Creativity is illusive and difficult to define, much less study. Past research has emphasized personality characteristics of the creative individual (Barron, 1955; MacKinnon, 1970) and formed an important basis for our continued studies. Although much of this research was conducted with adults, it directs researchers toward appropriate approaches for studying youth. Heinzen (1991) suggested that early researchers assumed that creativity was "somewhat immune from situational influences" (p. 164). More recently, researchers have recognized that creativity is a multifaceted phenomenon (Fishkin, chap. 1, this volume; Heinzen, 1991; Isaksen, Puccio, & Treffinger, 1993), and that the interaction between individual characteristics and situational or environmental influences should be studied in authentic situations (Heinzen, 1991; Keller-Mathers & Murdock, chap. 3, this volume; Rogers, chap. 10, this volume).
Qualitative researchers embrace the reality that many factors, including situational variables, influence the phenomenon of creativity, and they utilize techniques that are indispensable for studying creativity. Educators of children and youth readily recognize the importance of these variables as they apply to student learning (Berger, 1995). Isaksen et al. (1993), who acknowledged the influence of multiple factors, reported that they planned to use an interactionist method that includes "more advanced multivariate quantitative techniques as well as theoretically grounded qualitative approaches" (p. 164) in their study.

Researchers conduct qualitative research in natural settings and produce descriptive data collected by interviewing, observing, and studying documents. The context of the situation concerns the researcher, who interacts with the data, and looks at things holistically. There is interest in all aspects of an experience during the search for meaning, and the researcher makes judgments based on the collection of data. Qualitative researchers "try to understand how individuals perceive the meaning of the world around them. They argue that through our experiences, we construct a view of the world that determines how we act" (Krathwohl, 1993, p. 311).

Qualitative studies humanize research because they deal with the abstract characteristics of an event and consider participant characteristics that cannot be measured numerically. The researcher conducts the study in a setting, which is already intact, such as a school, classroom, or art studio. Aspects of an event or phenomenon that interest qualitative researchers may include participant affect, attitudes, reactions, and interests. For example, the study of creativity often comprises an examination of human qualities that affect creative accomplishment. These may consider personal and social characteristics such as the emotional state of an artist or musician during an inspired moment of creative production; the anxiousness of a writer during a period of slow productivity; or the sentiments of a child when a teacher does not value creative work. The qualitative researcher considers all of these human qualities within the context of the situation in order to gain a sense of the contributions of the total environment. The researcher also notes other characteristics within the context including environmental influences, pace in a classroom, lighting, and so on.

Researchers use qualitative methodology when they are uncertain about what they are trying to find. Often, no predetermined hypothesis exists; therefore, the researcher remains open to all possibilities expressed in the data.

This chapter alerts readers to the types of research questions addressed through qualitative research and discusses specific methodologies. These include ethnography, case study, historical research, and participant-observer. Chapter sections discussing each method include definitions, descriptions, and specific qualitative techniques. Citations from creativity literature addressing youth serve as examples of each method.

**ETHNOGRAPHIC RESEARCH**

The perspective of ethnographic research can be summarized in the statement of Spradley and McCurdy (1972) who indicated that "instead of asking 'What do I see these people doing?' [the ethnographer] must ask, 'What do these people see themselves doing?'" (p. 9). The central concern is for context or culture (Wolcott, 1988).

Culture is a system that provides information and organizes it through a synthesis of facts, experiences, and traditions into a world view that becomes a model by which individuals interpret, understand, and interact with the social and physical environment (Spradley & McCurdy, 1972; Whitney, 1983). This definition's focus on system, synthesis, and individual interpretation permits both creativity and anthropological theory to guide ethnographic inquiry into creativity (Hunsaker, 1992) as is explained here. It is important to note here that ethnography as practiced in anthropology where the method was developed begins with a theoretical basis. This distinguishes it from other qualitative methods.

**Appropriate Use for Research Questions**

The need for theory to guide research is a basic tenet of ethnography. According to Fetterman (1989), theories that guide an ethnographer's work need not include "juxtapositions of constructs, assumptions, propositions, and generalizations" (p. 17), but can be personal theories. Spradley and McCurdy (1972), however, insisted that "researchers make whatever theories they are using explicit because of their importance in the selection and interpretation of facts" (p. 16). Three potential theoretical bases for ethnographic inquiry into creativity and youth that suggest specific research questions include creativity theory, cultural transformation, and cognitive anthropology.

