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## The Silent Crisis: Redefining Theoretical Approaches in Early Childhood Intervention Research with American Indians

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**The Silent Crisis:  
Redefining Theoretical Approaches in  
Early Childhood Intervention Research with American Indians**

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**Abstract**

This article discusses the theoretical context of the education of American Indian children. The unique needs of American Indian children and the lack of ECI provided, as well as the major theoretical approaches used by the dominant society in ECI program development are discussed. The linear model of time and human development – the view that the dominant society traditionally holds; and the nonlinear perspective of most American Indian communities is presented.

In the recent book entitled *Supporting Indigenous Children's Development: Community-University Partnerships* (2006), Ball and Pence quote a Saukteau Nation social development officer as stating:

If it's [education] done the way it's always been done, none of our Indigenous peoples [*sic*] are going to get educated. Indigenous peoples [*sic*] have always been so laughed at, so put down, and have dropped out of school so often that when they do want to continue their education, they can't even get in - and if they do, they'll give up too fast because it's not culturally relevant (Ball & Pence, 2006, p.79)

This quote highlights a silent crisis occurring with American Indian children. Since the 1960's, the theoretical foundations of early childhood intervention (ECI) have remained almost unchanged. Ecological systems theory, risk and resilience theory, cognitive behavioral theory, and other theoretical approaches are routinely used in ECI program development in American Indian communities, regardless of their applicability to this population. These theoretical approaches remain the guiding principle of most ECI researchers and policymakers in the United States and are often required for federal funding. Knowledge of how these, and other theoretical approaches affect Indigenous populations in the United States, and elsewhere, remains almost nonexistent (Dahlberg, Moss, & Pence, 1999; Deloria, 2004; Smith, 1999).

Most experts in early childhood intervention research agree that the “proven” theoretical approaches listed above provide the “best method” to promote healthy development in children who face some form of disadvantage. This is true despite the fact most ECI theoretical approaches are based the child-rearing values, attitudes, practices, and norms of the dominant White, Anglo-Saxon middle-class culture (Deloria, 1973; García-Coll & Meyer, 1993). Using dominant world behaviors as the normative standard has been a disservice to both scientific inquiry and to the interests of populations of color in several ways (García-Coll & Meyer, 1993). Bronfenbrenner (1985) argued that when minority groups are compared to majority groups, they are most often judged as inferior. Patterson and Blum (1993) also noted that the continuing prevalence of racism in society has continued to contribute to equating differences with deviance. Through the process of comparing and contrasting diverse populations with Anglo experiences, minority populations’ early childhood traditions have generally been considered as less than “best practice” (García-Coll & Magnuson, 2000). This paper discusses the most common theoretical approaches in ECI and discusses how they may or may not relate to early childhood intervention and American Indian populations.

This paper has five sections. In the first section, we discuss the historical context of the education of American Indian children. Second, the major theoretical approaches used by the dominant society in ECI program development are discussed. Special attention is paid to the linear model of time and human development – the view that the dominant society traditionally holds; and the nonlinear perspective of most American Indian communities. Next, we discuss the urgent need for a culturally appropriate ECI theory for American Indians. In the fourth section, we explain why the incorporation of culture in ECI programs is needed. The final section provides direction for early childhood intervention research with American Indian communities.

For this paper, ECI is defined as more a concept than a specific program (Guralnick, 1998; Shonkoff and Meisels, 2000). The diversity of ECI is related to differences in target groups—from the broad-based agendas of health promotion and disease prevention, early child care, and preschool education to the highly specialized challenges presented by developmental disabilities, poverty, domestic violence, and mental health problems, including child psychopathology, parental depression, and parental substance abuse (Guralnick, 1998; Shonkoff and Meisels, 2000). These highly diverse concepts are included under the broad umbrella of what is called “early intervention” (Guralnick, 1998; Shonkoff and Meisels, 2000).

