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The Role of Transformative Knowledge in Multicultural Education

Sebastian A. Ugochukwu

Loyola University Chicago

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LOYOLA UNIVERSITY CHICAGO

THE ROLE OF TRANSFORMATIVE KNOWLEDGE IN
MULTICULTURAL EDUCATION

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

DEPARTMENT OF CURRICULUM, INSTRUCTION, AND
EDUCATIONAL PSYCHOLOGY

BY

SEBASTIAN A. UGOCHUKWU

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CHAPTER I
INTRODUCTION

This five part critical discourse examines in part the story of a personal odyssey and is therefore partly confessional. The odyssey, which comprises the first part of the narrative approach, relates to the journey I have taken to try to understand the development of the mind and the forms through which its contents are made public.

The second part relates to the literature review, how my ideas about these matters evolved. This review will begin by examining the classic theories in psychology; specifically, Vygotsky, Piaget, Bronfenbrenner, Rogoff, Dewey, etc.

The third part is a critique of critical thinking and critical pedagogy and refers to the dilemmas, uncertainties, and conundrums that the ideas I embrace have caused me.

The fourth part relates to the role of transformative knowledge in multicultural education. I hope to make a positive contribution to this critical discourse in the field of educational psychology and to examine how those philosophical ideas in the field of knowledge have helped in transforming my academic knowledge into multicultural education.

The fifth part relates to the general principles.
applying to classroom methodology. I will explore what these ideas might mean for the future of educational psychology, both how it is pursued and how it is presented.

In conclusion I will deal with the implications; that is, I will present the case that transformation knowledge is necessary in multicultural education.

This review will begin by examining the classic theories in psychology; specifically, Vygotsky, Gibson, Bronfenbrenner, Piaget, and Rogoff. As an introduction to transformative knowledge, the knowledge base established by the critical pedagogists will be reviewed, for example Paulo Freire and Henry A. Giroux. Definitions of transformative knowledge and multicultural education will be developed as well as the meaning of their integration.

This discussion is, by necessity, personal. It draws on the assumptions of postmodern psychology and builds on the conclusion that "what it means to interpret and what it means to experience become highly relative, contextual concepts" (Josselson & Lieblich, 1995, p. ix). As Geertz (1983) recommended, we must orient ourselves to "local knowledges," aspects of human experience that are individualized and contextualized, rather than continuing in the futile search of describing a universalized orderly human social world. Following in the tradition of the narrative investigation of human life (Josselson & Lieblich, 1995), I use my own story as a mechanism for beginning the
interpretation of experience. Some readers may share a concern described by Josselson (1995): "... within psychology, the question to treat people's lived experiences embarrasses our more technical understandings of intellectual conceptualizations" (p. 32). However, building on Bruner's (1986) "narrative modes of knowing," my approach follows from Josselson's (1995) conclusion:

Meaning is generated by the linkages the participant makes between aspects of her or his life as lived and by the explicit linkages the researcher makes between this understanding and interpretation, which is meaning constructed at another level of analysis (p. 32).

In traditional research, when people are aggregated as subjects and diversity is treated as error variance as the researcher searches for what is common to all, the findings reported may teach us about no one in particular. The narrative autobiography allows the reader to identify both the common and the unique experience with the individual in his or her own complexity.

After finishing my secondary school at Saint Peter Claver Seminary Okpala in Nigeria in 1971, I proceeded to Bigard Memorial Seminary where I majored in Philosophy and Theology. Philosophy for me was exciting and intriguing because it always challenged my thinking and became a journey into the unknown (Dewey, 1910). The focus is less on problems and more on the possibilities inherent in a given situation. That journey into the unknown led me to pursue the concept of knowledge and how it transforms and
develops us in our various cultures. In all my studies in philosophy and psychology the puzzle of ideas (the mind) has fascinated me. When I look back on our ancestors in this field they were also concerned about the issue of whether ideas are innate or acquired through the experience of the senses. Plato (427-347 BC) believed that ideas are innate because the soul, which exists before birth in the realm of ideas, is trapped by the body at birth. Medieval Christian Philosophers proclaimed the innate depravity of man, and later the French Philosopher Rousseau (1712) proclaimed innate goodness. Descartes (1596) believed certain ideas are innate while the British empiricist Locke (1632) argued that the newborn’s mind is a blank slate (tabula rasa) on which experience writes. These speculations made me become more intrigued about the journey into the unknown in quest of knowledge and how it transforms humankind.

It was my interest in children and my need to clarify my vague convictions about educational potential in the human mind (the ideas) that led me first to DePaul University and later into Loyola University both in Chicago and to an initiation into the Social Sciences. The programs in Education at DePaul and Loyola were intellectually open, and I was given enough leeway not only to sustain, but to pursue, my interest in my inquiry into the issue of ideas in Educational Psychology. I found support in the work of John Dewey, Vygotsky, Gibson, Paulo Freire, Ira Shor,
Bronfenbrenner, Piaget, Rogoff, Bruner, Richard S. Prawat, Elliot W. Eisner, James A. Banks, Margaret Buchmann and Robert E. Floden, Roderick M. Chisholm and a host of others that are not mentioned here. My encounter with the Social Sciences at both universities and my long standing involvement in philosophy/theology and psychology, both as a priest and a teacher, has forced me to confront the tension between my desire to understand and my desire to cultivate the problem of the mind in acquisition of knowledge. My effort to resolve this tension and my interest in the cognitive character of the ideas have been a career-long journey.

This journey has been guided by a variety of beliefs. Some of these beliefs came from these quotations:

The spider carries out operations reminiscent of a weaver and the boxes which bees build in the sky could disgrace the work of many architects. But even the worst architect differs from the most able bee from the very outset in that before he builds a box out of boards he has already constructed it in his head. At the end of the work process he obtains a result which already existed in his mind before he began to build. The architect not only changes the form given to him by nature, within the constraints imposed by nature, he also carries out a purpose of his own which defines the means and the character of the activity to which he must subordinate his will (Karl Marx, Capital 1917).

It is precisely the alteration of nature by man, not nature as such, which is the most essential and immediate basis of human thought (Engels, 1940).

The process in which the architect transforms the form given to him by nature, within the constraints imposed by
nature, is what is fascinating in human knowledge. This transformation can only be achieved through those cultural tools given by nature. This theoretical perspective is supported by Rogoff (1990) when she stated that the purpose of thinking is to act effectively. Activities are goal directed (tacitly or explicitly), and such goals carry social and cultural definitions and means of handling problems. The structure of problems that humans attempt to solve, the knowledge base that provides resources, and the strategies for solutions that are considered more or less effective or sophisticated are situated in a social matrix of purposes and values. The problems that are posed, the tools that are available to solve them, and the tactics that are favored build on the sociocultural definitions and available technologies within which an individual functions. This tool within which individual functions Bruner (1986) pointed out would be that one from Francis Bacon, used by Vygotsky, proclaiming that: "Neither the hand nor the mind alone would amount to much without aids and tools to perfect them. And principal among those aids and tools are language and the canons of its use (p. 122).

This loosely translated quotation is taken from Francis Bacon's Novum Organum from which Vygotsky built his theory. In this research, I argue that designing aids and tools to perfect the mind is one of the primary goals of educational transformation. In this view I take the position that all
knowledge reflects the values and interests of its creators. This knowledge, in my mind, is transformative. With reference to Banks (1993), transformative knowledge is not neutral but is influenced by human interests, so that all knowledge reflects the power and social relationships within society. An important purpose of knowledge construction is to help people improve society (Code, 1991; Harding, 1991; Hooks & West, 1991; King & Mitchell, 1990; Minnich, 1990).

In the words of Paulo Freire (1995):

> While all development is transformation, not all transformation is development. The transformation occurring in a seed which under favorable conditions germinates and sprouts, is not development. The transformations of seeds and animals are determined by the species to which they belong; and they occur in a time which does not belong to them, for time belongs to humankind (p. 142).

It is essential for us to understand that experience is the bedrock upon which meaning is constructed and that experience to a significant degree depends on our ability to relate to the qualitative world we inhabit. This qualitative world, according to Eisner (1993), is immediate before it is mediated, presentational before it is representational, sensuous before it is symbolic. This "getting in touch," which is crucial for any artist supplies the mind with something to think about. Getting in touch is itself an act of discrimination, a fine-grained, sensitively nuanced selective process in which the mind is fully engaged (Eisner, 1993). With Eisner, I believe that the eye is part of the mind.
Consciousness of the qualitative world as a source of potential experience and the human sensory system as a means through which those potentialities are explored requires no sharp distinction between cognition and perception. On the contrary, I came to believe that perception is a cognitive event and that construal, not discovery is critical (cf. Armheim's 1969 visual thinking and Neisser's 1976 cognition and reality). Put in another way, I came to believe that humans do not simply have experience, they have a hand in its creation, and the quality of their creation depends upon the ways they employ their minds. The mind uses these tools to transform every perception that comes along its way.

A second idea that has guided my journey is the belief that the use of mind is the most potent means of its development. What we think about matters. The language we use in carrying out what we think about matters. What we try to do with what we think about matters. And so it follows, what schools allow children to think about influences, in ways perhaps more significant than we realize, the kind of minds they come to possess. As the English Sociologist Basil Bernstein (1971) suggests, the curriculum is a mind-altering device. We might extend his observation and say education is a journey into the unknown. The assumptions, perspectives, and insights that students derive from their experiences in their home and community cultures are used as screens to view and interpret the
knowledge and experiences that they encounter in school and in other institutions within the larger society.

A third idea that has guided me on this journey, has to do with matters of representation. As sensibility is refined, our ability to construct meaning within a domain increases. The refinement of sensibility is no small accomplishment. Hearing, Gilbert Ryle reminds us in the *Concept of Mind* (1949), is an achievement, not simply a task. To hear the music, to see the landscape, to feel the qualities in a bolt of cloth, are not automatic consequences of maturation. Learning how to experience such qualities means learning how to use your mind. But these achievements, as important as they are, are achievements of impression, not expression (Eisner, 1993). Representation, as I see it is not the mental representation discussed in cognitive science (Shepard, 1982; 1990) but, rather, the process of transforming the contents of consciousness into public form so that they can be stabilized, inspected, edited and shared with others. In sharing with others, students should be given opportunities to investigate and determine how cultural assumptions, frames of references, perspective, and the biases within a discipline influence the ways knowledge is constructed and represented. Students should also be given opportunities to create knowledge themselves and identify ways in which the knowledge they construct and represent is influenced and limited by their
personal assumptions, positions and experiences (Banks, 1993). Representation is what confers a public social dimension to cognition. Since forms of representation differ, the kinds of experiences they make possible also differ. Different kinds of experience lead to different meanings, which, in turn, make different forms of understanding possible (Eisner, 1993). It was Rorty (1989) in support of this notion who concluded that it was the Romantics, who first understood the importance of perspective, the notion that "anything could be made to look good or bad, important or unimportant, by being redescribed" (p. 8).

Out of experience, concepts are formed. Concepts are imaginative distillations of the essential features of the experienced world. They can be used to generate possibilities, although never encountered directly in the environment itself. Our conceptual life, shaped by imagination and the qualities of the world experienced, gives rise to the intentions that direct our activities. Intentions are rooted in imagination. Intentions depend upon our ability to recognize what is, and yet to imagine what might be. Experience, however, is private. For experience to become public, we must find some means to represent it. This will lead us to the fourth part of this critical discourse, the transformative knowledge role in Multicultural education. Culture makes available to the
developing human an array of forms of representation through which the transformation of consciousness into its public equivalent is created.

The fifth part of this critical discourse involves general principles applying to classroom methodology. These principles refer to schools which are culture's agencies for selectively developing competencies in the use of representational forms. Once public the content of consciousness is stabilized, and once stabilized, it can be edited, revised and shared. But representation is not a one-way street. Since experience can never be displayed in the form in which it initially appeared, the act of representation is also an act of invention: The act of representation provides its own unpredictable options, options that can only emerge in the course of action (Collingwood, 1958).

This journey will lead me to the questions: How do these ideas about meaning and forms of representation pertain to schools and to what we teach? What relevance do they have for educational practice in multicultural curriculum? Can there be knowledge without transformation? Is knowledge without transformation meaningful? What kind of knowledge do we teach in schools? What are the implications for teaching? How do we relate our ideas and values to our own action? If our ideas become models, or in other words, if they are not applied creatively to reality,
do we run the risk of regarding them as reality? Should we consider these ideas as model or method? Must we consider these ideas as an absolute truth? Shall we restrict our conception of truth only to what science can provide?
CHAPTER II
LITERATURE REVIEW

Most of the theories that have influenced developmental research in the Western World have viewed individuals as separate from their social and physical environment. In these views, such as Jean Piaget's, development is seen primarily as an individual activity and the environment as simply an "influence on" an individual's development. This view is challenged by a number of other social belief systems and their corresponding psychological theories, many of them Eastern (e.g., Markus & Kitayama, 1991). Of this group, the most influential for present day developmental psychologists is the approach of the Soviet psychologist Lev Vygotsky and, more generally, the "Contextualists". In the Vygotsky-contextualist view, humans are embedded in a social matrix and human behavior cannot be understood independently of this matrix. Several recent influences and events have made developmentalists more receptive to the contextualists. Ethological (Bowlby, 1958) and Gibsonian (Gibson, 1984) theorists directed our attention to the purpose of behaviors for daily life and the fit between human abilities and our ecological niche. However, they do not focus on the social-cultural aspects of this niche as much as do the
contexturalists. In addition, the findings of domain-specific developments by the neo-Piagetians also increased our interest in the contexts of development. However, the concern was with the nature of particular tasks or domains of knowledge rather than the socially embedded nature of all types of knowledge. The contextual approach balances these trends. One of the spokespersons of the contextualists' belief similar to Vygotsky is Rogoff (1990) who describes the Contextual position in this way,

The purpose of thinking is to act effectively; activities are goal directed (tacitly or explicitly), with social and cultural definition of goals and means of handling problems. The structure of problems that humans attempt to solve, the knowledge base that provides resources, and the strategies for solution that are considered more or less effective or sophisticated are situated in a social matrix of purposes and values. The problems that are posed, the tools that are available to solve them, and the tactics that are favored build on the sociocultural definitions and available technologies with which an individual functions (Rogoff, 1990, p. 6).

In focusing on the most influential Contextualist--Vygotsky--in order to understand his background, we have to reflect back on the European Psychology which provides the initial setting for Vygotsky's theories. Until the latter half of the nineteenth century the study of man's nature was the province of Philosophy. The intellectual ancestors of John Locke in England had developed his Empiricist explanation of mind, which emphasized the origin of ideas from environmentally produced sensations. The British Empiricists had a difficult time describing the laws of
association by which simple sensations combine to produce complex ideas. On the other hand the followers of Immanuel Kant argued that ideas of space and time and concepts of quantity, quality, and relation originate in the human mind and cannot be broken down into simpler elements. Neither side budged from its position. Both of these philosophical traditions were operating under the assumption, dating from the work of Rene Descartes, that the scientific study of man could apply only to his physical body.

While the conflict between these two approaches extends to the present day, three books published in the 1860s changed the terms of discussion. Most famous was Darwin's *Origin of the Species*, which argued the essential continuity of man and other animals. The second book was Gustav Fechner's *Die Psychophysik*, which provided a detailed, mathematically sophisticated description of the relation between changes in specifiable physical events and verbalizable "psychic" responses. The third book was entitled *Reflexes of the Brain*, written by a Moscow physician, I. M. Sechenov. These books by Darwin, Fechner, and Sechenov can be viewed as essential constituents of psychological thought at the end of the nineteenth century. Darwin linked animals and humans in a single conceptual system regulated by natural laws. Fechner provided an example of what a natural law describing the relationship between physical events and human mental functioning might
look like. Sechenov, extrapolating from muscle twitches in frogs, proposed a physiological theory of how such mental processes worked within the normally functioning individual. These men provided the central questions in psychology in the second half of the century which became the concern of many young psychologists. What are the relationships between animal and human behavior; environmental and mental events; between physiological and psychological processes? Various schools of psychology attacked one or another of these questions, providing partial answers within theoretically limited perspectives.

The first School was that of W. Wundt in 1880. Wundt took as his task the description of the contents of human consciousness and their relation to external stimulation. Wundt postulated the explicit view that complex mental functions or higher psychological processes (voluntary remembering and deductive reasoning, for example), could not in principle be studied by experimental psychologists. By the beginning of World War I, the study of human conscious processes came under attack from two fronts: The United States and Russia. United States and Russian psychologists, discontented with the controversies surrounding sensations, renounced the study of consciousness in favor of the study of behavior. The second line of attack on descriptions of the contents of consciousness came from a group of psychologists who objected to the one point upon which Wundt
and the behaviorists agreed: the appropriateness of analytical breaking down psychological processes into their basic constituents. The movement, which came to be known as Gestalt psychology, demonstrated that many intellectual phenomena and perceptual phenomena could not be accounted for in terms of either of the basic elements of consciousness postulated by Wundt. This was the situation in European psychology when Vygotsky's ideas first emerged. The situation was not very different in Russia.

Cole, John-Steiner, Scribner, and Souberman (1978) stated that when Vygotsky came on to the scene in Russia he presented a lecture entitled: "Consciousness as an object of the Psychology of Behavior" (p. 5). In his view none of the existing schools of psychology provided a firm foundation for establishing a unified theory of human psychological processes. He saw psychology as being in crisis. For Vygotsky's Gestalt contemporaries, a crisis existed because established theories (primarily Wundt's and Watsonian behaviorism) could not, in their view, explain complex perceptual and problem solving behaviors. He shared the Gestalt psychologists' dissatisfaction with psychological analysis that began by reducing all phenomena to a set of psychological "atoms." But he felt that the Gestalt psychologist failed to move beyond the description of complex phenomena to the explanation of them. Even if one were to accept the Gestalt criticisms of previous
approaches, a crisis would still exist because psychology would remain split into two irreconcilable halves: a "natural science" branch that could explain elementary sensory and reflex processes, and a "mental science" half that could describe emergent properties of higher psychological processes. What Vygotsky sought was a comprehensive approach that would make possible the description and explanation of higher psychological functions in terms acceptable to natural science. To Vygotsky, explanation meant a great deal. It included identification of the brain mechanisms underlying a particular function. It included a detailed explication of their developmental history to establish the relation between simple and complex forms of what appeared to be the same behavior, and, importantly, it included specification of the societal context in which the behavior developed. This was an ambitious goal for Vygotsky and he could not reach it before his death in 1933.

Vygotsky was known for his constructed penetrating critique of the notion that an understanding of the higher psychological functions in humans can be found by a multiplication and complication of principles derived from animal psychology, in particular those principles that represent the mechanical combination of stimulus-response laws. He also made a critique of theories which claim that the properties of adult intellectual functions arise from
maturation alone, or are in any way pre-formed in the child and are simply waiting for an opportunity to manifest themselves. In the issue of social origins of language and thinking, Vygotsky followed the lead of influential French sociologists, but to my knowledge he was the first modern psychologist to suggest the mechanisms by which culture becomes a part of each person's nature. Insisting that psychological functions are a product of the brain's activity, he became an early advocate of combining experimental cognitive psychology with neurology and physiology. He laid the foundation for a unified behavioral science.

**Vygotsky's Theoretical Framework**

A central tenet of Vygotsky's theory is that all phenomena can be studied as processes in motion and in change. In terms of the subject matter of psychology, the scientist's task is to reconstruct the origin and course of development of behavior and consciousness. Not only does every phenomenon have its history, but this history is characterized by changes both qualitative (changes in form and structure and basic characteristics) and quantitative. Vygotsky applied this line of reasoning to explain the transformation of elementary psychological processes into complex ones. Thus the schism between natural scientific studies of elementary processes and speculative reflection on forms of behavior might be bridged by tracing the
qualitative changes in behavior occurring in the course of development.

Marx's theory of society (known as historical materialism) also played a fundamental role in Vygotsky's thinking. According to Marx, historical changes in society and material life produce changes in "human nature" (consciousness and behavior). Vygotsky attempted to relate this assumption to concrete psychological questions. In this effort he creatively elaborated on Engels' concept of human labor and tool use as the means by which man changes nature and, in so doing, transforms himself. The major premise in Vygotsky's formulation was the view that man was subject to the dialectical play between nature and history, between his qualities as a creature of biology and as a product of human culture. In relating Marxism to psychology, Vygotsky (1978) made explicit the way in which he thought its basic methodological principles might contribute to theory building in psychology:

I don't want to discover the nature of mind by patching together a lot of quotations. I want to find out how science has to be built, to approach the study of the mind having learned the whole of Marx's method. ... In order to create such an enabling theory-method in the generally accepted scientific manner, it is necessary to discover the essence of the given area of phenomena, the laws according to which they change, their qualitative and quantitative characteristics, their causes. It is necessary to formulate the categories and concepts that are specifically relevant to them in other words, to create one's own Capital (Vygotsky, 1978, p. 8).
This frame of mind was the guiding principle which directed Vygotsky in his theoretical beliefs.

