Many of the precepts that characterize the conceptual and practical work of early childhood education have emerged from "inquiry" that focused on interpretive and qualitative features of the lives of teachers, children, and parents. This paper examines the continuing development of a wide range of "inquiry" approaches in early childhood education over the past decade and the emergence of new concepts, terminology, methods, and analytical tools. The paper suggests that the notions of how children learn, the understanding of family dynamics, and our conceptions of teaching are changing rapidly in response to new knowledge, challenges, and inquiry tools. The resurgence of interest in more direct and more personalized inquiry approaches is part of the larger paradigmatic shifts that demand a more comprehensive and realistic understanding of human beings. The paper examines five types of inquiry approaches: descriptive, ethnographic, case study, teacher action-research, and analytic inquiry. The advantages of the inquiry process are analyzed, and the paper points out that, in contrast to the traditional research cycle (need, problem articulation, research questions, design of study, data collection/analyses, and reported findings), interpretive inquiry is framed in a more dynamic and interactive context. Examples from the application of the inquiry process in the social sciences are evaluated. Finally, the paper discusses criteria and challenges in the use of interpretive inquiry, as well as the advantages of the method in exploring and describing reality, dealing with the personal dimension, and building theory. (AA)
The Inquiry Process in Early Childhood Education: An Exploratory Essay

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The inquiry process in early childhood education
Inquiry in early childhood education has been an integral part of the evolution of theory and practice, providing the primary means of learning about and advancing our knowledge of children, parents, teachers, families, schools, and communities (Hatch, 1995). Many of the precepts that characterize the conceptual and practical work of early childhood education have emerged from "inquiry" that focused on interpretive and qualitative features of the lives of teachers, children, and parents. For example, Montessori's pedagogy was based on her observations and analysis of the needs of children, the contextual elements of family and community life, and the needed teacher behaviors and classroom environment elements for promoting their growth and development (Martin, 1992). Piaget's constructivist paradigm evolved from his extensive observational study of his children (White, 1994). Bronfenbrenner's (1979) ecological system for studying human development is the result of analyses of the multiple and interconnected elements in child, family, and community living.

The continuing development of more diverse "inquiry" approaches in early childhood education is highlighted by many new research directions over the past decade. Concepts, terminology, methods, and analytical tools are emerging faster than at any time in history (Walsh, Tobin, & Graue, 1993). Specialized conferences and publications on qualitative research, teacher inquiry, action
research, ethnography, phenomenology, and other "interpretive" research styles suggest a new focus on broadening the conceptual framework of early childhood education inquiry.

This resurgence of interest in more direct and more personalized inquiry approaches is a part of the larger paradigmatic shifts that are symbolic of global anxiety and change that is dramatic and indeed revolutionary. The logical, empirical research processes of the Industrial Era lack the depth and breadth needed for studying more complex and dynamic social change (Hatch, 1995). Cause-effect and correlational studies once accepted as adequate explanations of reality are suspect within the more dynamic contexts of technological and social change. A search for more comprehensive and realistic understandings of the human situation have promulgated more diversity in inquiry (Lincoln & Guba, 1985).

The move toward more diversity in the study and research of human beings is more fitting to the expanding nature of inquiry. Our notions of how children learn, the understanding of family dynamics, and our conceptions of teaching are changing rapidly in response to new knowledge, new challenges, and new inquiry tools. It is evolutionary and revolutionary as the inquiry process is unfolding in new directions that clearly are connected to the perennial theme in early childhood education: gaining more complete insight into the complex nature of human learning and functioning during the early years.
The Multiple Dimensions of Inquiry

Webster's Collegiate Dictionary (1990) provides a starting point for gaining a perspective on inquiry. *Inquire* is defined: “to ask about,” “to search into,” “Investigate - to put a question (seek for information by questioning),” “to make investigation for inquiry”. *Inquiry* is defined: “a request for information,” or “a systematic investigation...”. The basic premise of inquiry in early childhood education is directly connected to this construct: to seek information about the multiple aspects of early learning and development (Pence, 1988). In this sense, the issue is not about the dichotomies between quantitative and qualitative inquiry but about using all available and meaningful processes and tools to better understand the various facets of human functioning during the early childhood years (Walsh, Tobin, & Graue, 1993).

An inclusive and harmonious inquiry perspective is advocated by Walsh, Tobin & Graue in their adoption of Erickson's (1986) position:

Following Erickson, we will opt for the term interpretive. As Erickson argued, “interpretive” is more inclusive, avoids the nonquantitative connotations that “qualitative” has acquired, and points to the common interest across approaches in “human meaning in social life and its elucidation and exposition by the researcher” (p. 119). In using the term interpretive we draw on an extended a family of traditions rather than on a single tradition. (p. 464)

The attributes of varying inquiry approaches that link them as “interpretive” efforts include: research and study are conducted in the natural settings of the participants; the participant perspective is valued and included; questions and methodology evolve in an interactional manner as a part of the
inquiry process; observational work is contextualized in the setting under study and in relationship to interacting “systems” that influence that setting; observation is prolonged and repetitive; and the researcher-participant relationship is central to the inquiry process (Spindler, 1982; Jacob, 1988; Walsh, Tobin, & Graue, 1993).

Inquiry approaches that include part or all of these attributes are: descriptive study, ethnography, case study, teacher action research, and analytic study. To be sure there are many more approaches, but these types of inquiry serve as examples of the more inclusive work in current inquiry efforts. Few inquiry efforts fit neatly into any one category but most have an emphasis that aligns their work with one of these approaches. The limitations of reductionist thinking in most single-dimension empirical work does not negate the value of quantitative work, indeed it is an important part of the total inquiry process. The emerging reality is that multiple inquiry processes (none of them complete in their approach or achievement) are absolutely essential to pursuing more complete understandings of how human beings function and live (Walsh, Tobin, & Graue, 1993).

Descriptive inquiry is the broadest framework of systematic study of human learning and development, and may include a variety of other approaches that are connected by their emphasis on description of some facet of human behavior or human event in which people function (Livingston & Castle, 1989). In contrast to inquiry-specific approaches like the case study, descriptive studies attempt to provide more global information that conveys accurate and “complete”
data of particular aspects of a designated area of early childhood education and development (Hatch, 1995). Early childhood program descriptions, home visit process studies, demographic profiles of specific populations, large scale studies of the status of children and families, and narrative reports on the real life events and experiences of children, families, and teachers are examples of descriptive inquiry.