### **A Historical Perspective of American Indian Education**

The mandatory relocation of American Indian children to government-run boarding schools located outside of their families, friends, and societies became United States policy with the passage of the Indian Removal Act in 1830. The purpose of this displacement, according to Colonel Richard Pratt, a well-known “educator” of the period, was to “kill the Indian” in each youngster by systematically deculturating them (Churchill, 2004; Deloria, 1973; Reyhner & Eder, 2004). American Indian children were prohibited to speak - and in many cases ever to know - their own languages, practice their own religions or learn their own histories (Reyhner & Jacobs 2002). They were introduced to and forced to accept Christianity, required to speak only English, to accept the dominant world’s intellectual traditions, and to adopt its values and socio-cultural mores (Churchill, 2004; Indian Nations At Risk Task Force, 1991; Reyhner & Eder, 2004). This assimilation process was the outcome of a long series of annual meetings held at Lake Mohonk, New York, beginning in 1883. Calling themselves “Friends of the Indian,” these conferences initially brought together the most influential individuals of the time (Churchill, 2004; Huff, 1997; Reyhner & Eder, 2004). Key government officials, including three

presidents, attended these conferences (Huff, 1997; Reyhner & Eder, 2004). Also involved was Massachusetts Senator Henry M. Dawes, who wrote the General Allotment Act in 1887. This act authorized the President of the United States to review American Indian tribal land and partition the area into allotments for the individual tribal member (Deloria, 1973; Reyhner & Eder, 2004).

Three principle messages emerged early on in the Lake Mohonk conferences and were thereafter regularly deployed as rationales guiding the formulation of federal Indian policies: 1) reinforce the concept of individualism among native people, 2) that to achieve this end Indians should be universally “educated” to hold eurowestern beliefs, and that, 3) all Indians, properly educated and individualized, should be absorbed as citizens of the United States (Churchill, 2004; Deloria, 2004; Huff, 1997; Reyhner & Eder, 2004). The concept of individualism represented the exact opposite of the traditional communal values upon which most American Indian societies are based (Churchill, 2004; Reyhner & Eder, 2004). As George Manypenny, United States Indian Commissioner, stated in 1856, for assimilation to occur, it was necessary that Indians learn to say “I” instead of, “we,” “me” instead of “us,” “mine” instead of “ours” (Cannella, 1997; Churchill, 2004). ECI was found to be an ideal mechanism to maintain this colonization, which continues to this day (Cannella, 1997; Huff, 1997). A major colonizing effort in contemporary times is the dominant world application of research methods (i. e. scientific methods) in ECI program development and the lack of American Indian cultural influences in major theoretical models of development.

The silent crisis is based on this fact: the formal theoretical research in ECI relies on the concept of modernity (Cannella, 1997; Greenwood & Fraser, 2006; Dahlberg, Moss, & Pence, 1999). The influence of modernity in ECI and other residential (i.e. boarding schools) settings can be seen in the continuation of theories of child development that presume universal applicability to all children, regardless of their customs or norms (Cannella, 1997; Dahlberg, et al., 1999). Figure 1 demonstrates dominant world modernity concept where the formal research literature informs the ECI programs and the quality elements of the program (i.e. duration, staff credentials, etc.), that are implemented on minority children. The success or failure of these children, based on the universal norms is “fed back” and incorporated into the scientific ECI literature (Archibald, 1995). There is little or no mention of cultural

influences in the traditional model of research demonstrated in figure 1. By questioning the modern concepts of universality of child and social development, and the programs that help promote this development, and by using cultural as a primary quality element of ECI programs, a more holistic conversation can take place (Demmert, 2004; Niles & Byers, under review, 2006).