**Creativity Theory.** One useful organization of creativity theory is the four strands of inquiry identified by Rhodes (1987): traits, processes, environments, and products (see Keller-Mathers & Murdock, chap. 3, this volume). Ethnographic research can serve as a catalyst for holistic descriptions of these strands and their relationships to one another in cultural context. Examples of questions might be: "Does the person, the
product to be created, or the culture in which the person and the product reside determine the creative processes? "What are the various enhancers or barriers to the development of creative processes in youth that exist within cultures?"

**Cultural Transformation.** Bril (1973) claimed that societies function in two modes: transmission—replicating society as it is, and transformation—adapting society. Although transformation might easily be recognized as creative behavior, some writers believe that transmission does not occur without transformation (Rogoff, 1990; Whitney, 1983) and that it also is creative behavior (Murphy, 1990). Pitman, Eisikovitz, and Dobbert (1989) stated that "Junior members of society . . . learn whole cultural patterns within the context of everyday life, and then in personal action they individualize and adapt these patterns by varying some of the elements or creating new ones" (p. 3).

Ethnographic creativity researchers have an obvious interest in cultural change as an outcome of a culture's creativity, particularly as they focus on youth. For example, how does a particular issue or problem become a focus for transformation by a young generation? Are there specific personal creative traits or processes among youth that yield cultural transformations?

It is also interesting to study the blending of intercultural elements. Researchers could investigate the creative responses of minorities or indigenous populations to maintain cultural identity in the face of pressures to conform to majority standards. They could also compare the cultural transformation among members of cultural groups who have remained in indigenous areas and those who have migrated away from them. These questions could include inquiries about the roles of younger generations on cultural change.

**Cognitive Anthropology.** Cognitive anthropologists study the processes people use in a cultural group to remember, explore, and solve problems (Rogoff, 1990). Hamill (1985) argued that basing thinking models on the conceptual frameworks used in daily discourse within a culture yields a better understanding of human thought; that is, it is the contexts of thought and thought processes that give them their meaning.

One of the most debated questions in cognitive anthropology is whether or not creativity exists in all cultural groups. Biebuyck (1969) stated that the historic view was that in some societies creativity did not exist, but also noted an emerging willingness to acknowledge creativity in all societies. A similar debate is possible in investigations of youth culture. For example, does creativity exist in a group that focuses on conformity and groupism?

This sample question leads to another debate in cognitive anthropology, whether creativity is an individual or a group trait. Western tradition idolizes individual creativity and effort; however, according to Rogoff (1990), "individual creativity occurs in the context of a community of thinkers" (p. 198). She further suggested that individual effort and cultural context are inseparable and represent different angles from which to study creativity.

**Specific Techniques Used in Ethnography**

The ethnographer's methodological tools include observations and interviews and extensive field notes to gather, preserve, and organize data. Information is analyzed inductively. None of these methods is exclusive to ethnography, and the experienced ethnographer will use other techniques (Wolcott, 1988). Furthermore, these methods cannot be described fully here. The reader is encouraged to refer to the works cited. The issue of first importance, however, is finding a research site.

**Finding a Site.** The researcher uses any physical setting for ethnographic inquiry as long as it has people present who engage in some type of activity (Spradley, 1980). It is advisable for beginning ethnographers to select a site where data gathering can go on in a single place to which the researcher can gain access without excessively restrictive permission procedures. It must be a place where the behaviors of interest are likely to occur repeatedly. More complex sites are appropriate when skills, time, and resources permit. In the research of creativity, schools—especially those that participate actively in creativity instruction—are worthwhile places to begin. In addition, community youth organizations that deal with local problems and concerns are often fruitful arenas for ethnographic study.

**Observation.** Observation is the principal method of ethnography. Researchers use two kinds of observations: obtrusive and unobtrusive.