*Ethnographic inquiry* focuses on creating a realistic and authentic picture of the lives of a group or culture (Walsh, Tobin, & Graue, 1993). This is likely to involve the use of multiple methods: observation, living in the culture under study, interviewing, examining artifacts, use of participant initiated descriptors, and cross-cultural analysis of recurring events and experiences (Atkinson, 1992). The essence of ethnography for early childhood study is articulated by Walsh, Tobin, & Graue (1993):

> An ethnographic approach sees the meanings of children’s and teacher’s thoughts and actions as embedded in culturally defined contexts, where the “same” words or behaviors have different meanings in different settings. (p. 468)

This contextualization of inquiry broadens the window of possible meanings that recurring behaviors and events may have for different children and families in different settings. Thus, while children’s reticence to challenge an adult’s opinion may be seen as a deficit in the scholarly culture it may be viewed as a real strength in the family culture.

*Case study inquiry* is directed toward an examination of a specific element (person, program, group) that is intent on acquiring comprehensive data for both
description and analysis (Stake, 1995). Case studies are in-depth, use multiple study methods, and engage the researcher in whatever tasks and actions are needed to fully describe the “case” under study. Children, teachers, programs, and program components are case study material. The realities of most case studies necessitate that researchers use selected methodologies to gain needed insights into the person or context (or both) under consideration. For example, in using a life history approach, Stake (1995) relied mainly on interviewing, observation, artifacts, and analysis-interpretive tools.

Teacher action-research or “inquiry” is a specific attempt to gain insight into some facet of teaching: the classroom, instructional methodology, child functioning, family-school connections, and other possible interests (Livingston & Castle, 1989). Emergent literacy, program analysis, teaching styles, teacher-child interactions, parental/family involvement, and many other topics represent areas studied by teachers. The emphasis is on improving teaching, conditions for teaching and learning, particular elements in instruction, curriculum development, program evaluation, child development and achievement, school culture, and related teacher, school, family, and community dynamics. Teacher narratives about their personal experiences as well as collaboration among several teachers (e.g., “teacher networks”) regarding common inquiry interests have emerged as significant influences in teacher inquiry and the professional development of teachers (Hubbard & Power, 1993).

Analytic inquiry aims to describe, analyze, and then propose needed changes in various facets of human functioning. Early childhood analyses
typically deal with conditions of life in classrooms, families, and the society in its larger context (Walsh, Tobin, & Graue, 1993). A need or problem is highlighted in the inquiry and analysis focus on the multiple complexities of the issue. Projected solutions often call for major changes in the way we carry out our relationships with children, structure our family-community systems, engage parents and families in school and community contexts, and various other social actions.

The rapid growth of interpretive (often referenced as "qualitative") inquiry has promulgated many other approaches and perspectives. At the extreme is the post modern or post-structural inquiry perspective. As Tobin (1995) notes, their perspective rejects the notion of singular causality and contiguous meaning of reality. He states:

No longer believing in the possibility of describing reality objectively, post-structural anthropologists and historians are viewing the texts they write as stories rather than as treatises. Rejecting their orthodox predecessor's reduction of all causation to material conditions, neo-Marxists are exploring the circulation of such non-material commodities as knowledge, power, and pleasure. (p. 224)

Regardless of perspective or approach, interpretive inquiry aims to broaden the human understanding of how people live and function. Context, subjective experience, interpersonal dynamics, and other "qualitative" features of early learning and development are examined up close and in ways that may open new insights into the many complexities of early childhood education and development.
The Inquiry Process: Emerging Perspectives

In contrast to the traditional research cycle of need, problem articulation, research questions, design of study, data collection/analyses, and reporting of findings, interpretive inquiry is framed in a more dynamic and interactive context. While relying on many of the same processes of study, the focus is more interactive, open to continuous change, and less reliant on rigid adherence to prescribed methodologies. Indeed, interpretive inquiry is committed to the evolution of human understanding as an ongoing process where methodology, questions, and data are in continuing flux. Systematic and rigorous research criteria are adhered to in high quality inquiry work but in ways that open windows to the intimate experiences of teachers, children, parents, families, schools, and communities.

Hubbard & Power (1993) explicate the "interactive elements" extant to most inquiry approaches. These include:

*A key question guides the inquiry.

*The question evolves from both a knowledge base and existential concerns.

*Literature analyses, field testing, collaborative sharing, and related study are used to frame and reframe the question(s).

*Inquiry data collection, organization, and analyses are shaped in relation to the question(s), the researcher's context, and the evolving dynamics of the inquiry process.

*Findings are shaped in relation to the integrity of the question(s), the process of study, and the contextual features of the environment.

The process is not necessarily sequential in that the inquiry is a part of
living systems where feedback is used to change or enrich the process itself. The focus is on "understanding" the multiple dimensions of the question and the many possibilities discovered through inquiry.

The cycle of inquiry is seen as continuing, interactive, and ever changing. Observations, field notes, document analysis, video and audio records, interviews, sociograms, diaries, artifacts, and many other "data sources" are used to gain diverse perspectives on the issue being studied. In a very real sense, the inquiry never ends - the cycle of exploration becomes a part of the dynamics of the growing context of life itself. Cochran-Smith & Lytle (1993) articulate this "inquiry as part of the living culture" as related to teaching.

By "learning from teaching," we mean that inquiry ought to be regarded as an integral part of the activities of teaching and as a critical basis for decisions about practice. Furthermore, we mean that classrooms and schools ought to be treated as research sites and sources of knowledge that are most effectively accessed when teachers collaboratively interrogate and enrich their theories of practice. (p. 63)

Applications of the Inquiry Process: Examples from the Social Sciences

The inquiry process has been a contributing factor in the broadening of our understanding of many dimensions of human functioning. The work of researchers like Burton White and Urie Bronfenbrenner suggest the power of the inquiry process in creating new insights into areas like parenting, child development, child and family functioning, parent education and family support, and the interactive nature of child/family/school/community. In the more narrative focus, the work of authors like William Ayers has added to our

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understanding of teaching and learning. As the work of these three researchers indicate, the value of interpretive and comprehensive study is powerful in relation to expanding and transforming our approaches to studying the many dimensions of human behavior. The focus and efforts of these three scholars is presented to show: 1) how the inquiry process has broadened and changed, 2) how individual researchers have and are using interpretive inquiry strategies to pursue new insights in early childhood education, and 3) how indepth inquiry studies that are long term impact our perceptions and understandings of children, families, schools, and the dynamics of human functioning as they occur in these and related contexts.