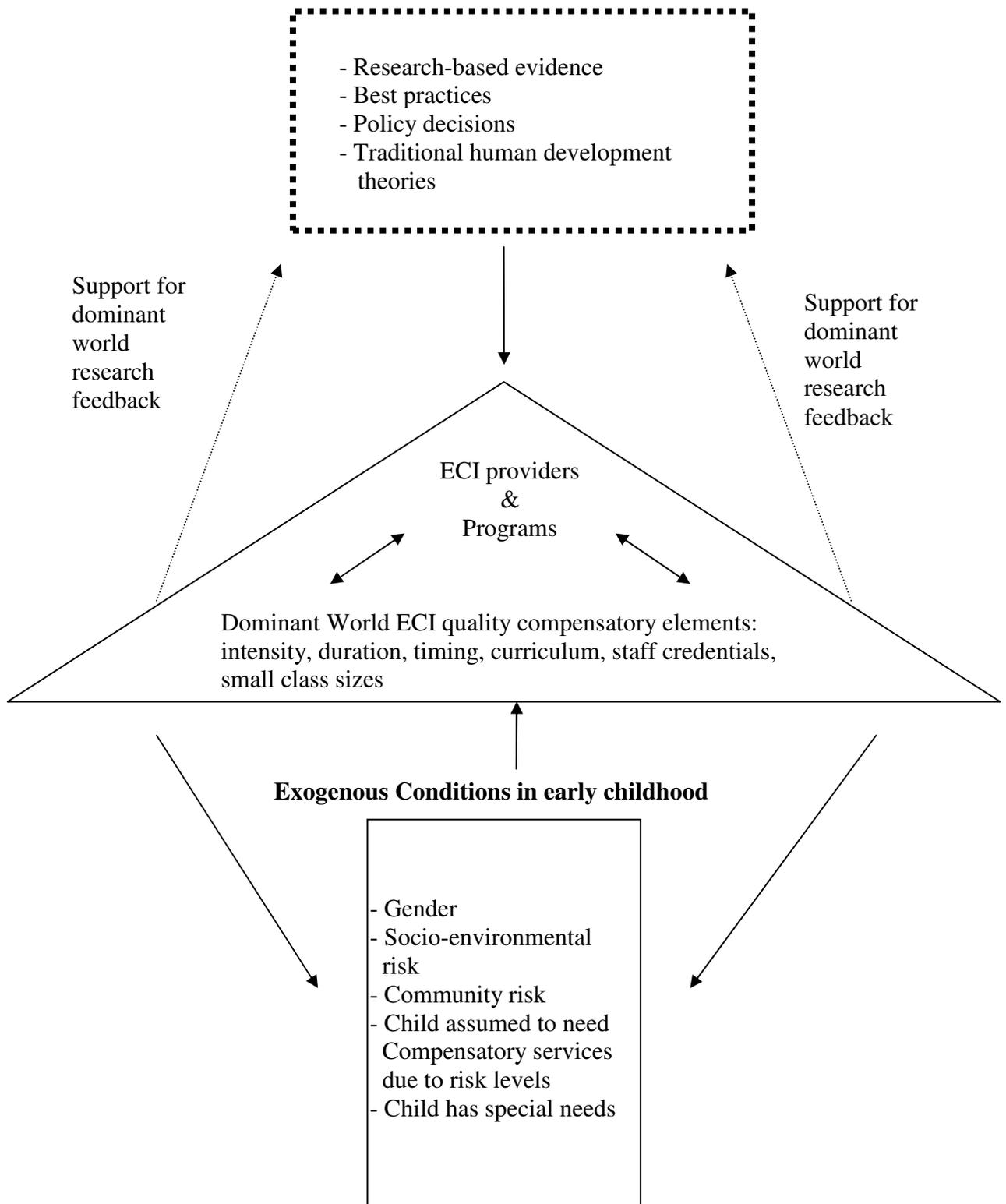


Figure 1. Traditional model of theoretical research.

Major Theoretical Approaches of Dominant World Research in Early Childhood Intervention

The conceptual approaches or models most commonly used in early childhood intervention programs are ecological systems theory and risk and resilience theory. These are discussed below and a new theory – cultural compatibility theory - is introduced as a theoretical model for the implementation of early childhood programs with American Indian communities.

*Ecological systems theory.* Ecological systems theory (Bronfenbrenner, 1985; Reynolds, 2000) specifies that outcomes of development are substantially affected by the social contexts, both proximal and distal, in which children are embedded (Bronfenbrenner, 1985; Reynolds, 2000). An ecological perspective emphasizes the importance of extra-familial contexts as they influence family and individual functioning. As mentioned previously, most “evidenced-based” research has been on white, middle-class, two-parent families, a trend that has sharply restricted an understanding of how relationships vary across American Indian populations and how American Indian communities located in rural areas interact. A more ecologically valid approach in collaborating with American Indian communities would be to place greater emphasis on the diversity of tribes and those unique tribal elements (i.e. language and ceremonies) that can shape programs in these communities. An ecological model emphasizes the complexity of development and the large number of environmental influences on children (Bronfenbrenner, 1985; Reynolds, 2000). Although causal models have been sought in which singular variables uniquely determine aspects of child development, a series of studies in a variety of professions have found that, except at the extremes of poor development, it is the interaction of the environment and risk factors that is the best determinant of an ECI outcome (Bronfenbrenner, 1985; Demmert, 1994; Reynolds, 2000). Rutter (1979) found that attention to the full array of contextual factors provides a better picture of each child’s development as well as identifying those children in greatest need of ECI efforts. Competencies of young children have been found to be strongly related to family mental health and especially social class (Broman, Nichols, & Kennedy, 1975, Werner & Smith, 1982). However, social classes differ in many of the characteristics that foster or impede psychological development in their children. These factors range from such proximal variables as the mother’s interaction with the child, to such intermediate variables as the mother’s mental health, to distal variables such as the financial resources of the family (Broman, Nichols, & Kennedy, 1975, Werner & Smith, 1982).