**The Intellectual and Social Setting**

Vygotsky and present day contextualists share certain assumptions but they have certain differences, mainly in areas of emphasis, which are pointed out below. The literature stresses the main characteristics as: the role of the child-in-activity-in-context as the unit of study, the zone of proximal development, the sociocultural origins of mental functioning, the mediation of intellectual functioning by tools provided by culture, and the contextualist methodology.

**Child in Context**

Vygotsky and contextualists hold that rather than focus on the child himself, they view the child participating in some event as the smallest meaningful unit of study. A child is not a constant, universal organism operating in a vacuum. Instead, the child and the development of the mind are inherently social: "The path from object to child and from child to object passes through another person" (Vygotsky, 1978). The child, the other person, and the social context are fused in some activity. The social-cultural-historical context defines and shapes any particular child and his experience. On the other hand the child affects his/her context. In effect looking at a child while ignoring his context distorts our concept of the
nature of children. Focusing on a child alone tends to encourage us to look for causes of behavior within the child rather than in the context. Rogoff (1990) in support of this view stated that the individual's efforts and sociocultural arrangements and involvement are inseparable, mutually embedded focuses of interest. Rogoff regards all human activity as embedded in context. She puts it this way:

In the contextual perspective, meaning and context are not elements that can be handled separately or derived from adding elements together. Context is not so much a set of stimuli that impinge upon a person as it is a web of relations interwoven to form the fabric of meaning (p. 149).

Other theories did emphasize the interaction between children and their environments. The difference is that the previous accounts consider the person and the environment to be separate entities that enter into interactions. In contrast, contextualists view this perceived separation as artificial and distorting. Instead, a single unit or process exists and through certain forms of social practice relate the child and his/her needs and goals to the environment and define what the environment means to the child.

**What is a Context?**

Bronfenbrenner (1989, pp. 226-229) views contexts in many levels. He postulates that "ecological psychology" depicts the environment as a system of nested structures, ranging from the immediate face-to-face interaction with another person to general all encompassing cultural belief
systems. The first structure is what he called a microsystem which is a "pattern of activities, roles, and interpersonal relations experienced by the developing person in a given face-to-face setting." The second structure is what he called the mesosystem which includes "the linkages and processes taking place between two or more settings containing the developing person." For example, we might ask if the peer group and school system support or contradict the parents' value system. Thus, a mesosystem is a system of microsystems. The third structure is what Bronfenbrenner called the exosystem which "encompasses the linkage and processes taking place between two or more settings at least one of which does not ordinarily contain the developing person." Events in this system influence processes within the immediate setting that do contain that person. An example is the relation between the home and the parent's work place. A stressful work environment may increase a parent's irritability at home, which could lead to child abuse. This level includes the major institutions of society, such as the economic system, the transportation system, local government, and the mass media. The fourth structure is what he called the macrosystem which "consists of the overarching pattern of micro-meso-and exosystems characteristics of a given culture, subculture, or other broader social context." This system is a general cultural "blueprint" that helps design the social structures and
activities occurring at lower, more concrete levels. This blueprint influences how parents, teachers, or significant others in the child's life "consciously or unconsciously define the goals, risks, and ways of raising the next generation" (Bronfenbrenner, 1989). There tends to be consistency among the important settings of a particular culture. Bronfenbrenner points out that within a given society, one elementary school classroom looks and operates much like every other. The nature of the prototypic classroom reflects unstated values of the society.

It is important to understand that all of these levels of social context also incorporate physical and historical influences. The climate, type of terrain, urban or rural setting, population density, health care, and physical risks are intertwined with social contexts. Culture is, to a great extent, a group's response to its physical ecology, which includes biases toward certain forms of economic activity, such as farming or hunting. These activities in turn dictate a particular social organization and division of labor, which in turn influence child-rearing practices (Miller, 1993). Vygotsky emphasized that the history of a culture powerfully shapes all levels of contexts. Wars, natural disasters, revolutions, and civil rights movements reverberate at all contextual levels. At any one point in history a culture is both a product of its own history and a provider of contexts that shape children's development and,
consequently, the future of the culture. This view of Vygotsky is consonant with Freire’s (1992) belief that

a culture of the people should not only furnish the elements to change, or rediscover, power, but also the elements to rediscover culture, language, literature and art, to rediscover the way in which people eat and drink, in short, to rediscover life. Because, in the final definition, creating a new society means a rediscovery of society and in the process a rediscovery of ourselves, a recreation of ourselves, because, by recreating ourselves, individually and socially, we shall change society (p. 82).

Vygotsky stated that it is essential to view the cognitive activities of individuals within the cultural context in which their thinking is embedded. For him, the mind grows neither naturally nor unassisted. It is determined neither by its history nor by the logical constraints of its present operations. Intelligence, for him, is readiness to use culturally transmitted knowledge and procedures as processes of mind (Bruner, 1986). The human heritage is notable for the cultural legacy of values and skills, which each new individual inherits from near and distant ancestors and practices with the assistance of caregivers and the companionship of peers. Freire (1987) agreed with Vygotsky by stating that

culture is not only artistic or intellectual phenomena expressed through thought: culture is to be seen above all in the simplest actions of everyday life—culture is eating in a different way, shaking hands in a different way, relating to people in a different way. ...Culture for us, I would insist, includes the whole range of human activity, including everyday life (p. 21).

Rogoff (1990) in reflecting this cultural legacy of values and skills in a culture and how people see other cultures
differently quoted a reply by the Indians of the Five Nations to an invitation sent in 1744 by the commissioners from Virginia inviting the Indians to send boys to William and Mary College:

You who are wise must know, that different nations have different conceptions of things; and you will therefore not take it amiss, if our ideas of this kind of education happen not to be the same with yours. We have had some experience of it: Several of our young people were formerly brought up at the colleges of the Northern Provinces; they were instructed in all your sciences; but when they came back to us ... [they were] ignorant of every means of living in the woods ... neither fit for hunters, warriors, or counselors; they were totally good for nothing. We are, however, not the less obliged by your kind offer ... and to show our grateful sense of it, if the gentlemen of Virginia will send us a dozen of their sons, we will take great care of their education, instruct them in all we know, and make men of them" (Drake, Biography and History of the Indians of North America) (Rogoff, 1990, p. 42).

Rogoff (1990) stated that the examination of cognitive processes in different cultures or historical periods brings to light the sociocultural channeling of individual thinking, as with the fish that is unaware of water until it is out of it. Smedslund (1984) argues that psychology is not an exploration of the unknown but an explication of the well-known. People have a propensity to assume that the perspective on reality provided by their own community is the only proper or sensible one (Berger & Luckmann, 1966; Campbell & Levine, 1961) and to view the practices of others as barbaric. Riegel (1973) argued that the ancient Greeks facilitated their own cultural identity by downgrading people with different language, customs, and conceptions of
human nature. Indeed, the word barbarous derived from the Greek term for "foreign", "rude", and "ignorant" (Skeat, 1974), applied to neighboring tribes who spoke languages unintelligible to the Greeks (who heard only "bar-bar" when they spoke).

Researchers and scholars are as prone to such assumptions as are others. For example, Neisser (1976) points out that self-centered definitions of intelligence form the basis of intelligence tests. He puts it this way:

Academic people are among the stoutest defenders of the notion of intelligence ... the tests seem so obviously valid to us who are members of the academic community.... There is no doubt that Academic Intelligence is really important for the kind of work that we do. We readily slip into believing that it is important for every kind of significant work.... Thus, academic people are in the position of having focused their professional activities around a particular personal quality, as instantiated in a certain set of skills. We have then gone on to define the quality in terms of this skill set, and ended by asserting that persons who lack these special skills are unintelligent altogether (p. 138).

In recent years psychologists typically have studied cultural by comparing cultures and emphasizing differences in behavior. As Cole (1992) points out, however, this culture-as-difference approach ignores the fact that the ability to construct and operate in a culturally organized environment is a universal, species-specific characteristic of humans. We need to understand these universal mechanisms of cultural influences as well as the diversity of content they produce. In the culture-as-medium approach, culture organizes the child's everyday experiences. As a culture
develops over many generations it provides artifacts that mediate between people and between people and their physical environment. Culture-as-difference studies can of course lead to culture-as-medium studies by spotlighting the critical events in the child’s life that express a particular cultural attitude that push the child in a particular direction. The more distant levels of context, such as cultural beliefs about what kinds of skills children should acquire, often reach a child through the immediate social situation in which a child acts is in activities with a parent, sibling, or peer that encourage these skills. Vygotsky expressed this process in his most well known concept: the Zone of Proximal Development.

**Zone of Proximal Development**

Vygotsky (1987) defined the zone of proximal development as

> the distance between a child’s actual developmental level as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (p. 379).

A more competent person collaborates with a child to help him move from where he is now to where he can be. This person accomplishes this feat by means of prompts, clues, modeling, explanation, leading questions, discussion, joint participation, encouragement, control of the child’s attention, and so on. Vygotsky explained this process by saying:
We propose that an essential feature of learning is that it creates the zone of proximal development, that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalized, they become part of the child's independent developmental achievement.

The voyage across the zone through the tutorial process was made possible only by language. Language provides the way to higher ground. Another example of this guided participation came from Rogoff (1990) and involves children and their caregivers and companions in the collaborative process of (1) building bridges from children's present understanding and skills to reach new understanding and skills, and (2) arranging and structuring children's participation in activities, with dynamic shifts over development in children's responsibilities. Children use social resources for guidance both in the support of and in the challenge of assuming increasingly skilled roles in the activities of their community. From guided participation involving shared understanding and problem solving, children appropriate an increasingly advanced understanding of and skill in managing the intellectual problems of their community. Vygotsky described the relation between the actual and potential levels as follows:

The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed the "buds" or "flowers" of development rather than the fruits of development. The actual developmental level characterizes mental
development retrospectively, while the zone of proximal development characterizes mental development prospectively (pp. 86-87).

Vygotsky and other contextualists held that development can be understood only by looking directly at the process of change, not a static child frozen in one developmental moment. Process is more important than product. They look at the child's series of actions and thoughts as she/he tries to solve a problem and, in the process, advance he/her own thinking. Rather than focus on what concepts the child has they examine what concepts a child actually does use over time when involved in activity and when engaged with people and objects. Vygotsky took his developmental stance not only for short-term learning, when moving through the zone and long-term development throughout childhood, but also for the development of a species over many generations and for sociocultural history. He stated that to study a child's development means

to study in the process of change... To encompass in research the process of a given thing's development in all its phases and changes from birth to death fundamentally means to discover its nature, its essence, for it is only in movement that a body shows what it is (p. 65).

As we shall see later in this research, this view has important implications for how one assesses a child's ability. It also speaks to instruction. Instruction, whether formal schooling or informal apprenticeships, should be based on children's potential level more than on their actual level. Vygotsky was particularly interested in how
the zone operates in explicitly instructional settings. Instruction is based on the assumption that it is mainly by changing social interaction that one can change a child's own functioning. Palincsar and Brown (1984, 1988) have incorporated this notion in their "reciprocal teaching" intervention program in which a child alternates between the roles of questioner and respondent during reading lessons. A main goal is a shift from teacher regulated activity to child self-regulation (Moll 1990). Rogoff (1990) added something on the extension of the notion of the zone. She emphasized that adults need not explicitly instruct children in face-to-face interaction, children can learn from skilled adults at a distance by observing everyday activities in which there is no intention to teach the child. Instruction can be implicit as well as explicit. Learning is a natural by-product of involvement in tasks with adults or more competent peers. Any verbal explanation occurs naturally while working together rather than as part of intentional instruction. Instructions in the zone do not have to be verbal, especially those involving infants and young children. Their behaviors resemble those appropriate for anyone learning in an unfamiliar culture, who study near a trusted guide, watch the guide's activities and get involved in the activities when possible, and attend to any instruction the guide provides (Rogoff, 1990, p. 17).

To put it simply, action speaks more than words.

Rogoff (1990) expresses these ideas in her notion of
guided participation, which involves collaboration and shared understanding in routine problem solving activities. Instruction with other people assists children in their development by guiding their participation in relevant activities, helping them adapt their understanding to new instructions, structuring their problem solving attempts, and assisting them in assuming responsibility for managing problem solving. Routine arrangements ... guide children's increasingly skilled and appropriate participation in the daily activities valued in their culture (p. 191).

Development as Apprenticeship

Children share in the views and values of the more expert partner, offer their own views, and engage in the process of stretching their concepts to find a common ground. They are encouraged to try out their emerging skills in the task. Rogoff (1990) uses the metaphor of apprenticeship to capture the notion of children's active verbal or nonverbal participation in real life settings with more skilled, supportive others. The notion of apprenticeship as a model for children's cognitive development is appealing because it focuses our attention on the use of other people in social organizing development, on the active support and use of other people in social interaction and arrangements of tasks and activities, and on the socioculturally ordered nature of the institutional contexts, technologies, and goals of cognitive activities. Although young children clearly differ from older novices in the extent to which they can control their attention and communication and in their general knowledge, there is a
useful parallel between the role of young children and the roles of novices in general in apprenticeship. These cultural apprenticeships provide the beginner with access to both the overt aspects of the skill and to the more hidden inner processes of thought. In most traditional societies, education takes place largely within the family environment of young children. Often these families are extended, including assorted kin at each of several generations. In such traditional environments, it is assumed that children will follow in their parents' footsteps, sons typically carrying out the same vocational practices as their fathers, and daughters emulating the child-rearing, household, and vocational practices of their mothers.

A cultural apprenticeship can be illustrated by the way in which Nigerian boys and girls emulate their fathers and mothers in the arts of mat making (What we call "akirika" in Igbo). We use these arts for roofing houses, a very important skill in our culture. At a very young age the young boys and girls witness their elders carrying out these roles, often through mentors drawn from several generations, spanning the gamut from great-grandparents to siblings. Most learning occurs through direct observation, although such learning-by-watching will certainly be punctuated on occasion by overt instructions, the invoking of specific rules, or explicit demonstrations of procedures that may not be readily observable or have even been considered secret.
The society may well mark important transitions with explicit ceremonies, such as rites of passage into adulthood, but these serve as a symbolic affirmation of learnings and understandings that have already been assimilated or at least thoroughly prepared for. At age four, children are already learning how to collect materials from the palm leaves and at age seven they are in the process of doing it as the adults do. During a period of time that often stretches over several years, the boys gain mastery in the designated trade or skill. Much of the learning is observational, either of the parents themselves or of others, already trained workers who still remain under the tutelage of elders. The elders will occasionally point out errors or make special demonstrations, and the apprentice is also expected to use his own emerging critical capacities to correct and improve his performance. For the majority of the boys their first way of earning money would be by making mats and selling them. For the girls they are more involved in the art of weaving. Young girls first gain familiarity with weaving by watching their mothers at work. Later they help boil the threads and dye the wool. At about the age of seven, they make their first serious efforts to learn to weave. The mother initially provides considerable guidance, a mix of talking and demonstrating the art of weaving. But as the young girl gains facility, the overt instruction diminishes until, by the age of 10 or 12, the
young girl is able to proceed on her own. In some parts of Nigeria-Opobo, the Eastern State, they are especially known for weaving. It is now one of the industries that exists there. Everything is done by hand. The young girls in this area start the art of weaving very early in life. A lot of African Americans are now using the weaving of cloth for dressing as a cultural exhibit of their Fatherland Custom.

Learning within the zone is possible in part because of what Rogoff (1990) called intersubjectivity and shared understanding, based on a common focus of attention and a common goal, between a child and a more competent person. It must be emphasized that instruction within the zone is not unidirectional. The child’s behavior affects the adult’s behavior as much as the adult’s behavior affects the child. The child actively constructs new knowledge and skills with the help of more skilled others. Children actively contribute in that process. Motivated to learn, they invite the adult to participate and gradually assume more responsibility for carrying out the activity. The adult adjusts the level of guidance to the child’s response. Furthermore, according to Rogoff the apprenticeship model has the advantage of including more people than a single expert and a single novice. The apprenticeship system often involves a group of novices (peers) who serve as resources for one another in exploring their new domain and aiding and challenging one another. Current contextualist approaches,
especially those of Rogoff (1990) and Bronfenbrenner (1989), emphasize the children's active role in their own development. The term collaborate is often used to reflect the child's equal contribution. Integrated with Vygotsky's framework, the notion is that a child is an active partner in the process of moving through the zone of proximal development. Children seek out certain social contexts, ask more skilled adults for help in these contexts, and gradually take on more responsibility in these settings.

The Sociocultural Origins of Mental Functioning

What happens to children cognitively when they interact with adults? Vygotsky answered by stating that interaction between a child and an adult on the inter-mental plane become internalized into the child's mind, the intra-mental plane. In other words the external becomes internal. In effect, thinking is always social and reflects the culture in which the dyad operates. Thinking, remembering, and attending are activities not only of an individual; they are interaction between individuals. Vygotsky (1960) expresses it this way:

any higher intellectual function acquired during development appears twice, or on two planes... It appears first between people as an intermental category, and then within the child as an intramental category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of will (pp. 197-198).

This connection from the inter-mental to the intra-mental explains why a child in context is the smallest possible
unit to study and the zone of proximal development. Intra-
mental activity cannot be divorced from inter-mental
activity between children and people in their social
context. The internalization of social processes can be
seen during a child's movement through the zone of proximal
development. Children eventually internalize the mode of
problem solving that was first supported socially. Vygotsky
expressed it in this form: "children grow into the
intellectual life of those around them" (1978, p. 88).
Freire (1989) rightly put it "in order to discover
ourselves, we need to see ourselves in the other, to
understand the other in order to understand ourselves, to
enter into the other" (p. 14). Vygotsky stated that both
social interaction and the language involved are
internalized. In a sense, children mentally interact with
themselves as they did earlier with other people. Children
gradually take on more and more responsibility for problem
solving and become more self regulated rather than other
regulated. Freire (1989) sees this discovery learning
process as not an easy task and therefore needs tolerance.
He concludes:

And, since different languages have left their imprint
upon us, and we are used to different gestures,
different styles of relationships, this new learning
process of discovery, of relating to the world in a new
way, takes a long time. And yet the differences are
the starting point for this learning process. You
discover people who are different and, linked with that
discovery of other people, the need to be tolerant of
them. This means that through the differences between
us we must learn to be tolerant of those who are
different, and not to judge them according to our own values, but according to their values, which are different from ours. And here it seems to me to be fundamental to link the concept of culture with the concepts of difference and tolerance (Freire, 1989, p. 21).

From my own perspective, this means transformation, a change, going from the unknown to the known. It adds new knowledge for an individual. This confirms Marxist philosophy that social activity shapes the mind and that a collectivist society shares the knowledge and experience with less advanced members of society. As Freire (1978) pointed out, human activity consists of action and reflection. It is praxis. It is transformation of the world. And as praxis, it requires theory to illuminate it. Human activity is theory and practice; reflection and action. This action and reflection, in my mind, cannot proceed without the action and reflection of others.

One particularly important aspect of society is language which we shall treat in depth later. Just as two people communicate with each other, so does a child communicate with himself as he thinks. Internalization of interpersonal communication leads to intrapersonal communications during development. Despite the emphasis of both Vygotsky and Piaget on the idea that the individual and the environment are inseparable for understanding intellectual development, they differed in both the centrality of the role of the social world in their theories of development, and in the way in which they conceived the
role of the social world and the individual. Vygotsky was interested in development of skill in the use of societal intellectual tools, especially language for handling intellectual problems, whereas Piaget was interested in the transformations of perspective that characterize advances in mathematical and physical reasoning. The two also differ in the process of collaboration which they say will occur between partners. Vygotsky focused on shared problem solving, in which the partners collaborate to reach a joint solution to problems, whereas Piaget focused on reciprocal examination of logical statements by partners. With Vygotsky, the cognitive process is shared between people; with Piaget, the social process provides individuals with the opportunity to see alternatives and to explore the logical consequences of their own positions, in a meeting of minds as opposed to a shared thinking process. The process, but not the content, is similar for Vygotsky. However, in these two theorists, Vygotsky and Piaget, there is a common concept in knowledge processing because in each theory there is a choice to be made in exploring knowledge by the individual in a meeting of minds or shared thinking process. For Vygotsky, the structure of conversations becomes the structure of thought. Collaboration and dialogue between two people leads to these sorts of mental activity during individual private thought. Although Piaget also recognized the influence of other people on a developing child, he
emphasized internalization of regularities in the child's motoric interactions with physical objects. He did not address the changing nature of society itself during the life of an individual or over generations.