Burton White and Parenting During the First Three Years: The work of Burton White in developing benchmarks of children's development during the first three years of life and integrating the results into the knowledge base for parenting is indicative of the potential in pursuing long term, comprehensive inquiry studies. White’s interest in how well-developed people get that way began in the 1950’s. White (1994) explains his early interest in ego psychology:

When I finally began to learn about what in those days was called ego psychology, I found ideas that seemed more suited to my particular interest. Ego psychologists studied human strengths and psychological health rather than how to deal with neuroses. I was very much impressed by the work of Robert White of Harvard and Abraham Maslow of Brandeis University. (p. 28)

White’s research career spanned a period of forty years (and continues today) with major projects including the Harvard Preschool Project, Brookline Early Education Project (BEEP), and his work at the Center for Parent
Education. His use of multiple research processes carried out in the natural contexts of developing families (birth to 3 years of age) over an extended period of time, is indicative of the needed rigor and inrasiveness of quality inquiry in early childhood. His use of in-home observations repeated in a systematic manner provides authentic data on the realities of children's development within families. Subsequent interviews with parents, on going analysis of other related literature, and his continuing field testing and evaluation work through the Parents As Teachers (PAT) program further refined this valuable inquiry.

White’s key question has remained the same (albeit undergoing several refinements): What is it that significantly influences the healthy development of competent three year olds? His inquiry process has been naturalistic, systematic, and comprehensive. He (White, 1994) explains the rationale for his inquiry approach:

Piaget’s pioneering work with his own three children struck me as being the soundest approach. That work featured a very large number of observations and experiments with his children, in their own home, over many months. This approach to complicated lengthy developmental processes, called “process monitoring” is expensive, time-consuming, and laborious. Nonetheless, I believed then, and still today, that it is the only suitable approach to the study of the development of a child during the first three years of life.

(p. 35)

White’s own inquiry work spans forty years. Using multiple observations, video taped recordings, interviews, analysis of extensive field notes, and related literature assessment, he has developed the most valid and reliable set of indicators of child competence at age 3. Some features of White’s work that
exemplify quality inquiry are:

*His work was conducted in the natural context of child development and parenting, the home.

*He used multiple means of observing and recording data over an extended period of time.

*He explored related studies in the field thoroughly and interrelated them with his work.

*He continually field-tested his conceptual framework and refined and extended his findings.

*He engaged external evaluators in assessing the results of his work, thus providing another dimension to the value of the process and outcomes.

*He developed prototype methods and strategies others can adopt or adapt to continue the focus of his inquiry.

Urie Bronfenbrenner and the Ecology of Human Development: Drawing from his own personal as well as professional involvement, Bronfenbrenner has engaged in extensive and insightful study of the ecology of human development. In the preface to The Ecology of Human Development (1979), Bronfenbrenner relates childhood experiences with his father (who was a neuropathologist in a state operated institution for the “feebleminded”) that stimulated his interest in learning more about the interaction of people in varying environments. One such experience is described as follows:

I remember especially vividly his anguish [meaning his fathers] when the New York City courts would commit to our institution, out of error or - more probably - sheer desperation, perfectly normal children. Before he could unwind the necessary red tape to have them released, it would be too late. After a few weeks as one of eighty inmates in a cottage with two matrons, their scores on the intelligence tests administered as a
compulsory part of the discharge process proved them mentally deficient: that meant remaining in the institution for the remainder of their lives. There was a way out for these children, but the opportunity did not arise until they were much older. One of the places to which adult female inmates would be assigned to work was in the homes of staff, where they helped with housework, cooking, and child care. In this way, Hilda, Anna, and others after them became de facto members of our family and significant figures in my upbringing. But they seldom stayed for long. Just at the point when as a result of my mother's training in homemaking and their own everyday initiative they had become indispensable, my father would arrange for their discharge, for they could now pass the critical minimum on the all-determining Stanford-Binet. (p. xii)

Similar to Burton White's intense desire to know the dynamics of the competent three year old, Bronfenbrenner has had a continuing thirst to know what makes human beings function the way they do. Bronfenbrenner's early interest was furthered by his studies in human development. His field research in various cultural contexts and his involvement in public policy making related to early childhood education had a profound impact on his inquiry, both in terms of content and process.

Using his own field work, conceptual study, and the results of others work in various social science disciplines, Bronfenbrenner developed an ecological framework for better understanding the development and growth of human beings. Reflecting on some of his early field experiences in different cultures, Bronfenbrenner (1979) notes:

Seen in different contexts, human nature, which I had previously thought of as a singular noun, became plural and pluralistic; for the different environments were

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producing discernable differences, not only across but also within societies, in talent, temperament, human relations, and particularly in the ways in which the culture, or subculture, brought up its next generation. The process and product of making human beings human clearly varied by place and time. Viewed in historical as well as cross-cultural perspective, this diversity suggested the possibility of ecologies as yet untried that held a potential for human natures yet unseen, perhaps possessed of a wiser blend of power and compassion than has thus far been manifested.

Thus, his work is clearly a blend of conceptual and field inquiry that draws upon many different resources and tools from multiple social science disciplines. His reconceptualization of the concept of “environment” and of the inquiry process essential to its study and understanding is based upon particular beliefs:

*Research and study should be carried out in the natural settings in which people live.

*Inclusive methods of inquiry (qualitative and quantitative) should be used to acquire a comprehensive and accurate picture of the contexts and events being examined.

*Participant-researcher dialogue and interaction should be integrated into the inquiry process as a source of information that enriches the story.

*The multiple systems (person, family, school, community) of human living and their interactive attributes should be accounted for in the study.

*Dyadic and triadic relationships extant to the context under study need our full attention.

*Person-environment dynamics need to be accounted for in the analysis of varying influences on human behavior and functioning.

