

Learning Styles of American Indian/Alaska Native Students: A Review of the Literature and Implications for Practice

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A review of theories, research, and models of the learning styles of American Indian/Alaska Native students reveals that American Indian/Alaska Native students generally learn in ways characterized by factors of social/affective emphasis, harmony, holistic perspectives, expressive creativity, and nonverbal communication. Underlying these approaches are assumptions that American Indian/Alaska Native students have been strongly influenced by their language, culture, and heritage, and that American Indian/Alaska Native children's learning styles are different—but not deficient. Implications for interventions include recommendations for instructional practice, curriculum organization, assessment, and suggestions for future research.

Introduction

Mind-body, body-mind, what's the relationship? The links are one of the strong foundations supporting brain-compatible learning. The links are also one of the strong foundations supporting the concept of brain-compatible or brain-friendly learning (Brendtro, Brokenleg, & Van Bockern, 1990). In recent years, the research by cognitive neuroscientists on the cerebellum into brain processing, brain growth, and brain dominance has led educators to take another look at traditional instructional methods of teaching (Cain & Cain, 1991). Learning styles researchers (Browne, 1984, 1986a, 1986b, 1990; Calliou, 1998; Davidson, 1992; More, 1987, 1989; Osborne, 1985; Pepper & Henry, 1986; Ryan, 1992; Sawyer, 1991; Swisher & Dehyle, 1987; Swisher & Pavel, 1994; Wauters, Bruce, Black, & Hocker, 1989) have added to understandings of how heredity, experiences, environment, linguistics, and cultural differences affect the teaching and learning of American Indian/Alaska Native¹ students.

Purpose of the Research

Studies indicate that American Indian/Alaska Native students have distinct cultural values, such as conformity to authority and respect for elders, taciturnity, strong tribal social hierarchy, patrimonial/matrilineal clans, and an emphasis on learning, which are deeply rooted in the teachings of the elders. These cultural traits are exhibited in family socialization patterns, which are quite different from those of other ethnic groups (Yellow Bird, 2001; Yellow Bird & Snipp, 2002). Historically, these cultural values, in turn, play a dominant role in the teaching and learning process of American Indian/Alaska Native students.

The purpose of this research was to review the literature on American Indian/Alaska Native learning modalities and cognitive styles in order to draw conclusions that serve as indicators as to how educators may provide instruction/learning opportunities that are compatible with American Indian/Alaska Natives students' learning styles. Ultimately, the teaching and learning relationship between American Indian/Alaska Native students and their teachers must be a primary focus of research and practice (Swisher & Tippeconnic, 1999).

Learning Styles—Fact or Fiction

The idea of American Indian/Alaska Native learning styles is not without criticism (Brown, 1979; Chrisjohn & Peters, 1989; Harris, 1985; Shepard, 1982; Stellern, Collins, Gutierrez, & Patterson, 1986). For example, Bland (1975) holds that there is no such thing as an American Indian/Alaska Native student learning style. Moreover, Kleinfeld and Nelson (1991) contended that studies of teaching methods adapted to American Indian/Alaska Native students' "so-called" visual learning styles provided virtually no support for the hypothesis that culturally adapted instruction increased achievement. In another study, Stellern, Collins, Gutierrez, and Patterson (1986) argued that American Indian/Alaska Native students are not necessarily right hemisphere dominant; therefore, there is no need to adapt instruction especially geared to the right-brained learner. Chrisjohn and Peters (1989) echoed this concern and warned educators to be cautious of research related to right-brained American Indian learners. In fact, these authors suggested that learning styles research was one of the "latest fashions" in education.

It is true that the determination of an "Indian" learning style may be harmful due to the danger of stereotyping. There is no absolute or generic "Indian learning style" (MacIvor, 1999). Although some research may identify patterns of learning among some American Indian/Alaska Native groups, there are significant variations among tribes and individuals. In fact, a wide variety of individual differences have been identified. As Worthley (1987) pointed out, diversity within any culture is the norm.

In addressing the learning styles of American Indian/Alaska Native students, one must be mindful that there are approximately 510 federally recognized American Indian entities (Bureau of Indian Affairs, 1991), each with its own unique government and social system. Within these groups, there are at least 200

traditional tribal languages (Fleming, 1992). These separate cultures and language groups vary significantly from one another in values, spiritual beliefs, kinship patterns, economics, and levels of acculturation (Whitbeck, Hoyt, Stubben, & LaFromboise, 2001). Moreover, American Indian/Alaska students differ dramatically from each other, even within their own communities (Swisher & Deyhle, 1989). Other factors, such as degree of assimilation and assimilation versus American Indian/Alaska Native identity must also be considered, because these factors obviously affect learning style (Haynes Writer, 2001; Pewewardy, 1998a).

Vygotsky (1978) contended that all learning is socially mediated. In trying to explain the developmental and cultural-historical approach to learning, Vygotsky (1986) suggested three concepts: higher mental functions, cultural development, and mastering one's own behavioral processes. Although Vygotsky's theory embraced all higher mental functions, Vygotsky himself was primarily interested in the development of language in its relation to thought. Subsequently, all successful learning takes place within cultural frameworks that include acceptable teaching practices within one's home, or base structure (Klug & Whitfield, 2002). From the behavioral standpoint, learning style is related to the tendency to seek situations compatible with one's own learning style (Keefe, 1987).

