture emerges (See Figure 7).

Figure 7 Relationship between the total objectives achieved and changes in the student researchers' combined probing and clarification tallies. (N. B.: This chart combines the data from both projects.)

While some randomness in the distribution of the objective outcome tallies exists, this is probably attributable to the loquaciousness or taciturnity of the individual informant. However, in examining Figure 7, the matched trend of the two data sets is unmistakable,

²¹ The chart in Figure 7 combines the tallies for the student behavior categories coded as: (a) student directed probes, (b) student probes in response to the informant, (c) clarifications and (d) clarifications with null-probes. This study combined the tallies for these four code categories under the assumption that they represent indicator activities which are directed by the student researchers' internal choices and decisions on how to employ the ethnographic skills they were taught.

showing a strong correlation. (While the nonrandom sampling makes statistical analysis of dubious value, this data shows a correlation of $r = .96$.) The trend in the data shown is not a linear, but curvilinear with even the suggestion that it may be asymptotical. As the student researchers' increased their use of clarifications and probes so did the tallies for the query objectives achieved. In using a scattergram to test each of these individual behaviors, the pattern shown in Figure 7 remained consistent. The one exception to this pattern was the category Clarifications which had too few scores to show a trend. There was no apparent relationship found between the categories of (a) student directed probes and (b) probes in response to the informant or between these and the protocol probe categories. There was, however, a weak correlation found between clarifications²² and both of the student probing categories, (a and b above). When the data was plotted separately for the Infomated and Communicated Projects the pattern found in Figure 7 was also maintained, although it was apparent that each project's tallies were plotted on different segments of the curve.

Measuring the Ethnographic Objectives

The ultimate goal of any ethnographic interview is to gather the descriptions, rules and stories that make the target culture understandable to an outsider. Therefore, the final success of the ethnographic training must be measured by whether or not there was any improvement in the student researchers meeting the objectives of the protocol's queries. Since these are professional ethnographic interviews, this is actually a test of the training programs'

²² The tallies of the categories (a) clarifications (n=6) and (b) clarifications with null-probes (n=82) were combined for this analysis.

transference to the workplace. Tabulations of the total objectives achieved, for the five matched queries selected for each project, resulted in Figure 8. (N. B.: To preserve anonymity any chart showing individual scores have been mixed to prevent comparisons.)

Figure 8 Objective achievement scores for the Infomated Project (apprentice-like training) and the Communicated Project (anchored-guided instruction).

While the difference between the charts in Figure 8 is obvious to the eye, the multiplicity of scores disguises the aggregate project totals for each level of the query objectives being sought. Table 1 displays this information.

Project	Instructional Method	Descriptions	Rules	Stories
Infomated	Apprentice-like	255	160	70
Communicated	Anchored-guided	605	351	117

Table 1 Tabulated objectives achieved.

It is evident, from Table 1, that the number of descriptions and rules obtained during the Communicated Project have more than doubled. While the number of stories does not appear to have the same dramatic increases there are several possible explanations for this event. One possibility is that a combination of the small sample size, and the reticence of informants to reveal their stories, may have left the tabulations for this category below the level necessary to show a clear trend. A second possibility is that this may be an artifact of the coding system. The current coding system of the transcripts does not reveal the depth of detail each speech segment contains. Here a brief anecdote was counted as being equal to a long story. For this research only the acquisition of the query objectives, their presence or absence, was the intended measure of the success for the student researchers' use of their ethnographic skills. The finer details of the informational objects' *quality* were not considered important. However, it may be that, in this case, they constituted a significant difference in the thickness of the data acquired.

Validating the matched queries. It may have been noted, from Figure 8, that many more objectives are being met during the Infomated and Communicated Projects

than the fifteen objectives per interview that one might have expected (one description, one rule and one story for each of the five matched queries selected from each protocol). The reason for this apparent discrepancy is that these fifteen objectives per interview represents the *minimum* level of success for an ethnographic interview.²³ In ethnographic interviewing to have any query's objective(s) met once is good, twice is better and many times is best of all. The more the ethnographer knows about how the informants define, describe and live in their world, the easier it is to understand their *weltanschauung*.

The validity of the coding of the objectives achieved, and the charts that result from the data thus generated, rests upon the validity of the assumption that the matched queries in the sample are comparable. The matching of these queries was validated by an experienced ethnographer. However, a second check of this assumption is to compare the mean minimum objective achievement scores (the average of one description, one rule and one story for each of the five queries per interview) for each project's interview set. If the matched queries are not comparable, or if the students are dropping some queries or objectives disproportionately from some of the interview sets, this tabulation should bring such deviations to light. On the other hand, if the queries are comparable, then the average minimum scores across the interview sets should be similar. Figure 9 displays the resulting means for the tabulated minimum objectives achieved for the matched sample queries.