*Risk and Resilience Theory.* The constructs of risk and protective factors are the cornerstones of risk and resilience theory and many comprehensive reviews have identified the risk and protective factors for ethnic minority populations (e.g., Hawkins, Catalano, & Miller, 1992; Oetting, Edwards, Kelly, & Beauvais, 1997; Steinberg, 1991). However, two critical differences between the Eurocentric early childhood literature and how the terms “risk” and resilience apply to American Indian communities are worth noting. First, the definition of risk in American Indian communities is not well defined. Typically, risk factors are environmental stressors or conditions that increase the likelihood that a child will experience poor overall adjustment or negative outcomes in particular areas such as physical health, mental health, academic achievement, or social adjustment (Hawkins, Catalano, & Miller, 1992; Oetting, Edwards, Kelly, & Beauvais, 1997; Steinberg, 1991). Commonly identified risk factors include traumatic life events (such as the death of a parent), socioeconomic disadvantages, family conflict, chronic exposure to violence, and serious individual and community dilemmas such as substance abuse, criminality, or mental illness (Kaplan, 1999). Growing up in poverty is a particular concern because it encompasses a host of specific risks to children such as limited access to health care, economic stresses on the family, increased exposure to environmental hazards, and limited opportunities for employment (Kaplan, 1999). Whether or not these can be applied to American Indian populations needs further exploration. A second limitation of this theoretical approach as applied to American Indian communities is that the study of risk and resilience tends to take a broader view, focusing on larger issues of adjustment and adaptation rather

than on specific developmental milestones in isolation from other aspects of development (Reynolds, 2000).

Our current understanding of resilience in young children comes from only a few longitudinal studies that have been conducted in different areas of the country (Ramey & Ramey, 1992; Reynolds, 2000; Schweinhart & Weikart, 1997). The studies include Asian American, African American, and Caucasian children who have been followed from infancy and the preschool years to middle childhood, adolescence, young adulthood, and midlife. Data analyses exploring the interplay among multiple risk and protective factors at several levels - the individual, the immediate family, and the larger social context in which he or she lives - are still rare and have only been employed by a handful of prospective studies (National Research Council and Institute of Medicine, 2000; Werner & Smith, 1992). The availability of data for more complex analyses should increase in the near future, as several longitudinal studies with large numbers of children and multiple assessments are coming of age. While this progress is important, analyses of American Indian populations remain at the margins of formal ECI research.

*Cultural Compatibility Theory.* The central principle of cultural compatibility theory is congruence (Demmert, 2004). The more closely human interactions in the school and classroom are aligned with those of the community, the more likely the goals of the school will be reached (Demmert, 2004). Unlike non-American Indian schools, many American Indian communities have great latitude over the design and implementation of programs and services. This allows for the culture and customs to be reinforced. The reason that it is imperative to redefine “best practice” and what constitutes “evidence” in American Indian communities is not only an ethical one, but also, so that the continuity in school and home learning environments – the essence of congruence – may be encouraged (Demmert, 2004). This theory allows for the knowledge and skills of one generation to be transferred to the next (McCarty & Wallace, 1991). In the modern context, this theory also attempts to answer a key question: how can culture and American Indian children coexist in this modern day of dominant world standards? This theory predicts that if children have continued direct participation in the educational process by using language development as a key to intellectual development and the curriculum incorporates the spiritual and economic realities that most American Indian children face today, the ECI program will promote longer and more culturally relevant positive educational outcomes (Indian Nations At Risk Task Force, 1992).

### **The Urgent Need for New Theoretical Models for American Indian Children**

The need to identify and implement ECI programs using a culturally relevant theory, such as cultural compatibility theory, is needed more than ever before. The social and environmental context of most American Indian schools in high-poverty areas presents hardships to American Indian children, their families, and their culture. Sixkiller-Clarke (2002) describes “high rates of school failure, alcoholism, drug abuse, domestic abuse, child neglect, substandard housing, and lack of job opportunities [as] common conditions in Indian communities...[where] violence...is often regarded as the norm (p. 5). Indeed, the rate of violence in Indian Country is well above that for all other ethnic groups and more than twice the national average (Greenfield & Smith, 1999; Reyhner, 2000; Reyhner, 2006b).