However, a "cultural personality" is more than a myth or stereotype, particularly when it involves culture and language (Greymorning, 2000). As Walker, Dodd, and Bigelow (1989) pointed out, there is little reason to expect children who grow up on reservations to have the same cultural experiences as children who grow up in the mainstream culture. Relative isolation on reservations and tribal differences suggest uniqueness. Individuals within a culture tend to have a common pattern of learning when members of their culture are compared to members of other cultures (Worthy, 1987). In many cases, the way individuals talk, write, read, and listen are specific to their own culture. In other words, one's culture refers to what is shared by a group of individuals. In addition, to being shared, culture is learned and thereby influences learning styles. Learners are not genetically predisposed to be one way or the other; they learn "how to learn" through socialization processes that occur within societies (Vygotsky, 1986). These "cultural patterns are an interrelated, interwoven, and virtually inseparable groups or cluster of traits, that taken together, produce an established and typical result such as a way of thinking, living, and acting" (Good, 1973, p. 65).

Learning styles, in the context of this study, refers to the composite of characteristic "cognitive, affective and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with and responds to his or her learning environment" (Keefe, 1987). The cognitive factors are the information processing habits, which represent a person's typical modes of perceiving, thinking, remembering, and problem-solving (Messick, 1969). The affective factors deal with motivational processes—attention, expectancy, and incentive—viewed as the learner's typical modes of arousing, directing, and sustaining behavior. The physiological factors involve biologically based modes

of responses that are founded on sex-related differences, personal nutrition, health, and accustomed reaction to the physical environment.

Therefore, certain generalizations based on research can be made regarding the impact of culture on the learning styles of American Indian/Alaska Native students (Bahr & Bahr, 1993; Haukoos & Satterfield, 1986; Jolly, 1996; Lam-Phoon, 1985; More, 1989; Murk, 1994; Nuby, 1995; Philips, 1972, 1983; Swisher & Deyhle, 1987; Tharp & Yamauchi, 1994; Vogt, Jordan, & Tharp, 1987). These cultural differences deserve recognition, and where resultant behavior indicates uniqueness, educational programs or procedures should be altered accordingly (Walker, Dodd, & Bigelow, 1989). The following review offers educators a synthesis of a large body of research and discusses strategies for maximizing learning for American Indian/Alaska Native students.

Historical Basis of the Problem: A Curriculum of Genocide

Prior to the invasion of the American Indian/Alaska Native settlements in the Americas (Zinn, 1999) and the imposition of the Euro-American educational system, many tribal nations had their own very diverse educational systems. These systems were culturally responsive² to the needs of the American Indian/Alaska Native students—designed to educate the child informally through observation and interaction with parents, relatives, elders, and religious and social groups. In essence, traditional Indian educational practices provided the skills needed for any tribal society to function adequately within their natural environment. However, with few exceptions, the written history of Indian education relates attempts to apply a White man's education and educational processes to American Indian/Alaska Native students.

A historical review of the early debates about American Indian/Alaska Native student mental capacities and the need for American Indian/Alaska Native students to overcome their "innate inferiority," as measured by intelligence tests (Gould, 1996; Guthrie, 1998) provides educators with information that can help them understand the contemporary issues related to Indian education.

The conventional "deficit syndrome" as an educational ethos and practice has been used to address the needs of American Indian/Alaska Native students despite evidence suggesting that American Indians/Alaska Native students have definite cultural values and traits that affect learning and academic achievement. For example, Lucien Levy-Bruhl's (1926) *How Natives Think (Les Fonctions Mentales dans les Societes Inferieures)* hypothesized that American Indians came from undeveloped and uncivilized peoples; were inferior races; had primitive, savage, and unintelligible mentalities; and had simple and artless logical reasoning processes.

Historians, in particular, wrote Indians out of their textbooks for whatever insecure reasons of justifying the past actions of America's heroes, racial bigotry, or White guilt. By ignoring the dark episodes of the destruction of Indians and their cultures, historians in effect denied that these ever happened. (Fixico, 1998, p. 86)

Therefore, long before educators became interested in learning styles research, it was generally assumed by non-Indian researchers that American Indian/Alaska Native children lacked the innate intelligence and ability to succeed in formal school programs (Deyhle & Swisher, 1997; Gould, 1996; Guthrie, 1998; Kaulback, 1984). Fixico (1998) asserted that it is ethically wrong to use research to subvert the fair historical representation of other peoples, leaders, and non-mainstream events. Mihesuah (1993) contended that researchers should not look upon American Indian/Alaska Native populations as curiosities, and suggested that those who conduct research on American Indian/Alaska Native students need to ask themselves seriously why they are doing such research. Who is ultimately benefiting? According to Linda Tuhiwai Smith (1999), the word *research* is inextricably linked to European imperialism and colonialism:

The word itself, “research” is probably one of the dirtiest words in the Indigenous world’s vocabulary. When mentioned in many indigenous contexts, it stirs up silence, it conjures up bad memories, it raises a smile that is knowing and distrustful. It is so powerful that indigenous people even write poetry about research. The ways in which scientific research is implicated in the worst excesses of colonialism remains a powerful remembered history for many of the world’s colonized people. It is a history that still offends the deepest sense of our humanity. (p. 1)

Historically, the federal government’s assimilation strategy removed many American Indian/Alaska Native children from their families, and entire generations lost access to traditional parenting models, culture, language, and values (Duran & Duran, 1995). In reality, most American Indian/Alaska Native populations were defeated not by military force, but by politically structuring educational institutions for American Indian/Alaska Native students to mold a colonial ethos (Pewewardy, 1998b).