²³ N. B.: By the very nature of ethnographic interviewing it is very unlikely that even an experienced interviewer would ever be able to get all of a protocol's ethnographic objectives met in a single interview.

Figure 9 Minimum objectives achieved for the matched sample queries.

In most cases, there seems to be little variation either between the interview sets or the protocols for each level of objective. However, the large jumps following the first interview set's rule objectives scores and in the final interview set's story objectives scores need to be considered. In seeking an explanation for these irregularities, this researcher has concluded that these variations may be the effects of learner variability and the small sample set, rather than an invalidation of the comparability between the protocols. In examining Figure 7 (on page 83), it should be apparent that the relationship between probing and objectives achieved is not a one to one relationship. A student researcher who asked one extra probe during an interview might have achieved two extra objectives. Another, through experience or a higher learning curve, might ask an extra five probes

that might have achieved 15 extra objectives. There may be a point in an ethnographic student's learning curve when very small increases in learning might lead to very large differences in measured outcomes. The implication of this is that, at some seminal moment, a transition occurs, from the student merely knowing a skill to using it with confidence during an interview.

In the first Infomated Project this differential learning effect appears to be taking place in the student researcher's skill in acquiring rule level objectives. By the second Infomated Project's interview set the students whose skills were initially lower seem to have caught up and evened the scores. Within the second Communicated interviews, this divergence of skill seems to have arisen again within the student researchers' skills in acquiring story objectives. With a larger sample this learning effect would probably be leveled out. However, for the limited purposes of this study this researcher has concluded that the matched queries appear to be *comparable enough* to answer the developmental research questions being raised in this summative instructional program assessment.

Assessing Student Researcher Responses

For each identified probing opportunity, the student researchers' response was classified based upon the responses (a) the presence or absence, (b) the probable initiating source, and (c) its systemic function within the interview (see page 78 for discussion). The varying combinations of these factors led to seven categories found in the charts found in Figure 10. Each student response was generated by the protocol, something the informant said or from the student themselves. In addition, the responses sought the

Figure 10 Tallies for student researcher behaviors for each project.

systemic goal of the ethnographic interview (the acquisition of the query objectives), a clarification of what the informant had said, or it went off the conversational track in some way. When the students missed an opportunity to probe, or dropped one of the sample queries altogether, the situation was classed as an unasked question (or null-probe). The resulting combinations of student researchers' behavior resulted in seven possible response categories displayed in Figure 10.

Like the tallies for the objectives achieved in Figure 8, the differences in the aggregate data for the students' responses leap out at the observer. In examining the two charts in Figure 10, it appears that those responses which required the students to react and respond to the immediate interview situation have greatly increased. However, in terms of the present developmental research, the question is—Do these differences represent a positive change in the student researchers' ethnographic interviewing skills that may be attributed to the training program?

Measuring the active listening skill. The three ethnographic skills the Communicated training was attempting to teach were (a) active listening, (b) requesting clarifications and (c) probing for more details. Are the use of these skills reflected in the changes charted in Figure 10? As suggested in chapter three, the number of times that a student researcher's response was in reaction to something that the informant has just said may be taken as an indication that the student is practicing active listening skills. Dr. English-Lueck has likened this interplay to a game of tennis (1997, p 56). The protocol's query is like the service of the tennis ball. In a successful interview, like in a good game of

tennis, the conversational ball is then passed back and fourth several times. Within the interview transcripts it was very apparent when the student researchers were following the conversational lead of the informant on a topic brought up by a protocol query. Of the seven categories for the student responses, five require the use of active listening skills. These are (a) protocol probes in response to the informant, (b) student directed probes, (c) student probes in response to the informant, (d) clarifications, and (e) clarifications with null-probes. Figure 11 displays the means of the combined scores for each of the interview sets (fifteen interviews for the Infomated Project and fourteen for the Communicated Project). This condensation is an attempt to level out the variations in each student's scores caused by the differences in the volubility or taciturnity of the individual informants.

Figure 11 Mean scores for student researchers' use of active listening skills.

Figure 11 clearly shows that the students have radically changed their active listening behavior between the Infomated Project, which used the apprentice-like training, and the Communicated Project, with the anchored-guided instruction. In *Educational research*, Vockell and Asher (1995) present interpretations for the data patterns produced by time-series design studies. According to them, the results displayed in Figure 11 suggest that there is a relationship between the type of training used in each project and the changes that have occurred in the students' mean scores. As a group, the student researchers are undoubtedly listening and responding to the informants more often following the anchored-guided instruction of the Communicated Project's training program.