*How people “see” their self-environment match is valuable data for inquiry studies.
*Cross-cultural observations and analyses enhance our understanding of similarities and differences in human functioning.

*Collaborative, long term inquiry focused on important themes of human functioning can instruct public policy decisions.

These beliefs have emerged from Bronfenbrenner's conceptual and applied work with children and families as they live in varying contexts and cultures. His cross-cultural studies of the development of children and families as well as his analyses of a plethora of related studies influenced his shaping of the ecological approach to inquiry. In arriving at his basic ecological concepts, Bronfenbrenner (1979) has carried out several interpretive inquiry strategies that mark his efforts:

*Observation of human behavior in multiple contexts over an extended period of time.

*Comparative analysis of relationship patterns, events, and contexts as they influence children, families, schools, and communities.

*Observation and analysis of the reciprocity of events and behaviors as they occur within and across ecological systems.

*Continuous refinement of the elements of the ecological framework based on the feedback attained in various studies.

*Utilization of multiple inquiry processes in studying various events and activities in which the developing person functions.

*Acquisition of the "participant perspective" as meaningful data in the inquiry process.

*Exploration of various perspectives related to the continuing study of human development.

Like Burton White, Bronfenbrenner's inquiry work challenges the research

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paradigm that focused on studying human beings in "strange places" and in limited ways. He does not reject the value of empirical inquiry but calls for a more inclusive means of gaining understanding of the human development process. He does not neglect the critical role that biology plays in our development but calls for a more balanced "ecological" view that recognizes and accounts for the significance of environmental influence. Bronfenbrenner in Pence (1988) notes the essence of the "inclusiveness" of the needed inquiry framework to studying human development and learning during the early years.

The ecology of human development, however, is not just a scientific statement of the status quo; rather, it is conceived as a system of organism-environment interrelationship that exhibit both stability and susceptibility to change.

The sources of change are twofold: The first is intervention from the outside; the second, of equal importance and necessity, is the initiative taken by an active living organism whose basic impulses are directed toward survival, constructive action, and psychological growth. It is the complementary conjunction of the vectors that drives development. (p. xi)

White and Bronfenbrenner remind us that it is not an "either-or" situation in terms of quantitative versus qualitative means of inquiry; rather, it is a question of what will assure us of the most "inclusive" system of studying human development and functioning in light of the many influences and contexts that shape our lives.

William Ayers and Becoming A Teacher: Utilizing narratives of observations, reflective analysis, comparative-historical insight, and the "views"
dimension to the inquiry process, particularly as it relates to the growth of
teachers. Ayers uses a combination of biography, narrative, story telling, and
reflective-analysis to weave a thematic description of the journey of teaching.
Clearly, a qualitative exploration of the many nuances of teaching and learning,
he presents valuable observations and perspectives on both the value and
processes of teaching.

Commenting on his methodology, Ayers (1993) notes:

Much of what I know about teaching is tentative, contingent,
and uncertain. I learned it by living it, by doing it, and so
what I know is necessarily raged and rough and unfinished.
As with any journey, it can seem neat and certain, even
painless, looking backward. On the road, looking forward,
there is nothing easy or obvious about it. It is hard, grinding,
difficult work. I owe a lot to the youngsters and to the
families of the youngsters I have taught, and to the teachers
with whom I have acted and interacted. The collective,
ongoing conversation with them about teaching allows me
to glimpse something of the depth of this enterprise, to
unearth the intellectual and ethical implications beneath
the surface. (p. xi)

What Ayers attempts is to paint broad strokes or themes of the evolution of one’s
experience at becoming a teacher - without ever reaching a static point of arrival;
it is a continuing, never ending process. The large theme of his 1993 book (To
Teach: The Journey of a Teacher) is indeed on the “journey” and the
potentialities that exist in this journey if one is open to them.

Four attributes of Ayers work flow throughout his inquiry: the sources of
data, the conceptual foundation of his work, the analytic nature of his thinking,
and the multiple perspectives he brings to his story.

Ayers is a source of his own data as well as are the children, parents, teachers, and "others" who he has gained intimate knowledge of through life and through study. Participant-observer, teacher, interviewer, case study instigator, parent, critic, reader, thinker, and writer - all of these roles are Ayers at one point or another in his journey to find meanings in the teaching-learning process. While his focus is on the people issues as they evolve from classroom living, Ayers closely examines teacher preparation, school curriculum, school ecologies, teaching as pedagogy, and many other vital elements that comprise the lives of teachers and children.

In a sense, Ayers examines the "whole" of teaching as it really occurs within the dynamics of the lives of teachers, children, parents, and others - in the varying environments of schools and classrooms. He (Ayers, 1993) comments on this global process of teaching as more than the sum of its parts:

Before I stepped into my first classroom as a teacher, I thought teaching was mainly instruction, partly performing, certainly being in the front and at the center of classroom life. Later, with much chaos and some pain, I learned that this is the least of it - teaching includes a more splendorous range of actions. Teaching is instructing, advising, counseling, organizing, assessing, guiding, goading, showing, managing, modeling, coaching, disciplining, prodding, preaching, persuading, proselytizing, listening, interacting, nursing, and inspiring. Teachers must be experts and generalists, psychologists and cops, rabbis and priests, judges and gurus. And that's not all. When we face ourselves, we face memories of our own triumphs and humiliations, of our cowardice and bravery, our breakthroughs and breakdowns, our betrayals as well as our fidelity. When we characterize our work - even partially, even incompletely - straightforward images and one-dimensional definitions
dissolve, and teaching becomes elusive, problematic, often impossibly opaque. (pp. 4-5)

Conceptually, Ayers is beyond categorical rigidities in his desire to probe the possibilities within the various contexts and dynamics of teaching and learning. One finds clear lines of progressive thought, romantic idealism, stark realism, constructivism, and socio-cultural analysis throughout his writing. In his introduction to To Become A Teacher (Ayers, 1995), he describe pieces of his conceptual orientation:

This is a book about possibility, about what could be accomplished in every public school in America if we only have the courage and vision and determination to do so. It is a book of implied (and sometimes explicit) criticism of a system that routinely turns students into passive consumers of curriculum and teachers into clerks in a bureaucracy, instructed to deliver the goods without much thought and without much care. It is a book filled with practical, concrete advice for new teachers (or experienced teachers who are rethinking their practices); advice on how to find allies in your quest for a better teaching practice; how to keep a vision of teaching as vibrant, dynamic, intellectual, and ethical work alive in a system that neither honors nor nourishes that vision; how to keep students at the center of your practice; and how to teach against the grain. It is a book for people who are swimming uncomfortably in a sea of habit and routine, of behaviorism and instrumentalism, and are hoping for something better. (p. 3)

A central conceptual thread is that of the value of the personal, the intimate, the often hidden talent that is too often thwarted in rigid schools and classrooms. This faith in the essential goodness of people is revisited in many forms throughout Ayers observations, comments, and narrative, storylike prose.