How can shared problem solving result in changes in the skills of an individual? Rogoff explains this by stating:

The individual's use of this shared understanding is not the same as what was constructed jointly; it is an appropriation of the shared activity by each individual that reflects the individual's understanding of and involvement in the activity (1990, p. 195).

She uses an analogy of the constant exchange of water and air between the body and the environment. Just as bodies filter and transform air and water to meet biological needs, so do our minds assimilate these social activities in our social sea to our current needs and abilities. In the process, minds are changed. Rogoff (1990) favors the notion of appropriation over internalization because the latter connotes a barrier between the individual and interpersonal aspects of functioning. For her a barrier does not exist. She argues that because internal and external are naturally blended in the shared meaning of social exchanges, there are no barriers between self and other; internal and external are not separate. In this view, children's changed understanding is a natural by-product of their participation in joint thinking, not an external idea gone underground.
Mediation of Intellectual Functioning by Tools Provided by Culture

Vygotsky's theory was built on the premise that individual intellectual development cannot be understood without reference to the social milieu in which the child is embedded. For Vygotsky, children's cognitive development must be understood not only as taking place with social support in interaction with others, but also as involving the development of ability to skillfully use the sociohistorically developed tools that mediate intellectual activity. He stated that this individual development of higher mental processes cannot be understood without considering the social roots of both the tools for thinking that children are learning to use and the social interactions that guide children in their use. Peers and adults assist in this self-shaping process by helping children learn how to use their culture's psychological and technical tools. Psychological tools include language systems, counting systems, physical devices such as computers and works of art. People use psychological tools to control thoughts or behavior, just as they use technical tools such as axes and plows to control nature. Both kinds of tools mediate between the child and the environment. However, technical tools are externally oriented towards changing objects whereas psychological tools are internally oriented towards changing ways of thinking and controlling
and organizing behavior. In Vygotsky's view, the child's individual mental functioning develops through experience with cultural tools in joint problem solving with more skilled partners working in the zone of proximal development. In a fascinating essay on the philosophical basis of activity theory as proposed by Vygotsky and argued philosophically by Ilyenkov, Bakhurst (1988) maintains that the tenets of activity theory require a radical shift in world view from the predominant Cartesian philosophy, which stresses the individual. The shift makes individual thinking a function of social activity in which the individual internalizes the ways of thinking and acting that have developed in sociocultural history; mind is "in society":

The idealization of nature by human practice transforms the natural world into an object of thought, and by participating in those practices, the human individual is brought into contact with reality as an object of thought. Each child enters the world with the forms of movement constitutive of thought embodied in the environment surrounding him or her, and as he or she is led to reproduce those practices so he or she becomes a thinking being, a person (Bakhurst, 1988, p.37).

Vygotsky (1987) held that children play an active role in their development. Critics have accused Vygotsky of overlooking the role of natural factors in development, factors assumed to be available to human infants through genetic development (Nertsch, 1985). The higher mental processes were his greatest interest, those that make use of cultural mediators to extend human thinking beyond the
natural level characteristic of other animals or of involuntary mental processes in humans. As long as these higher mental processes, such as voluntary attention and voluntary memory, rely on the use of these tools, it makes sense to emphasize the social context of the origin of the tools and their transmission to children. Culture creates these tools to help people master the environment, the favored tools are passed on to children during social interchanges, and in turn the tools shape children's minds. Children use these tools to help themselves think. Tools actually transform thought. For example, once language is used to help memory, the nature of remembering may change to a more verbal form.

**Thought and Language**

Vygotsky presents a sophisticated argument demonstrating that language, the very means by which reflection and elaboration of experience take place, is a highly personal and at the same time a profoundly social human process. He sees the relation between the individual and the society as a dialectical process which, like a river and its tributaries, combines and separates the different elements of human life. For Vygotsky, language is the most important psychological tool. He sees it as a means by which we free ourselves from our immediate perceptual experience and allows us to represent the unseen, the past, and the future. For him thinking and language are
dynamically related; comprehending and producing language are processes that transform, not merely influence, the process of thinking. Vygotsky (1978) sees language as altering the entire flow and structure of mental functions. It does this by determining the structure of a new instrumental act, just as a technical tool alters the process of a natural adaption by determining the form of labor operations. "Just as mold give shape to a substance, words can shape an activity into a structure" (Vygotsky, 1978, p. 28). Francis Bacon, cited by Vygotsky, proclaimed that neither mind alone nor hand alone can accomplish much without the aids and tools that perfect them. And principal among those aids and tools are language and the canons of its use (Bruner, 1986). Language is primarily a social device for social contact, communication, and interpersonal influence. This social tool goes into the mental underground to direct thinking, control one's own behavior during development, organize categories of reality, represent the past, and plan for the future. Gollnick and Chinn (1994) see language as the means by which we communicate. It is that which makes our behavior human. It can incite anger, elicit love, inspire bravery, and arouse fear. It binds groups of people together. Language and dialect serve as a focal point for cultural identity and provide a common bond for individuals with the same linguistic heritage, who often share the same feelings,
beliefs, and behaviors (p. 220). Dewey sees language as the tool of tools. Dewey (1925/1981) wrote, "As to be a tool, or to be used as means for consequences, is to have and to endow with meaning, language, being the tool of tools, is the cherishing mother of all significance" (p. 146). To appreciate the full significance of this statement, we must strive to understand exactly what Dewey meant by it. Quine (1969) felt that, if we see language in behavioral terms, then there cannot be, in any useful sense, a private language. This point was stressed by Dewey in the twenties...

Language is specifically a mode of interaction of at least two beings, a speaker and a hearer; it presupposes an organized group to which these creatures belong, and from whom they have acquired their habits of speech. It is therefore a relationship (p. 77).

Quine (1969) is correct. The core of Dewey's behavioral theory of meaning, and perhaps the core of his entire philosophy, is his argument for the natural origin of language in shared behavior. Dewey and Vygotsky also seem to share similar views about language. Vygotsky (1978) believed that,

Language arises initially as a means of communication between the child and the people in his environment. Only subsequently, upon conversion to internal speech, does it come to organize the child's thought, that is, become an internal mental function (p. 89).

Compare this statement by Vygotsky to the following by Dewey:
that the fruit of communication should be participation, sharing, is a wonder by the natural events are subject to reconsideration and revision; they are re-adapted to meet the requirement of conversation, whether it be public discourse or the preliminary discourse termed thinking (Dewey, 1925/1981, p. 132).

Dewey’s phrase "preliminary discourse termed thinking" and Vygotsky’s "internal speech" match up nicely. In their introduction, Newman, Griffin, and Cole (1989) announced that they are in agreement with Herbert Simon’s characterization of the mind as an artifact rather than as a "natural" system. At first it might seem that a construction of mind as an artifact rather than a natural system breaks the continuity between mind and organic-physical nature. To restore continuity requires only that we appreciate the role of artifacts that is, tools in the emergence of mind. Dewey (1925/1981) wrote,

But at every point appliances and application, utensils and uses, are bound up with directions, suggestions and records made possible by speech; what has been said about the role of tools is subject to a condition supplied by language, the tool of tools (p. 134).

We ourselves are the product, the artifact, the construction of cultural labor aided by tools especially, the tool of tools. The labor of language, "the cherishing mother of all significance" gives birth to our minds and ourselves. It should come as no surprise that Dewey (1925/1981), influenced by Mead, saw "the self as the tool of tools, the means in all use of means" (p. 189). Vygotsky saw the zone of proximal development (ZPD) as a tool.
Vygotsky (1978) wrote, "The zone of proximal development furnishes psychologists and educators with a tool through which the internal course of development can be understood" (p. 87). The ZPD is a social tool for the construction of meaning between A and B, between "two selves involved in a conjoint or shared understanding" and the establishment of communicative cooperation in coordinated partnership. How we comprehend communication within what Newman, Griffin, and Cole (1989) call the construction zone is crucial to issues of cultural and, inseparably, personal reproduction, progress, freedom, and creativity. For many constructivists, these issues focus on the question of direction. They ask whether an activity is unidirectional, such that students are simply led to a mastery of pre-existing cultural tools, or whether it is a bi-directional creative space, in which both participants learn and cultural tools can be reconstructed. Wertsch (1991) calls attention to the bias toward unidirectionality that is, following Reddy (1979), "the univocal" found in the subtle but pervasive "conduit metaphor" for communication. Reddy outlines the structure and function of the metaphor as follows: (1) language functions like a conduit, transferring [psychic] thoughts bodily from one person to another; (2) in writing and speaking people insert their thoughts or feeling in the words; (3) words accomplish the transfer by containing the thoughts or feelings and
conveying them to others; and (4) in listening or reading, people extract the thoughts and feelings once again from the words (p. 290). Wertsch (1991) points out that the overall idea of the conduit metaphor is that "human communication can be conceptualized in terms of transmission of information" (p. 71).

For Dewey, logical objects are merely tools. Their ultimate realization is in linguistic dialogue or cooperative discourse involving "the tool of tools". For Dewey, rational persons and societies were dialogical. The transmission model of communication maps a monological soliloquy and breaks what is really a dialogical and interpretive hermeneutic circle. This observation has important consequences for our understanding of the ZPD. Lave and Wenger (1991) discuss three interpretations of the ZPD. We will consider only the last one. Lave and Wenger call their last interpretation of the ZPD a collectivist or societal perspective. They draw their inspiration for this perspective from Yrjo Engestrom (1987), who redefined the ZPD as the

distance between the everyday actions of individuals and the historically new form of the societal activity that can be collectively generated as a solution to the double bind potentially embedded in ... everyday actions (p. 174).

The "double bind" manifests the tension between the need of the students to appropriate historically entrenched tools that empower them as social actors and the simultaneous need
of the culture to retool and recreate itself. Sometimes, as those that have studied gender, race, and ethnicity have noted, the historically entrenched tools of a culture may actually be instruments of power, control, and domination. That is why debates over curriculum can be so bitter. Lave and Wenger (1991) try to cope with the double bind by placing "more emphasis on connecting issues of sociocultural transformation with the changing relations between newcomers and old-timers in the context of a changing shared practice." For Lave and Wenger, the double bind leads to an inescapable paradox that they describe as follows: The different ways in which old-timers and newcomers establish and maintain identities conflict and generate competing viewpoints on the practice and its development. Newcomers are caught in a dilemma. On the one hand, they need to engage in the existing practice, which has developed over time: to understand it, to participate in it, and to become full members of the community in which it exists. On the other hand, they have a stake in its development as they begin to establish their own identity in its future (p. 115). To exemplify these generalizations, think about what happens between students and professors in schools or between first-year teachers and their mentors. The double bind is less of a problem for some societies than for others. Dewey brings this point home in a way that has some surprising consequences. Dewey (1916/1980) in one of his
books titled, *The Democratic Conception in Education*, indicated that,

To say that education is a social function securing direction and development in the immature through their participation in the life of the group to which they belong is to say in effect that education will vary with the quality of life which prevails in a group (p. 87).

If we take the ZPD as a zone of sociolinguistically constructed meaning, then the quality of participation in the communal life of the zone should be of pre-eminent interest to educational researchers and practitioners. I also believe that if we apply Dewey’s two standards of ideal community life to the zone of proximal development with its paradoxes and double bind, we will soon see that, if it is to serve as a fit cultural tool for education in a society that not only seeks to preserve but to improve itself, then the construction of that zone must be democratic. Dewey (1916/1980) defined democracy in terms of dialogue and communication when he stated: "A democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience" (p. 93).

Looking at his dialogical understanding of logic, it should be evident that Dewey considered democracy the most logical tool for governing social relations, whatever their binding and paradoxical tensions. If we bring these definitions of logic and democracy together with Dewey’s social behaviorist theory of meaning, we can appreciate the depth of what might be called Dewey’s solution to the paradox of the zone of
proximal development. Dewey (1916/1980) declared:

Not only is social life identical with communication, but all communication ... is educative. To be a recipient of a communication is to have an enlarged and changed experience. One shares in what another has thought and felt ... has his own attitude modified. Nor is the one who communicates left unaffected. Try the experiment of communicating, with fullness and accuracy, some experience to another, ... and you will find your own attitude toward your experience changing... The experience has to be formulated in order to be communicated. To formulate requires getting outside of it, seeing it as another would see it, considering what points of contact it has with the life of another so that it may be got into such form that he can appreciate its meaning (pp. 8-9).

Dewey reminds us that when communication occurs, all natural events are subject to reconsideration and revision and that the fruit of communication should be participation. Bruner (1986) stated that most of our encounters with the world are not, as we have seen, direct encounters. Our direct experiences are assigned for interpretation to ideas about cause and effect, and the world that emerges for us is a conceptual world. When we are perplexed about what we encounter, we renegotiate its meaning in a manner that is concordant with what those around us believe. And the tool for negotiation is language. Dewey's view of language as communication in cooperative and coordinated partnership in the construction of all meaning is at the core of his entire philosophy. Dewey (1925/1981) stated: "Through speech a person dramatically identifies himself with potential acts and deeds; he plays many roles, not in successive stages of life but in a contemporaneously enacted drama. Thus mind
emerges." For Deweyans, individual minds emerge without discontinuity when natural organisms having that capacity learn to participate in social activities involving labor, tools, and, above all, language. It creates possibilities. Language also transforms the way children use technical tools. It reorganizes and controls their behavior with these objects, thus permitting new forms of problem solving.

Bruner (1986) noted that the realities of the society and of social life are themselves most often products of linguistic uses represented in such speech acts as promising, abjuring, legitimizing christening, and so on. Freire (1989) stated that when one held the belief that a culture itself comprises an ambiguous text that is constantly in need of interpretation by those who participate in it, then the constitutive role of language in creating social reality becomes a topic of practical concern. Yes, indeed, there is practical concern as Freire (1989) pointed out, that if these ideas become models, that is if they are applied creatively to reality, then we would run the risk of regarding them as reality. Concrete reality has to be made to fit in with our ideas and not the other way round. And if this happens we would lapse into what he called "popular Hegelianism" the belief that the idea is reality, and that reality is nothing more than the development of the idea by means of concepts. Therefore in order to explain the discrepancy between ideas and reality,
to explain why concepts and concrete reality fail to coincide, to explain people's failure to understand and change historical reality, it is firmly maintained that it is reality that is wrong and not our ideas or system of ideas (p. 29).

I believe that Bruner (1986) is in agreement with Freire here when he posits the question: "where is the meaning of social concepts in the world, in the meaner's head, or in interpersonal negotiation?" He stated that one is compelled to answer that it is the latter. That meaning is what we can agree upon or at least accept as a working basis for seeking agreement about the concept at hand. If one is arguing about social realities like democracy or equity or even gross national product, the reality is not the thing, not in the head, but in the act of arguing and negotiating about the meaning of such concepts. Social realities therefore are not stones that we trip over when we kick at them, but the meanings that we achieve by the sharing of human cognitions. The question is how do we relate our ideas and values to our own actions? I share the view with Freire (1989) who held that everything we affirm and defend, both psychological and at the philosophical and religious level must find expression in relevant action. When we as individuals do not reflect on our daily lives, we do not become aware that there is a gap between these ideas and values and the acts we perform in our daily lives.
While we affirm certain values at the intellectual level, these values are empty if they are removed from our cultural life, from our relationship with one another, from our friends and the people we meet in the street, and from those whom we do not know, but with whom we have a relationship.

All these ideas of personal, communal and moral values which should govern our relations with things and persons are no doubt very beautiful ideas; but, to the extent that we do not reflect on them and try to ensure that they and our actions coincide, there continues to be a gap among what we think and the values we affirm and the acts we perform with regard to things and persons. Language is the medium by which we make these affirmations a reality. We communicate in order to share ourselves with others. Language is our medium of exchange for sharing our internal states of being with one another. Through language we share with others our experiences with that reality. According to Samovar and Porter (1991), language is not simply a means of reporting experience. They suggest that it is also a way of defining experience. Different languages represent different social realities. Thus, to understand what is being said, we must also understand the social context of the language itself. Language goes beyond the simple understanding of one another. It helps us to understand culture itself. Language itself represents culture. Each language provides us with a means to perceive the world and
a means to interpret experiences. According to Bruner (1986), language serves the double function of being both a mode of communication and a medium for representing the world about which it is communicating. How one talks comes eventually to be how one represents what one talks about. The stance and the negotiation over stance, by the same token, become features of the world toward which one is taking stances. And in time, as one develops a sense of one's self, the same pattern works its way into the manner in which we interpret that text which is our reading of ourselves.

Language therefore not only transmits, it creates or constitutes knowledge or reality. Part of that reality is the stance which language implies toward knowledge and reflection, and the generalized set of stances one negotiates creates in time a sense of one's self. Culture provides children with tools and other resources that motivate the particular form of development they require to live in the world. Tools help children to think and to express their thoughts to others. Language is a raiser of consciousness. In one of his major works, Thought and Language, Vygotsky saw language as an agent for altering the powers of thought, gives thought new means for explaining the world. In turn, language became the repository for new thoughts once achieved.

Another interesting theorist in psychology whose view
on language needs consideration is Freud (1963). Freud saw language as the "talking cure." Language was for him a battleground on which warring impulses fought for their claims. Dreams, too were conceived as a language, which if read correctly revealed the patient's hidden agenda. So Freud's interest in language, for all his own sensitivities as a gifted writer and reader, was principally in its power to express the archaic and the repressed. Freud, too, saw language, whether spoken by patients on the couch or by the person in the street, as an expression of an inner life that had stabilized into neurosis or character. That was why language for him was both the vehicle for diagnosis and the medium for cure. For Piaget, language reflects thought and does not determine it in any sense. That the internal logic of thought is expressed in language has no effect on the logic itself. The logic of concrete operations or of later formal systems are what he called "structures d'ensemble" on their own, unaffected by the language in which they are expressed. Each view, then expresses a cultural posture. Freud's view expresses his liberationism through a conventional language by free association. Piaget's expresses his faith in the inherent logic of thought and subordinates language to it. Vygotsky's gives language both a cultural past and a generative present, and assigns it a role as the tool and tutor of thought.
Methodology

Vygotsky, I would say, is committed to a theoretical position distinct from those of his influential contemporaries, Thorndike, Piaget, and Koffka. However he constantly returns to them in order to enrich and sharpen his own mind. While Vygotsky focused upon the historically shaped and culturally transmitted psychology of human beings his contemporaries were involved with the issue of development. His concepts differ from those of the early behaviorists. Vygotsky (1978) wrote:

In spite of the significant advances attributable to methodology, that method nevertheless is seriously limited. The psychologist's most vital challenge is that of uncovering and bringing to light the hidden mechanisms underlying complex human psychology. Though the behaviorist method is objective and adequate to the study of simple flexive acts, it clearly fails when applied to the study of complex psychological processes. The inner mechanisms characteristic of these processes remain hidden. The naturalistic approach to behavior in general does not take into account the qualitative difference between human history and that of animals. The experimental ramification of this kind of analysis is that human behavior is studied without regard to the general history of human development (p. 122).

In contrast, Vygotsky focused on a theoretical approach, a methodology, that telescopes change. He emphasizes the activeness of humans, vigorous participants in their own existence and that at each stage of development children acquire the means by which they can competently affect their world and themselves. Beginning from childhood the distinctive aspect of human mastery is the creation and use of auxiliary stimuli. These auxiliary stimuli created by
humans have no inherent relation to the existing situation; rather, humans introduce them as a means of active adaptation. Vygotsky views auxiliary stimuli as highly diverse. They include the tools of the culture into which the child is born, the language of those who relate to the child, and the ingenious means produced by the child himself, including the use of his own body. One of the striking examples of this sort of tool use can be seen in the play activity of poor children who do not have access to prefabricated toys but who, nevertheless, are able to play house, train, and so on with whatever resources that are available to their disposal.

Piaget (1952) shares Vygotsky's view of active organism. They share as well the ability to observe children astutely. However, Vygotsky's skills of observation were enriched by his knowledge of dialectical materialism and his view of the human organism as highly plastic and of the environment as historically and culturally shifting contexts into which children are born and which they, too, will eventually change. Piaget, on the other hand, stresses biologically supported, universal stages of development. Vygotsky's emphasis is on the interaction between changing social conditions and the biological substrata of behavior. He held that

in order to study development in children, one must begin with an understanding of the dialectical unity of two principally different lines [the biological and the cultural], to adequately study this process, then, an
experimenter must study both components and the laws which govern their interplacement at each stage of a child's development (Vygotsky, 1978, p. 123).