All of the students who had participated in the apprentice-like training in the Infomated Project showed marked improvements in their active listening scores following the anchored-guided instruction of the Communicated Project. Although several of these students had interview experiences in the year between the two projects, most of these experiences were either not ethnographic in nature or were undirected by an experienced mentor. Although some experiential learning may have taken place, without guidance it would be expected that the students should only have maintained the skills they had already acquired. As a result, the increase in mean scores measured here for this ethnographic skill are attributed to the Communicated Project's training program. Further support for this conclusion comes from examining scores of the student who was not a part of the Infomated Project. Though this student started with less interviewing

experience than the other student researchers, his scores for active listening skills were far above average when compared to the scores for the Infomated Project's participants. The implication is that it is the greater effectiveness of the anchored-guided instruction over apprentice-like training, rather than historical factors, that accounts for the higher scores.

Though the jump in mean scores, shown in Figure 11, is substantial, the attribution of this effect to the anchored-guided instruction is not unquestionable. Strong scientific support for this effect would require greater control over the historic factors, a larger sample and a random selection that does not exist in this research. However, according to Kemp (1994) this kind of control is unnecessary if the aim is summative evaluation. For this purpose, the effectiveness of an instructional program that uses video to create a macrocontextual learning environment (CTGV, 1993) and expert-guided instruction has been substantiated for teaching the ethnographic skill of active listening.

Measuring the students' skill at requesting clarification. The second skill to be assessed, for the concerns of this study, is the student researchers' use of clarification queries. The tabulations in Figure 12 condense the scores for the categories: (a) clarifications and (b) clarifications with null-probes. This distinction was a value judgement that is not of immediate importance for this evaluation. While there were far fewer instances of this behavior, the mean scores for this data displayed notable changes between the projects as well, as may be seen in Figure 12. (N. B.: The data in this chart represents a portion of the data in Figure 11, to preserve comparability it is being presented in the same scale.)

Figure 12 Mean scores for student researchers' use of clarifications.

While it is apparent from Figure 12 that the student researcher's use of clarifications was only a small portion of their overall behavior, there is a clear indication that they have gone from not using clarifications at all to beginning to utilize them. However, Vockell and Asher (1995) suggest that this data pattern is ambiguous, because of the steep decline in the final interview set's means. This could indicate that either the anchored-guided instruction was not effective in teaching this ethnographic skill or that this skill was incorrectly taught. It should also be noted that much of the drop in the mean for the final interview set, Communicated 2 in Figure 11, may be attributed to this factor. This actually strengthens the case for the anchored-guided instructional method effectiveness in teaching the other ethnographic skills that were included in that data set.

A disturbing trend, from a training point of view, appeared when behaviors coded as (a) clarifications with null-probes were separated from those coded as simply (b) clarifications (see page 79 for details). These results appear in Table 2.

Project	Instructional Method	Clarifications	Clarifications w/nul-Probes
Infomated 1	Apprentice-like	0	0
Infomated 2	Apprentice-like	0	3
Communicated 1	Anchored-guided	3	49
Communicated 2	Anchored-guided	3	30

Table 2 Clarifications separated from clarifications with null-probes.

Table 2 makes it clear that nearly every student response coded as a clarification was also coded as a null-probe. In reexamining the individual interview segments several things became clear. First, it was noted that the students' behavior in these situations seemed appropriate and consistent with the use of clarifications (see page 64) and their training. However, nearly every time the students asked a clarification the informants' response was "yes" or "no" and the conversational flow of the interview ended abruptly. Comparing these cases with others, where the student researchers was able to restart the conversational flow, illuminated the problem. The student researchers were asking closed-ended, yes/no *questions* as clarifications, rather than open-ended queries that would encourage the informant to continue speaking. It is apparent that this systemic analysis of the students' behavior has exposed an instructional deficit that needs to be rectified in training future ethnographic researchers.

Measuring probing skills. During the coding of the transcripts it became clear that the skill of probing for more details was not a single behavior used in three different

circumstances,²⁴ but a complex of three related or perhaps developmental skills. The skill of using probes initiated by the protocol was different from that of actively listening to the informant and formulating and asking probes that were based upon the last thing the informant had said. Both of these skills were also different from a third skill of perceiving the ethnographic domain under discussion and being able to formulate and present a probe independent of the protocol. The student researchers' use of these three skills was isolated in Figure 10 as the categories (a) queries from the protocol, (b) student probes in response to the informant, and (c) student directed probes.