Since its invasion of America, white society has sought to justify, through law and legal discourse, its privileges of aggression against Indian people by stressing tribalism’s incompatibility with the superior values and norms of white civilization. (Williams, 2000, p. 103)

The beginning of contemporary American Indian/Alaska Native education is the story of how Euro-American policymakers sought to use the schoolhouse—specifically the boarding schools—as an instrument for annihilating and acculturating many Indian youth to “American” ways of thinking and living (Adams, 1995). Using a variety of techniques, United States social policy, in general, endeavored to eliminate the cultures, the religions, and the languages of American Indian/Alaska Native groups (Forbes, 2000; Tinker, 1993). Moreover, most United States federal and state initiatives focused on changing the Indian without allowing for cultural differences or taking into account traditional Indian patterns and practices (Dejong, 1993; Szasz, 1999). The concept of deculturalization³ demonstrates how cultural prejudice and religious bigotry can be intertwined with democratic beliefs. Deculturalization combines education for democracy and political equality with cultural genocide⁴—the attempt to destroy

cultures (Alfred, 1999; Griffin, 2000; Spring, 2001), an act that was condemned by the United Nations (Office of the High Commissioner for Human Rights, 2002).

Thus, the primary focus of early United States government policy was changing American Indian/Alaska Native ideas about the family, work, gender roles, child rearing, nature, accumulation of wealth, and political structures (Spring, 1996). Entwined in this tragedy has been the basic assumption that a generalized, broad-based definition of intelligence could be created. The logic of a single score to represent an individual's potentiality to learn or to declare the intellectual capacity to learn is a Holy Grail in the American educational profession (Huff, 1997). Consequently, the propriety of assigning blanket terms to all problem-solving behaviors has resulted in a highly debatable issue. Overall, schools have an obligation to all students to become more sensitive to society's indebtedness to Indian people for their valuable contributions to contemporary America (Butterfield, 1983). This has become obviously apparent given the current debate on high-stakes standardized testing and its relationship with a wide variation of cognitive lifestyles of American society, especially in the natural learning processes of American Indian/Alaska Native students. According to Jones and Ongtooguk (2002), high-stakes testing alone will not solve the pressing educational problems of Alaska Natives. The next section provides an overview of new approaches and findings toward understanding the learning styles of American Indian/Alaska Natives based on language and cultural strengths that bridge home and school learning.

Current Approaches and Findings Toward Understanding the Learning Styles of American Indian/Alaska Natives Students

Prior to the 1980s very little information about the learning styles of American Indian/Alaska Natives was documented. Nor was much attention paid as to how to address the needs of these students (Swisher, 1990). Currently, or within approximately the last 25 years, researchers have approached the topic of learning styles of American Indian/Alaska Native students in a variety of ways. Some have looked at cognitive style (Witkin, Moore, Goodenough, & Cox, 1977), whereas others have been concerned with perceptual strengths—visual, auditory, or kinesthetic (Swisher & Pavel, 1994). Some have looked at personality type as indicative of a learning style (Myers & McCaulley, 1985; Nuby & Oxford, 1997). In August of 1989, a special issue of the *Journal of American Indian Education* dedicated an entire edition to learning styles research articles. Currently, there are numerous ways in which one might approach the topic of learning styles. For the purpose of this article, the learning styles of American Indian/Alaska Native students are approached using the following classifications:

1. Field-Dependence/Field-Independence
2. Perceptual Strengths (Visual, Auditory, and Kinesthetic)
3. Reflectivity Versus Impulsivity
4. Classroom Management and Behavior

5. Role of the Family, Tribe, and Elders
6. Teacher/Pupil Relationships
7. Cooperation Versus Competition

Field-Dependence/Field-Independence

A review of the literature supports the argument that field-dependence or global processing is a learning style tendency among American Indian/Alaskan Native students (Annis & Frost, 1973; Berry, 1979; Benjamin, 1987; Browne, 1986a; Browne & Bordeaux, 1991; Cattey, 1980; Chrisjohn & Peters, 1989; Das, Kirby, & Jarman, 1992; Davidson, 1992; Diessnner & Walker, 1989; Dinges & Hollenbeck, 1978; Irvine & Darlene, 1995; Kaufman & Kaufman, 1983; Kirby, 1984; Killbride & Robbins, 1968; Macias, 1989; Miller, 1990; More, 1990, 1993; Nuby & Oxford, 1996; Raburn, 1980; Rhodes, 1989, 1990; Ross, 1982, 1989; Scott, 1979; Shortman, 1990; Stairs, 1994; Stellern, Collins, Gutierrez, & Patterson, 1986; Swisher, 1991; Swisher & Dehyle, 1987, 1989; Tharp & Yamauchi, 1994; Walker, Dodd, & Bigelow, 1989; Wallis, 1984). Field-independence and field-dependence refer to how students learn, rather than what they learn. According to Witkin, Moore, Goodenough, and Cox (1977), the field (or one's surroundings) affects the learner's perceptions along a continuum between field-dependence and field-independence. For example, if a learner is field-dependent, he or she is unable to perceive elements or (him or herself) as separate from his or her environment. These learners are holistic or global learners. They begin with the whole picture and establish meaning only in relation to the whole. It is very difficult for the field-dependent student to discern important details from a confusing background. Generally, the field-dependent, global, right brain dominant is highly visual/spatial, integrative, relational, intuitive, and contextual (parts-and-whole-together). The learner's thinking is not linear or hierarchical. This learner is concerned with life and all its relationships. It is not unusual for these learners to listen to the views of others before making quick judgments. Authority figures are often looked to for guidance. In fact, field-dependence is likely to develop in cultures that are highly collective and family-oriented (Nuby, Ehle, & Thrower, 2001).