Obtrusive observations are those made in partial or full participation in the culture. Spradley (1980) suggested that first observations are for the purpose of description. Later observations can begin to focus on details that lead to development of cultural themes. Spradley suggested that ethnographers observe the physical place or places, the people involved, the actions people take, the relations between actions, the physical objects that are present, the sequence of events over time, the goals people are trying to accomplish, and the emotions felt or expressed. Combining one or more categories,
such as looking at the relation between the physical space and the actions people take, enriches descriptions. For creativity research, an ethnographer might notice where creative activity takes place and the rituals a person goes through upon entering that place.

Unobtrusive observations minimize the effects of research on the culture because researchers base inferences on physical evidence and do not require human interaction (Fetterman, 1989). Examples of physical evidence used in creativity research include brainstorming lists discarded by students, pencils broken or chewed on bulletin boards, school and medical records, minutes of meetings, mind maps posted on the classroom wall, and student compositions.

 Interviews. Researchers conduct interviews with informants. Ethnographers must be capable of selecting a good informant and asking good questions in order for the interviews to yield useful data.

Informants serve as the ethnographer’s guide to the culture. “Literally, they become teachers for the ethnographer” (Spradley, 1979, p. 235). According to Spradley, good informants are thoroughly enculturated, currently involved in the culture, know the culture in ways the ethnographer does not, have adequate time to participate, and describe rather than analyze events and actions.

Interviewers differentiate questions along two dimensions: specificity and openness. The ethnographer, attempting to gain broad understanding of the culture, begins by asking survey questions (Fetterman, 1989). For example, an ethnographer asks a participant to generally describe the sequence of events at a problem-solving competition. Fetterman reported three interrelated benefits of beginning with survey questions: defining the boundaries of the study, planning for wise use of resources, and generating further questions to be posed to informants.

After asking survey questions, the ethnographer moves to specific questions. These should focus on some area of significance identified by both the researcher and the informants. The researcher should ask about structures, attributes, examples, contrasts, language, and experiences in an effort to refine and expand understanding of the culture (Fetterman, 1989; Spradley, 1979). For example, a researcher could ask a student to describe a specific problem on which the student used morphological analysis. Fetterman advised that the researcher move back and forth between survey and specific questions, with survey questions dominating at the beginning and specific questions dominating near the end of the study.

The second dimension of interview questions is openness. Open-ended questions permit the informant to elucidate on their culture and the researcher to discover important areas for further study. Closed-ended questions permit the researcher to quantify information and to confirm interpretations of previously obtained information (Fetterman, 1989).

Record-Keeping. Spradley (1980) recommended that ethnographers keep four kinds of field notes. The first type is the condensed account, which includes notes taken in the field while the interview or observations are actually going on. These notes will tend to be cryptic, including words, phrases, or unconnected sentences.

The second type of field note is the expanded account (Spradley, 1980). As soon as possible after gathering data, the ethnographer prepares a detailed account or expanded account based on the condensed account. The ethnographer remembers to be concrete and to quote informants as closely and completely as possible when preparing these notes.

In the third type of field note, the ethnographer writes personal concerns, fears, experiences, ideas, and so forth in the fieldwork journal. It can also include a record of expenses, travel, and other particulars (Spradley, 1980).

Fourth, Spradley suggested keeping a careful record of analysis and interpretation. In these notes, the ethnographer “thinks on paper” (p. 72). The notes could include questions to ask informants, cultural themes being identified, theoretical perspectives taken, implications from readings, and insights into the culture being studied.

Data Analysis

Data analysis for the ethnographer is primarily inductive and depends a great deal on the skills of the person doing the analysis. Fetterman (1989) described a general method consisting of three strategies for analyzing ethnographic data. First, ethnographers look for patterns, which he characterized as “begin[ning] with a mass of undifferentiated ideas and behavior, and then collect[ing] pieces of information, comparing, contrasting and sorting gross categories and minutaia until a [pattern] becomes identifiable” (p. 92). This process, recorded in the analysis and interpretation notes, must begin before the researcher completes data collection. The process continues as the researcher encounters new information that clarifies, extends, or contradicts the pattern. The identification and analysis of one pattern often results in the emergence of others (Fetterman, 1989). Such a data analysis procedure would be particularly useful in determining the creative processes used in a particular cultural group and how the resultant products are judged by group members.
Second, ethnographers should identify key events that are "a metaphor for a way of life or a specific social value" (Fetterman, 1989, p. 93). A key event is either a regularly occurring ritual or an extraordinary experience that occurs in the cultural setting. For instance, a key event in the life of a youth might be the onset of dating. This might be used in creativity research as a metaphor for the problem-solving process youths go through to create new cultural patterns.