Queries from the protocol. This category of behavior shows the least change in means among the four interview sets (see Figure 13 below). It appears from this chart that this type of probing is a skill that was already fairly well developed by the time the student researchers begin the Infomated Project. This result is unsurprising, since these students were picked for the projects because they showed the most promise during the methods course exercises. The drop in this category in the Communicated Project's interviews seems to be an indication that the student researchers are replacing the suggested probes, written by the principal investigators, with probes of their own. While, in ethnography, this is not necessarily a fault, care must be taken to instruct them not to wander too far beyond the protocols.

²⁴ In the flowchart, on page 67, the first two skills are utilized at the opportunities identified as ㉔ and ㉕, while the third skill is the ability to choose the initiating probe ㉖ for a new domain of inquiry.

Figure 13 Mean scores for student researchers' use of probes.

Student probes in response to the informant. As may be obvious in the middle set of bars of Figure 13 above, this type of probing behavior took a substantial and apparently stable leap after the Communicated Project's training. (N. B.: This skill is another incorporated in the data for Figure 11, as a result it also has been scaled to preserve comparability.) Vockell and Asher (1995) suggest that this data pattern, while not unquestionable, could be indicative of a causal impact. However, scientific proof of causation is not the goal of this research. For the purposes of this summative evaluation, a stable, 400 percent increase in mean scores will be taken as sufficient. It is reasonable to conclude that anchored-guided instruction was associated with this change in the student researchers' behavior. As a result, it seems clear that for the skill of ethnographic probing

the use of video as a macrocontextual learning environment (CTGV, 1993) and expert-guided instruction is a more effective method than apprentice-like training.

Student directed probes. This skill was not an expected category for this study, since the Principal Investigators felt that it was a skill beyond students at this level of experience. During the coding, however, it was noted that the student researchers were occasionally asking probes that did not come from the protocol and were tangential to the conversation of the informant. The final group of bars in Figure 13 displays the students' development of this behavior across the interview sets. While this data pattern is ambiguous as well, the change here is probably not an effect of the difference in training methods. This conclusion should hardly be surprising since this skill was not addressed in either program of instruction.

Over time the students expanded their use of asking their own probes on tangential topics. In a standardized survey interviewing this deviation from the set protocol list would be a cause for great dismay by the principal investigators. In ethnographic interviewing, however, this type of deviation, within limits, will sometimes be the most profitable. This implies that as the students developed in their ability to listen and respond to what the informant was saying, they also developed in their ability to perceive and pursue ethnographic objectives of opportunity.

Summary

Scattergram analysis demonstrated a strong relationship between increases in the student researches' use of the target skills to their increased acquisition of ethnographic

query objectives. This finding supports systemic analysis as a useful method of quantifying qualitative variables and enabling the comparison of the seemingly disparate samples. Using the Infomated Project's apprentice-like training results as a normative benchmark, substantial changes have been shown following the Communicated Projects anchored-guided instruction program. Although the analysis for each ethnographic skill does not show an unquestionable cause and effect relationship to the use of anchored-guided instruction, Occam's razor, the idea that the simplest theory must be preferred, suggests that the student researchers' mean improvements are associated with the Communicated Project's training. For summative evaluation purposes this is all that is necessary.

This systemic method of analysis has also uncovered an instructional deficit in the student researchers' use of clarifications, as well as collateral learning in their use of probe queries. These findings suggest changes that should be made in future SVCP training. These conclusions and their implications will be the subject of chapter five.

Chapter 5

Conclusions

By using systems analysis to examine the student researchers' success in achieving the interview objectives, substantial differences have been shown between the different methods of instructing ethnographic skills. An instructional program which includes the use of video, as CTGV's macrocontextual simulated authentic learning environment (1993), combined with expert-guided skills instruction is more effective than a program using the ethnographically traditional apprentice-like training. This finding supports the effectiveness of employing instructional technological principals in designing ethnographic training. This conclusion, though, must be considered preliminary. Further research is needed to validate both this use of systems analysis as an assessment tool and the conclusions drawn from it. However, for the purposes of the summative evaluation of this instructional program, these results may be considered sufficient.

This research was designed to supply the SVCP Principal Investigators, and other stakeholders, with the summative data needed to answer the question—Did the Communicated Project's ethnographic skills training program accomplish its instructional goals? The results presented in chapter four suggest that it did. A number of other conclusions may also be drawn from this data concerning the development of systems analysis as an assessment tool and possible changes to training program. These recommendations and suggestions for future research conclude this thesis.