On the other hand, field-independent learners tend to be analytical, logical, and temporal (sequencing). They prefer to compete to gain individual recognition and are generally task-oriented. These learners often prefer classroom activity that involves abstract, impersonal work (Kinsella, 1995; Worthley, 1987). These learners can easily divide the whole into subcategories based on differences. They can see easily that material can be divided and subdivided into minute pieces and that those pieces add up to the whole. Field-independence often occurs in cultures in which personal autonomy and formal organization in the family are emphasized, as in the White culture (DuBray, 1985; Light & Martin, 1986; Stauss, 1993). And it is often true that in White classrooms information is frequently presented in an analytical, sequential manner. This places the field-dependent learner at a great disadvantage.

Perceptual Strengths: Visual, Auditory, and Kinesthetic

Findings support the view that American Indian/Alaska Native students are visual learners (Alhelm, 1973; Annis & Frost, 1973; Bates, 1997; Bland, 1975; Bryant, 1986; Foreman, 1991a; Gardner, 1980; Gilliland, 1999; Greenbaum & Greenbaum, 1983; John, 1972; John-Steiner, 1975; Karlebach, 1986; Kaulback, 1984; Kleinfeld, 1973, 1979; Kleinfeld & Nelson, 1991; Lipinski, 1989, 1990; More, 1984a, 1984b; Philips, 1972; Ross, 1989; Samples, 1979; Steinberg, 1974; Tafoya, 1989; Trent & Gilman, 1985; Wilcox, 1996). Visual learners learn best when they are able to see the material they are expected to master. They tend to learn best when the teacher provides a myriad of visual learning opportunities such as graphs, films, demonstrations, and pictures. American Indian/Alaska Native students are taught by observing parents or elders (Red Horse, 1980). When skills are taught, parents or elders generally teach through demonstration. Children watch, and then imitate the skills. For example, the father, mother, or elder might teach the child a skill by modeling. Children are expected to watch, listen and then do. Therefore, many American Indian/Alaska Native students appear to perform best in classrooms with an emphasis on visualization, especially in mathematics.

Traditionally, the mathematics taught in schools seldom includes overt connections with tribal culture (Slapin, 1998). Consequently, many students view mathematics as a spectator sport rather than one in which they can participate. For the American Indian/Alaska Native students, this cultural disconnection poses additional obstacles for achievement in mathematics (Barta, et al., 2001; Leap, et al., 1982).

Mathematics has always been used in situations where American Indian/Alaska Native students count, measure, design, locate, explain, trade, dance, and play (Bradley, 1984; Brenner, 1998; Callaghan, 1969; Closs, 1997; Creative Associates, 1980; Green, 1978; Hadfield, 1990; Hanks, 1993; Mather, 1997; Moore, 1982, 1988a, 1988b; Nelson, Joseph, & Williams, 1993; Renker, 1982; Schindler & Davison, 1985; Sleeter, 1997; Wall & Scott, 1990). The art of beadwork encompasses all of these behaviors including dancing. Beadwork provides a hands-on demonstration of math in action and can be used as an effective vehicle for teaching mathematics. There is virtually no mathematical concept (appropriate for elementary students) that cannot be illustrated using beadwork (Barta, 1999).

Students who speak American Indian/Alaska Native languages should have a chance to learn mathematics terminology in their Native language and then to relate this knowledge to the English language mathematics vocabulary (Davison, 1992). Comparing and contrasting American Indian/Alaska Native mathematics teaches students lessons about the diversity among American Indian/Alaska Native cultures. Mathematics to many American Indian/Alaska Native students is related physically to one's being and religiously to one's soul. Mathematics connects one to his or her universe in many different ways by incorporating language, culture, and daily living practices (Lipka, 1994). Trade and currency provide insights into the complexity of American Indian/Alaska Native life

through the use of complex algebraic expressions on a multiplicative scale. In this conception, mathematics is not in the activities of cultural practice, but these activities have the potential for mathematics to be constructed through symbolism and systematization (Presmeg, 1999). Viewing mathematics in this way opens the door to a reconciliation of ethnomathematics and academic mathematics (Ascher & D'Ambrosio, 1994; Davison, 1989). But this view of the nature of mathematics contrasts strikingly with the students' limited opinion of what mathematics is (Whitman, et al., 1997).

Reflecting upon how American Indians/Alaska Native students traditionally used mathematical concepts assists in developing a new awareness about how students perceive Western mathematics, especially if presented from a Eurocentric perspective (Bureau of Indian Affairs [BIA], 1998; Nelson, et al., 1993). Conversely, the majority of White children begin school as auditory learners. These learners have been bombarded with information since early childhood. Young children are encouraged to express ideas in the form of speech. Therefore, most can listen to instruction and then follow those instructions without difficulty. Consequently, in the typical White classroom, the learning experience is often primarily limited to oral instruction, beginning with primary school and becoming more predominate in the secondary grades (Wickett, 1997). This mode of instruction places the American Indian/Alaska Native student at a very real disadvantage. On the other hand, culturally relevant ethnomathematical curricula connect the student with his or her heritage. It is the bridge between his or her world on the reserve, reservation, or in the community and the different world that may often exist in the school setting (Barta, et al., 2001).