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Critical analysis of social and cultural events and patterns is a benchmark of Ayers's work. He brings this analysis to the act of teaching in a cogent way that highlights its complexity and its vital importance to having a sane society. He questions the very foundation of our daily educational agenda, one that he critiques as overly behavioristic and prescriptive. Using the format of Stanislavsky (the renowned Russian director and the father of method acting), Ayers places teaching within an ongoing inquiry-oriented context.

Greatness in teaching also requires getting over the notion that teaching is a set of techniques or disconnected methods. There are lots of people who write adequate lesson plans, keep order and quiet in their classrooms, deliver competent instruction in algebra or phonics, and are lousy teachers. Outstanding teachers engage youngsters, interact with them, draw energy and direction from them, and find ways to give them a reason to follow along. This is the difficult and serious work of teaching.

Finally, Ayers's inquiry is enriched through the multiple "voices" he draws upon in his description and analysis of teaching and learning. Throughout his inquiry, the voices of children speak directly about learning, about living with adults, about hopes and fears, and about the visions of the future only they can have. Parents, other teachers, and university professors who have also conducted inquiry studies are integrated into Ayers's humanistic analysis of teaching. His book of readings (To Become A Teacher) includes noted thinkers in education and other disciplines: Joseph Featherstone, Lisa Delpit, Nancy Balaban, Maxine Greene, Monroe Cohen, Lillian Weber, and many others.

These multiple voices provide a source of validation, enrichment,
uniqueness, and power to Ayers inquiry. His own "network" of intimate others who also are in pursuit of the meaning of teaching and learning represent a power of new thinking about what good teaching and learning is all about. Based on observation, studied insight, critical analysis, participant perspective, and collaborative inquiry, Ayer's work offers new directions and new possibilities for exploring the dynamics of learning; in school, at home, and throughout the many ecologies of life.

A New Inquiry Paradigm: Possibilities and Challenges

The emerging inquiry paradigm offers hope for gaining more meaningful understandings about the dynamics of human development and functioning during the early childhood years. The very conception of learners as builders of the inquiry process, being participants and yet observers and researchers, and seeing the realities of the dynamics of change and growth in human living are integral to this new paradigm. We are more informed about how children develop, how parents can best nurture their children, about the complexities of the ecology of human development, and of the dynamics and complexities of teaching and learning as a result of the interpretive, analytical work of White, Bronfenbrenner, and Ayers. Many others have also furthered this agenda of qualitative inquiry.

The key axioms of this new inquiry paradigm are noted by Lincoln & Guba (1985):

*Research is carried out in the natural setting or context of the entity for which study is proposed.

*The researcher uses himself and others as the primary data gathering
instruments.

*Tacit (intuitive) and propositional (logical) knowledge are used in conducting the research.

*Qualitative and where appropriate quantitative methods of study are used; qualitative methods are the predominant means of data gathering.

*Purposive or theoretical sampling is used to increase the scope or range of data gathered and thus broaden the possible realities exposed by the research.

*Inductive data analysis is predominant because it exposes more of the realities of the entity being studied.

*Grounded theory (theory generated from the data itself) is used to encompass more of the realities being studied.

*Emergent study designs are used to accommodate the multiple possibilities that typically occur in human situations.

*Negotiated outcomes are a part of the process because only through the dynamics of researcher-participant interactions can multiple realities be understood.

*Case study reporting modes predominate in qualitative inquiry because they provide more comprehensive information on the dynamics of entities being studied.

*Idiographic interpretation of data (in relation to the particulars of the case) prevails over nomothetic interpretation.

*Applications of findings are tentative because of the multiple realities in differing situations and contexts.

*Broad but focused boundaries are used to allow for emergent realities to occur in the process of study.

*Special criteria for trustworthiness of data are likely to be specified in relation to the particular entity being studied.

*The possibilities offered by qualitative, interpretive inquiry in early childhood education*

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childhood education are many: exploration of naturally occurring child, parent, and family behaviors; analysis of specific teacher actions relative to a broad range of child and classroom situations; examination of instructional and curriculum programs within the ongoing dynamics of classrooms; case studies of individual child situations; cross-cultural comparative studies of child, parent, or family behaviors and contexts; program specific evaluations relative to achieving desired goals; collaborative study of common early childhood issues (staff training, children’s play, classroom management...); and many other issues.

The potential for shared action research across disciplines is also increased through qualitative inquiry. University-school partnerships, agency and center collaboration, and related “group” inquiries can better instruct public policy, enable practitioners to more confidently use research information, and promote a larger base of professionals involved in carrying out inquiry studies.

Challenges raised by the newer inquiry paradigm include the articulation of conceptual, methodological, and applied criteria that assure that qualitative research is systematic, thorough, and trustworthy (Lincoln & Guba, 1985).

Toward Meaningful Inquiry: Criteria and Challenges

The danger inherent in any paradigm shift is that “reasoned study” of human issues may be forsaken for poor quality inquiry (Glesne & Peshkin, 1992). Interpretive inquiry requires adherence to criteria that assure the integrity of the research process. Lincoln & Guba (1985) provide important criteria for guiding our inquiry work.

The inquiry must have a focus. The focus may be in the form of a
problem, an evaluation concern, policy issue, or other tension or creative interest that addresses the dynamics of the human condition. This focus helps to establish the boundaries for the study but does not rigidly embrace the inquiry. New information should instruct the adaptation of the focus.