Assessing the Qualitative Training

The validity of the conclusion that the anchored-guided instruction of the Communicated Project's training program was effective rests upon the validity of using systems analysis as an assessment tool. By defining the goal of ethnographic research as the process of gathering identifiable informational objects—the informants' descriptions, rules and stories—this research was able to count the instances when the student researchers succeeded in this task. From this it was possible to quantify the student researcher's gathering of the qualitative data and obtain a numeric measure of their ethnographic success. This number could then be linked to the operationally defined ethnographic skills that were employed in acquiring the objectives. If this line of reasoning is valid, the assessment method should be as well.

The use of systems analysis as a qualitative assessment tool still needs further development. Identifying its limitations, possible improvements, and the scientific validation of the method will require further research. One such limitation is the inability of this method of systemic analysis to measure the extent to which a particular objective was met. The ethnographic definition of thick description includes, not only the number, but the *completeness* of the informant's descriptions, rules and stories. Focusing on the number of objectives acquired allowed this research to be reasonably objective in its assessment of the students' use of the ethnographic skills taught. However, future research may be more concerned with measuring the quality of objectives obtained or the effectiveness of the student researchers' responses.

Research focused on the quality of the objectives achieved would have difficulty in achieving objectivity. A crude measure of the objectives' caliber is possible by counting the number of transcript lines it covers. A one line description would not be as complete as a ten-line description, etc. A second means of accomplishing this purpose would be to count the number of descriptive, rule or story features in a single informant's comment. For the current research an informant's remark was rated as one description whether it had one descriptive element or ten. However, if one moves much beyond a simple one-two-three-many evaluation, the potential for debate about exactly what constitutes a countable case rapidly becomes a subjective debate. This would defeat the purpose of using this as a method of evaluation. How one might adapt this method depends entirely on the specific goal of any future research. However, this study has shown that, at least for developmental research, systems analysis is a useful tool.

For research attempting to examine the efficiency of the students' behavior, a more subjective assessment of the effectiveness or appropriateness of each response must be made. Clear definitions of the features of an effective probe or an inappropriate clarification and two independent raters would still allow this system to maintain a level of objectivity in its assessment. In coding the current transcripts appraising the students' responses as competent or unskillful was generally fairly easy. Again, this is because it is always easier to see what they *should* have done from a historical perspective. In any case, for a limited set of student behaviors it would be feasible to identify and define the possible outcomes to produce an objective assessment.

Summative Evaluation

The Infomated Project's training program used an ethnographically traditional instructional method, a form of apprenticeship-like training that is similar to that proposed by situated learning theory. This method, while not being completely unguided, assumes that it is important for the students to construct the process of ethnography for themselves. Following this training, the method of systemic analysis described in chapter three, was used to identify and count the student researchers' ethnographic success within the interview transcripts. The tabulated scores for ethnographic objectives achieved were then associated with the operationally defined interview skills used to obtain them. The data thus generated was used as a normative baseline to evaluate the Communicated Project's training program.

The Communicated Project's training program employed an anchored-guided instructional method. A documentary style video of an ethnographic interview was used as a simulated macrocontextual learning environment (CTGV, 1993). An expert-guided discussion on the video led the student researchers to focus on the decision-making process and application of the targeted ethnographic skills. The Communicated Project's interviews, following this training, were subjected to the same systemic analysis described above. The data generated was then compared to that of the Infomated Project's interviews.

The anchored-guided instructional program of the Communicated Project sought to teach three ethnographic skills—active listening and asking probes, and requesting

clarifications. With the Infomated Project's data as a baseline, data analysis showed that for the skills of active listening and asking probes (in response to the informant's comments) there were substantial increases in the number of objectives achieved during the Communicated Project's interviews. While this conclusion does not have the strength of a statical analysis based on random selection, achievement gains in the range of 300 to 400 percent are difficult to dismiss. While achievement gains were also shown for the third skill, requesting clarifications, fluctuations in the mean scores for this skill suggest an error in training program.

Suggestions for Improving the Training

This research has shown that expert-guided discussion using video as a simulated macrocontext (CTGV, 1993) combined with expert-guided discussion is an effective method of ethnographic training. The student researchers' increased the number of ethnographic objectives achieved through their use of the targeted skills. However, this research has brought several issues to light about areas of the training that could be strengthened by further development.

Training recognition of ethnographic objectives. In coding the transcripts, it was noticed that frequently the student researchers would move onto the next protocol query as if the objectives for the last query had been achieved. The students were apparently not always able to recognize if the current objectives had been met. This is an area where improved guided instruction and guided practice would be an appropriate instructional response.