Vygotsky (1978) recognized, as had others before him, that functional systems are rooted in the most basic adaptive responses of the organism, such as unconditioned and conditioned reflexes. His theoretical contribution is based on his description of the relation among these diverse processes:

They are characterized by a new integration and correlation of their parts. The whole and its parts develop parallel to each other and together. We shall call the first structures elementary; they are psychological wholes, conditioned chiefly by biological determinants. The latter structures which emerge in the process of cultural development are called higher structures.... The initial stage is followed by that first structure's destruction, reconstruction, and transition to structures of the higher type. Unlike the direct, reactive processes, these latter structures are constructed on the basis of the use of signs and tools; these new formations unite both the direct and indirect means of adaptation (p. 124).

Vygotsky contended that in the course of development psychological systems arise which unite separate functions into new combinations and complexes. In his theory the most fundamental characteristic of developmental change is the manner in which previously separate and elementary functions are integrated into new functional learning systems: "Higher psychological functions are not superimposed as a second story over the elementary processes; they represent new psychological system" (p. 124). These systems he pointed out are changeable and are optimally adaptive to the particular tasks confronting the child as well as to the
child's stage of development. He stated that even though it may seem that children are learning in a purely external manner, that is, mastering new skills, the learning of any new operation is in fact the result of, and dependent on, a child's process of development. Vygotsky (1979) postulates that because the historical conditions which determine the opportunities for human experience are constantly changing, there can be no universal schema that adequately represents the dynamic relation between internal and external aspects of development. Therefore, a functional learning system of one child may not be identical to that of another, though there may be similarities at certain stages of development. This analysis is different from that of Piaget, who describes universal stages that are identical for all children as a function of age.

Vygotsky explores the role of social and cultural experiences through an examination of children's play. In their play children both depend on and imaginatively transform those socially produced objects and forms of behavior made available to them in their particular environment. Vygotsky (1978) held that "if one changes the tools of thinking available to a child, his mind will have a radically different structure." With signs children are able to internalize the adaptive social means already available to them from society at large. For Vygotsky, one of the essential aspects of development is the increasing
ability of children to control and direct their own behavior, a mastery made possible by the development of new psychological forms and functions and by the use of signs and tools in this process. He indicated that children extend the boundaries of their understanding by integrating socially elaborated symbols into their own consciousness. These symbols are seen in social values and beliefs, the cumulative knowledge of their culture, and the scientifically expanded concepts of reality. For Vygotsky, the most important sign using behavior in children’s development is human speech. Through speech children free themselves of many of the immediate constraints of their environment. They prepare themselves for future activity, they plan, order, and control their own behavior as well as that of others. Speech for him also is an excellent example of sign usage which, once internalized, becomes a pervasive and profound part of the higher psychological processes; speech acts to organize, unify, and integrate many disparate aspects of children’s behavior, such as perception, memory, and problem solving. Many educators, recognizing that the rate of learning may vary from child to child, isolate particularly slow learners form their teachers as well as their peers through the use of programmed and frequently mechanized instruction. In contrast, Vygotsky, because he views learning as a profoundly social process, emphasizes dialogue and the varied roles that language plays in
instruction and in mediated cognitive growth. The mere exposure of students to new materials through oral lectures neither allows for adult guidance nor for collaboration with peers. Vygotsky pointed out that to implement the concept of the ZPD in instruction, psychologists and educators must collaborate in the analysis of the internal developmental processes which are stimulated by teaching and which are needed for subsequent learning. In this theory, then teaching represents the means through which development is advanced; that is, the socially elaborated contents of human knowledge and the cognitive strategies necessary for their internalization are evoked in the learners according to their actual developmental levels. Vygotsky (1978) criticizes educational intervention that lags behind developed psychological processes instead of focusing upon emerging functions and capabilities. A particularly imaginative application of these principles are Paolo Freire's literacy campaigns in Third World countries. Because he adapted his educational methods to the specific historical and cultural setting in which his students lived, they were able to combine their spontaneous concepts that is, those based on social practice with those introduced by teachers in instructional settings.
CHAPTER III
CRITICAL THINKING/PEDAGOGY

For the last two decades there has emerged an impressive array of ideas aimed at redefining and reexamining the meaning of radical educational reform. With this has come a renewed interest in the development and application of Marxism, Critical Theory, Phenomenology, Critical Sociology, and the Sociology of Knowledge within the area of radical educational change. Yet in spite of this, some radicals appear confused and in disagreement over the question of what constitutes radical educational theory and practice. Beneath the excess of pedagogical approaches, that range from deschooling to alternative schools, one searches in vain for a comprehensive Critical Theory of Education which bridges the gap between Educational Theory on the one hand and Social and Political Theory on the other. One also searches in vain for a systematic theoretical approach to a radical analysis of the day-by-day socio-political texture of classroom structure and interaction, that is, how specific reforms of knowledge and meaning penetrate, develop, and are transmitted within the context of the classroom experience.

I will analyze the major tendencies that have dominated
radical educational movements of the last two decades. From this I will attempt to formulate a critique of these tendencies and to move tentatively toward a critical theory of radical pedagogy. Later I will give some general approaches which might be useful in implementing radical educational reform.

In the theoretical disorder evident in the work of the educational left, two major positions stand out prominently (Giroux, 1981). On the one hand, are the content-focused radicals, and on the other hand, are the strategy-based radicals. These representations are, of course, ideal-typical and should not be seen as exhibiting rigid boundaries. It is clear that many educators fall between these ideal-types. This should not obscure the fact that few radical educators have provided a theoretical perspective that equally acknowledges and integrates both positions. The content-focused radicals define radical pedagogy by their insistence on the use of a Marxist based perspective to provide a demystifying analysis for students of the dominant ideology reproduced in varied forms in the prevailing system of schooling. On the other hand, strategy-based radical education defines radical pedagogy as the development of healthy, non-alienating classroom social relationships (Rappaport, 1978; Weber & Somers, 1973). In this case, specific classroom social encounters are designed to help students break through the engineered boredom and
oppression characteristic of late capitalist relations of production and its everyday life. Both groups have made significant gains in furthering radical educational reform, although each ends up with a limited pedagogical model that fails to integrate theory and process, content and methodology. Moreover, beyond their differences, both groups share perspectives which not only reveal theoretical gaps, but also provide theoretical building blocks for a more integrated form of radical pedagogy. As such, both positions warrant further examination.

Giroux (1981) points out that the cornerstone of the content-focussed radical position lies in its stress on the relationship between the economic and political structures of capitalism and the ideological superstructures, of which schools occupy a paramount position. He said according to this group, schools deepen social and economic domination by functioning as agents of legitimation. As a result, schools help to mediate the contradictions between the ruling-class and the oppressed by fostering a collective consciousness reared on ‘myths’ and steeped in the ‘virtues’ of passivity, docility, and unquestioning obedience (p. 64). This group also raises fundamental questions about how institutionally selected and sanctioned knowledge is used to confer cultural legitimacy on dominant belief and value systems. Young (1976) in response to this question points out the focus of this group when he says:
... to tackle the dialectical relationship between access to power and the opportunity to legitimize certain dominant categories and processes by which the availability of such categories to some groups enables them to assert power and control over others (p. 8).

Looking at it from classroom pedagogical practice, this view of knowledge undermines the positivist teaching practices which presently are seen in American education, particularly in elementary and secondary education. Aronowitz (1977) stated that the content-focussed radicals have encouraged students to move beyond the anti-theoretical, fragmented, skill-oriented modes of pedagogy that have become embedded in American schools. As a result, a small but significant number of radical teachers have helped their students to recognize the ideological basis of the division of knowledge characteristic of most school curricula and to view knowledge as more than a 'neutral picturing of fact' (Freire, 1987). It is interesting to note that these radical groups have helped to expose the prevailing belief that traditional pedagogy represents a better mode of learning; rather they have exposed its functional underside.

According to Giroux (1981), the strategy-based view springs from a long tradition of thought including such people as Rousseau, Wilhelm Reich, Neil, Carl Rogers and E. Fromm. This group he says acknowledges the oppressive power and control exercised by school, but they differ from the content-focussed radicals in their assessment of the nature
of such control. According to Giroux the strategy-based radicals view schooling as a reproduction of traditional, hierarchical, social relationships. In essence these relationships replicate top-to-bottom models of authority and sanction social conformity rather than student initiative and imagination. He points out that the strategy-based radicals have the view that the process of schooling inculcates in students a form of domination that is deeply felt, lived, and experienced as part of one's own history and self formation. Horkheimer and Adorno (1972) point out that the theoretical belief of this group is that industrial society is established not only in men's minds but in their personalities and character structures as well. Giroux in reference to Spring (1975) points that implicit in this view is a perception of domination and control which involves unconscious as well as conscious dimensions of the personality. Spring also points out that this group not only questioned the manipulation of knowledge of students but also questioned the political meaning of traditional classroom pedagogical structures. The strategy-based radicals pedagogical methodology is focussed in developing classroom social relations where students experience classroom encounters and are able to redeem their own subjectivity, and their psychic freedom.

Almost 20 years ago, Bernstein (1977) pointed out that a critical understanding of the complex interplay that
exists between pedagogy, ideology, and social change is absent from both of these perspectives. Neither view has yet developed a theory of liberation that could provide a foundation for educational theory and practice in the most radical sense. Instead, each of these views supports forms of pedagogy that are both reductionistic and incomplete. Both forms of pedagogy end up objectifying and in some cases depoliticizing, though in different ways, the very people they intend to liberate. It is only recently that these versions have been challenged and criticized. The one who has best addressed this challenge is Paulo Freire (1987).

Paulo Freire, the Brazilian educator once in exile because of his literacy campaign, was considered a threat to the old order. He later worked with the World Council of Churches in Geneva. He stands out as an educator who has helped to bridge and bypass those divisions of pedagogy that characterized much of what passes as radical education. His work in Brazil and Africa exemplified a pedagogy that, in the best tradition of radical praxis, unites theory and practice. Shaull (1993) pointed out that Freire is able to do this because he operates on one basic assumption:

... that man's ontological vocation (as he calls it) is to be a Subject who acts upon and transforms his world, and in so doing moves toward ever new possibilities of fuller and richer life individually and collectively. This world to which he relates is not a static and closed order, a given reality which man must accept and to which he must adjust; rather, it is a problem to be worked on and solved. It is the material used by man to create history, a task which he performs as he overcomes that which is dehumanizing at any particular
Freire himself represents a concrete embodiment of his own call for such a unity. Freire's publication in English of the *Pedagogy of the Oppressed* (1995) and *Education for Critical Consciousness* (1993) has made him a cult-hero among a minority of Western liberals and radicals since his exile from Brazil in 1964. Boston (1977) pointed out that Freire like other major thinkers has not always been followed by a clear understanding or rightful application of his ideas. One reason might be the difficulty of Freire's writing style, which some critics claim is not only obtuse, but also at odds with his claim to a demythologizing humanism. I would posit a more arguable reason: that Freire's pedagogy has been developed and used in Third World countries that bear little resemblance to the advanced industrial countries of the West. There is no question that Freire's pedagogy has its share of over-simplifications and theoretical weaknesses. But more importantly, embedded within it, it contains several concepts and theoretical insights that provide the fundamental building blocks for a radical pedagogy applicable to the Western experience. For example, Freire (1987) believes in critical dialogue as an instructional method in human development. His techniques and ideas extend beyond teaching and communication into human and social development which is common to the West. To him, dialogue
must be understood as something taking part in the very historical nature of human beings. It is part of our historical process in becoming human beings ... to the extent that humans have become more and more critically communicative beings. Dialogue is a moment where humans meet to reflect on their reality as they make and remake it (pp. 98-99).

Freire’s theoretical roots bear little resemblance to those of his colleagues in the West. Instead of relying heavily upon the Positivist Tradition that pervades the social sciences in the West, he has developed his educational theory and practice form a variety of radical sources drawn from History, Philosophy, Sociology, Phenomenology, Existentialism, and Neo-Marxism. Freire is deeply indebted to Marx, Huserl, Buber, and Sartre, among others, for his intellectual heritage. At the center of his pedagogy is a dialectical understanding of the connections between school and the larger universe of socio-political meanings and beliefs that legitimate the dominant society. According to Giroux (1981), Freire is not a structuralist with the intent of propping up a functional sociology and barren form of Pedagogical Behaviorism that denies subjectivity. Instead, he acknowledges the false ideological distinctions between public and private and searches for the objective forces that shape the individual and collective consciousness of the oppressed. Giroux points out that Freire capitalized upon Marx’s critique of ideology and Freud’s psychoanalytical model, in his attempt to examine the nature of domination within specific socio-
historical conditions. Freire, Giroux says, is conscious of how individual and collective consciousness can be an emancipatory force engaged in the shaping of history. Freire rejects the notion that domination is an exclusively private affair and looks at the multifaceted ways in which schooling functions to structure and shape the subjective perceptions and identities of the oppressed. According to Giroux, for Freire all pedagogy in essence is a political issue and all educational theories are political theories. Freire's work, Giroux concludes, represents a critical attempt to illustrate how ideologies of various means and persuasions reflect, distort, and prevent men and women from becoming socio-political actors in the struggle against an oppressive society. In essence to understand his pedagogy one must begin with a recognition that it is both a call for liberation and an ongoing process of radical reconstruction (p. 129).

Schooling and Culture

Freire postulates that schooling is not neutral. He stresses that the so called neutrality of schooling is in itself nothing less than a mystification, a convenient way of hiding the political function of schooling. Freire does not join with various mechanistic Marxists who see the school as a mere conveyor belt that processes students into the alienating realms of leisure and work. Freire rejects this deterministic model of pedagogy and views the process
of schooling in more complex terms. Thus, he not only helps us to focus on schooling as a process designed to reproduce and legitimate the prevailing dominant consciousness in the existing culture, he also points to the contradictions and problems that accompany that process. For example, Freire (1993) emphasized problem-posing as opposed to "banking" as a democratic way for students to take part in the contention over knowledge and the shape of society. He writes:

Problem-posing education affirms men as beings in the process of becoming-as unfinished, uncompleted beings in and with a likewise unfinished reality.... The banking method emphasizes permanence and becomes reactionary; problem-posing education-which accepts neither a "well-behaved" present nor a predetermined future-roots itself in the dynamic present and becomes revolutionary.... Whereas the banking method directly or indirectly reinforces men's fatalistic perception of their situation, the problem-posing method presents this very situation to them as a problem (p. 65).

Freire is of the view that meaning can be constructed by actors whose perceptions do not always conform to the perceptions of the oppressed. This confirms the view that knowledge reflects the values and interests of the creators. Like Pierre Bourdieu (1977), Freire sees culture as doing more than passing on the heritage of a given country. Culture for him is not an all embracing neutral category of social science, rather it is a dependent but nevertheless special sphere within the social process as a whole and its function is political in essence. Dreitzel (1977) puts it this way:
The dominant culture functions to legitimize existing modes of social relations and production. It also functions to provide the motivational structures that links individual needs with social needs and, finally, culture provides a society with the symbolic language for interpreting the boundaries of individual and social existence (pp. 83-129).

The correlation between culture and education is a crucial theme in Freire’s work and represents a powerful critique of the Positivist approach to schooling that prevails in the West. Freire enabled us to understand that only by viewing schooling as a semi-successful agency of legitimation within the context of larger socio-economic forces can one begin to understand the source of the problems and contradictions that in large part plague schools. The prevailing forms of knowledge, values, social relationships and forms of evaluation that are used in schools do not exist in isolation from the larger society. They are linked, for the most part, either directly or indirectly, to the prevailing cultural hegemony and dominant economic arrangements. Another theme in Freire’s work that is useful to radical educators in the West is his theory of knowledge, particularly its relationship to the concepts of domination and emancipation.

**Theory of Knowledge**

When we conceptualize Freire’s concept of schooling seen in political and ideological choices, liberation then becomes more than a matter of technique. The issue embedded in Freire’s notion of liberation is that people should be
able to generate their own meanings and frames of reference. They should also be able to develop their self determining powers through their ability to perform a critical reading of reality. In upholding their own reality they can act on that reality. Freire (1978) made this clear in his literacy campaign inaugurated in Guinea Bissau:

The act of learning to read and write, in this instance, is a creative act that involves a critical comprehension of reality. The knowledge of earlier knowledge, gained by the learners as a result of analyzing praxis in its social context opens to them the possibility of new knowledge. The new knowledge goes far beyond the limits of earlier knowledge and reveals the reason for being behind the facts, thus demythologizing the false interpretations of these same facts. And so, there is now no more separation between thought-language and objective reality. The reading of a text now demands a 'reading' within the social context to which it refers (p. 24).

Knowledge according to Freire is not neutral. For him it should be regarded not as the acquisition of a body of information, but as the result of a human activity situated in human norms and interests. Just as there is a distribution of economic capital in society, there is also a distribution of cultural capital, of which knowledge is a crucial part (Giroux, 1981).

The issue here is to recognize that the act of knowing is more than a technical issue, it is, in part a political issue. For him, knowing is not a matter of the best way to learn a given body of knowledge, but a theoretical practical issue designed to distinguish between essence and accident (appearance), truth and falsehood. Knowledge, under the
guise of objectivity, has long been used to legitimate belief value systems that are at the core of bondage. That 'objective' knowledge not only mystifies, but it also turns people into spectators by removing from public debate the norms, values and interests underlying it. Reality for Freire is nothing other than that which is codified in the established language and facts. Liberation begins with the recognition that knowledge at its roots, is ideological and political, inextricably tied to human interests and norms. And that the correlation between knowledge and human interest should be viewed as the theoretical foundation or beginning for going beyond what Nietzsche called the "dogma of the immaculate perception" (Giroux, 1981).

The core of Freire's notion of knowledge is a recognition of the dialectical interconnections between the doer, receiver, and the objective world itself. Herbert Marcuse (1960) puts it this way:

> Dialectical thought invalidates the 'a priori' opposition of value and fact by understanding all facts as stages of a single process- a process in which subject-object are so joined that truth can be determined only within the subject-object totality. All facts embody the knower as well as the doer; they continuously translate the past into the present. The objects thus contain subjectivity in their very structure (p. viii).

Knowledge for Freire is more than a social construct, it also represents the basis for social action. A radical conception of knowledge does not rest simply on the ability to demystify the ideological hegemony of the dominant order.
That is important, but incomplete. A radical conception of knowledge also rests on how well it can be used by the oppressed themselves to question the very processes used to constitute and legitimate knowledge and experience in the first place. Knowledge that is divorced from the processes that constitute it represents not only a crude pedagogical simplification, but a reactionary political act that creates a division of labor that prevents radical educational reflection. Freire's concept of knowledge as a liberating tool easily speaks to a number of ways in which such a concept could be employed to enrich radical educational theory and practice in the West.

Freire sees the core of the act of knowing as both a questioning attitude and a specific set of social relationships. Freire (1978) stated:

On one level, knowing demands understanding dialectically ... the different forms in which human beings know their relations with the world ... knowing demands the curious presence of subjects confronted with the world. On another level, knowing means looking at knowledge from a perspective that enables men and women to transcend the realms of intellectual habit and common sense. Only then can the oppressed recognize the ideological distortions that influence and shape their understanding of social and political reality (p. 132).

Freire (1987) urges that radical educators learn to make problematic the knowledge they present to their students. And that every effort should be made to avoid forms of pedagogy and knowledge that provide a Mechanistic and Deterministic view of the world. In essence this means that
all educational experience must begin with questions concerning the meaning and nature of knowledge itself. Freire (1978) pointed out by citing an example that the relationship between knowledge and ideology could be pursued through such questions as:

Whose reality is being legitimated with this knowledge?; why this knowledge in the first place?; whose interests does this knowledge represent?; why is it being taught this way?; does this knowledge have meaning for the learner? and is this knowledge part of the learner's cultural capital? (p. 101).

Freire also pointed out that educators must constantly survey different avenues to help the learner view knowledge as problematic. Any radical theory of knowledge must emphasize the processes by which we learn to know, and the methods by which we constitute meaning. Like Ludwig Wittgenstein (1953), he is convinced that how we come to know presupposes intersubjective agreements and standards and that knowing is shaped and influenced by specific forms of intentionality and intersubjective norms which cannot be separated neatly from social relations. Freire (1978) focuses on the essence of the issue with his claim that "the knowledge of how to define what needs to be known cannot be separated from the why of knowing ... the practice of thinking about practice is the best way to think correctly." There can be no denial of what Freire concluded. I will endorse it by saying that we educators need to develop a pedagogy designed not only to help students generate their own meanings, but also to help them reflect on the process
of thinking itself. Questions that teach students how specific structures of thought are both used and embodied in particular types of World Views, Ideologies, and Experiences must be translated into viable pedagogical practices. It is then that students will be able to use knowledge as part of a self-determining process that helps them to distinguish false from true knowledge claims.