Finally, visual organizers are useful to ethnographers. Maps, flowcharts, organizational charts, and matrices can render representations of an ethnographer's thinking (Fetterman, 1989).

Qualitative research produces grounded theory, "essentially an inductive strategy for generating and confirming theory that emerges from close involvement and direct contact with the empirical world" (Patton, 1990, p. 153). Following analysis of information, the ethnographer compares the results with the theoretical constructs that provided the foundation of the research. Spradley (1979) identified six levels through which this comparison must flow. The first is a description of specific incidents at the level of actual behaviors and objects. The second is an explanation of specific classes of cultural knowledge, including explanation of terms and behaviors of members of the culture and identification of the meanings those members attach to them. The third level is an explanation of classes of behavior in specific cultural settings as they relate to the culture. Fourth is reporting the themes or patterns of the cultural setting. The fifth level is a comparison of the incidents, knowledge, themes, and cultures of the society of interest with others. The final level makes universal statements that include conclusions about human behavior, environment, and culture that form theoretical generalizations.

Examples from the Literature

Little research exists investigating the creativity of youth in a cultural context. In one, Cohen (1987) studied creativity among unknown rock bands in Liverpool, England. The demands of their work to produce ground-breaking attention-getting music, pressure from the commercial environment, and the need for sustenance constantly tormented the bands. Members saw this as a paradox between purity and impurity in their work. This dichotomy produced the energy needed for creative productivity in these young people.

In a study of preschools in three cultures, Tobin, Wu, and Davidson (1989) discovered differing views on the presence and ownership of creativity. Whereas schools in the United States and new schools in Japan advocated creativity, schools in China and old schools in Japan disparaged the concept. Although both U.S. and new Japanese schools attempted to nurture creativity in the students, their methods were very different. The Americans fostered independence, individuality, and free choice to encourage creativity, whereas the Japanese nurtured group life, camaraderie, and unity as creative expression. In addition, Americans employed numerous materials to encourage creative play, but the Japanese did not.

CASE STUDIES

Moon (1991) defined case study research as the attempt to "develop and understand universal principles by a close examination of particular cases" (p. 158). She stated that the first goal of a case study is "a detailed, concrete, and intensive description of particular circumstances of an individual life or event" (p. 159). Yin (1984) limited case study research to "contemporary phenomenon within some real-life context" (p. 13).

Appropriate Use for Research Questions

Moon (1991) developed a taxonomy for the use of case study research in gifted education. The taxonomy includes five types of case research: clinical, developmental, observational, situational analysis, and task analysis. These are also fruitful categories for the investigation of creativity of youth and suggest research questions.

Clinical. Moon defined clinical case studies as research designed to understand types of individuals through clinical interviews, clinical observations, and testing. For example, the researcher might question what specific processes a highly creative youth uses to find and solve problems creatively. At times, the clinical approach has a therapeutic objective. For example, a study of a creative child with behavioral problems provides a basis for interventions to avoid conflict at school.

Developmental. The goal of developmental case studies is to understand a particular phenomenon across time (Moon, 1991). These can focus on individuals or institutions. For example, the research may ask how problem-solving strategies develop throughout childhood or investigate changes over time of a program to develop divergent thinking strategies.

Observational. Observational case studies are similar to ethnography in methodology, yet differ because emphasis is on an individual's experience (Moon, 1991). For example, a study could seek
information regarding the roles played by individuals on a problem-solving team rather than focusing on the team as a whole.

Situational Analysis. Situational analysis is studying a particular event (or situation) from the perspective of each of the participants to understand the impact of the event on the different participants (Moon, 1991). Potential questions for research on creativity and youth include the impact of adopting a competitive creativity program on students, teachers, parents, and administrators. A study of the perspectives of each educational audience on the hiring of a creative producer from industry to teach innovation process to high school students would also require situational analysis.