*The focus should match the interpretive inquiry paradigm.* In other words, is the interpretive inquiry method the most effective way to study the questions inherent in the focus. If the focus is closer to that of gathering physical science data it may be that a more traditional, quantitative method is more appropriate.

*The substantive theoretical foundation of the focus should have consonance with the interpretive, naturalistic paradigm.* In effect, is the theoretical basis of one’s inquiry consonant with naturalistic inquiry processes?

*The population sample to be used must achieve maximum variation as related to the focus of the study.* In this sense, the sampling procedure should achieve the intent of acquiring data from as many respondents as possible in relation to gaining a comprehensive perspective about the focus.

*The inquiry must be framed in successive stages (orientation/overview, focused exploration, and member check) to obtain accurate and complete data on the focus.* Interpretive research presents special challenges in that data collection requires multiple perspectives over an extended period of time in ways that probe the focus thoroughly.

*Instrumentation (methods of study) must shaped to acquire the data most relevant to the focus.* This may require the use of qualitative and quantitative instruments. Certainly, the person as inquirer is the key in qualitative work but
some studies may call for various methods. Team inquiry offers multiple opportunities for data collection that is triangulated, comprehensive, and valid.

*Data collection and recording procedures must be carefully planned to achieve integrity of data as related to the focus.* This calls for the researcher to match collection and recording procedures to the needs of the study as directed by the focus. What is most convenient may not be the procedure(s) needed to achieve integrity of study.

*Data analysis must be thorough, continuing, and interrelated with the focus' theoretical and emergent attributes.* Interpretive studies should adhere to the maxim that all data may have importance to the focus, thus collection-organization-analysis procedures should be continuous and shaped in ways that best reveal the desired understandings.

*Logistics of study need careful attention in interpretive inquiry because each facet of study is connected to some aspect of the focus.* Planning the who, what, when, and where of studying particular human contexts and issues should be systematic and interrelated with the focus. Emergent happenings need close attention in the sense that they are often instructive regarding adaptations that can lead to finding more accurate and essential data.

*Establishing “trustworthiness” within all facets of the study is critical to the utility of the work accomplished.* Using reliable sources, planning for triangulation, acquiring comprehensive and valid data, using a team approach, and connecting your data to that of other significant research are some essential steps.

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These criteria as articulated by Lincoln & Guba (1985) provide an important framework for the design and implementation of interpretive inquiry. Challenges that arise in the inquiry process are also important to note in that they impact every facet of the study process.

Exploring and Describing Reality: Perhaps the greatest challenge to interpretive researchers is in their study of what is real and then describing it in accurate and comprehensive ways (Stake, 1995). This challenge represents both the tremendous potential in naturalistic work and its most serious credibility issue. Once a focus, population, context, and design have been shaped, the researcher confronts the reality issue. What is truly happening in the context under study? How can I best acquire data that will represent this reality? In what ways can I verify and describe this reality? How can I unravel the multiple realities that exist within any given context?

There are no easy answers to this challenge of reality. It is part of the researchers shadow and it often prompts further study and reflection. Triangulation, collaborative research efforts, shadow studies, and long term inquiry are some strategies used to address it. Careful field notes, cautious selection of informants, member checking, systematic review of data collected, and continuous theory building are additional needed efforts in creating a match between what we describe and what is actually happening.

Dealing With The Personal Dimension: Subjectivity is inherent in any naturalistic inquiry. Indeed, it is seen as essential because the dynamics of human relationships as enacted in various cultures and contexts is comprised of
the personal, the subjective, and the continuing phenomenology of living (Lincoln & Guba, 1985). The challenge in dealing with this personal dimension of research is in achieving “integrity” of observation, engagement, methods, informants, data collection and analysis, and description.

As Glesne & Peshkin (1992) note, the challenge begins with the ethical aspect of the personal dimension. Is the study consonant with the wishes and the participation of the members of the community under study? Are they kept informed, involved, and sought out for ethical checks? Are the processes and results going to be truly contributive to the community? Is the method of study, the key researcher, and the contextual shape of the inquiry reflective of honesty and accuracy? A balance must be achieved between the ethical codes of professional associations that are directed toward researchers and the inherent ethics of studying human beings and their situations.

The researcher must also address their personal involvement in the inquiry process. How can the researcher use their tools of observation, participation, and data collection and analysis in ways that “tell the story accurately and comprehensively”, and in ways that respect the valued patterns and rituals of living extant to the culture studied (Stake, 1995). This means that each researcher must create their system for validating, reviewing, and refining what they see and how they organize and report it. Especially critical is the cultural picture arrived at in relation to what is actually happening in context. How are our values influencing the picture we paint? Recognizing that our personal work is but one piece of many larger conceptions of events and people, our inquiry

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work must honestly address the multifaceted nature of any contextual arrangement.

The reciprocity of interpretive inquiry is another challenge of the personal dimension. Naturalistic research is by its nature interactive, dynamic, and continuous. Is the full richness of the diversity of participants in the inquiry being achieved through multiple data collection arrangements? Informants and researchers shape the shadow of the story as it unfolds, thus the reciprocal nature of this process must be accounted for through careful design and study (Lincoln & Guba, 1985).

The multiple roles of the qualitative researcher - all of which are personal and subjective in nature - are thoroughly addressed by Stake (1995). The researcher as teacher, advocate, evaluator, biographer, interpreter, and constructivist are highlighted by Stake as examples of roles that call for special attention and matching with the needs of the inquiry.

Theory Building As Part Of The Inquiry: Qualitative research can promulgate many disconnected stories without a systematic effort to build and continually refine theoretical and conceptual rationale and frameworks (Lincoln & Guba, 1985). Meaningful inquiry must be connected to or in the process of developing conceptual/theoretical bases. Glesne & Peshkin (1992) note the value of Glaser & Strauss’ concept of “Grounded Theory” - which is an inductive strategy whereby the researcher discovers concepts and hypotheses through constant comparative analysis. In effect, interpretive inquiry focuses on using the concrete data generated from specific studies as the bases for developing
generalizations and theoretical constructs. The generation of thematic patterns of human functioning within cross-cultural contexts is one example of this approach.