Research suggests that American Indian youth in general are at higher risk for negative outcomes, such as school dropout and substance abuse (see Burns & Patton, 2000; Johnston, O’Malley, & Bachman, 2000; Kumpfer, 1992; Reyhner, 2006a). In 2003, 20 percent of American Indian children between the ages of 12 and 17 had used alcohol in the past month and they were more likely than other children to have used marijuana in the past month (Burns & Patton, 2000; Johnston, et al., 2000; Kumpfer, 1992; Reyhner & Jacobs, 2002). Other recent reports have shown American Indian youth, ages 12 to 17, have

higher rates of cigarette use, binge drinking, and illicit drug use than those from other racial or ethnic groups (Burns & Patton, 2000; Johnston, et al., 2000; Kumpfer, 1992). Epidemiological studies of American Indian youth over the past three decades have confirmed these rates of use (Anderson & Watts, 1996; Mitchell, Beals, Novins, Spicer, 2003; Spicer, Novins, Mitchell, & Beals, 2003).

A recent longitudinal study of early childhood programs found that American Indian students enter kindergarten with significantly lower reading, mathematics, and general knowledge achievement scores than other students (Demmert, 2004; Reyhner, 2006a). In 2003, American Indian 4th- and 8th-grade students scored lower on the National Assessment of Educational Progress (NAEP) reading and mathematics assessments than other students (Demmert, 2004; Reyhner, 2006a; Reyhner & Eder, 2004). More important is the consequence that this poor early achievement has on long-term academic success. Failure to complete high school remains a significant concern for tribal leaders and educators alike. To be sure, many factors, including poverty, tribal isolation, and health deficits, contribute to the low high school completion rates of American Indian students. A recent study conducted by the Harvard Civil Rights project (2004) found that only 51.1 percent of American Indian 9th graders complete 12th grade with a regular diploma (compared to 75 percent of whites, 53.2 percent Hispanics, and 50.2 percent Blacks). American Indians also scored lower, on average, than other students on the SAT and the ACT in 2004 (Civil Rights Project, 2004). Although the number of American Indian students enrolled at United States universities has increased significantly over the past two decades, student retention and completion rates remain low (Civil Rights Project, 2004; Reyhner, 2006a). American Indian people in United States are seven times less likely to graduate from a university, as are members of the general population (Demmert, 2004; Civil Rights Project, 2004). Most importantly, American Indian people in rural areas, particularly those on isolated reservations, have not benefited from mainstream post-secondary education (Dahlberg, et al., 1999).

Viewed from a larger historical perspective, the stark social and economic conditions of rural Indian communities have their foundation in the traumatic historical relationships between federal and tribal governments. Huff (1997) describes the nature of this conflict as “politically restructuring the institution of education to mold a colonial ethos. Colonialism that imprisons young minds with the concept of ‘racial/ ethnic inferiority’ is by far more tyrannical than brute force (Smith, 1999). Labeled as “pacification,” the education developed by missions and the Indian service encouraged young Indian people to lose confidence in their own leaders and their own people and view their history and culture as secondary” (p. 14). It is within such a context that the silent crisis of the lack of culturally relevant theories and their use in ECI programs for American Indians continues to expand.

### **American Indian Children and Culture: Why is it Important in ECI?**

Does American Indian culture matter in ECI? Yes. More than the dominant research literature cares to admit (Smith, 1999; Reyhner, 1994; Utter, 1993). Culture influences every aspect of human development and is reflected in childrearing beliefs and practices designed to promote healthy adjustment (Guralnick, 1998; Shonkoff and Meisels, 2000). The influence of culture on the rearing of American Indian children is fundamental and encompasses values, aspirations, expectations, and practices. Understanding this realm of influence is central to efforts to understand the nature of the American Indian lifespan experience, what shapes it, and how young American Indian children and the culture they share jointly influence each other over the course of development (Guralnick, 1998; Shonkoff and Meisels, 2000). Figure 2 provides a traditional view of ECI research methods – the linear view most often found in contemporary ECI research literature. This method has been accepted as the standard research method

for ECI research, with little room to make additions or deviations from the process (Guralnick, 1998; Shonkoff and Meisels, 2000). This includes selecting a research topic, reviewing literature related to the subject, formulating a research question, choosing a research design, conducting the research, analyzing data, forming a conclusion and implications, and potentially publishing the research results in peer reviewed academic journals (Guralnick, 1998; Shonkoff and Meisels, 2000).