Another aspect of Freire's theory of knowledge centers around his view of knowledge as fundamentally linked to the question of social relationships. He is of the view that knowledge should be defined through the social mediations and roles that provide the context for its meaning and its mode of distribution. This reflects Vygotsky's view that individual intellectual development cannot be understood without reference to the social milieu in which the child is embedded. This is a central concept in Freire's pedagogy. Knowledge becomes the mediator of communication and dialogue among learners. Freire (1987) declared:

Only dialogue, which requires critical thinking, is also capable of generating critical thinking. Without dialogue there is no communication, and without communication there can be no true education. Education which is able to resolve the contradiction between teacher and student takes place in a situation in which both address their act of cognition to the object by which they are mediated. Thus, the dialogical character of education as the practice of freedom does not begin when the teacher-student meets with the students-teachers in a pedagogical situation, but rather when the former first asks herself or himself what she or he will dialogue with the latter about. And preoccupation with the content of dialogue is really preoccupation with the program content of education (pp. 73-74).
For Freire this means that the mediation of knowledge demands classroom social relationships radically different from the top-to-bottom models of socialization that characterize traditional modes of schooling.

Theory of Domination

Freire gives us a useful synthesis of how the mechanics of domination operate within pedagogical settings. To illustrate his position he focuses on traditional forms of pedagogical theory and practice that have long remained unexamined. He focuses his attention on the question of how the loyalty and obedience of a population is maintained primarily through ideological means. The mechanism that performs this according to Freire is within the cultural institutions of the dominant elite. This dominant elite plays a major role in "brain-washing" the oppressed with myths and beliefs that later have a great impact on their psyches and character structure, to the degree that people will consent to their own exploitation and powerlessness. Freire points out that there is hope that a change in individual and collective consciousness within radical educational structures will provide the subjective preconditions for the basis for radical change. Freire views the passivity of the oppressed (students) as social and deliberate. The objective conditions of oppression, economic and political impoverishment, only provide part of the answer in understanding the constitutive nature of
oppression. Freire postulates that a more reasonable answer to the 'culture of silence' that characterizes the oppressed can be found in analyzing the subjective basis of oppression. For Freire, domination is not to be found in either the subjective realm or the objective conditions of oppression, limited either to the realm of consciousness or the realm of material exploitation. Rather domination is rooted in a subjective-objective dialectic. The point of interest in that dialectic, for Freire, is how objective Socio-Political forces shape one's subjectivity. The answer to this question is the motivating factor for Freire in working with the oppressed in understanding and changing the Socio-Political reality in which they live.

The outcome of Freire's notion of changing domination is a set of pedagogical practices designed to overcome the oppressive conditions in which students find themselves. He puts much emphasis in his design for liberation on what he terms dialogical communication. For him dialogical communication stands for developing pedagogical structures in which dialogue and analysis serve as the basis for individual and collective possibilities for reflection and action. In this way the oppressed:

... see and analyze their own way of being in the world of their immediate daily life, including the life of their villages, and when they can perceive the rationale for the factors on which their daily life is based, they are enabled to go far beyond the narrow horizons of their own village and of the geographical area in which it is located, to gain a global perspective on the world (p. 57).
Dialogical communication, here is both a theoretical and strategic concept for political action. Freire pointed out that educators who ignored the cultural capital of the oppressed practiced cultural invasion. Freire understood and developed the concept of cultural invasion and warned strongly against using the methods of the oppressor to teach the oppressed. In citing Amilcar Cabral, Freire (1987) held that "if the re-Africanization of mentality is to take place, radicals would have to begin with the concrete reality of the learners and their own experience in this reality." It is only under such circumstances that the creative power of the people would emerge with the guidance rather than domination of radical teachers and leaders. He is of the opinion that the reasons for the educational failures of minorities of class and color are not to be found outside but inside the institutionalized nature of schooling. Bourdieu (1977) states that schools generate the culture capital of the upper classes and in doing so teach the dominated classes to devalue their own culture. Freire explained that to fill this gap he emphasizes the need for radical educators to develop both content and methodologies that are consistent with a progressive political stance. Freire extends the notion of radical educational praxis by exposing those issues of the 'hidden curriculum' that exist in both the selection and distribution of knowledge as well as in the use of pedagogical styles designed to transmit
that knowledge.

Giroux (1981) critiqued some of Freire's pedagogical ideology. But in order to understand Giroux's critique on Freire, we have to review a little of the background of Giroux. Giroux's work is a critique of the functionalist assumptions of both liberal publicists and radical critics of Western Education. He is among the few outstanding scholars who have tried to break from the Reductionist Ideology. He is neither an Economic Determinist nor an Ideological Determinist. When I attended a lecture and discussion conducted by Giroux in 1994 at Loyola University Chicago, his focus was on how the curriculum functions as an internal discourse as well as a powerful force for social integration. In effect, what constitutes Giroux's major contribution to educational theory is his focus on curriculum as a discourse that may either embody the elements of domination or liberation. Many psychologists, learning theorists and educators have tried to understand how people acquire knowledge. Giroux's uniqueness consists in the way in which he approaches these issues. Like Freire, he probes deeply into the conditions of pedagogy, tries to understand how it is possible that education can be a force for democracy; not by asserting its influence within the social hierarchy but rather as an effort to transmit cultural tradition and ideology as the knowledge of hegemonic groups in society. For Giroux schools are
institutions of cultural and social reproduction that embody what Pierre Bourdieu (1977) calls 'Cultural Capital'. Just as workers contend with their employers for shares of social capital through struggles for higher wages, students and teachers wage a constant battle for a portion of society's cultural capital through the curriculum and pedagogy. For many Americans, Giroux has offered his critique of schooling within a framework of making pedagogy an emancipatory activity. Like Freire, Giroux wishes to empower students and teachers to utilize their critical sensibilities and their options for social change.

Giroux's Critique on Freire

Giroux (1981) observes that Freire's strength lies in his ability to address educational issues as political, especially in his strong emphasis on the relationship between schooling and the dominant culture. Giroux stated that the fact of domination in Third World nations, as well as the substantive nature of that domination, is relatively clear for Freire. Giroux disagrees only because of the fact that what may be justifiable for Third World radicals does not necessarily mean it applies to the West. Giroux points out that the conditions of domination are not only different in the advanced industrial countries of the West, but they are less obvious, and in some cases more pervasive and powerful. Giroux feels that Freire's visit to the USA in the seventies misconstrued the extent and nature of the
ideological hegemony that exists in the United States. Giroux (1981) in reference to Egerton’s (1973) article, "Searching for Freire," Saturday Review of Education, stated that Freire claimed: "This is one of the most alienated of all countries. People know they are exploited and dominated, but they feel incapable of breaking down the dehumanized wall" (p. 33). Giroux accepts that the alienation, exploitation, and domination to which Freire refers is certainly an objective fact, but far from a subjective perception recognized by most Americans. I differ with Giroux’s statement because there is no point in time when all Americans will see the subjectivity of alienation, exploitation and domination in the affairs of this country from the same perspective. This perspective would have to, in retrospect, that all knowledge reflects the value and interest of the creator. There are no universal perceptions, and there are no universal answers to any issue. The answer in my mind, if there is any in terms of subjectivity, has to be discovered in the course of discovery of the ‘Other’ and the importance of taking this ‘Other’ as the starting point in order to propose a reflection for changing reality, i.e., the reality of exploitation, domination and dehumanization which Freire talked about. The reflection of these issues will help us to accelerate the process of changing reality by considering the ‘Other’s Culture’ and recognizing it as different. To
make this revision possible I would like to propose a theoretical framework which will help to transform our views of the 'Other'. That theoretical framework, as I see it, will be unity through diversity. Participation is the key for any unity to exist and when unity exists, there is democracy. When policy is made which takes into consideration the participation by the 'Other' as necessary, then the creation of unity comes into existence; and there is democracy. But when a certain group imposes unity on the other by eliminating the cultural differences (the essence of their being; that which makes them who they are) then subjectivity becomes questionable and is seen as an illusion for the 'Other'.

With respect to the notion of ideology, Giroux points out that Freire is not clear about whether he supports a definition of ideology derived from Marx, in which ideology is seen as a distortion of reality, or if he supports a view of ideology similar to one articulated by Louis Althusser and Alvin Gouldner. Althusser and Gouldner (1970), according to Giroux, do not view ideology as an aberration that will disappear in a socialist society, but rather as a constitutive medium, different in degrees, in all societies. Giroux points out that if Freire is suggesting that the end of ideology will come with a classless society, then he may be unwittingly supporting a version of the very Positivism he insists on criticizing; i.e., ideology in this case is
replaced by Science with its concomitant claim to absolute truth. Giroux also stated that while Freire provides a substantive description of the ideologies he criticizes as well as an analysis of the material and psychological forces that sustain them, he fails to provide a clear analysis of the historical forms of political and social life that produced them. Again I hold a different view from Giroux. Freire does in fact provide a clear analysis of the historical forms of political and social life that produced them when Freire (1989) states:

For environment to become yet richer, mentally, physically and emotionally, I think we need to discover a different environment. Basically, as you know, as we all know, in order to discover ourselves, we need to see ourselves in the other, to understand the other in order to understand ourselves, to enter into the other (p. 14).

Here I understand that Freire is saying that, to understand the dominant culture, we must explore it so as to lay bare the complex relationship between knowledge and power and how this knowledge and power can help us in our self development. I would say that it was coming to know the world that helped me to understand and comprehend my own country better. One important aspect of my intellectual experience was precisely my study here in America that not only enabled me to discover, or rediscover what my own country Nigeria was really like. That is the positive side of it. And I would add that I came to a better understanding of the village where I came from and where I
was born. Basically, I think that my great university has been the small village of Amuzie where I was born and the big town Aba where I experienced childhood and adolescence. Aba is where my father taught me how to read and write. My father who would turn his hand to anything, sometimes working as a teacher, sometimes as a businessman exposed me to different apprenticeships. Aba and Amuzie were the two great universities which were to shape my intellectual life to seek for a higher knowledge. It is my discovering different environments that has enriched me mentally, physically and emotionally as well as providing me the material and psychological forces to sustain them. Just as I received the gift of life from my mother and father, with generosity, devotion and love I can give birth to joy, to peace, to service. This has strengthened me in many ways in my profession as a priest to respond to those I have come across in my journey in the ministry.

My mother nursed me as an infant. My father nourished me that I might grow in strength. Just as they gave life to me, so too must I give life to all who need my help. We must give birth to joy in our world. We must respond to those who need our help. We must care with a spirit both genuine and spontaneous. We must love with a power that is simple and sincere. We must have an eye for the one who needs our special attention. We must be open-hearted and kind toward those who look to us and who are different from
us. We must remain open to new opportunities and fresh needs. We must be tender and gentle even in small matters. In my mind there are few limits to our giving and caring. In effect I am arguing that Freire did indeed provide a clear picture of Political and Social Life which produced those ideologies he criticized since those who wear the shoes know where they pinch. Those ideologies he has experienced he criticized not only in Brazil, his home country but also in different parts of the world where this inequality and the degradation of human being is active. These experiences he exposes to others to help them to recreate themselves and their societies.

Giroux also criticized Freire's work on the notion of dialogical communication. Giroux maintained that the relationship between communication and action in Freire's pedagogy was not always clear. Giroux stated that Freire did not specify what are the objective and subjective forces of resistance that prevent the transition from radical communication to radical action. Giroux (1981) questioned:

how will the oppressed evaluate their teachers if both the limits and possibilities for generating and implementing radical discourse cannot be measured against a set of socially defined norms which define the conditions that support non-repressive communication and public discourse? (p. 138).

I have the opinion that Freire in his pedagogy made it clear when he talks about the relationship between communication and action. For example he analyzed dialogue and what it signifies. The essence of dialogue according to
Freire is the word. In the word there are two dimensions, reflection and action. If one is sacrificed at the expense of the other, both suffer. That means when a word is deprived of its dimension of action, reflection automatically suffers as well, and the word loses its authenticity. It becomes empty and when it becomes empty, it cannot transform. And because there is no transformation, action becomes impossible. In response to Giroux’s question on what the objective and subjective forces of resistance that prevent the transition from radical communication to radical action are, Freire (1993) puts those forces of resistance in this form:

How can I dialogue if I always project ignorance onto others and never perceive my own? How can I dialogue if I regard myself as a case apart from others mere ‘its’ in whom I cannot recognize other ‘is’? How can I dialogue if I consider myself a member of the in-group of ‘pure’ men, the owners of truth and knowledge, for whom all non-members are ‘these people’ or ‘the great unwashed’? How can I dialogue if I start from the premise that naming the world is the task of an elite and that the presence of the people in history is a sign of deterioration, thus to be avoided? How can I dialogue if I am closed to and even offended by the contribution of others? How can I dialogue if I am afraid of being displaced, the mere possibility causing me torment and weakness? (p. 71).

These are the forces of existence in my mind that prevent the transition from radical communication to radical action from operating. This has resulted in the failure of many political and educational plans because their authors designed them according to their own personal views of reality, not taking into consideration the men and women to
whom their program was directed. Someone, according to Freire, who cannot acknowledge himself to be as mortal as everyone else still has a long way to go before he can reach the point of encounter. At the point of encounter there are neither utter fools nor perfect sages; there are only people who are attempting together to learn more than they know now. So Freire sees the forces of resistance preventing the transition from radical communication to radical action when the dialogue is not built on the virtue of faith, humility, and love.

Faith, according to Freire (1987), is required in mankind to make and remake, to create and re-create. Faith in people is an 'a priori' requirement for dialogue to occur. The man of dialogue must believe in others even before he meets them face to face. It is in responding to this faith in one another that the power of creation and transformation is generated. Without this faith in people, dialogue becomes faceless and degenerates into what Freire calls 'paternalistic manipulation'. Building itself on love, humility, and faith, dialogue becomes a horizontal relationship of which mutual trust between the dialoguers is the logical consequence. It would be a contradiction in terms if dialogue couldn't reconcile love, humility, and faith to produce this climate of mutual trust, which leads the dialoguers into ever closer partnership in the naming of the world. In support of this concept, Claus Mueller (1981)
states: "The symbolic and conceptual interpretations embedded in ... acquired language become a mediating factor that shapes one's view of the environment." He further clarifies the political function of language by pointing out that it is an important factor which is determined, not only by the social context of a society but political institutions and interests as well ... both socially restricted language and politically manipulated language can function as agents promoting the stability ... of a political order.

In effect when communication occurs, all natural events are subject to reconsideration and revision and, for communication to be fruitful, everyone must participate. This recalls the earlier passage where Dewey (1916c/1980c) declared:

To be a recipient of a communication is to have an enlarged and changed experience. One shares in what another has thought and felt ... has his own attitude modified. Nor is the one who communicates left unaffected. Try the experiment of communicating, with fullness and accuracy, some experience to another ... and you will find your own attitude toward your experience changing.... The experience has to be formulated in order to be communicated. To formulate requires getting outside of it, seeing it as another would see it, considering what points of contact it has with the life of another so that it may be got into such form that he can appreciate its meaning (pp. 8-9).

All these, according to Freire, point to the fact that liberation begins with the recognition that, in a free society, there is no room for manipulation, cultural invasion, conquest, and domination and that there can be only participants and subjects in the shaping of a liberated society.
Giroux states that it would be a contradiction in terms to extend without qualification Freire’s theory and methods to the industrialized and urbanized societies of West. But even when acknowledging this one cannot suggest dismissing Freire’s work outright. Giroux acknowledges that if one looks closely at Freire’s efforts one will find specific themes and practices that will help to enrich and broaden radical pedagogy in the West. That Freire’s work demonstrates the dynamic of progressive change stems, in part, from working with people rather than on them. It is in the latter spirit of respect for human struggle and hope, that an emancipatory pedagogy can be forged, one in which radical educators can consolidate and use the insights of Freire within the context of their own historical experience in order to give new shape to the meaning of radical reflection. It is this kind of consolidation and insight within my own historical experience that I aspire to in this dissertation.
CHAPTER IV
TRANSFORMATIVE KNOWLEDGE ROLE IN MULTICULTURAL EDUCATION

The purpose of this chapter is to provide evidence for the claim that multicultural education transforms our knowledge. Multicultural education reflects our values, ideologies, political positions and human interests. When it becomes transformative, the teacher serves as a coach or facilitator, trying to evoke certain qualities or understandings in the students. By posing certain problems, creating certain challenges, and placing the student in certain situations, the teacher encourages the student to develop his/her own ideas, test them in various ways, and further his/her own understanding. I propose that this transformative knowledge is essential and must be taught in the school and university curriculum.

For the last decade, there has been a heated national debate in the United States surrounding how and what knowledge related to ethnic and cultural diversity should be taught in the school and university curriculum (Asante 1991a; Glazer, 1991; Schlesinger, 1991). This debate has created ethnic and academic tension and friction among educators concerning what multicultural education represents and about the meaning of multicultural education. There are
two distinct groups of scholars engaged in this debate: the Western Traditionalists and the Multiculturalists. Each of these groups has their different views, assumptions and beliefs about the nature of diversity and the role of educational institutions in a pluralistic society. Some of the Western Traditionalists like Gray (1991), Howe (1991), and Woodward (1991) see educational institutions as having a mission to defend the dominance of Western Civilization in the school and university curriculum, even as awareness of non-Western cultures is taught. These scholars contend that Western history, literature and culture are endangered in the school and university curriculum because of pressure by feminist scholars, ethnic minority scholars, and other multiculturalists advocating for curriculum reform and transformation. On the other hand, the Multiculturalists, Butler and Walter (1991), Gates (1992), Grant (1991), and Takaki (1993) contend that the school, college, and university curriculum has failed to assimilate the experiences of people, race and culture. They believe that the curriculum should be reformed to reflect the history and culture of ethnic groups and women. From their perspective Western Traditionalism is viewed as exclusionary and limited rather than inclusive and generative.
The Nature of Knowledge

According to Bower and Hilgard (1981), philosophers for many centuries have been battling with the nature of man. When psychology split off from philosophy to become the "science of mental life", the questions asked were: What is the relation of the mind to the body? How does the mind develop from birth? How does it acquire knowledge of the world? How does it come to know other minds; to know itself? What drives humans to action? What is the self? What produces continuity of personal identity? (p. 1).

The study of learning and memory came from two philosophical sources: the analysis of knowledge (how we come to know things), and the analysis of the nature and organization of mental life. The first issue concerns what philosophers call epistemology, the theory of knowledge. The second issue concerns the nature and contents of our concepts, thought, images, discernments, reminiscences, and imaginations; the further question here involves what operations, rules, or laws underlie these mental phenomena. As Bower and Hilgard (1981) pointed out, the study of learning may be called experimental epistemology, since learning and knowing seem related in the same way as a process is to its result, as acquiring is to a possession, as painting is to a picture. According to Bower and Hilgard (1981), the American Heritage Dictionary (1983) defines knowledge as "familiarity, awareness, or understandings
gained through experience or study. The sum or range of what has been perceived, discovered or inferred" (p. 384). One conceptualization of knowledge is derived from Farganis (1986), and recognizes that it is broad and is used in the psychological and sociological context of knowledge literature to include ideas, values, and interpretation. Another school of thought, constructivism, refers to knowledge as the internal mental constructions of the individual. Von Glaserfeld (1989) emphasizes that one can never know what is in the mind of another and, therefore, can never place knowledge in books or other human artifacts: "Once we come to see this essential and inescapable subjectivity of linguistic meaning, we can no longer maintain the preconceived notion that words convey ideas or knowledge" (p. 133). Because socioculturalists are more interested in interactions among individuals and the social construction and transmission of language, they are more likely to use knowledge in relation to these cultural artifacts. For examples, Driver et al. (1994) state: "We argue that it is important in science education to appreciate that scientific knowledge is both symbolic in nature and also socially negotiated" (p. 5).

Postmodern theorists, Code (1991), Harding (1991), and Rorty (1989) have pointed out that knowledge is socially constructed and reflects human interests, values, and action. However, since many complex factors influence the
knowledge that is created by an individual group, including the actuality of what occurred, the knowledge that people create is heavily influenced by their interpretations of their experiences and their positions within particular social, economic, and political systems and structure of a society.

Giroux (1981) concludes that the knowledge, beliefs, expectations, and biases that define a given rationality both condition, and are conditioned by the experiences into which we enter. Of crucial importance is the notion that such experiences only become meaningful within a mode of rationality that confers intelligibility on them (p. 8).