Theory building is or must be viewed as continuous, gaining in refinement and in power as it is re-created with new inquiry. The search for truth, in this sense, is never ending - highly connected to the cultural fabric in which behavior occurs and open to change as societies experience new challenges. *Three essential observations are important in effectively responding to the challenge of theory building:* 1) articulation of existing knowledge regarding the inquiry, 2) shaping questions that guide the inquiry toward a conceptual frame, and 3) synthesizing inquiry findings into possible theoretical explanations as interrelated with other comparative situations (Denzin, 1989).

Perhaps the weak link in many inquiry studies is their lack of substantive literature analyses regarding their emphases. Contextual substance demands that researchers articulate the *critical elements* of existing knowledge of the inquiry, particularly as related to conceptual rationale (Stake, 1995).

A thorough knowledge of the inquiry focus can at least guide one's shaping of study questions. Questions provide the parameters that guide the design and methodology of inquiry. They also provide the researcher with key insights relative to initial theory construction/refinement. Poorly developed questions can create a vacuum in the inquiry process, often confusing the researcher and leading to poor quality work.

Integral to the total inquiry process is continuous synthesis of data gathered in relation to conceptual rationale and to the process of generating theoretical
ideas relative to what one has found. Comparative analysis with studies of a related nature can stimulate affirmation of particular generalizations and/or promote new thinking about old conceptions of how people function.

**Establishing Integrity and Trustworthy Inquiry:** Naturalistic inquiry faces special challenges regarding the integrity and trustworthiness of methodology, analysis, and interpretation (Lincoln & Guba, 1985). The integrity issue relates to the totality of inquiry work: focus, strategies used, data collection and analysis, and articulation of findings. Has the "work" of inquiry been honest, systematic, interrelated with other relevant research in the discipline, and carried out in ways that invite belief and utility (Erickson, 1986).

Trustworthy inquiry must address several issues in ways that are consonant with interpretive and qualitative research. Lincoln & Guba (1985) identify key elements of trustworthy naturalistic inquiry: credibility, transferability, dependability, and confirmability. They offer sound criteria for establishing credibility: prolonged engagement, persistent observation, peer debriefing, triangulation, negative case analysis, referential adequacy, and member checking. Transferability is best addressed through "thick descriptions" that provide information on the multiple possibilities in the context under study. Dependability can be assured through triangulation, replication, and an inquiry audit. Confirmability calls for checking our inquiry methods and procedures and addressing our personal study involvement. Ultimately, specific strategies should be used to assure that our inquiry invites trust.

Triangulation offers substantive means for achieving this trustworthiness.
challenge. Stake (1995), in elaborating on the role of triangulation, notes that:

For data source triangulation, we look to see if the phenomenon or case remains the same at other times, in other spaces, or as persons interact differently.

For investigator triangulation, we have other researchers take a look at the same scene or phenomenon. (pp. 112-113)

Member checking (having participants in the study review our constructions of their realities) provides a reality mirror to our work. Using multiple means of confirming our observations and interpretations is essential to building trust in our work.

Ultimately, our best means of establishing trust is through collaborative, long term naturalistic inquiry carried out by researchers who are well versed in the discipline. Isolated studies need to be connected to the field of inquiry that they address. The inquiry process can only achieve credibility through extensive process work that is of high quality and that is closely integrated with historical bases for that work.

Reaching Conclusions That Mean Something: The contextual nature of interpretive research creates both opportunities and challenges in the analysis and synthesis of data as related to generating meaningful findings (Stake, 1995). Context is at the heart of naturalistic inquiry, it is what signifies specific differences from more quantitative study. Providing the researcher with concrete situations, behaviors, and cultural arrangements, the case or study question becomes embedded in context. Unique situations and common behaviors are both likely outcomes in naturalistic work. Arriving at meaningful conclusions,
however, calls for close attention to at least three processes: 1) the data collection instruments and process, 2) the manner in which data is organized and analyzed, and 3) the interpretive process used to generate findings (Cochran-Smith & Lytle, 1993).

Data collection in naturalistic inquiry relies mainly on the researcher as observer, recorder, organizer, and analyzer of information gathered. Tools such as interviews, check lists, documents, artifacts, surveys, and other means are used to gain input from participants. A particular challenge in data collection is the choosing of instruments that best support the acquiring of data needed to answer or expose the dynamics of the question(s) of the inquiry. For example, an evaluation study that hopes to expose sensitive variables in the design of responsive kindergarten programs may find that "case" requires indepth visitation, participation, and observation-interaction in selected classrooms. Thus, while surveys of kindergarten teachers might help, the information gained may not expose the subtle dynamics of the kindergarten environment desired by the funder. Critical then is the articulation of what it is within the question that must be addressed through data collection instruments and process. Naturalistic inquiry thrives on the use of strategies that probe the personal, the contextual, and subjective-phenomenological, while at the same time striving to gain some consistency of results.

Useful data can be wasted when it is lost through poor organizational strategies or misconceived during analysis (Gesme & Peshkin, 1992). The obvious can be overlooked, thus an important reminder in this regard from Stake
Absolutely essential parts of a data-gathering plan are the following: definition of case, list of research questions, identification of helpers, data sources, allocation of time, expenses, intended reporting. (p. 51)

Further, the nuances of data organization and analysis need constant attention such as shaping categories for storing data, refining categories as new data provides substance for change, and rethinking how the data best relates to focus. In naturalistic inquiry data collection and organization are continuous, interacting with the researchers' work from beginning through various "endings". Using conceptual organizers of previous work can be helpful but must be cautiously reviewed in light of data being gathered in the present.

Determining the meaning of data is also continuous, beginning with one's thorough literature review, initial observations, reflective analysis throughout the study, and carefully framed findings that truly reflect what the realities seem to convey in their emergent themes (Atkinson, 1992). Direction for arriving at meaningful interpretation is explicated by Stake (1995):

The search for meaning often is a search for patterns, for consistency, for consistency within certain conditions, which we call "correspondence." Absenteeism is related to gender, talk of need for a school uniform is related to gang aggression. We can look for patterns immediately while we are reviewing documents, observing, or interviewing - or we can code the records, aggregate frequencies, and find the patterns that way. Or both. Sometimes, we will find significant meaning in a single instance, but usually the important meanings will come from reappearance over and over. Both categorical aggregation and direct interpretation depend greatly on the search for patterns. Often, the patterns.
will be known in advance, drawn from the research questions, serving as a template for the analysis. Sometimes, the patterns will emerge unexpectedly from the analysis.