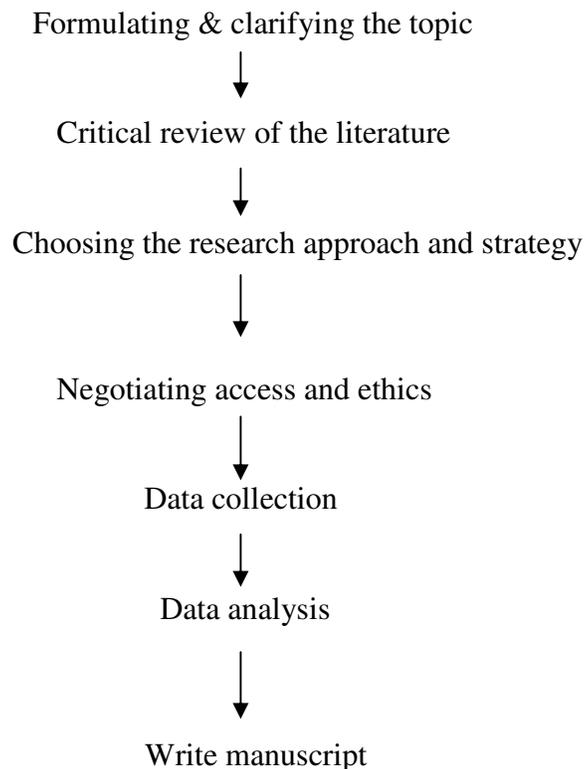


Figure 2. Traditional view of ECI research methods

By following this process, dominant world researchers aspire to prove (or not) their research hypotheses. However, what constitutes proof in one culture may not be understood or considered relevant in another culture. Recent research has identified seven key elements in conducting research with American Indian communities that may allow a culturally grounded research process to take place (Struthers, 2003; Struthers, Hodge, De Cora, & Geishirt-Cantrell, 2003; Struthers & Littlejohn, 1999).

These include: (1) caring, (2) traditions, (3) respect, (4) connection, (5) holism, (6) trust, and (7) spirituality. Each of these elements contains its own various characteristics and components. Together they define and elaborate a conceptual framework of ECI research in the American Indian Culture. In contrast to figure 2, , figure 3 displays these same elements (research design, conducting the research, analyzing data, etc.) but in a nonlinear fashion that begins with the culture of the American Indian and builds out – essentially reversing the research process – from outside in to inside out. This model is built upon a foundation of the ancient American Indian culture and embodies the holistic worldview, beliefs, traditions, practices, and values presently utilized by American Indians.