In the Infomated Project, the student researchers were included in the discussion and selection of the protocols. The traditional method of training ethnography assumes that the students pick up the skill of recognizing the query objectives by observing and listening as the expert ethnographers discussed the protocols at a professional level. While this expectation of experiential learning is standard to this form of apprentice-like training, this research indicates that it may be ineffectual, or at least inefficient, in instructing this skill. If one defines this skill as the process of listening for the objectives, it suggests that instructional activities requiring the student researchers to practice listening for objectives is a logical step. However, if the students are unaware of what they are listening *for* such activities would be useless. This implies the need for a four-step series of instructional activities which include reading and/or expert-guided discussions on the objectives but which concentrates on the student researchers' listening skills.

The first step of this instruction would be to teach the student researchers to recognize the distinctive features and language used by each query objective. This could be done simply by giving the students a written handout or by oral explanation. Before the students may progress, they must be able to identify a sample description from a story by the words used to express each of these objectives.

Listening skills instruction. Kemp (1994) lists cost of development as one of the issues that may be addressed in a summative evaluation. What is of more concern is whether using the video as a macrocontext (CTGV, 1993) instructional technique is the most efficient and cost-effective method available for teaching these skills. The unedited

video of the interview allowed the expert to effectively point out instances where the interviewer used, or failed to use, the targeted ethnographic skills. The question remains whether further development of this video would produce the additional learning benefits necessary to justify the expense in time, effort and money.

One concern of the SVCP Principal Investigators is the high expense and standardization that would be the result of a finished video instructional product. If they spent their slim budget on a finished video, they would be locked into using it. However, it is a principle of ethnography that every project is unique (Spradley, 1979, p. 230). Standardization for its own sake is, therefore, strongly resisted by most ethnographers. Still, there are some surface features and deep structures in the interviewing process, like listening skills and the nature of the objectives, that could be transferred between one project and another. Further research is needed to identify and design appropriate training methods/media for these basic ethnographic features and skills. There are some visual cues of social interaction and body language that may only be pointed out in a video tape. However, an audio tape might prove sufficiently effective in teaching purely active listening skills at a lower cost. The ease of creating such audiotapes would also allow the tailoring of activities to the specific project.

The second step of the instruction would be to retain the current video, which has been shown to be effective, but to integrate it with activities that would allow the students to independently practice active listening skills. Audio tapes could be created with several sample interview segments. The students would listen to each segment and identify them

as fulfilling a description, rule, story or a combination of objectives. This activity would allow a wider variety of possible situations to be covered in a flexible manner. It might be done as a group activity or as independent written assignment. It could be done under a time pressure or at leisure until the student was comfortable with their categorizations of each conversational segment.

Clarifications. Once the students are comfortable with listening for the objectives, they would be ready to move onto the third step of instruction. These activities would combine the skills of active listening for objectives with the skills of encouraging the informants to produce them. Role playing interview scenarios in front of a group would give the student researchers practice in using the phrases and body language of each skill. These scenarios could be as brief as a single verbal exchange or as long as an entire practice interview. These could be scripted verbatim or they could use probe templates like Spradley's "The way we would say it is—" (1979, p. 89). What is most important with these activities is that the student researchers have instant feedback. What actions are working and what is falling flat.

This research had an unexpected result in the students' use of clarifications. In examining the cases identified as clarifications with null-probes, several details became apparent. Frequently, these statements served no purpose other than to fill a silence or to give the student something non-directive to say. Further examination disclosed that the student researchers were asking the clarifications as closed-ended *questions*. The normal result of this type of interrogation was for the informant to answer "yes" or "no," and

then they would stop and wait for the next question. This situation, almost invariably, ended the flow of the conversation. This is not the ideal situation for an ethnographic interview. However, occasionally the scenario did not end here. A few times the student researchers were able to restart the interview. These incidents were most instructive in clarifying the dynamics of the situation.

Usually, when the informant stopped talking in response to a closed-ended clarification question, the student researcher would simply continue the interview by asking the next protocol query. This circumstance left any remaining objectives for the previous query unsatisfied. However, if the informant's silence was used to ask an open-ended probe on the same topic then the conversational flow began anew. This type of choice point seems an appropriate situation for a role playing scenario. One student could play the informant, with several scripted responses, and a second student interviewer could receive guided practice on the possible courses of action to be taken. Again, it is the close connection between the student's behavior and the feedback on its effectiveness that is crucial.

Training ethnographic probing skills. Once the individual skills are mastered in isolation it is time for the student researchers to move to the fourth step of instruction, combining the skills into an integrated whole in a real interview setting. The results in chapter four (see page 98) make it clear that the anchored-guided instruction of the Communicated Project was effective in training probing skills. This research is unable, however, to determine whether this training instructed this skill or if simply being told by

an expert that they could give them permission to employ a lifetime's experience in asking questions. Whichever the case, the students soon overcame the idea that they were simply oral survey takers getting answers to a list of questions. They rapidly became hunters of information, in charge of seeking out and capturing the descriptions, rules, and stories of the informants.