But themes or patterns are only one aspect of "meaning." Unique events, special behaviors, and notable artifacts may stand out from the patterns of usual events. These contrasting events and behaviors can reveal "new" stories about the meanings within the observed focus. Triangulation, member checking, and close review one one's observations provide means for refining and refocusing interpretive findings.

Writing The Inquiry: Constructed Meaning As Story: Naturalistic inquiry provides the opportunity for rich and "thick" description of human events and behaviors as they occur within a defined context or culture. At the same time, this form of research presents the writer with special challenges: accurate representation of the focus studied, elaborations of the focus that fully articulate the multiple meanings of the behaviors and events observed, coherence of text with realities described, analytic consistency as related to interpreted meanings, and synchrony of findings with related work in the field (Atkinson, 1992).

As noted by Atkinson, the writing begins with our conceptions of the study and proceeds through several steps including the outlining of a framework, fieldnotes, memos to one's self on data synthesis, audio recordings, and multiple other pieces of emergent data. Thus, our constructions need to be carefully recorded, checked, and interrelated with later syntheses of our data. Atkinson sums up this challenge of striving for coherence and accuracy in representing the
realities of fieldwork as it ultimately comes to fruition in our writing:

There is, therefore, a triple constitution of the field. First, it is constructed through the ethnographers gaze. Secondly, it is reconstituted through his or her ability to construct a text-of-the-field. Thirdly, it is reconstructed and recontextualized through the reader's work of interpretation and contextualization. (p. 9)

Conveying the multiple meanings of the study focus is another challenge in inquiry writing (Stake, 1995). A major purpose of interpretive research is to probe and explore the many facets of human behavior and contexts that are not likely to gain presence in quantitative studies. Thus, conveying the many realities present in the focus of study as revealed through naturalistic inquiry is a goal that must be integrated into the writing up of research. This is no easy task as the researcher is in dialogue with the reader the minute the study is gleaned and examined by another person. As Atkinson (1992) notes, we must construct narrative that both honestly tells the story of the focus or culture we are reporting on and do so in ways that readers can in turn construct honest images of the story we have told. In effect, our reporting must include metaphors and messages that explicate the multiple aspects of the focus of our work. This means writing up rich and "thick" narrative that includes the stories of the people, symbols of their functioning, and direct representations of their many realities.

The Continuing Story: Inquiry That Leads To More Inquiry

Unlike some quantitative research, naturalistic and interpretive research stimulates more questions by its very nature. Glesne & Peshkin (1992) offer important insight in this regard:
Instead of responding to research findings as though they represent reality and truth, use the findings as an opportunity to think about the social world around you. (p. 176)

A good qualitative text invites you in. It encourages you to compare description and analysis in your own experiences, and to use it in a way that makes sense of your own particular situation. (p. 176)

While our goal is truth and its corresponding reality, the likely result of any research is that it offers new questions, new ideas, and new possibilities for further inquiry. The process is indeed more important than the outcome in interpretive work because our human contexts are fraught with change, imperfection, and interesting possibilities.

Three possibilities (at least) are inherent in interpretive inquiry with regards to promoting continuing study and reflection: 1) Contextual Issues in our Early Childhood Profession, 2) Professional Development Needs, and 3) Research and Application queries. Each of these possibilities offer unique opportunities for continued study, reflection, and refinement. A few examples within each area are explored to simply highlight the nature of their continuing challenge and interest.

Contextual Issues: Classroom, school, family, community, and society present several contextual issues that promise continued inquiry: design of environment, school culture, family dynamics, community values, and sociocultural mores (Berns, 1993). In what ways does the learning environment design influence child initiatives in relation to various learning possibilities? How
is the school culture shaped in ways that promote optimal learning conditions for all children? How are family context issues influencing children and teachers in the classroom learning setting? These and other questions offer starting points for generating more specific inquiry interests as related to your particular situation. They provide broad frameworks for continued study and reflection and offer opportunities for promoting our continued growth in understanding the situations in which we teach and learn.

**Professional Development:** The very soul of good teaching is in the continued professional and personal growth of teachers (Ayers, 1995). Several issues have emerged in this area: What do teachers most value in relation to planning their professional growth? How can those in our profession promote an increased value on the education and growth of those who care for our youngest citizens? How could we better structure our professional context to engender more intensive and contiguous professional development? New technologies, public policy possibilities, and innovative leadership in early childhood are posing new avenues for shaping professional development options. These and other issues need continued researching and analysis - they are not issues that have immediate answers but rather promise the challenge of long term study.

**Research and Application:** The field of early childhood education is filled with issues that require constant and continuing study. The relationships, environment, and social dynamics of our work pose significant questions because our guidance of children and families is powerfully linked to the future of our society. Rigid or absolute answers are not needed, they cloud and confuse our
understandings of life. As Stake (1995) notes:

The function of research is not necessarily to map and conquer the world but to sophisticate the beholding of it. “Thick description,” “experiential understanding,” and “multiple realities” are expected in qualitative case studies. Pursuit of complex meanings cannot be just designed in or caught retrospectively. (p. 43)

Indeed, the complexity of children’s play, the intricacies of parenting in any given cultural milieu, and the subtleties of “becoming” a teacher are such that no single study or mode of study can suffice.

The paradigmatic changes pressing for changed conceptions of how human beings develop and function call for marked improvements in how we study our development and learning. Certainly the basis for change in early childhood research begins with our conceptions of the what and how of this process - initiating a pattern of openness and exploration that can shed new perspectives on the many issues inherent in cultures undergoing dramatic transformation. Hatch captures the essence of this need for an exploratory inquiry approach:

The postivist focus on the individual, self-contained child is challenged by constructivist perspectives and methods as well. Qualitative researchers study children and others who influence children in their surroundings. Children are not reduced to a set of variables to be manipulated and correlated but are treated as active co-constructors of their own realities; they are studied as the products and producers of their own cultures. (p. 130)

By applying a constructivist perspective and utilizing qualitative research methods, that is, by studying children and childhood as cultural inventions, child study researchers can break free of the assumptions and methods that continue to constrain our understandings of children and the contexts in which they live. (p. 130)

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References