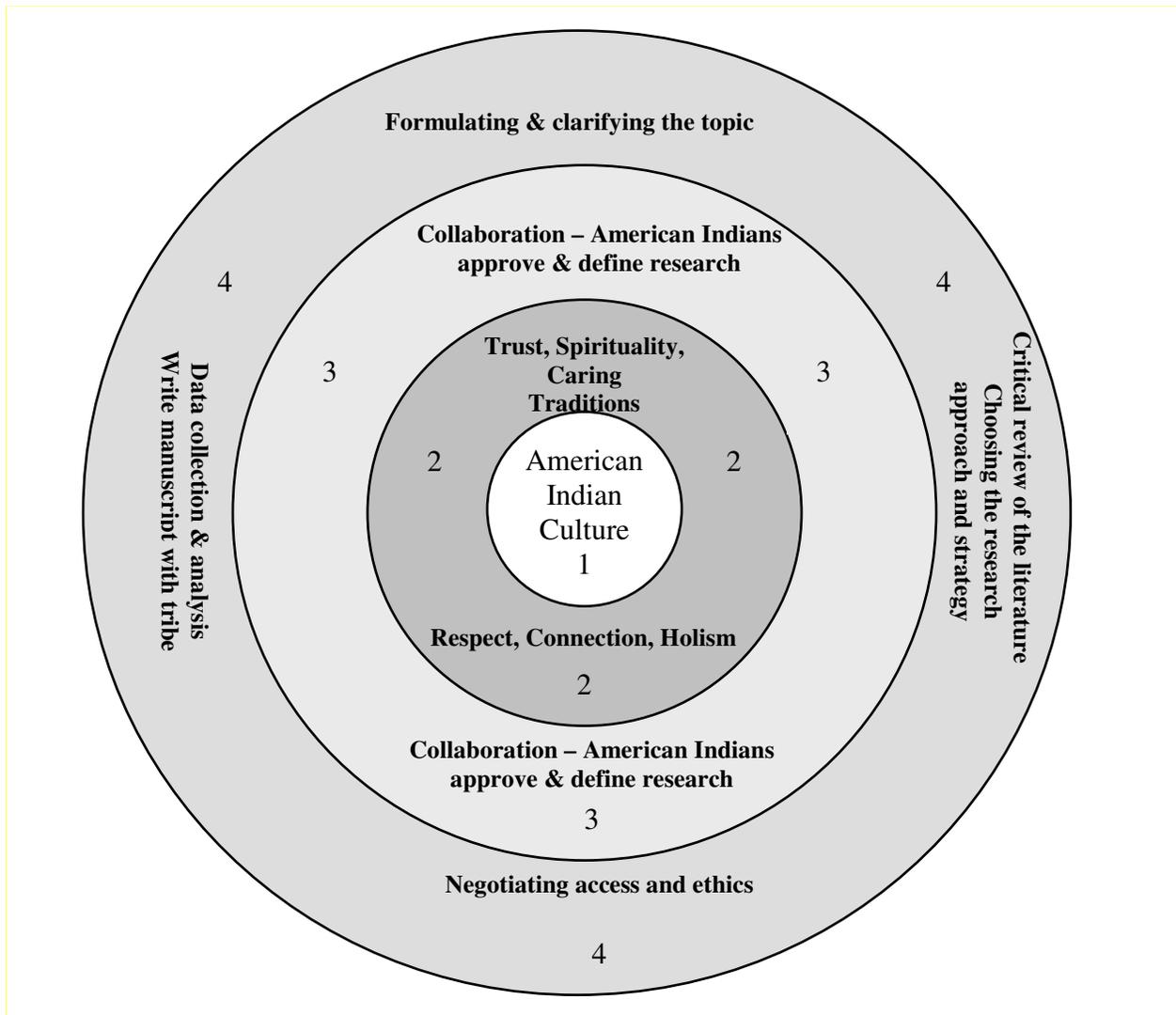


Figure 3. Culturally rounded research process in American Indian communities

The circular flow represents the cycle of life and continuity. This is contrary to the linear model (i.e. figures 1 & 2) and applies the cultural perspective of many American Indians. This has yet to be developed into a theoretical model for the implementation of ECI programs in American Indian communities. The model has four distinct stages (labeled 1-4 with one being the beginning). First, acknowledgement of and respect for, the multitude of American Indian voices and cultures, each speaking their own 'truth' and understanding is essential. This is in sharp contrast to 'normal' academia, and its focus on modernity that assumes a common child development pattern. Second, trust of both researcher and the tribal community is required (Dahlberg, et al., 1999; Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). Allowing each tribal community to express their spirituality, traditions, connections to their sacred land, and an understanding of the American Indian view of holism - in which all entities and all phenomena are interconnected to form a whole - is also necessary. Third, collaboration between researcher and tribe is an obvious, but difficult process.

The tribe should be given the opportunity to participate meaningfully and centrally in the design, implementation and evaluation of ECI programs. Why is this important? Most Native communities have

their own words and terms to refer to ancient knowledge, or to particular local practices (Dahlberg, et al., 1999; Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). It is only when the dominant

world attempts to translate these local practices into western terms that we are confronted with the need to choose a definition (Smith, 1999; Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). This is made all the more difficult because it is not easy to identify a worldview which is completely different from the dominant world (Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). This collaboration would enable American Indians and local communities to actively participate in the decision-making process. The last step in the process is to have researchers accept that the scientific method often lacks reflection and theoretical understanding in American Indian communities. The traditional scientific method provides theoretical frameworks of normalization, such as observation, measurement, categorization, regulation and evaluation. The social sciences have played a particularly important role in this traditional view of human development by making objectivist knowledge the classificatory criteria through which humans develop.