Reflectivity Versus Impulsivity

Research indicates that Native American/Alaska Native students tend to be reflective (Appleton, 1983; Beckett, 1986; Connelly, 1983; Das, Kirby, & Jarman, 1992; Dumont, 1972; Guilmet, 1976; Hall, 1991; Heffron, 1984; John, 1972; Little Soldier, 1997; Macias, 1989; McShane & Plas, 1994; Nuby & Oxford, 1997; Ogbu, 1978; Philips, 1972, 1983; Robinson, 1987; Tafoya, 1989). Reflection is defined as the tendency to stop to consider options before responding, often resulting in greater accuracy in conceptualizing problems (Hollins, 1999). Conversely, being impulsive is the tendency to respond immediately, more fluently, yet inaccurate problem-solving often occurs. In other words, there is a difference in the time period in which the student contemplates before arriving at conclusions. For example, some students' conversations may have a longer "wait time" between responses. Learning may be enhanced by teachers "tuning in" to the students' rhythms of conversation and movement (MacIvor, 1999). A reflective student does not need immediate closure. Instead, she or he is more open-oriented, delaying decision-making until all evidence is collected before coming to a conclusion or acting in response to a situation. When posed with a question or problem, American Indian/Alaska Native students tend to be reflective learners, examining all sides of an issue, as well as possible

implications and solutions related to the problems. Therefore, they are careful to make sure that the answer to a problem is known before responding. It is not uncommon, therefore, for American Indian/Alaska Native students to spend much more time watching and listening and less time talking than do White students (Gilliland, 1999). As Hilliard (2001) pointed out, reluctance to try to solve a problem may be associated with the fear of being shamed if one does not succeed, which may account for the seemingly passive behavior of the American Indian/Alaska Native student. Unfortunately, teachers may mistake this behavior as disinterest or lack of motivation.

Differences in home learning style and school learning style often become manifest when the American Indian/Alaska Native child goes to school. In the typical White classroom, American Indian/Alaska Native children avoid unfamiliar ground, where trial and error or the inquiry method is employed (Lacy, 2002). Instead, children often begin school believing that a respectful attitude toward a task involves doing a task well (Porter, 1997). Performing an activity according to a recommended or correct form is as important as the purpose or the goal of the activity. If a task cannot be done well, there is no need to engage in the activity at all (Longstreet, 1978).

The sense of time for an American Indian/Alaska Native also appears to mirror a sense of reflectivity. Many American Indian/Alaska Native students have more flexible concepts of time than do members of other cultural groups (DuBray, 1993). The American Indian/Alaska Native student has been taught that time and punctuality are of little importance in the grand scheme of things (Cleary & Peacock, 1998). Therefore, students may be tardy for class or assignments might be late. The American Indian/Alaska Native student would tend to feel that being closure-oriented might lead to inaccurate decisions. Instead, having a high tolerance for ambiguity and being open-oriented (open to flexible time) are prized. The American Indian/Alaska Native student might then relish comprehending a problem, holding out for all available data. This is considered more important than coming to rapid conclusions about a topic, problem, or assignment.

According to Clarke (1997), when people define *Indian culture* as lacking future orientation and living day-to-day, it appears as though society has added legitimacy to the observations of outsiders who have stereotyped a people on the basis of race, rather than the economic conditions forced on a people by segregation on reservations. Thus, when an American Indian/Alaska Native child is late for school because she or he had to help a single working mother feed younger siblings, some individuals define that child's tardiness as *Indian time*. When someone fails to get to a meeting on time because the car broke down, we explain the incident as "living on Indian time," rather than confronting the real reason for the situation, which is most often linked to poverty.

Classroom Management/Behavior

Studies indicate that people from different cultures attribute disciplinary problems to different causes and use different techniques to motivate students to behave

in acceptable ways (McDade, 1993). Some cultural groups rely on the use of rewards and consequences; others do not (Radin, Williams, & Coggins, 1993). Research indicates that American Indian/Alaska Native worldviews and social behaviors are at odds with White values and behaviors (Bert & Bert, 1992; Burgess, 1978; Chilcott, 1985; Green, 1977, 1978; Light & Martin, 1985; Medicine, 1981; Ogbu, 1978; Scollon & Scollon, 1981; Sra, 1990; Tafoya, 1989; Tharp, 1989). As Deyhle (1995) pointed out, Navajo students rebel against the stringent discipline so prevalent in White high schools. Threats of physical punishment and force are unacceptable and ineffective methods of behavior control in Navajo cultures (Vogt, Jordan, & Tharp, 1987). For Navajos, neither extreme of being “tough” or “nice” is appropriate. In fact, punishment, contingent reward, or any openly manipulative effort to control the behavior of others, including children, is a violation of cultural values (Tharp, 1989).

Navajo adults are generally more reserved in their affectionate displays but are highly respectful of the child’s individuality and of children’s sovereignty over their own persons (Batchelder, 2000). Research also indicates that more culturally specific management routines are compatible with many American Indian/Alaska Native cultures, especially the Navajo, where ignoring misbehavior or lowering one’s eyes, indirectly referring to the misdeed and praising honorable behavior works better than punishment (Bert & Bert, 1992). Navajo youth are unlikely to exhibit the same level and configuration of traditionalism due to the varying impact of mainstream society (Willeto, 1999). Clearly, the question of diversity in traditionalism warrants investigation in some tribal cultures.

In traditional American Indian/Alaska Native cultures, obedience is approached through explanations of the desired behavior, often through a grandparent, who serves as the major disciplinarian. In addition, the grandparent often serves as the one who teaches character education, noninterference, or self-reliance (Good Tracks, 1973) as well as desired standards of moral behavior. American Indian/Alaska Native children are seldom, if ever, struck by an adult whether parent, uncles, aunts, or grandparents (Tharp, 1989).

Often American Indian/Alaska Native children respond more effectively if the teacher gives the student warnings of bad behavior couched in community terms like, “What would people say—they will laugh at you.” Historically in schools, shame or embarrassment were common disciplinary tools with American Indian/Alaska Native children (Cleary & Peacock, 1998).

On the other hand, humor can be a useful teaching strategy when working with American Indian/Alaska Native learners of all ages. Humor is important in bringing Indian students together and reaffirming bonds of kinship (Herring, 1999). Laughter relieves stress and serves to reaffirm and enhance the sense of connectedness that comes from being part of the group (Garrett & Garrett, 1994). Nevertheless, teachers are cautioned to use humor very discreetly and to ensure tribal specificity (Taylor, 2001).