Task Analysis. Moon (1991) defined task analysis as studying "the performance of individual subjects intensively and then [attempting] to generalize to the performance of other subjects through multiple replications" (p. 162). Examples include studies that compare the sequences of problem-solving steps taken by novices and experts.

Specific Techniques Used in Case Studies

Case study is not closely identified with any particular method. Merriam (1988) maintained that "any and all methods of gathering data from testing to interviewing can be used in a case study" (p. 10). These techniques include the previously discussed interviewing and observation as well as document analysis. Selecting an appropriate case, however, is unique to case study and of paramount importance.

Selecting a Case. Yin (1984) suggested three bases for selecting a single case for intensive study. First, is the case a critical one? Does it meet all the conditions of the well-articulated theory being tested? For instance, in order to study the role of motivation on creative development of children, the researcher should select a school classroom that meets the positive conditions of educational environments described by Amabile (1983).

Second, the researcher may choose a case because it is extreme or unique (Yin, 1984) if examples of a given phenomenon are rare. Often, researchers select this type of case in clinical settings. For example, a researcher initiates further testing and observation of a child with an unusually high creativity test score in order to extend knowledge about the traits of creative individuals.

Third, Yin (1984) suggested researchers choose revelatory cases. A revelatory case is one that has previously been inaccessible for scientific study. This could occur if the highly cautious and competitive video game industry provided access for a social scientist to observe how it uses creative children in the development of new products.

Selecting Multiple Cases. At times, researchers decide to study more than one case at a time to ensure greater confidence in the findings of the study. Yin (1984) suggested that researchers base multiple case selection on replication (rather than sampling) logic. The researcher chooses additional cases that are similar to the primary case with an expectation of similar results. Researchers should also consider using additional cases that are not similar and that may produce contrary findings. For example, if theory predicts that transfer of creative thinking skills to student's lives occurs solely where educators provide direct teaching of strategies and practice with real problems, the researcher contrasts a few sites that meet these conditions with others that provide only direct instruction.

Examples From the Literature

The literature provides a number of examples of case studies involving creativity among adults; yet few involve youth. For instance, Hammer (1984) conducted a clinical case study of 10 gifted adolescent artists. On the basis of his observations and psychological testing, Hammer differentiated between artists who are "merely facile" and those who are "truly creative" (p. 5). Among other characteristics, he noted that the truly creative have more depth of feeling, respond in more personal and original ways, feel more detached from other people, and exhibit more confidence.

HISTORICAL RESEARCH

Historical research methods provide a unique window through which to view both the development of creative work over time and "the construction of a creative life" (Wallace, 1985, p. 361). Historical records are essential to retrospective analyses of the childhood creative development of those who become eminent adults. The literature contains a number of such studies (see, e.g., Gardner, 1993; Wallace & Gruber, 1989). Familiarity with the methodology and resources employed by historical researchers also can guide the construction of prospective records of individual creativity.

Like other areas of qualitative research, historical research defines the role of the researcher less rigidly than quantitative studies.
Just as the ethnographer may become a "participant-observer" who interacts with his or her research subjects, the historical researcher interacts in various ways with both printed data and informants.

Historical researchers use available records from the past, from both primary and secondary sources, to reconstruct and to analyze individual development, institutional development, and historical events. The term historical records covers a wide variety of sources, including documents, diaries, letters, interviews, oral histories, films, photographs, artifacts, media and press accounts, and the contents of formal archival collections. Researchers sometimes use historical research methods applied to the study of creativity to investigate a very specific question, such as Parisier's (1987) analysis of the path of childhood artistic development of Klee, Toulouse-Lautrec, and Picasso. These methods are also used as part of the investigation of broader questions such as the impact of certain life experiences on the development of highly creative adolescents (Meador, 1997). Historical research methods are also important adjuncts to other qualitative research methods such as ethnographies. Perhaps the most common use of historical data in the study of creativity is to support and augment case studies (Cox, 1926; Gardner, 1993; Gruber, 1981; McCurdy, 1966; Terman & Fenton, 1921; Wallace & Gruber, 1989). White (1984) never could have studied the later development, creative and otherwise, of Leta Hollingworth's gifted Speyer School students of the 1930s without the fortuitous discovery of historical records documenting the project, including the identifying code he dubbed the "Rosetta Stone" (White & Renzulli, 1987, p. 89). The "Rosetta Stone" allowed him to decode the names of the children and eventually locate one third of the 90 students in the classes, 40 years after they graduated from Speyer.