When the total objectives achieved during the interviews were plotted against increases in the number of protocol queries asked the result was a random distribution. It is as if the protocols were an information net, cast by the Principal Investigators, that gathered up a chance selection ethnographic data. How much was collected in any one interview was more dependant on the volubility of the informant and the quality of the original protocol queries, rather than the student researcher's behavior in presenting the query. However, when the student researchers began to ask appropriate probes, it was as if one had put a spear fisher into the mix. The student researchers were able to steer ethnographic data into the net by asking follow-up queries. If they saw a particularly good description, rule or story, that was about to get away, they could pin it down with a probe and bring it back like a trophy. The result was the much thicker ethnographic descriptions achieved during the Communicated Project's interviews.

This analogy brings up the final unexpected result of this research. As the student researchers became more comfortable in engaging the informants with probes seeking more details, they also began to formulate and ask probes of their own. The skill of student directed probing was not included in the Communicated training because it was

considered beyond students at this level of experience. However, unlike the conduct required for standardized surveys, this is not a forbidden behavior in ethnography. The ethnographic protocols are, of necessity, written in a generalized form. Ethnography, however, contains the not so hidden assumption that all informants are unique individuals with their own distinctive stories. An ethnographer who could not recognize and follow-up on an unexpected opportunity might miss the defining feature that clarifies the entire picture of the culture being studied.

On the other hand, following random opportunities to such an extent that the protocol queries are left unaddressed is also possible. For example, in the Communicated Project's interviews one student researcher spent several minutes in two interviews probing about an esoteric feature of E-mail, rather than pursuing the protocol queries. The conclusion must be, if the students are going to ask their own probes, they should be directly trained on when it is proper to do so. Guidelines for when and how far the students should pursue probes of opportunity need to be addressed in future training.

The fourth step of the student researchers' instruction begins at this point. The ability to distinguish when to pursue a topic of opportunity is an example of an advanced ethnographic skill that can only be learned in a holistic interview setting. Once the students have mastered the basic ethnographic interview skills, such as knowing and listening for the objectives, requesting clarifications and asking follow-up probes, they will be better prepared to self-report and self-assess their own performance during the field interviews.

Following a field interview, the students should be debriefed on their experience when possible. Such feedback is most effective if delivered on the heels of the event, so it should occur no more than a week after the interview. This debriefing may be done over the phone, individually with a mentor, or in an expert-guided small group discussion. The student researchers should be instructed to jot down notes immediately upon leaving the interview (another advanced ethnographic skill). These notes should not be “problem oriented” but descriptive of the topics covered, where the student has deviated from the protocol list and any interesting or unusual events that occurred during the interview. At this stage of the training, it is unlikely that the students would perceive their own behavior with an ethnographic objectivity. However, if they simply report uncritically what they did during an interview an experienced ethnographer can probably spot skill areas that need improvement or to suggest new techniques for the students to try. As the student researchers observe which aspects of their reports are considered important by their ethnographic mentor, they will gradually become adept at assessing their own behavior during the interviews. Over time they will become self-learners, able to judge and correct their own ethnographic interview techniques.

Conclusion

Substantial improvements in ethnographic skill have been shown through using systems analysis to measure the student researchers’ success in achieving the interview objectives. These improvements in skill are attributed to the effects of an instructional program that included the use of video, as CTGV’s macrocontextual simulated authentic

learning environment (1993), combined with expert-guided skills instruction. This anchored-guided instruction was shown to be more effective than a program using the ethnographically traditional method of apprentice-like training. This conclusion, though, must be considered preliminary. Further research is needed to validate both systems analysis as an assessment tool and the conclusions drawn from it. However, for the purposes of the summative evaluation these results may be considered sufficient.

Although the current format has been effective, further instructional development needs to be considered. With the definitions and skills more clearly designed, Gagné's events of instruction (Aronson & Briggs, 1983) should be included in designing the lessons. This researcher, however, does not recommend the continued development of a finished training video. While continuing to expand the video training would standardize the training program, such standardization would not come without a cost. The training would become inflexible and unable to adapt to the demands of new sub-projects, as well as being expensive in time, money and resources. There are, fortunately, less expensive and more flexible media enhancements that may be utilized to instruct these ethnographic skills. Some ethnographic skills may only be instructed with the visual component inherent in video, so the current video should not be discarded. However, it should be preceded with instructional audiotapes and role playing activities, that emphasize the auditory and kinesthetic elements of performing an interview. These activities would individualize and enable multiple modes of learning to ensure that each of the student researchers were as effective and prepared as they may be when they face their first professional field interview.