Tribal Role of the Family/Elders

Research indicates that the family, the elders, and the tribe play an important role in the teaching/learning process as related to the American Indian/Alaska Native student (Anderson & Ellis, 1995; Alexson, 1985; Bahr & Bahr, 1993; Berman, 1993; Catey, 1980; Cazden, 1982; Gill, 1982; Good Tracks, 1973; Gridley, 1974; Hamamsay, 1957; John, 1972; Jordan, 1984; Kaulback, 1984; Kluckhohn & Leighton, 1962; Kluckhohn & Strodbeck, 1961; Lee, 1976; Light & Martin, 1985; Littlebear & Martinez, 1996; Lum, 1986; Nuby, Ehle, & Thrower, 2001; Pepper, 1985; Pepper & Henry, 1986; Pewewardy, 1994; Phillips, 1972; Red Horse, 1980, 1983; Reyhner, 1992; Rhodes, 1988; Robinson-Zanartu, 1996; Sanders, 1987; Stauss, 1993; Ward, 1993). Although the Indian family structure varies from tribe to tribe, some generalizations may be made. In particular, many American Indian/Alaska Native students see the family as an extension of themselves. Relatives like aunts, uncles, and grandparents who may live in separate households often make major contributions in raising children. This extended family concept may also include cousins and sometimes formal adoptees from outside the family unit. It is not unusual for children to stay in a variety of different households. This type of family structure provides a sense of belonging and security, which forms an interdependent system (Pewewardy, 1994). Status and rewards are often derived from adherence to tribal structure. The White teacher who sees the generic "American" family unit as primary often misunderstands the extended family concept of American Indian/Alaska Native students.

American Indian/Alaska Native students are taught to treat family members with respect, especially elders (Cornelius, 1999; Ross, 1996). Social acceptance and approval are sought from older members of the family. They are a source of wisdom and serve as teachers of traditions, customs, legends, and myths. Grandparents, especially, have symbolic leadership positions in family communities. Children often see on a daily basis grandparents who have a role in child rearing and discipline. Even as a child grows older, the commitment to grandparents continues. For example, Apache and Navajo children are taught to carefully observe the lives of their parents and grandparents. By observation, students are taught by example (Bahr & Bahr, 1993).

The tribe is of fundamental importance as related to cultural identity (Haynes Writer, 2001; Mihesuah, 1998; Weaver, 2001; Wildcat, 2001; Yellow Bird, 1995). Problems involving the formulation of an "Indian" identity may be great for many American Indian/Alaska Native students, with youngsters sometimes seeing themselves as primarily "Indian," and sometimes moving in the direction of White values (Garrett & Pichette, 2000). Peer pressure to conform to mainstream school norms causes many American Indian/Alaska Native students to adopt assimilationist values in schools, especially for those students who attend public schools (Pewewardy & Willower, 1993).

Although it is impossible to describe a common set of cultural values that encompass all tribal groups, most share common values of noninterference, time-orientation, sharing, cooperation, coexistence with nature, and extended family

structure (Garrett & Wilbur, 1999; Yellow Bird, 2001). For students living on reservations, relationships and tribal affiliation are culturally strong and in many ways quite different from their non-Indian peers or even American Indian/Alaska Native students living in urban areas (Lobo & Peters, 2001). Social stratification and honors are obtained by maintaining conformity to tribal norms. Traditionally the tribe, through the extended-family structure, is responsible for the education of all children (Pewewardy, 1994).

The tendency to place the family, tribe, and elders in such high esteem is very much in contrast with European American culture (Deloria, 2001). Instead of focusing on collectivism, the White culture is highly individualistic, with an emphasis on capitalism, youth, and self (Weenie, 2000). This may very well present a problem in the school setting. American Indian/Alaska Native students have special needs that warrant a teacher's cultural understanding. Differences in language, approaches to learning, cherished cultural values, and familial traditions present special challenges that teachers need to consider in designing instruction and assessment (Lipson & Wixson, 1997).

Teacher/Pupil Relationships

Findings indicate that the teacher of the American Indian/Alaska Native student plays a tremendous role in the teaching and learning process. His or her teaching style or method can have a significant effect on whether students learn or fail (Almeida, 1996, 1998; Archibald, 1988; Banks & Banks, 2001; Betz, 1991; Butterfield, 1983, 1994; Burgess, 1978; Dehyle, 1983; Foreman, 1991b; John, 1972; Jolly, 1996; Leacock, 1976; More, 1984b; Nuby, 1995; Ortiz & Garcia, 1988; Pepper & Henry, 1986; Pewewardy, 1999; Shortman, 1990; Smith, 1999; Tafoya, 1989; Tamaoka, 1986; Whyte, 1986; Wyatt, 1978). It is apparent that many teachers do not have an understanding of the degree to which culture affects learning styles (Swisher & Dehyle, 1989). Many are not able to identify the learning style differences and to employ culturally responsive techniques to address the needs of culturally different populations. Often teachers view differences in approach to learning as problems inherent in the students themselves, rather than as a lack of understanding by the teacher (Nuby, Ehle, & Thrower, 2001). Unfortunately, many teachers ignore culture and its impact on learning both in "content" and "style," rather than devising methods and techniques through which culturally diverse individuals approach problem-solving.

As Sleeter (1993) pointed out, White teachers often have a knowledge of race based on their own life experiences and vested interests. The idea of what is "correct" comes from the White perspective. The perspective of most White teachers about race is "dysconscious racism," defined by Joyce King (1991) as a form of racism that accepts without cultural awareness the dominant White norms and privileges. For many American Indian/Alaska Native students, this is an impaired consciousness or a distorted way of thinking about race because the dominant mainstream orientation of most non-Indian teachers is centered within a White male, middle-class worldview (Howard, 1999; Landsman, 2001; Stalvey, 1997).