Depending on the materials available to scholars and the approaches selected, the process of historical research in the study of creativity might resemble anything from standard library research techniques (Barzun & Graff, 1985) to the organizational and analytical challenge of an unraveling mystery (Kearney & LeBlanc, 1993; Smith, 1985; White, 1984). Occasionally, the search for historical truth and an understanding of the development of a creative idea or invention even resembles an international thriller; Rawlence (1990) described his harrowing intercontinental search for proof that Augustin Le Prince, not Thomas Edison, was the original inventor of moving pictures.

**Appropriate Use for Research Questions**

Historical research methods require available historical data. These data must have the potential to contribute substantially in answering the proposed research questions, and the provenance of such documents must be secure. Because the value of historical materials is not always clear at the outset, researchers initially need to spend some unstructured time in their perusal, with several potential research questions in mind. It is also probable that the historical materials themselves will suggest other research questions; therefore, researchers should be prepared to interact with the data.

**Specific Techniques Used in Historical Research**

Document Searches and Document Tracing. Documents of some kind—letters, memos, notes, journals, drawings—are at the heart of most historical research. The search for documents is sometimes a desultory one, as likely to result in the occasional wild goose chase as in a wealth of material. The Research Libraries Information Network, a computerized database, lists collections throughout the United States. The provenance of most documents already in library collections is usually established before materials are catalogued, although it is always wise to double-check. Sometimes, diligent detective work or pure luck results in the location of documents that are not part of any permanent collection (e.g., White, 1984). In this case, the burden of establishing the provenance of such documents resides with the researcher, who must be certain beyond reasonable doubt that the documents are what they are purported to be.

In recent celebrated cases, even leading manuscript experts occasionally have made egregious errors (Sillitoe & Roberts, 1989).

Informant Searches. Documents and other historical materials from recent times are likely to yield the names of one or more living persons who might serve as informants for a particular research project. With limited information, such a search might seem daunting. However, search techniques used by private investigators can yield a surprising number of informants (Ferraro, 1986; Gunderson, 1989). Search original historical materials first for clues—names, birthdates, parents' or siblings' names, employers, colleagues, schools attended, Social Security numbers, and so on—and record the information on a grid similar to that recommended by Ferraro (1986). Each clue is then followed up individually. Before investigating any complex leads, consult obvious and accessible sources first, including telephone directories, biographical dictionaries, city directories, and the New York Times Name Index. Finally, computer databases allow complex searches for individuals that were not possible even a decade ago; at least one business, the St. Louis-based Find People Fast, now provides access to these databases for a flat fee per name (J. Vesper, personal communication, December 7, 1993).
Archival Collections. The special collections departments of many libraries maintain archives. These archives include inventoried collections of documents and artifacts. Libraries often require special permission to use their materials, so once a promising collection is located, telephone to make arrangements first. Upon request, most archives will mail a copy of the collection's inventory, allowing the researcher to determine in advance if the archive's collection meets research needs. For a small fee, many archives will also copy and mail specific documents listed in the inventories, thus possibly eliminating a costly trip.

Media Searches. Newspapers often yield unique insights into the historical context of both the creative person and the creative product. The media also occasionally provide early evidence of creative talent in the process of development (and demise); for example, a chronological study of the films of child actresses Shirley Temple and Judy Garland would yield valuable information that could be gained in no other way. The Readers Guide to Periodical Literature, library indexes, Library of Congress holdings, clipping bureaus, and vertical files arranged by topic are standard resources. In addition, the Museum of Radio and Television in New York City maintains an incomplete collection of thousands of radio and television broadcasts, including newscasts, dating from the late 1930s to the present. The collection is computerized for easy searching.