In the Western empirical tradition, the ideal within each academic discipline is the formulation of knowledge without the influence of the researcher's personal or cultural characteristics (Greer, 1969; Kaplan, 1964). On the other hand, the postmodern theorists (Cherryholmes, 1988; Foucault, 1972; Habermas, 1971; Rorty, 1989; Young 1971) state that personal, cultural, and social factors influence the formulation of knowledge even when objective knowledge is the ideal within a discipline. Sometimes the researchers themselves are unaware of how their personal experiences and positions within society influence the knowledge they produce.
Knowledge Construction

I am of the opinion that the positions of both Western Traditionalists and the Multiculturalists reflect values, ideologies, political positions, and human interests. Each position also implies a kind of knowledge that should be taught in the school and university curriculum. I will present different kinds of knowledge that exist in society and in educational institutions. This information is designed to assist practicing educators and researchers in identifying types of knowledge that reflect particular values, assumptions, perspectives, and ideological positions.

Banks (1991) points out that teachers should assist students to understand all types of knowledge. Students should be involved in debates about knowledge construction and conflicting interpretations, for example the extent to which Africa and Phoenicia influenced Greek civilization. Students should be taught how to create their own interpretations of the past and present, as well as how to identify their own positions, interests, ideologies, and assumptions. Research should be presented in such a way to assist students to become critical thinkers who have the knowledge, attitudes, skills, and commitments needed to think for themselves. Multicultural education is an education for functioning effectively in a pluralistic democratic society. Helping students to develop the
knowledge, skills, and attitudes needed to participate in reflective civic action is one of the major goals. Freire (1970) seems to share a similar view with Banks when he states that:

the more radical the person is, the more fully he or she enters into reality so that, knowing it better, he or she can better transform it. This individual is not afraid to confront, to listen, to the world unveiled. This person is not afraid to meet the people or to enter into dialogue with them. This person does not consider himself or herself the proprietor of history or of all people, or the liberator of the oppressed; but he or she does commit himself or herself, within history, to fight at their side (p. 21).

I will propose that students should study all five types of knowledge that will be discussed later in this chapter. However, my focus and philosophical position are within the transformative knowledge tradition in ethnic studies and multicultural education. This tradition links knowledge, social commitment, and action. A transformative, action-oriented curriculum, in my view, can best be implemented when students examine different types of knowledge in a democratic classroom where they can freely examine their own and others' perspectives and moral commitments. This is because knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other.
Philosophical Position

Positionality is a new concept that emerged out of feminist scholarship. It reveals the importance of identifying the frames of reference from which scholars and writers present their data, interpretations, analyses, and instruction. Code (1991) and Harding (1991) pointed out the need for researchers and scholars to identify their ideological positions and normative assumptions in their works. This is consonant with feminist and ethnic studies scholarship which is in contrast with the empirical paradigm that has dominated science and research in the West. The assumption within the Western empirical paradigm is that the knowledge produced within it is neutral and objective and that its principles are universal and dis-embedded from the thinking or experience of any one individual or group.

Postmodern and critical theorists such as Paulo Freire (1970), Habermas (1971), and Giroux (1983), and feminist postmodern theorists such as Farganis (1986), Code (1991), and Harding (1991) have developed important critiques of positivist, empirical knowledge. They argue that despite its claims, modern science is not value free but contains important human interests and normative assumptions that should be identified, discussed, and examined.

Code (1991), a feminist epistemologist, states that academic knowledge is both subjective and objective and that both aspects should be recognized and discussed. Freire
(1970) appears to share similar views about knowledge with Code by saying that for the individual the subjective aspect exists only in relation to the objective aspect (the concrete reality, which is the object of analysis). Subjectivity and objectivity thus join in a dialectical unity producing knowledge in solidarity with action, and vice versa (p. 20). Code (1991) states that we need to ask these questions: "Out of whose subjectivity has this ideal of objectivity grown? Whose standpoint, whose values does it represent?" She writes:

The point of the questions is to discover how subjective and objective conditions together produce knowledge, values, and epistemology. It is neither to reject objectivity nor to glorify subjectivity in its stead. Knowledge is neither value-free nor value-neutral; the processes that produce it are themselves value-laden; and these values are open to evaluation (p. 70).

Code (1991), Gordon (1985), and Harding (1991) pointed out that empirical scholarship has been limited by the assumptions and biases that are implicit within it, although these biases and assumptions have been infrequently recognized by the scholars and researchers themselves and by the consumers of their works, such as other scholars, professors, teachers, and the general reader. Ladner (1973) and Phillips (1918) maintained that the lack of recognition and identification of these biases, assumptions, perspectives, and points of view have frequently victimized women and people of color such as Africans, African-Americans and American Indians because of the stereotypes
and misconceptions that have been perpetuated about them in the historical and social science literature. Code (1991) raised the question, "Is the sex of the knower epistemologically significant?" She answered in the affirmative because of the ways in which gender influences how knowledge is constructed, interpreted, and institutionalized in the West. The ethnic and cultural experiences of the knower are also epistemologically significant because these factors influence knowledge construction, use, and interpretation in the western society.

Gordon, Miller, and Rollock (1990) point out that mainstream social scientists have often viewed diversity as deviance and differences as deficits. Acun (1988), Harding (1981), King and Mitchell (1990), and Merton (1972), on the other hand, pointed out that an important outcome of the revisionist and transformative interpretations that have been produced by scholars working in feminist and ethnic studies is that many misconceptions and partial truths about women and ethnic groups have been viewed from different and more complete perspectives. Merton (1972) in one of her essays pointed out that the perspectives of both "insiders" and "outsiders" are needed to enable social scientists to gain a complete view of social reality. Anna Julia Cooper (1892/1969), the African American educator, like Merton, has a similar view when she said that women's perspectives
enlarged our vision: "The world has had to limp along with the wobbling gait and the one-sided hesitancy of a man with one eye. Suddenly the bandage is removed from the other eye and the whole body is filled with light. It sees a circle where before it saw a segment" (p. viii).

**Types of Knowledge**

Teachers and curriculum specialists, by addressing various types of knowledge, can bring into view the content needed to make the curriculum multicultural. Each of the types of knowledge selected for description will reflect particular purposes, perspectives, experiences, goals and human interests. The idea of exposing students to various types of knowledge can assist them to better understand the perspectives of different racial, ethnic, and cultural groups as well as to develop their own versions and interpretations of issues and events.

These are the different types of knowledge Banks (1993) and Prawat (1993) have identified: (1) Idea-Based Social Constructivism; (2) Personal/Cultural Knowledge; (3) Mainstream Academic Knowledge; (4) Transformative Academic Knowledge; and (5) School Knowledge. The categories are useful conceptual tools for reflection about knowledge and for planning multicultural teaching.
Idea-Based Social Constructivism

Idea-based social constructivism is an attempt to build on Gibson's (1966, 1979) suggestion that, in light of his ecological approach to visual perception, we reconsider what is meant by higher mental processes like thinking, conceiving, knowing, and expecting. Gibson concluded that "to perceive the environment and to conceive it are different in degree but not in kind." He went on to say:

Our reasons for supposing that seeing something is quite unlike knowing something come from the old doctrine that seeing is having temporary sensations one after another at the passing moment of present time, whereas knowing is having permanent concepts stored in memory. It should now be clear that perceptual seeing is an awareness of persisting structure (p. 258).

Neisser (1976), responding to Gibson's suggestion, pointed out that in adopting an ecological perspective, cognitive psychologists might downplay the perceiver's contribution to the perceptual act. By highlighting the role of perceptual schemata in this process, Neisser attempted to strike a balance between person and environment. Perceptual schemata, in Neisser's theory, constitute a set of "anticipations" that alert the individual to certain aspects of the environment, guiding and constraining perception while also remaining receptive to new input as the search process unfolds. Ideas or concepts function like perceptual schemata. They are "wake up calls" to new ideas and concepts. They assist to educate attention, opening us up to aspects of the world that are a
potential source of wonder. Even relatively mundane ideas can open up new windows to the world. They are sources of transformation to new insights. Von Foerster (1984) illustrates this with an example taken from one of Moliere's plays. Jourdain is depicted as a common man suddenly grown rich and eager to acquire the culture and sophistication of his aristocratic friends: On one occasion his new friends speak about poetry and prose, and Jourdain discovers to his amazement and great delight that whenever he speaks, he speaks prose. He is overwhelmed by this discovery: "I am speaking Prose! I have always spoken Prose! I have spoken Prose throughout my whole life!" (p. 41). This one idea, the link between the spoken and the written word, excites Jourdain beyond measure. New ideas have potential power. To quote Bruner (1969) new ideas are often "lithe and beautiful and immensely generative" (p. 121).

Kant brought imagination into the equation arguing that it is imagination that allows us to apply our thoughts or ideas to things. Building on the work of philosophers such as Kant, Warnock (1976) emphasizes the importance of what she terms "thought-imbued perception". Thought imbued perception "enables us to see the world, whether present or absent as significant, and also to present this vision to others, for them to share or reject" (p. 196). As Floden (1987) noted, Dewey brought experience into the equation: "Dewey saw education as a journey into the unknown."
Experiences are not 'educative' if they only give students greater skill and ease in dealing with things with which they are already familiar" (p. 500). Dewey held that education should open youngsters to the unique kind of experience that results from the mastery of subject matter knowledge--knowledge that would be inaccessible to the young if they were left "to pick up their training in informal association with others" (p. 500).

Several arguments I have cited here tend to favor idea-based constructivism as one of the different types of knowledge that transforms us as an individual. Neisser (1976), building on Gibson's groundbreaking work on perception, was one of the first psychologists to build a case for this approach to learning and cognition. He introduced a construct "perceptual schemata" to deal with the most difficult problem facing learning theorists, on how to account for the fact that less complex intellectual structures give rise to more complex structures. Constructs like mental images, maps, and ideas are derived from the perceptual process. According to Neisser (1976), they represent "anticipatory phases of that activity"; they are schemata that the perceiver has "detached" from the perceptual cycle. Thus, in conjuring up an image, a map, or an idea, one need only prepare a plan for picking up the information that might be provided by the environment. As a result of this deliberate effort, the individual creates a
simultaneous and somewhat contradictory anticipation that of perceiving and not really perceiving the object or event in question.

Following Neisser's argument, ideas represent anticipations. They direct attention to important aspects of the environment that otherwise would go unnoticed. Ideas educate our attention, enabling us to search out important details, as part of the perceptual process. These details, in turn, enrich our understanding of powerful ideas. According to Brown, Collins, and Duguid (1989) an idea continually evolves as it is used "because new situations, negotiations, and activities inevitably recast it in a new, more densely textured form" (p. 33). Furthermore ideas, when they are used to describe and explain objects or events, acquire meaning that they cannot posses when they are known only in an abstract or definitional way. Wilensky (1992) agrees with the notion that ideas evolve: "It is only through use and acquaintance in multiple contexts, through coming into relationship with other words, concepts, experiences that the word [idea] has meaning for the learner and in our sense becomes concrete for him or her" (p. 9).

This notion that an idea's meaning is worked out in the context of its use is consistent with Vygotsky's notions about how scientific and spontaneous (i.e., experiential) concepts interact. This is also consistent with Gee's (1992) recent formulation:
What is in the head according to a connectionist view of the mind/brain is the wrong sort of thing to be a memory, a meaning, a belief, or other 'psychological entity'. It is only the right sort of thing to be a prerequisite for getting into and playing out social practices in much the same way that a body skilled in a certain way is the prerequisite for getting into and staying in a game of baseball. The social practices I refer to each constitute socioculturally different notions of what 'count' as memories, meanings, values, and beliefs and the links among these (p. xviii).

Gee's quotation is adrem (to the point) at this point because it highlights the social nature of the process of idea formation and transformation. It is through dialogue that our social differences and lack of understanding get resolved. Gee's sociolinguistic approach appears to be highly compatible with that of Cobb's negotiating process. Both tend to emphasize the transformational aspects of idea development, that is, the changes in thinking that result from discussing ideas in a social context.

Personal and Cultural Knowledge

Personal and cultural knowledge constitutes concepts, explanations, and interpretations that students derive from personal experiences in their homes, families, and community cultures. The assumptions, perspectives, and insights that students derive from their experiences in their homes and community cultures are used as mirrors to view and interpret the knowledge and experiences that they encounter in the school and in other institutions within the larger society. Vygotsky (1981) supports this view when concluding that humans create themselves through activity. The tools used
for this mastery are psychological tools. Peers and adults assist in this self-shaping process by helping children learn how to use their culture’s psychological and technical tools. Psychological tools are the language, systems, counting systems, writing, diagrams, maps, conventional signs, and works of art. A culture’s tools connect children, through their activities, with the physical and social world. A culture creates these tools to help people master the environment. The favored tools are passed on to children during social interchanges, and in turn the tools shape children’s minds. Children use these tools to think. Cultural tools actually transform thought. For example, once language is used to help memory, the nature of remembering may change to a more verbal form.

Fordham and Ogbu (1986) point out that low-income African-American students often experience academic difficulties in the school because of the ways that cultural knowledge within their community conflicts with school knowledge, norms, and expectations. They posit that these students believe that if they master the knowledge taught in the schools they will be violating their own norms and run the risk of "acting white". Delpit (1988) noted that African-American students are often ignorant of school cultural knowledge regarding power relationships. As a result they experience academic and behavioral problems because of their failure to conform to established norms,
rules, and expectations. She recommends that teachers assist African-American students to learn the rules of power in the school cultures by explicitly teaching them to the students. The cultural knowledge that many African American, Latino, and American Indian students bring to school conflict with school norms and values, with school knowledge, and with the ways that teachers interpret and mediate school knowledge.

According to Milner (1983) personal and cultural knowledge becomes problematic when it conflicts with scientific ways of validating knowledge, is oppositional to the culture of the school, or challenges the main tenets and assumptions of mainstream academic knowledge. Much of the knowledge about out-groups that students learn from their home and community cultures consists of misconceptions, stereotypes, and partial truth. Many students in the United States are socialized within communities that are segregated along racial, ethnic and social class lines. Consequently the youths have few opportunities to learn firsthand about the cultures of people from different racial, ethnic, cultural, religious and social-class groups. This presents a challenge to teachers as they attempt to bridge the gap between cultural boundaries. An important goal of education must be to free students from their cultural and ethnic boundaries and enable them to cross cultural borders freely.

Grant and Sleeter (1991) noted that the school has
consistently paid lip service to students' personal and cultural knowledge and has concentrated on teaching them school knowledge. The result has been positive for most white students and negative for minority students.

It is important for educators to be aware of the personal and cultural knowledge of students when designing the curriculum for today's multicultural schools. I will return to this issue in a discussion of the methodology of multicultural education in the next chapter after reviewing additional types of knowledge that can be helpful for teachers in school curriculum.

**Mainstream Academic Knowledge**

Mainstream academic knowledge consists of the concepts, paradigms, theories, and explanations that constitute traditional and established knowledge in the behavioral and social sciences. Greer (1969), Kaplan (1964), and Sleeter (1991) stated that an important tenet within the mainstream academic paradigm is that there is a set of objective truths that can be verified through rigorous and objective research procedures that are uninfluenced by human interests, values, and perspectives. Much of this objective knowledge originated in the West but is considered universal in nature and application. This empirical knowledge, supposedly uninfluenced by human values and interests, constitutes the core of the school and university curriculum. Mainstream academic knowledge consists of the theories and
interpretations that are internalized and accepted by most university researchers, academic societies, and organizations such as the American Historical Association, the American Sociological Association, the American Psychological Association, and the National Academy of Sciences.

Recently, university scholars have begun to question the empirical paradigm that dominates Western Science, among them Paulo Freire (1970), Giroux (1983), Cherryholmes (1988), Rosenau (1992), Takaki (1979), Punn Allen (1986), and Banks (1988). Most of the serious challenges come from academics outside the mainstream, such as scholars within the transformative academic community. These challenges result in changes, reinterpretations, debates, disagreements and ultimately to paradigm shifts, new theories and interpretations which is healthy for scholarly advancement.

Many examples can be given of both the alteration and stagnation of mainstream academic knowledge. Examining late 19th and early 20th century mainstream academic knowledge, a tremendous change has occurred in historic accounts of slavery and treatment of the American Indian. For example, Stampp (1956) pointed out the book written by Ulrich B. Philips on American Negro Slavery, published in 1918, dominated the way Black Slavery was interpreted until his views were challenged by research in the 1950’s. Philips was a respected authority on the South and Slavery. His
book, which became a historical classic, is essentially an apology for Southern Slaveholders. With books published by Blassingame (1972), Genovese (1972), and Gutman (1976), a new paradigm about slavery was developed in the 1970's that drew heavily upon the slaves' view of their own experiences. During the same period, Hoxie (1988) pointed out that the American Indian was portrayed in mainstream academic knowledge as either a noble or hostile savage, and of course, children were taught the notion that Columbus discovered America. Over time, these ideas became institutionalized within mainstream academic knowledge.

**Transformative Academic Knowledge**

Transformative academic knowledge consists of concepts, paradigms, themes, and explanations that challenge mainstream academic knowledge. Transformative academic knowledge challenges some of the key assumptions that mainstream scholars make about the nature of knowledge. Transformative and mainstream academic knowledge are based on different epistemological assumptions (concepts) about the nature of knowledge, about the nature of human interests and values on knowledge construction, and about the purpose of knowledge.

Mainstream academic knowledge postulates that knowledge is neutral, objective, and uninfluenced by human interests and values. Transformative academic knowledge reflects postmodern assumptions about the nature and goals of
knowledge (Foucault, 1972; Rorty, 1989; Rosenau, 1992). Transformative academic scholars such as Code (1991), Harding (1991), King and Mitchell (1990), and Minnich (1990) believe that knowledge is not neutral but is influenced by human interests, that all knowledge reflects the power and social relationships within society, and that an important purpose of knowledge construction is to help people improve society.

Transformative knowledge has led to re-interpretation of some mainstream academic knowledge. Columbus did not discover America. This Indian land had been in existence over 50,000 years before the Europeans came. Mongo Park did not discover the River Niger. River Niger had been in existence in Nigeria before Mongo Park sailed to River Niger in the 18th century.

George Washington Williams (1982/1986) published, in two volumes, the first comprehensive history of African Americans in the United States, *A History of the Negro Race in America from 1618 to 1880*. Williams, like other African-American scholars after him decided to research and write about the Black experience because of the neglect of African Americans by mainstream historians and social scientists and because of the stereotypes and misconceptions about African Americans that appeared in mainstream scholarship.

Another outstanding and prolific African-American scholar in U.S. history whose work is emerging only now as
academic knowledge goes through transformation, is W.E.B. DuBois (1868-1963). DuBois devoted his long and prolific career to the formulation of new data, concepts, and paradigms that could be used to reinterpret the Black experience and reveal the role that African Americans played in the development of American society. Carter G. Woodson (1875-1950), the historian and educator who founded the Association for the Study of Negro Life and History and the Journal of Negro History, also challenged established paradigms about the treatment of African-Americans in a series of important publications.

Transformative Scholarship Since the 1970’s

Many academicians have produced outstanding research and theories since the early 1970’s that have challenged and modified institutionalized stereotypes and misconceptions about ethnic minorities. These scholars have formulated new ideas and paradigms, and forced mainstream scholars to rethink established interpretations. Much of the transformative academic knowledge that has been produced in multicultural education since the 1970’s is becoming institutionalized within mainstream academic scholarship and within the school, college, and university curriculum.

Ronald T. Takaki (1993), one of the outstanding scholars in transformative knowledge, has written extensively on the potential of multiculturalism. In his work he poses a question: "Is multiculturalism a
battleground or a meeting ground"? In response to this question Takaki identifies two emerging perspectives. The "cultural war" he says has resulted to series of debate on what should be the content of the curriculum in schools, colleges and universities.

This indeed has become a battleground of ideas for mainstream academic scholars and multicultural academic scholars. Takaki questions whether we are limited to a choice between a "disuniting" multiculturalism and a common American culture, or whether we can transform the "culture war" into a meeting ground? In response to this question Gerald Graff (1992) suggested that the intellectual combatants of this conflict have the potential to enrich American education. As universities become "contested terrains of different point of views, gray and monotonous cloisters of Eurocentric knowledge can become brave new worlds, dynamic and multicultural" (p. 15). On these academic meeting grounds, scholars and students can engage each other in dialogue and debate, informed by the heat and light generated by the examination of opposing texts such as Joseph Conrad’s *Heart of Darkness* and Chinua Achebe’s *Things Fall Apart*. Graff (1992) points out that teaching the conflicts has nothing to do with relativism or denying the existence of truth. The best way to make relativists of students is to expose them to an endless series of different positions which are not debated before their eyes (p. 15).
Takaki (1992) maintains that the need to open American minds to greater cultural diversity will not go away. Takaki believes that teachers can resist this imperative by ignoring the changing racial composition of student bodies and the larger society, or they can embrace this timely and exciting intellectual opportunity to revitalize the social sciences and humanities. Takaki refers to an interesting point made by Henry Louis Gates (1992) which states that the study of the humanities is the study of the possibilities of human life in culture. It thrives on diversity.... The new (ethnic studies) scholarship has invigorated the traditional disciplines. What distinguishes the university from other battlegrounds, such as the media and politics, is that the university has a special commitment to the search for knowledge, one based on a process of intellectual openness and inquiry. Multiculturalism can stoke this critical spirit by transforming the university into a crucial meeting ground for different viewpoints. In the process, perhaps we will be able to discover what makes us an American people (p. 114).