When teachers fail to recognize cultural differences among learning styles, students may react in negative ways to instruction (Ladson-Billings, 2001). Consequently, when students have a learning style that differs from the instructional style of their teachers, cultural incongruence appears in the teaching and learning process. This situation usually happens when the teacher does not understand the cultural and personal reasons for these differences. The classroom can become a place of inequity, where some American Indian/Alaska Native students receive what they need and others do not. Often students become disenchanting with school and suffer as a result of social, economic, and educational policies (Nuby & Oxford, 1997).

Lack of understanding is not necessarily the fault of the teacher. Many teacher education programs do not provide the kind of experiences that allow prospective teachers to develop the skills necessary to identify and address the learning styles of American Indian/Alaska Native students. They are uninformed about cross-cultural differences and how to employ culturally responsive pedagogy. Many teachers are faced with limited understanding of diverse cultures and linguistic patterns other than their own and the possibility that this limitation negatively affects their students' ability to become successful learners (Montgomery, 2001). In order for teachers to be effective with diverse students, it is crucial that they recognize their own worldviews; only then will they be able to understand the worldviews of their students (McAllister & Irvine, 2000). Too many teacher education programs do not include the extensive study and research necessary to understand the American Indian/Alaska Native student (Tippeconnic, 1983). The result is often limited, mixed with inaccurate knowledge.

American Indian/Alaska Native students often encounter difficulties in school because their culturally accepted ways of displaying competencies differ from those expected by the teacher in typical White schools (Ward, 1993). In essence two contrasting learning styles are involved. Traditional American Indian/Alaska Native learning focuses on process over product, legends, and stories as traditional teaching paradigms, knowledge obtained from self, and cognitive development through problem-solving techniques (Tafoya, 1989). This concept is very different than what is expected in the typical White classroom.

Matching teaching styles with learning styles is important for maximizing the learning of Native American/Alaska Native students (Stairs, 1999; Swisher & Dehyle, 1987; Swisher & Pavel, 1994). Inappropriate and mismatched learning styles are common threads that weave in out of the literature describing a large number of learners' inability to achieve in the traditional classroom (Shortman, 1990). In fact, two contrasting learning styles are often involved in the education of Native American/Alaska Native students—that of the school and that of the community (Archibald, 1988).

Cooperation Versus Competition

Research indicates that American Indian/Alaska Native students tend to favor cooperation over competition (Brown, 1980; Dumont, 1972; Lewis & Ho, 1989;

Little Soldier, 1989; Nel, 1994; Nuby, 1995; Nuby, Ehle, & Thrower, 2001; Nuby & Oxford, 1996, 1997; Scollon & Scollon, 1981; Swisher, 1990; Walker, Dodd, & Bigelow, 1989; Wax, Wax, & Dumont, 1989; Wilcox, 1996). The typical American Indian/Alaska Native student lives in a world of people. To them, people are all important. Possessions are of value mainly because they can be shared. In contrast to White culture, most students do not equate the accumulation of property as a measure of a person's worth or social status. One's worth is based on the ability and willingness to share. One who has too many personal possessions is suspect. The thought is that getting rich may not be possible or even desirable, especially if one looks after the needs of others.

American Indian/Alaska Native students prefer harmony, unity, and a basic oneness. There is security in being a member of the group rather than being singled out. Students do not want to be shown to be either above or below the status of others. Competition does not produce motivation. American Indian/Alaska Native students often feel "put on the spot" or ashamed if the teacher points out their superior work to the class. They may find it necessary to quit doing good work to regain their place in the group.

On the other hand, many American Indian/Alaska Native students prefer cooperative learning strategies (Cajete, 1999). They find activities enjoyable that bring them together with friends or acquaintances in shared group activities (Ward, 1993). This holds particularly true for athletic events (Ager, 1976; Mills, 1999; Nuby, 1995; Oxendine, 1988; Swisher & Deyhle, 1989). Competition is unfair and situations are avoided if one student is made to look better than another does. As Swisher and Deyhle (1989) pointed out, Indian children hesitate to engage in an individual performance before the public gaze, especially where they sense competitive assessment against their peers and equally do not wish to demonstrate by their individual superiority the inferiority of their peers. In addition, to brag about one's self and personal abilities are, for most tribes, considered to be most ill mannered (Tafoya, 1989). However, as Adams (1995), Mills (1999), and Oxendine (1988) pointed out, in team sports, where performance is socially defined as benefiting the group, American Indian/Alaska Native students can become excellent competitors.

Relationship to Current Practice

In order to better understand the social position of American Indian/Alaska Native communities in contemporary society, educators must critically examine the history of one of the very tools through which we hope to achieve social equity—education. As current education reform and initiatives are being proposed, considered, and enacted, educators and policymakers must learn the lessons of educational history. As presented earlier in this article, the troubling feature of the conventional educational ethos and practices with respect to improving the achievement of American Indian/Alaska Native students is the "deficit syndrome." Far too many educators attribute school failure to what American Indian/Alaska Native students don't have and can't do. Thus, many tribal

communities have viewed traditional education as the cornerstone to self-determination and mobility. As a result, American Indian/Alaska Native students have a long history of engagement with and struggle for equitable schooling.