Diaries and Journals. Finding a diary or journal is a stroke of luck, and a luxury. Diaries record impressions and events as they are experienced, not as they are remembered years later. Diaries and journals also offer unique insights into the process of creative development (da Vinci, 1970) and personal growth in childhood and adolescence (Filipovic, 1994; Frank, 1932/1972). The historical importance of such a journal may be understood only later, as 13-year-old Zita Filipovic of Sarajevo discovered. At age 10, she began a diary, but as she stated later, "I didn't know then that it was going to be war diary" (Filipovic, personal communication, March 7, 1994).

Artifacts. Artifacts include photographs, films, art work, personal possessions, portfolios, mementoes, and other historical materials that are not technically considered "documents." Artifacts provide a different, often visual, perspective not always obtained through verbal means alone. Terman and Fenton (1921) augmented their original case study of a child writer with her technically advanced illustrations. Similarly, Hollingworth's (1926, 1942) case studies of the creatively prolific Child D are replete with examples of the child's work.

Example From the Literature

A classic use of historical materials to study creative development in a child is illustrated in McCurdy's (1966) study of Barbara Newhall Follett, a child writing prodigy of the 1920s. Barbara began writing at age 4, tapping out poetry, short stories, and hundreds of letters on a manual typewriter, and published a fantasy novel when she was 12 (Follett, 1927). Her imaginary land, Farksolia, included an original language. Barbara continued writing throughout her adolescence. But "On Thursday, December 7, 1939, in the early evening, Barbara walked out of her Brookline apartment ... she was never seen again" (McCurdy, 1966, pp. 144-145).

McCurdy came upon the Follett materials completely by chance. Barbara's mother contacted him, stating that she had in her possession "what I believe is a case study (possibly a unique one) voluminously documented ..." (H. Follett, March 14, 1960, cited in McCurdy, 1966, p. vi). This documentation turned out to be the motherlode of information Helen Follett had promised. Almost everything Barbara had written from the age of 4 had been preserved, including her correspondence with the poet Walter de la Mare and others. McCurdy used the materials not only to document Barbara's literary and creative development, but also to trace the devastation her father's rejection of her finally produced. This unique access to the complete historical record of a child's creative development in a specific domain over more than a decade also included correspondence, life history data, and a primary informant, Barbara's mother. But, like most researchers using historical materials, a piece of the puzzle was missing—in this case, the one source that might have provided McCurdy with the surest corroboration of both his historical account and his psychological analysis—Barbara Follett herself.

PARTICIPANT OBSERVATION

In this chapter, participant observation describes "all qualitative datagathering techniques" (Ely, 1991, p. 42). It is useful in ethnography, case studies, and historical research as well as other types of investigations.

Participant observation, which Wolcott (1988) referred to as "ethnography's mainstay" (p. 192), requires the involvement of the researcher in the site under study. Lundsteen (1991) listed participant-observer on a continuum from nonreactive to reactive types of observation used in ethnographic methods. Kitano (1985) stated that "participant observation consists of systematic and unobtrusive data collection while the researcher interacts intensively with subjects in their
own milieu" (p. 67). In other words, the researcher makes "firsthand" observations and personally participates in some of the activities in the chosen setting (Patton, 1990, p. 10).

**Appropriate Use for Research Questions**

The researcher selects the qualitative techniques he or she will use after determining the type of understanding needed to study the particular research problem. If the researcher deals with research questions that can only be answered through participation with the subjects in the setting, then participant observation is the technique of choice. The researcher seeks to learn through experience, calling on all facets of human understanding that evolve from physical, cognitive, and emotional experiences.

Research questions regarding the effects of a particular event or series of happenings on participants are appropriate for participant-observer methodology. For example, the qualitative aspects of creativity training, which cannot be measured numerically, concern some participant observers. The actual involvement of the observer in the training process yields an understanding quite unobtainable through other methodologies. For example, conversing with participants during a creativity training module allows the participant-observer to probe for clarification and understanding. Experiencing the joys and frustrations of those involved in a session yields understanding on an emotional level.

Participant-observers become involved with the observation of young children at play as they attempt to determine how creativity manifests itself at various ages (Townley & Routt, 1988). Early childhood professionals know that it is almost impossible to observe young children without being drawn into their world of play as the youngsters ask questions and offer objects for the adult's examination or manipulation.