The silent crisis continues because the complexity of American Indian culture is not fully portrayed in the major ECI development theories. The culture of American Indians prescribes how and when babies are fed, as well as where and with whom they sleep (Guralnick, 1998; National Research Council and Institute of Medicine, 2000; Shonkoff and Meisels, 2000). It affects the customary response to an infant's crying and a toddler's temper tantrums (Guralnick, 1998; National Research Council and Institute of Medicine, 2000; Shonkoff and Meisels, 2000). It sets the rules for discipline and expectations for developmental attainments. It affects what parents worry about and when they begin to become concerned (Guralnick, 1998; National Research Council and Institute of Medicine, 2000; Shonkoff and Meisels, 2000). It influences how illness is treated and disability is perceived. It approves certain arrangements for child care and disapproves others (Guralnick, 1998; National Research Council and Institute of Medicine, 2000; Shonkoff and Meisels, 2000). In short, [the American Indian] culture provides a virtual how-to manual for rearing children and establishes role expectations for mothers, fathers, grandparents, older siblings, extended family members, and friends (National Research Council and Institute of Medicine, 2000). Given this complexity, the relative disregard for cultural influences in traditional theoretical approaches in ECI programs for American Indians is astonishing.

Much of the research on American Indian children has focused on the impacts of poverty, drawing its samples from homogeneous communities in high-risk urban environments (i.e. tribal members that reside in metropolitan Phoenix, Arizona). Consequently, knowledge of the full range of environmental influences on American Indian children and their relation to typical variations during early childhood is highly skewed and incomplete. The influence of cultural context on early childhood development is widely acknowledged. The empirical literature in this area, however, is underdeveloped. This disparity in the ECI literature is particularly problematic in view of the increasing number of American Indian children in the United States (Department of the Interior, 2006).

### **Directions for the Future**

A comprehensive system must be developed nationwide to ensure that researchers use both quantitative and qualitative literature, to determine not only what research findings on American Indian children exists, but also offer evidence of effective or promising cultural practices for use in American Indian communities (Demmert & Towner, 2003; Reyhner, 2006b). Research findings must inform not only the research literature but also federal and state policy, so that there can be an alignment between

state and national standards and American Indian communities, each with their own unique culture and values (Reyhner, 2006b; Demmert & Towner, 2003). It is the premise of this paper that a more contemporary and culturally-tailored approach to program implementation and design is needed. In the

United States, the more than 500 American Indian tribes colonized by what became a majority non-indigenous society, have experienced generations of cultural suppression taking various forms at various times from genocide to assimilation (Apthorp., D'Amato, & Richardson, 2002; Government of Canada, 1996).

Figure 3 represents a new model of research that uses American Indian culture as the single most important element for creating quality and meaningful programs in American Indian communities. This new model seeks ways to ensure the survival, or revival, of cultural beliefs, values and practices, while at the same time ensure member of tribes have access to and competence from the dominant society (Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). Most American Indian tribes in the United States are now actively engaged in reclaiming their culture (Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). Some of those communities are focused primarily on the revival of their traditional culture and do not actively seek contact with non-tribal groups (Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999). Others, however, wish to prepare their children and young people for growing up in both their own specific culture and community and in the culture and communities of the surrounding society (Demmert & Towner, 2003). These communities typically do not seek reproduction of the past, but rather, envision a future that is respectfully informed by a rich past and a multi-faceted present; a new construction with multiple roots and traditions developed through a process over which they have a substantial measure of control through their own agency and actions (Demmert, 2001; 2004; Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999).

Because each tribal community is itself a complex socio-cultural environment with a unique history and community dynamics, the exact nature and substance of the information that is generated could not be identified in advance nor is it the same across all communities (Cannella, 1997; Dahlberg, et al., 1999). A postmodern approach to the theoretical ECI program designs, embraces diversity and with it a large measure of indeterminacy (Cannella, 1997; Dahlberg, et al., 1999). Unlike most contemporary ECI theoretical models, the model in figure 3 is not based on a singular construction of pre-established content and outcomes (Cannella, 1997; Dahlberg, et al., 1999). Rather, it elicits a generation of new ideas and possibilities not fully foreseeable in advance (Cannella, 1997; Dahlberg, et al., 1999; Demmert, 1994; 1995; 2001; Struthers, 2003; Struthers, et al., 2003; Struthers & Littlejohn, 1999).

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