This meeting ground is what Paulo Freire (1970) calls dialogue. Freire believes as I do that this meeting ground cannot exist without people engaging in critical thinking, thinking which perceives reality as process, as transformation, rather than as a static entity. This transformative process engages us into action without fear of the risks involved. The best arena for this transformation of reality is the schools, colleges and universities. I believe that higher education institutions should be where scholars of different viewpoints engage each other over the meaning and content of culture. It is in
these institutions that transformative scholarship has challenged and modified institutionalized stereotypes and misconceptions about ethnic minorities.

A group of African and African-American scholars have challenged established interpretation about the origin of Greek civilization and the extent to which Greek civilization was influenced by African cultures. These scholars include Diop (1974), Williams (1987), and Van Sertima (1988-1989). Cheikh Anta Diop is one of the most influential African scholars who has challenged established interpretations about the origin of Greek civilization. In *Black Nations and Culture*, published in 1955, he sets forth an important thesis that states that Africa is an important root of Western civilization. Diop argues that Egypt "was the node and center of a vast web linking the strands of cultures and languages; that the light that crystallized at the center of this early world had been energized by the cultural electricity streaming from the heartland of Africa" (p. 8).

Bernal (1987-1991) supported the views of Diop, Williams and Van Sertima that Greek civilization originated in ancient Egypt and Phoenicia. Bernal believes that the contributions of Egypt and Phoenicia to Greek civilization have been deliberately ignored by classical scholars because of their biased attitudes toward non white peoples and Semites. Bernal has published two of four planned volumes
of his study Black Athena. In his second volume in reference to Begley, Chideya and Wilson (1991) he uses evidence from linguistics, archeology and ancient documents to substantiate his claim that "between 2100 and 1100 B.C; when Greek culture was born, the people of the Aegean borrowed, adapted or had thrust upon them deities and language, technologies and architectures, notions of justice and polis" from Egypt and Phoenicia (p. 50). Because of the transformative scholarship of Diop, Williams, Van Sertima and Bernal these challenges have had some impact on school knowledge.

School Knowledge

School knowledge consists of textbooks, teachers' guides and interpretations of that knowledge designed for school use. The textbook is the main source of school knowledge. According to Anyon (1979), Sleeter and Grant (1991) textbook studies, these are the major themes in school knowledge in the United States: (1) America's founding fathers, such as Washington and Jefferson, were highly moral, liberty-loving men who championed equality and justice for all Americans; (2) the United States is a nation with justice, liberty, and freedom for all; (3) Social class divisions are not significant issues in the United States; (4) There are no significant gender, class or racial divisions within United States society; (5) Ethnic groups of color and whites interact largely in harmony in the United
States.

Research by Anyon (1979, 1981) and Sleeter and Grant (1991b) on textbooks indicate that textbooks present a highly selective view of social reality. That knowledge is static rather than dynamic, and encourages students to master isolated facts rather than to develop complex understandings of social reality. These studies also indicate that textbooks reinforce the dominant social, economic and power arrangements within society. Students are encouraged to accept rather than to question these arrangements. Historically, schooling has served the purpose of cultural transmission, and the culture transmitted has been primarily that of dominant groups. It is widely recognized that members of culturally influential and dominant groups have established and shaped the public school system and its curricula as we have come to know them. Three decades ago, in Culture Against Man, anthropologist Jules Henry (1963) observed that schools are intended to teach young people to be unquestioning, not out of conspiratorial intent to squelch intelligent inquiry but simply to conserve the culture. No culture can withstand widespread interrogation or creativity. He noted:

It stands to reason that were young people truly creative the culture would fall apart, for originality, by definition, is different from what is given, and what is given is the culture itself.... American classrooms, like educational institutions anywhere, express the values, preoccupations, and fears found in the culture as a whole. School has no choice; it must train the children to fit the culture as it is (pp.
While public schooling serves to sustain more than subvert the status quo, it is not static. Reflecting the host society, it also reflects changes in that society such as recent attention to gender equality and computer literacy. Furthermore school knowledge conveys both the dominant or mainstream culture and the intellectual means to challenge it if one chooses to do so. For example, despite unjustifiable inequalities, most students have at least some opportunity to obtain knowledge of the U.S. political system and the history of conflict and change in the U.S. polity, economy, and society. The reading and information gathering capacity incites one to learn more about the issues.

Apple (1993) referring to the Reagan/Bush administration years, pointed out that there was a contest to control school knowledge. Large-scale school-business partnerships were popular such as privatization and the widespread introduction of computer instruction. The "Official Knowledge" Apple commented was a selective self-revelation more akin to personal memoir than cultural analysis and critique. "Official Knowledge’s" purpose is to analyze "the struggles over curriculum, teaching, and policy at a variety of levels". Apple (1993) points to possibilities as well as limitations of the circumstances of the early 1990’s. Apple (1993) outlines an ambitious and critically important agenda, particularly given continuing movement toward
nationwide if not national standards and assessment. He wrote:

The politics of official knowledge are the politics of accords or compromises. They are usually not impositions, but signify how dominant groups try to create situations where the compromises that are formed favor them. These compromises occur at different levels: at the level of political and ideological discourse, at the level of state policies, at the level of the daily activities of teachers and students in classrooms, and at the level of how we are to understand all of this (p. 10).

Apple states that the Official Knowledge is most successful at addressing the political and ideological discourse. Here Apple reiterates his analyses of knowledge-power relationships, the role of textbooks, and the debates over textbooks as cultural politics.

Altbach and Kelly (1991), and Fitzgerald (1979) pointed out that a number of powerful factors influence the development and production of school textbooks. One of the most important is the publisher’s perception of statements and images that might be controversial. When textbooks become controversial, school districts often refuse to adopt and to purchase them. When developing a textbook, the publisher and the authors must also consider the development and reading levels of the students, state and district guidelines about what subject matter textbooks should include, and recent trends and developments in a content field that teachers and administrators will expect the textbook to reflect and incorporate. Anyon (1979) and Sleeter and Grant (1991) pointed out that because of the
number of constraints and influences on the development of textbooks, school knowledge often does not include in-depth discussions and analyses of some of the major problems in American society, such as racism, sexism, social class stratification, and poverty. As a result, school knowledge is influenced mostly by mainstream academic knowledge and popular knowledge. Transformative academic knowledge usually has little direct influence on school knowledge and then only after it has become a part of mainstream and popular knowledge. It is proposed that teachers must make special efforts to introduce transformative knowledge and perspective to elementary and secondary school, even though we know as Margaret Bachmann and Robert E. Floden (1993) would say "we aim to recover the meaning of school as a place set apart, where truth and the social order do not coincide" (p. 35). Multicultural education is one way this transformative knowledge can be introduced.
CHAPTER V

GENERAL PRINCIPLES APPLYING TO CLASSROOM METHODOLOGY

Recognizing the importance of multicultural education in our institutions of learning, it is very important for us to look at the methodological concepts that can serve to transform our institutions and society at large.

I am advocating reciprocal methodology in our educational system as one of the best ways transformative knowledge can emerge from multicultural education. The reason for advocating this method is its use by many educators in the field of psychology and social sciences as one of the best techniques for facilitating the acquisition of knowledge in a democratic society.

The point in question here concerns the issue of how knowledge, of whatever form, is be transmitted to the young person. What kind of educational methodology do we have? What kind do we need? How do we get from one to the other?

In addressing these issues, Glaser (1990) evaluated several programs designed to teach cognitive skills. He noted there is a strong trend within the research literature supporting a reemergence of learning theory within instructional design. The instructional design techniques promise to facilitate the acquisition of new knowledge
through Reciprocal Teaching. Brown and Campione (1986) point out that the technique has received very favorable reviews in the literature. The reciprocal teaching procedure consists of three components. The first component consists of the instruction and practice of self-regulatory and/or executive strategies. Participants are taught to predict, analyze, summarize etc. The second component consists of a series of small groups in which learners take turns being the leader and directing the group through the learning process. The moderator or facilitator of the model is seen as an expert. The reciprocal teaching method focuses on the importance of the social aspect of teaching and learning. The assumption is that learning takes place in a cooperative environment and is a social, group experience. The reciprocal teaching approach reflects a Vygotskian perspective. Vygotsky (1986) claimed that instruction functions within a Zone of Proximal Development (ZPD). During the third component of the reciprocal teaching procedure, the learner’s level of functioning is systematically assessed. Then, with the assistance of an expert, the learner’s development through the zone can be supported. It is assumed that a learner is engaged in a constant process of setting up new ZPDs. The ZPD is flexible not fixed, and through reciprocal teaching process the learner realizes his/her potential. Vygotsky emphasized that learning first takes place on the external plane, and
that the learner moves from learning on an external to internal plane. Internalization is considered to be the key mechanism of change.

Gardner (1991) supports this process in what he termed the "transformative" approach. In this approach:

rather than modeling the desired behavior, the teacher serves as a coach or facilitator, trying to evoke certain qualities or understanding in the students. By posing certain problems, creating certain challenges, placing the student in certain situations, the teacher hopes to encourage the student to work out his own understanding (p. 119).

Piaget (1979) urged a reciprocal relationship between teachers and students where respect for the teacher coexisted with cooperative and teacher-centered pedagogy. Piaget wrote, "If the aim of intellectual training is to form the intelligence rather than to stock the memory, and to produce intellectual explorers rather than mere erudition, then traditional education is manifestly guilty of a grave deficiency" (p. 51). Curriculum, he concluded, is the deficiency in schools which gives the students no leeway to conceptualize their own ideas, only those of the teacher. A curriculum that is resistant to questioning school and society is not neutral. It cuts off students' development as critical thinkers and they lose the ability to evaluate the issues before them. If the students' task is to memorize rules and existing knowledge, without questioning the subject matter or the learning process, their potential for critical thought and action will be
restricted.

Shor (1991), in support of reciprocal methods, points out that any curriculum that does not challenge the standard conditions in society reflects to students that knowledge and the world are fixed, with no role for students to play in transforming them, and no need for change. Freire (1985) pointed out that any education that tries to be neutral supports the dominant ideology in society.

The teacher facilitates the relationship between outside authorities, formal knowledge, and individual students in the classroom. The teacher links the student's development to the values, powers, and debates in society. The curriculum the teacher teaches gives students a prolonged encounter with structured knowledge and social authority. During this encounter, the student begins the inquiry about the meaning of the past events, the possibilities for the future, and his or her place in the world they live in. Teachers have several methods to influence this knowledge as they relate to student experiences and attempt to meet the challenges of educating: (1) as a celebration of the existing society, (2) as a falsely neutral avoidance of problems rooted in the system, or (3) as a critical inquiry into power and knowledge.

In schools, as Giroux (1983) and Banks (1991) have argued, the choice of subject matter cannot be neutral. Whose history and literature are taught and whose ignored?
Which groups are included and which groups are left out in the reading text? From whose point of view is the past and present examined? Which themes are emphasized and which are not? Is the curriculum balanced and multicultural; or traditionally Eurocentric? The rules of reciprocating are the key mechanisms for transformation or for empowering or disempowering students. How much open discussion is there in class? Is there mutual dialogue between teacher and students or the traditional method of transfer of information from teacher to students? What do teachers say about the subject matter? Do students feel free to disagree with the teacher? Do students act like involved participants or like alienated observers in the exchange of comments in the classroom? Are the students encouraged to think critically about the material? Do they work cooperatively? These are the silent points the educator has to research in his/her reciprocal methodological application in multicultural education for it to be transformative.

The ability to attend to these issues of inquiry will lead to empowerment through knowledge. It will enable students to think critically about issues they come in contact with in their quest for knowledge.

Shor (1992) defined empowerment as:

a critical-democratic pedagogy for self and social change. It is a student-centered program for multicultural democracy in school and society. It approaches individual growth as an active, cooperative, and social process, because the self and society create each other. Human beings do not invent themselves in a
vacuum, and society cannot be made unless people create it together (p. 15).

Giroux (1988) described this as educating students "to fight for a quality of life in which all human beings benefit."

He went on to say, "schools need to be defended, as an important public service that educates students to be critical citizens who can think, challenge, take risks, and believe that their actions will make a difference in the larger society" (p. 214).

McLaren (1989) viewed empowerment as

the process through which students learn to critically appropriate knowledge existing outside their immediate experience in order to broaden their understanding of themselves, the world, and the possibilities for transforming the taken-for-granted assumptions about the way we live (p. 186).

Banks (1991) defined empowerment in terms of transforming self and society. He wrote:

A curriculum designed to empower students must be transformative in nature and help students to develop the knowledge, skills, and values needed to become social critics who can make reflective decisions and implement their decisions in effective personal, social, political and economic action (p. 131).

The teacher, according to Shor (1992), facilitates this curriculum empowerment in a democratic manner with the participation of the students balancing the need for openness in the structure. The teacher brings lesson plans, learning methods, personal/cultural experience, mainstream academic knowledge, transformative knowledge and school knowledge to class but negotiates the curriculum with the students and begins with their language, themes, and
understandings. To be critical in such a democratic curriculum means to examine all subjects and the learning process with systematic depth; to connect student individuality to larger historical social issues, to encourage students to examine how their experience relates to academic knowledge, to power, and to inequality in society; and to approach received wisdom and the status quo with questions.

**Empowerment in Reciprocal Methodology**

The most important aspect of this empowerment in reciprocal teaching is participation. When one participates in a project, one exposes himself/herself to knowledge. Piaget (1979) relates action to knowing by concluding:

> knowledge is derived from action.... To know an object is to act upon it and to transform it.... To know is therefore to assimilate reality into structures of transformation and these are the structures that intelligence constructs as a direct extension of our actions (pp. 28-29).

Participation in an issue makes us curious. As Dewey (1963) argued, participation in school and society is crucial to learning and to democracy:

> There is, I think, no point in the philosophy of progressive education which is sounder than its emphasis upon the importance of the participation of the learner in the formation of the purposes which direct his activities in the learning process, just as there is no defect in traditional education greater than its failure to secure the active cooperation of the pupil in construction of the purposes involved in his studying (p. 67).

Dewey viewed participation as the point at which democracy and learning meet in the classroom. For him, participation
is the corridor by which students develop scientific method and democratic habits rather than becoming passive in learning. Participation for Dewey is democratic when students construct their own purposes and meaning. Dewey maintained that to be a thinking citizen in a democracy one had to take part in making meaning, articulating purposes, carrying out plans, and evaluating results. Dewey argued, that rote learning and skill drills in traditional classrooms bore students as well as inhibit their civic and emotional developments. Students learn to be passive.

Bissex (1980), Smith (1983), and Wertsch (1985) all indicated that participation provides students with active experiences in class, through which they develop knowledge that is reflective understanding, not mere memorization. Participation directly enlightens students about their present and future. It encourages them to work towards their aspirations. A participatory pedagogy empowers students to see themselves as part of their learning process. From Dewey to Vygotsky to Piaget to Freire to Banks, educators have asserted that learning works best when it is an active, creative process. The National Institute of Education (1984) cited student involvement as the most important reform needed in undergraduate education.

There is now a good deal of research evidence to suggest that the more time and effort students invest in the learning process and the more intensely they engage in their own education, the greater will be their growth and achievement, their satisfaction with their educational experiences, and their persistence in
college, and the more likely they are to continue their learning (p. 17).

Participation in learning opens the possibility of transforming the students' power of thought. For Freire and Shor (1987), "transformation is possible because consciousness is not a mirror of reality, not a mere reflection, but is reflexive and reflective of reality" (p. 13). Freire argued that when we participate in critical classes, we can go beyond merely repeating what we know or what we have been taught. We can reflect on reality and on our received values, words, and interpretations in ways that illuminate meanings we hadn't perceived before. The reflection can transform our thought and behavior, which in turn has the power to alter reality itself if enough people reconstruct their knowledge and take action. Freire (1987) explained the process:

As conscious human beings, we can discover how we are conditioned by the dominant ideology. We can gain distance on our moment of existence.... We can struggle to become free precisely because we can know we are not free! That is why we can think of transformation (p. 13).

People can overcome limitations if they have the courage to examine those possibilities or problems they encounter.

**Problem Posing in Reciprocal Teaching Method**

This is another method of engaging students in critical and mutual learning. This method is rooted in the work of Dewey and Piaget who view it as a means by which students develop a critical scientific mind. Many academicians
support this dynamic approach, including Freire, who evolved from it his concept of "problem-posing dialogue". In Freire’s method the facilitator is seen as the problem-poser who activates a critical dialogue in class. Problem-posing as a pedagogy and social philosophy focuses on power relations in the classroom, in the institution and in society at large. It considers the social, economic, and cultural contexts of education which affect their learning process.

Freire (1970) brilliantly used his outstanding metaphor of "banking education" to contrast the politics of traditional methods with problem-posing. He viewed banking educators as educators who view students’ minds as tabula rasa accounts where information is deposited through didactic lectures. He sees the material to be deposited coming from what he called the "Central Bank of Knowledge". The central bank according to Freire is the store of cultural capital which controls the standardized curriculum in schools and colleges. It reflects the status quo as academic standards. A good example of a central bank of knowledge is Takaki’s (1993) reference to Bloom’s (1987) definition of education and what an educated person should know about the world and America in particular. Bloom (1987) in The Closing of the American Mind argued that entering students are "uncivilized", and faculty have the responsibility to "civilize" them. As an educator he claims
to know what their "hungers" are and "what they can digest". Noting the "large black presence" at major universities, he regrets the "one failure" in race relations that black students have proved to be "indigestible". They do not "melt as have all other groups". The problem according to Bloom is that "blacks have become blacks"; they have become "ethnic". This separatism according to Bloom has been reinforced by an academic permissiveness that has soiled the curriculum with "Black studies" along with "Learn Another Culture". The only solution, Bloom insists, is "the good old Great Books approach" (pp. 19, 91-93, 340-41, 344).

Bloom advocates a Eurocentric canon of information, as a means of transferring ideology to students.

Bloom (1987) and Ravitch, Finn and Hirsch (1987), all traditionalists, view knowledge as universal and neutral. For them there are no historical choices as to whose culture is privileged in society. Rather the central bank is delivered to students as a common culture belonging to everyone, even though not everyone has the right to contribute to it, take from it, critique it, or become part of it. In their mind, the central bank is standard curriculum for students to model. But in reality the central bank is devoid of some students' culture and language and represents these knowledge bases as deficient. The transfer of this knowledge to students is thus a maintenance of the status quo of the dominant culture and
ignores the contributions of varied cultures.

In contrast, the problem-posing method views all subject matter as historical products open to question. From this perspective, a central bank is viewed as exclusionary rather than inclusive. From the critical point of view, the existing canon of knowledge and method does not represent a common culture. It is devoid of multicultural themes, idioms, minorities and working people which exists in any "common" culture. The role of the problem-posing teacher is to diversify subject matter and to use students' thought and speech as the base for developing critical understanding of diverse personal experience in both society and the existing knowledge.

Before Freire suggested the banking metaphor and proposed the problem-posing method, Dewey (1966) offered the metaphor of "pouring in" to criticize the practice of filling students with information and skills. Dewey questioned why is it that "pouring in" is still invoked in school when it is universally rejected? The reason Dewey gave is that the schools lack the means for experiential interactive education. He also pointed out that there is political opposition to student participation because it challenges power relations in school and society.

Freire (1970) shared both Dewey's critique of passive lecturing and his insistence that learning required participation and inquiry. He promoted Dewey's critique of
schooling by emphasizing how the banking or pouring-in method is authoritarian politics. Freire wrote:

Whereas the banking method directly or indirectly reinforces men's fatalistic perception of their situation, the problem-posing method presents this very situation to them as a problem. As the situation becomes the object of their cognition, the naive or magical perception which produced their fatalism gives way to perception which is able to perceive itself even as it perceives reality, and can thus be critically objective about that reality (p. 66).

The banking model is viewed as antidemocratic because it does not give the student the opportunity to make a critique of the information given. It denies the students' indigenous culture and their potential for critical thought. Instead, students are subjected to the knowledge, values and language of the status quo.