**Specific Techniques Used in Participant Observation**

If selecting participant observation as the research technique, consider the types of observation available in the setting of choice. Natural settings allow for various degrees of researcher participation, from limited to active participation (Wolcott, 1988). The person in charge of the context, such as an administrator in a school, often controls the amount of participation by the researcher.

Limited observation describes the researcher who enters a setting, like a classroom, and makes observations, similar to those previously described as obtrusive observations. There are brief encounters with the observation group; however, the researcher collects little data during these conversations. For example, limited observation occurs when a researcher visits a classroom and observes children during class without participating in their activities. Kitano (1985) observed young gifted children in their preschool setting, using field notes to record information. Following categorization of coded field notes, Kitano described observed creativity among the children.

An active participant has a role to play within the setting, such as teaching a particular subject or process to a group of students. Meador (1992) became an active participant in two kindergarten classrooms when she taught lessons involving the synectics process and studied the effect of the training on student creativity.

The earlier section on ethnography presents some of the methodological tools used in the participant-observer technique. Record-keeping, in the form of field notes, helps to corroborate the intuitive reactions resulting from the researcher's engagement with the subjects. Other techniques include tape recording, followed by written transcription, and videotaping, which was employed by Johnson and Hatch (1990) during observation of young highly original children. A technician videotaped the children in activity centers as the researchers in this study attempted to determine if the subjects demonstrated their creativity during play.

The researcher collects products and documents produced by participants—similar to the physical evidence described previously in the ethnography section of this chapter—when appropriate. These include art work, inventions, brainstorming lists, creative writing including scenarios, and the like. Pictures taken of the subjects involved in pertinent activities or events facilitate the researcher's recall of information during the data analysis phase. These techniques allow the researcher to maintain some degree of objectivity, which may be arduous in participant observer research.

**Data Analysis**

The foundations for data analysis, presented earlier in this chapter, apply directly to participant observation. The researcher determines the categories used for coding field notes, videotapes, taped recordings, and other information, by returning to the study's basic research questions.

**Examples From the Literature**

Johnson and Hatch (1990) set out to describe and analyze the creative behavior of children identified as highly original within their preschool
environment Analysis of data required finding characteristics of actions that, among other things, demonstrated independence, persistence, and fluency of ideas. A case study approach encompasses the bulk of this study; however, participant observation was one of the techniques utilized.

Meador (1992) asked what changes in creativity result from training kindergarten children in synectics. This researcher analyzed data transcribed from tape recordings of training sessions according to categories which emerged from the data, including fluency, originality, and elaboration of ideas. Transcripts of pretraining sessions juxtaposed with those of concluding sessions 3 months later provided interesting comparisons. This analysis demonstrated improvement in creativity by students involved in the training. Quantitative analysis of responses to the figural form of the Torrance Test of Creativity, taken by all subjects pre- and posttraining, supported the qualitative analysis.

CONCERNS IN QUALITATIVE RESEARCH

Qualitative research relies heavily on humans both as data sources and as data analyzers. This raises at least two concerns. One is for the rigor of the methodology to ensure that findings are reliable and valid. The other is for the ethics involved in so closely studying people in natural settings.

Rigor

Qualitative researchers should employ strategies to ensure that their study is rigorously conducted. Great detail and verbatim quotations in notes and reports resulting from careful record keeping from the onset of the research project is of utmost importance. This thick description (Fetterman, 1989; Lincoln & Guba, 1985) is necessary for providing a connection with the actual events in the study. A chain of evidence (Yin, 1984), in the form of notes, logs, documents, memoranda, and so forth, can then be made available to others for inspection to verify that the research has been conducted in an acceptable and reasonable manner.

Research is strengthened by gathering data in multiple ways from multiple sources (Lincoln & Guba, 1985). For example, data may be gathered from representatives of different populations (e.g., teachers, administrators, students) through interviews, questionnaires, observations, and document analyses. This process, known as triangulation, may also consist of using quantitative techniques in qualitative studies (Patton, 1990). When data are consistent across methods and sources, the researcher can be more confident that the data are credible.

REFERENCES