Looking to the Future

While this research has demonstrated that systems analysis is an effective tool for the summative evaluation of ethnographic training, further research is still needed to validate this method. Once this has been done, more tightly controlled experimental research concerning the instruction of ethnographic skills may be attempted. Most ethnographers, however, are unlikely to pursue this course of action. They are generally too intent on *doing* ethnography to pursue research in the assessment of its training. However, constant improvement of one's methodology is vital for the continued growth of any academic field. Therefore, in addition to ethnographers, this call to further research is directed at the other fields that have come to employ ethnographic methods. Instructional technologists, whose implicit goal is to improve instructional methods in general, as well as pedagogically-oriented educators, social workers and sociologists, should consider using this technique in analyzing their own ethnographic instructional conundrums. This research has shown that systems analysis is a useful tool for examining the training and acquisition of qualitative research skills more objectively. If the method fits, use it. Finally, one must conclude that if an assessment method, like systemic analysis, produces useful results one might paraphrase Deng Xiaoping and say, "This cat catches mice!"

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Appendix A

Queries Sample

Each of the interview protocols contained approximately 50 queries and sub-queries. These sub-probes were suggested possible probes supplied by the Principal Investigators for many of the topical domains of interest. A matched sample of these queries has been selected to improve the comparability of the student researcher's performance between interviews of multi various query objectives and differing domain contents. The matched sample selection was based three features: (a) similar levels of query objectives (each sought all three levels of objective—descriptions, rules and stories), (b) an estimated similar potential for providing probing opportunities, and (c) a limited number of principal investigator-provided probes. This last condition was included because it was felt that queries with many principal investigator-provided probes might inhibit student initiated probes in that domain. The matched sample was validated by an experienced ethnographer and was about a tenth of each protocol. (N. B.: Principal Investigator-generated probes were included in the sample for any queries that contained them).

Matched Set 1

Info 1: Did you know people who owned or used this or a similar device? If so:

- a. Who were they/how did you know them?
- b. Did you discuss this device/technology with them?

Info 2: How do members of this household use infomated devices to communicate with people because of their jobs?

- a. Who uses which devices?
- b. For what purposes or occasions (provide examples)?

Comm 1: What other people support you and your co-workers in communicating?

- a. How do they support you?
- b. How do you communicate with each other?

Comm 2: What are some other bundles that you frequently use?

- a. What are the elements of each bundle, and what does each element contribute to it?
- b. Why do you use each bundle?

Matched Set 2

Info 1: Did anyone in the household have any particular fears or concerns about bringing this device into the house?

Probe: Have these fears been realized?

Info 2: What makes this household as distinct from a collection of individuals?

Probe: Are there any activities that people perform as a household, rather than as individuals?

Comm 1: What are the important differences in how you communicate with team members, other co-workers, and people outside of the company?

Comm 2: Referring back to the sketch from the first interview, what did you have to learn about communicating when you came here?

Probe: How did you learn this?

Matched Set 3

Info 1: Please describe a specific, concrete occasion when this device really improved the life of someone in the household.

Probe: get specific details (who, what, when, why).

Info 2: Are there any important changes that you expect in the make-up of the household in the next several years?

Probe: People leaving, entering, changing jobs, etc?

Comm 1: Where else do you or your co-workers go in order to communicate?

Comm 2: What are your preferred ways of communicating when you want feedback from other people?

Matched Set 4

Info 1: Please describe a specific, concrete occasion when this device really made life more difficult for someone in the household.

Probe: get specific details (who, what, when, why).

Info 2: What are the typical daily activities of each of the individuals who are part of the household?

Probe: Work? Recreation? Education? Other?

Comm 1: How do you communicate with people who are outside of this company?

Comm 2: What are your preferred ways of communicating when you are not interested in feedback from the other people?

Matched Set 5

Info 1: Has brining this device into this household placed the people who use it in a different category or group of people?

- a. Do they feel different about themselves?
- b. Do other people treat them differently?

Info 2: How do members of the household use infomated devices to communicate with other family members who do not live in the household?

- a. Who uses which devices?
- b. For what purposes or occasions (provide examples)?

Comm 1: You listed _____ as other places you perform your work. I would like to ask you a few more questions about that work.

- a. Do you do different kinds of work in each of these other places?
- b. How is the work you do there similar to your work in other places?

Comm 2: Please tell me about when you received a message in one form and passed it along in another?

- a. What was the message?
- b. Why did you pass it along in a different form?