Freire's problem-posing method views human beings, knowledge, and society as unfinished products in history, where various forces are still contesting each other. Freire (1970) emphasized problem-posing as a democratic way for students to engage in the contention over knowledge and in shaping society. He wrote

Problem-posing education affirms men and women as beings in the process of becoming as unfinished, uncompleted beings in and with a likewise unfinished reality.... The banking method emphasizes permanence and becomes reactionary; problem-posing education—which accepts neither a "well-behaved" present nor a predetermined future-roots itself in the dynamic present and becomes revolutionary.... Whereas the banking method directly or indirectly reinforces men's fatalistic perception of their situation, the problem-posing method presents this very situation to them as a problem (pp. 65-66).
This does not mean that the student has nothing to assimilate from Chemistry, Math or English as directly taught. Nor does it mean that the expertise of the teacher has no place in the classroom. All bodies of knowledge belong in the critical classroom, concludes Shor (1992):

As long as existing knowledge is not presented as facts and doctrines to be absorbed without question, as long as the existing bodies of knowledge are critiqued and balanced from a multicultural perspective, and as long as the students' own themes and idioms are valued along with standard usage, existing canons are part of critical education (p. 35).

Problem-posing students do not reinvent Chemistry, Math or English each time they study them, but they do study Chemistry, Math and English in a critical context with a teacher who is open to transformative thinking in his/her outlook and who is also open to multicultural curriculum.

**Multiculturalism and Problem-Posing**

Teaching multiculturally requires the incorporation of cultural diversity throughout the total learning process. To incorporate student speech, community life, and perceptions critically requires problem-posing as well as multiculturalism. The students' speech, community life, and perceptions should be the foundations of the curriculum. Problem-posing can best develop from the students' cultural diversity within the classroom discourse.

Freire (1987) in his literacy program in Northeast Brazil in the 50's and 60's, developed curricula from student culture by researching local issues and language in
the students' communities. From the many linguistic and sociological items researched in students' neighborhoods, the researchers selected some key concerns that Freire called generative themes expressed through single generative words. They are called generative words because they are generated from student culture. They are also generative because they are provocative themes discovered as unresolved social problems in the community, useful for generating discussion in class on the relation of personal life to larger issues. They are the key words for critical analyses about self and society.

By advocating critical inquiry in student culture, the generative-theme approach also reflects Deweyan progressive education. Dewey (1963) encouraged teachers to begin instruction with materials known to students and to gradually structure in conceptual understanding. He wrote:

The educator cannot start with knowledge already organized and proceed to ladle it out in doses. Anything which can be called a study, whether arithmetic, history, geography, or one of the natural sciences, must be derived from materials which at the outset fall within the scope of ordinary life experience. When education is based in theory and practice upon experience, it goes without saying that the organized subject-matter of the adult and the specialist cannot provide the starting point. Nevertheless, it represents the goal toward which education should continuously move (pp. 82-83).

It makes sense to say that when problem-posing places itself into the students' culture through their language and perceptions, there is more awareness and the students become more interested in their studies. The students are now
exposed to issues in their various experiences which they can begin to examine critically.

**Incorporating Student Voice**

Shor (1992) and Freire (1987) point out that students must be encouraged to speak from their own experience using their own generative words. Teaching that incorporates the student voice allows students to make sense of the subject matter within their own realities. When we listen to student voices we are able to know students' prior knowledge of the subject matter, including any misinformation or the lack of information that should suggest future instructional strategies. Teaching should start from the students' life experiences, not the experiences of the teacher, nor the experiences necessary to fit into the dominant school culture. O'Connor (1988) made a similar point by stating that teaching multiculturally requires educators to recognize the conflict between the voice of the school and the voices of many students. Success in school should not be dependent on the adoption of the school's voice. He wrote: "The organization of school discourse, in a way that permits all cultural voices to search for skills and concepts to reconstruct their cultural principles in their own terms, must come to serve as the basic formula for equal educational opportunity" (p. 20).
Dialogic Inquiry

Lather (1991) argued that teachers need to position themselves "as less master of truth and justice and more as creators of a space where those directly involved can act and speak on their behalf" (p. 137). Shor (1992) and Freire (1987) indicated that one approach is the use of dialogic inquiry in which instruction occurs as a dialogue between teacher and students. It requires that teachers have a thorough knowledge of the subject being taught. They emphasized the need for teachers to listen to students and dialogue with them rather than depending on a textbook and lecture format. Dialogical inquiry incorporates content about the students’ backgrounds as well as that of the dominant society. It requires discarding the traditional authoritarian classroom to establish a democratic one in which both teacher and students are active participants.

However introducing student voices to the instructional process is not easy especially when the teacher and students are from different cultural backgrounds. As Burbules and Rice (1991) argued:

Prior experiences may have created feelings of intimidation, resentment, and hurt; an imposition of silence, or the self-imposed habit of silence, may be ingrained in some of the participants. Conversely, prior experiences may also have created feelings of superiority and a tendency to silence others (p. 410).

They also point out that the teacher may face both anger and silence, which will only be overcome over time with dialogue that develops tolerance, patience, and a willingness to
listen. In as much as this methodology increases the participation of students in the learning process, it is good to know that some teachers are not comfortable with handling the issues that are likely to be raised.

The question is what should the teacher's role be when students express biased beliefs about other groups? In as much as the students have the right to hold biased beliefs, they must be challenged as well. Freire (1987) argued:

The educator has the right to disagree. It is precisely because the teacher is in disagreement with the young racist men or women that the educator challenges them. This is the question. Because I am a teacher, I am not obliged to give the illusion that I am in agreement with the students.... In the liberating perspective, the teacher has the right but also the duty to challenge the status quo, especially in the questions of domination by sex, race, or class. What the dialogical educator does not have is the right to impose on the other his or her position. But the liberating teacher can never stay silent on social questions, can never wash his or her hands of them (p. 144).

Simon (1989) in confirmation on what Shor and Freire (1987) said, points out that the critical dialogue developed through these approaches enables students to understand the perspectives brought to the classroom by others from different cultural backgrounds. Students can easily relate the subject matter to their real world views and perhaps take an interest in studying and learning it. He went on to say that it also will "help students to begin to consider how they are both created and limited by their particular life circumstances and to consider alternative ways of working and living could be supported by other possible ways
of defining one's work in the world" (p. 144).

**Promoting Critical Thinking**

Problem-posing promotes critical thinking pedagogy. It advocates curriculum in issues and language from everyday life. The primary component of the subject matter is generative themes that are the outcome of student culture. These themes generate critical discussions that are problematic to students' daily life. Cox (1990) in reference to Freire said that generative themes are students' experiences "weighted with emotion and meaning, expressing the anxieties, fears, demands, and dreams of the group" (p. 78). In effect, generative issues are found in the unsettled issues in personal life and society. The students' problem-posing will be derived from such experiences as voting, working, housing, community life and education. Developing the skills to think critically about these issues helps students make sense of the events and conditions that affect their own lives. Giroux (1991) in affirmation of earlier contributors on this issue held that when students develop the ability or the methodology to look at issues critically, he/she will be in a position to challenge and transform existing social and political issues. He wrote:

> To develop the critical capacity to challenge and transform existing social and political forms, rather than simply adapt to them. It also means providing students with the skills they will need to locate themselves in history, find their own voices, provide the convictions and compassion necessary for exercising
civic courage, taking risks, and furthering the habits, customs, and social relations that are essential to
democratic public forms (p. 47).

In supporting Giroux' views, the road to intellectual empowerment in the classroom requires patience,
experimentation, negotiation, and careful observation of student learning. Students must be encouraged to involve themselves in hard work and to take responsibility for their education and for their role as citizens. In effect participation is very essential in learning. Participatory problem-posing, according to Shor (1992), can transform remote academic knowledge into knowledge that is accessible to students. There are two ways for transformation to occur for subject matter and discourse. The first is that the subject matter which the leader or the facilitator introduces to the students for reflection must be in their own language and reflect their own culture. The second is that students must be challenged to go beyond their own experiences into a new territory not originated from their own backgrounds. This dual transformation of subject matter creates a democratic problem-posing for the students in going from a one-way system to a two way system.

Apprenticeship

At a given time in history, the experts in a society determine the nature of current understanding. For example, one who understood physics in Aristotle's time applied a different body of principles in a different way from one who
understood physics in a Newtonian age. The breakthroughs associated with relativity theory and quantum mechanics have brought about further alterations in the contemporary understanding of the physical world. While the notion of understanding has usually been applied to conceptual or theoretical realms, it also has its niche in areas like the arts, athletics, or entrepreneurship. Experts in those domains possess skills, intuitions, and conceptual frameworks that distinguish them sharply from the novice. Each domain or discipline features its own forms of understanding. By that I mean the method we use to understand physics is quite different from the way we understand poetry, painting, politics or psychology. In other words, generalizations about understanding are elusive, and those that can be made are necessarily expressed at a high level of abstraction.

I am, in effect, advocating apprenticeship, another method that is transformative that can be applicable in multicultural education. Apprenticeship or what many educators call "guided participation" has the support of scholars such as Vygotsky, Leont'ev, Bruner, Piaget, Cole, and Rogoff.

In my traditional society of Nigeria, education takes place within the family environment of young children. In such traditional environments, children follow in their parent's footsteps in trade. Sons carry on the same
vocational practices as their fathers, and daughters emulate the vocational practices of their mothers. As societies grow more complex, with valued skills attaining a high degree of complexity, it typically becomes impossible for the young to follow their parents' footsteps. With complexity, the institution of apprenticeship began to decline all over the world.

However, the advantages of apprenticeships continue to be enormous. Apprenticeships provide information that is practical and demonstrable within the society. They encourage aspiring apprentices to work directly alongside accomplished professionals boosting their knowledge or practice. The young empower one another by problem-posing in their various trades and practices. Apprenticeships carry with them a continuity and context that can be invoked at the necessary moment rather than at some arbitrary location in a lecture, text, or syllabus.

Apprenticeship is the means of instruction that succeeds most effectively when young people begin to learn. Some forms of instruction within apprenticeships are natural language, simple drawings and gestures. It is the first method of teaching at home and in formal schooling. Rogoff (1990) points out that it occurs through guided participation in social activity with companions who support and stretch children's understanding of and skill in using the tools of culture. Apprenticeships form the
sociocultural basis of human skills and activities, and include children's orientation to participate in and build on the activities around them. Rogoff (1990), in reference to Vygotsky wrote:

Central to Vygotsky's theory is the idea that children's participation in cultural activities with the guidance of more skilled partners allows children to internalize the tools for thinking and for taking more mature approaches to problem that children have practiced in social context. Cultural inventions channel the skills of each generation, with individual development mediated by interaction with people who are more skilled in the use of culture's tools (p. 14).

Why then is apprenticeship as an instructional method declining in some societies? One of the reasons is that many saw apprenticeships as a way of exploitation of the young. Sometimes apprentices were punished or deprived of compensation by their masters. Second, in highly industrialized societies manual skills and crafts are no longer the main educational goal. However, apprenticeship is still prevalent in many societies. It is still viewed as an ideal way of learning in many cultures where knowledge is difficult to reproduce and transmit except through apprenticeship.

In conclusion, I would strongly advocate for the reciprocal method as the best way in making transformative knowledge multicultural. I am advocating for this concept because it embraces empowerment, participation, problem-posing, dialogic inquiry, critical thinking and apprenticeship. Each of these concepts, as reflected in the
review of related literature, supports learning and makes it multicultural in nature. The knowledge emerging from this method reflects both the reality observed and the subjectivity of the knower. The student becomes not only aware of the knowledge he/she has but that this knowledge is located within his/her particular social, economic, and political context of his/her society. It is important to know that culture influences knowledge construction. Banks (1995) confirmed this view when he wrote:

Cultural influences have set up the assumptions about the mind, the body, and the universe with which we begin; pose the questions we ask; influence the facts we seek; determine the interpretation we give these facts; and direct our reaction to these interpretations and conclusions (p. 23).

The student exposed to the reciprocal method is able to interpret and evaluate the views of scholars and social scientists and how their reflections shape those cultures or communities they embraced. Participation in reciprocal teaching and learning opens our world views. It transforms our knowledge when we begin an inquiry into the pros and cons of the issues and events in our society and the world at large.
CHAPTER VI
IMPLICATIONS

In this thesis I have focused on transformative academic knowledge and its teaching relationship to multicultural education. In doing that I have focused on three points: (1) Multicultural education, by reflecting diverse ways of knowing, leads to transformative knowledge; (2) Students must be taught through participation to be critical of their own way of knowing and to appreciate other ways of knowing; and (3) Transformative knowledge is essential for social action in a complex world. This transformative academic knowledge requires changes in the curriculum, the form it should take and how teachers might interact with it. Equipping students with the tools they need for lifelong learning requires making hard choices among topics as well as difficult decisions about which scientific forms or models to emphasize when a topic is taught. As Feynman (1995) points out, "Everything we know is only some kind of approximation, because we know that we do not know all the laws as yet. Therefore, things must be learned only to be unlearned again or, more likely, to be corrected" (p. 4). So part of teaching transformative academic knowledge involves preparing students to anticipate
better explanations and even to seek them out.

Transformative knowledge involves changes in the total school environment in order to create multiculturalism that can be beneficial to all students irrespective of race, color or creed. When teaching is transformed, the content of the curriculum, pedagogy and the ways in which students learn are modified. An important goal of transformative knowledge in multicultural education is to help students to understand how knowledge is constructed; how to go from novice to expert in this domain; how to master the subject matter or the dilemma that is before them; and how to view their own past, present, and future critically. Banks (1993) points out that, "Students should be given opportunities to investigate and determine how cultural assumptions, frames of references, perspectives, and the biases within a discipline influence the ways the knowledge is constructed" (p. 11). The tool central to this technique, according to Bruner (1986), is to expose students to transformative knowledge that will help to create in the student "an appreciation of the fact that many worlds are possible, that meaning and reality are created and not discovered, that negotiation is the art of constructing new meanings by which individuals can regulate their relations with each other" (p. 149). Students also should be given opportunities to recreate reality and to reinvent their culture and identify ways in which the knowledge they
recreated and reinvented is influenced and limited by their personal assumptions, positions, and experiences.

Banks (1995) concluded that transformative knowledge is a very powerful tool by which students can be active in personal and social life. He wrote:

Transformative teaching and learning is characterized by a curriculum organized around powerful ideas, highly interactive teaching strategies, active student involvement, and activities that require students to participate in personal, social, and civic action to make their classrooms, schools, and communities more democratic and just (p. 22).

Transformative teaching should help students to take real delight in taking risks and engaging in intellectual adventure without which there is no creativity. The more students are exposed to this learning process through which they become new intellectuals, the more they will perceive that the departure point for changing society is not inherently or exclusively in their vision of the future, nor in their understanding of history, but in the understanding of the society in which they live. Students who go about their lives assuming that their group's patterns of acting and thinking are not open to question, I would say, are living in a fool's paradise. Unless students can break with their everyday experiences in thought, they cannot see the extraordinary range of options for living and thinking. Options are essential to critical thinking because there is no direct route to the diversity of knowledge or social action.
The multicultural classroom is a forum of multiple voices and perspectives. The voices of the teacher, of the students, of the textbook and transformative curriculum are important components of classroom discourse. Teachers and students can share their cultural experiences and interpretations of events to help them to acquire the understandings and skills needed to function in the complex culturally diverse world we live in. Creating a sense of questioning, wonder, and awe in students should be our highest priority. I am concerned that the current preoccupation with traditional ways of teaching do not advance us very far towards achieving that goal.

Several questions remain that I have not been able to answer and my attempts at answering them must be from my own perspective. My first concern is how do these ideas about meaning and forms of representation in transformative knowledge pertain to schools and to what we teach in multicultural education?. From my perspective I believe that if there are different ways to understand the world, and if there are different forms of knowledge that can make such understanding possible, then it stands to reason that any comprehensive effort to understand the processes and outcomes of schooling would profit from a multicultural rather than a monolithic approach to knowing. The question is how can such a multiculturalism be advanced? What would be the best method to go about it?
The next question focuses on the different forms of representation employed within the context of multicultural education. In human understanding, are there varieties of representation? What is distinctive about them? Let me suggest that meaning is multiple, and that various forms of representation provide the means through which multiple meaning is made. Let me suggest also that different forms of meaning are related to different forms of understanding and these various forms provide for social action in complex situations. If this supposition of multiple meaning is to be accepted, how would future research in multicultural education be affected?

Finally, another critical question emerges, regarding how ideas and values relate to action? Humans in various cultures have the capacity to formulate different kinds of ideas and these ideas are related to the forms of representation used and the way in which those forms are developed in different cultures. Knowing, however, how such forms of ideas are secured and the kinds of meaning they make possible is a core theoretical as well as practical problem. What kind of research is required to identify the different ways in which students come to understand and act on their world? If our ideas become static models, if they are not applied creatively to reality, do we run the risk of regarding them as reality? Can any one set of ideas be considered as an absolute truth? Can our conception of
truth reflect what even a well developed science can provide? Are there forms of assessment and approaches to curriculum that would make it possible to know, in advance, the multiple possibilities that a truly multicultural approach to education would provide? What is the relationship between student knowledge and the forms of representation that they have access to? Can we translate what is specific and unique to forms other than those which we have available to us in our own culture? These are critical questions that must be addressed if multicultural education is to lead to transformative knowledge.

Conclusion

The primary aim of this dissertation is not only the advancement of research, but also reflects a concern that students from different cultures and backgrounds can learn from whatever knowledge they have as well as from the knowledge of others and to learn that any knowledge must always be open to question. We employ multicultural education in order to make our schools better places for all who share their lives there and also to enrich the knowledge bases from which the citizens of our diverse world can engage in complex social action. As Antonio postulated in his dialogue with Freire (1992): "And thus basically your method is a sort of challenge to intellectuals and to reality to reformulate that method in order to translate its principles as the situation demands and thus be a response
to different concrete situations" (p. 30). Transformative knowledge enables the student to evaluate the knowledge produced and also to understand that the knowledge producer is located within a particular social, economic, and political context of society. It leads to various possibilities in academic inquiry. It exposes us to different rich cultures of the world and to different ways of knowing. It enables us to have a critical view of other cultures' fears and taboos as well as an awareness of the fears and taboos of our own culture. It inspires or empowers us to move from novice to experts in a complex academic adventure as Shor (1992) said:

Empowering education is thus a road from where we are to where we need to be. It crosses terrains of doubt and time. One end of the road leads away from inequality and miseducation while the other lands us in a frontier of critical learning and democratic discourse. This is no easy road to travel. Any place truly different from the status quo is not close by or down a simple trail. But the need to go there is evident, given what we know about unequal conditions and the decay in social life, given the need to replace teacher-talk and student alienation with dialogue and critical inquiry. Fortunately, some valuable resources already exist to democratize school and society. That transformation is a journey of hope, humor, setbacks, breakthroughs, and creative life, on a long and winding road paved with dreams whose time is overdue (p. 263).
REFERENCES


Vygotsky, L.S. (1960). _Development of the higher psychical functions._ Moscow: APN.


VITA

Sebastian Anochiri Ugochukwu, is the son of Jacob N. Ugochukwu and Henretta Adaure Ugochukwu of Amuzi Ahara Mbaise in Imo State, Nigeria. He was born on July 15, 1948, in Amuzi Ahara Mbaise Local Government Area.

He obtained his secondary education at Christ the King School Aba and Saint Eugene’s Catholic School Aba respectively. He had his secondary education at Umuowa Seminary and Okpala Seminary in Nigeria, where he graduated in December, 1970.

In October, 1972, he entered Bigard Memorial Seminary in Enugu Nigeria where he studied Philosophy (1972-1975), and Theology (1975-1979). He was ordained a priest on July 22, 1979, and received the Bachelor of Divinity Degree in October, 1979.

After his ordination, he served as associate pastor at Saint Michael Parish Urualia and Amakohia Parish for two years and as a pastor at Amaumara Catholic Parish for two years, Okpala Parish for four years, and Holy Family Parish for five years.

In January, 1990, he entered DePaul University, Chicago, Illinois, where he obtained his Masters Degree in Human Services and Counseling. In September, 1992, he entered the doctoral program in educational psychology at Loyola University Chicago.
APPROVAL SHEET

The dissertation submitted by Sebastian A. Ugochukwu has been read and approved by the following committee:

Dr. Carol G. Harding  
Professor, Counseling Psychology, Loyola University Chicago

Dr. L. Arthur Safer  
Professor, Educational Leadership and Policy Studies, Loyola University Chicago

Dr. Patricia D. Buckney  
Adjunct Professor, Curriculum, Instruction, and Educational Psychology, Loyola University Chicago

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Date 9/25/96  
Director’s Signature