The work to create culturally responsive schools for American Indian/Alaska Native students today will fall to practitioners who will require encouragement, support, and a conceptual framework for developing significantly better conditions for teaching and learning. Meanette Kape' ahiokalani Padeken Ah Nee-Benham and Joanne Elizabeth Cooper's (2000) book, *Indigenous Educational Models for Contemporary Practice*, Lyn Ellen Lacy's (2002) book, *Creative Planning Resource for Interconnected Teaching and Learning*, and Beverly Klug and Patricia Whitfield's (2002) book, *Widening the Circle*, all provide a variety of promising practices that links the best thinking (theory and inquiry) on Indian education with the best practices (leadership, teaching, and learning) across diverse American Indian/Alaska Native communities.

The reform movement of the 1990s and 2000s provides a rare opportunity for education practitioners. They have a mandate to broadcast their virtues, revitalize tired practices, relabel some strengths, and alter some weaknesses. Learning styles research like this will help them augment their own intuition with some general ideas and principles.

Implications for Educators

An obvious conclusion from the findings indicates that the culture of the American Indian/Alaska Native student plays a major role in learning style. It is true that Indian students should not be stereotyped or all placed in the same category because the inherent abilities of the students within any American Indian/Alaska Native group are varied as in any other group of students. However, it can be concluded that a greater number of American Indian/Native Alaska Natives have definite learning style tendencies such as strength in the visual modality and a preference for global, creative, and reflective styles of learning.

Because of the distinct learning style preferences of American Indian/Alaskan Native students, there is a pressing need for teachers to employ culturally responsive teaching techniques. When American Indian/Alaska Native students are confronted with White teachers who do not understand the Indian students' learning style preferences and cultural values, the result is often "cultural discontinuity" or lack of "cultural synchronization" between students and their teachers. The outcome of this pedagogy is miscommunication between students and teachers, resulting in hostility, alienation, diminished self-esteem, and eventual school failure (Halpin, Halpin, & Whiddon, 1980; Pewewardy & Willower, 1993). Future teachers must be reflective practitioners who possess the observational, empirical, and analytical skills necessary to monitor, evaluate, and revise their teaching techniques based on the learning styles of students they teach.

Future teachers must have experience with Indian students during their teacher training programs. They need to understand and respect the students' cultural knowledge base. This includes studying the history and culture of Indian

students that incorporate their values, stories, music, and myths (Pewewardy, 1999). Future teachers also need to be cognizant that classroom practices must be compatible with the American Indian/Alaska Native students' linguistic language styles, cognitive functioning, motivation, and the social norms to which they are accustomed. The implication is that each learner must be viewed as an ever changing "cultural being," and a product of unique tribal cultures.

The teacher must also be aware of the fact that even though a large number of White learners prefer lecture, sequence, and the building of a concept from details, a greater percentage of American Indian/Alaska Native students learn best when holistic strategies are employed. They learn best when they are presented first with the big idea, then seeing the details that relate to it, rather than the longer process of building the generalities from the details (Gilliland, 1999). They readily see the overall picture before they concern themselves with details. This information is especially useful for White social studies teachers who are prone to present concepts step-by-step from small details. Instead, the teacher should be concerned with whole emerging patterns; then perhaps let the students learn through stories, parables, pictures, imitations, music, and poetry.

Because many of the values of the American Indian/Alaska Native students are taught through storytelling, students can benefit from this type of instruction. Teachers can utilize stories and legends that teach morals; thus values can become a part of the students' subconscious minds and influence their way of thought. Moreover, the oral literature of the community and storytelling within a teacher's class can be the basis of beginning instruction in reading and writing. In addition, it is beneficial for the teacher to tap into the real lives of Indian heroes, past and present. Telling the stories of real life people and discussing what made them great can help shape the character of American Indian/Alaska Native students. Thus, the involvement of elders or grandparents should be promoted. They can serve as great sources of cultural knowledge, and serve as story, myth, or legend tellers.

A review of the literature also suggests that the teacher must be cognizant of the tendency for the American Indian/Alaska Native student to avoid competition. Instead, the student prefers situations that are nonconfrontational (DuBray, 1993). Learners who hold these cultural values tend to view displays of knowledge in the classroom as one person gaining at the expense of others. Since approval from the tribal peer group is more important to them than approval from the instructor, such learners will refrain from voluntary classroom discussion. Thus, class participation is often incompatible with their cultural values. Instead, many American Indian/Alaska Native students prefer activities that promote cooperation. Therefore, the teacher should capitalize on this spirit of cooperation. Subsequently, cooperative learning is an excellent way to lessen competition and help students develop a sense of teamwork and pride in one's group. Allowing students to work in groups or pairs to tutor peers or to tutor younger children is also an excellent teaching strategy. American Indian/Alaska Native students enjoy sitting in groups or circles using group problem-solving

techniques. The use of team games is also very congruent with their learning styles. Activities should be avoided that increase positive self-talk; for example, "something I like about myself" should be avoided. While this strategy might work well in the White classroom, it may be detrimental in the American Indian/Alaska Native classroom.

As in any effective teaching and learning situation, the teacher must provide multiple means of assessment. Portfolio assessment, paper-and-pencil tests, non-standardized tests, and criterion-referenced tests used in conjunction with norm-referenced, formal standardized assessment provide the teacher with a better view of the learners' capabilities. Often when single methods of assessments are employed, low achievement results. This does not necessarily mean that the American Indian/Alaska Native student is not motivated or not familiar with the material. Instead, testing procedures may be incompatible with learning style preferences as well as language and culture (McShane & Plas, 1994).

It is extremely important that the teacher be aware that low achievement does not necessarily reflect lack of motivation. Instead, complex personal and societal factors such as feelings of injustice and discrimination, poverty, and dysfunctional family life may contribute to low self-esteem and feelings of rejection, isolation, and anxiety. The teacher must recognize these contributing factors in school failure and provide culturally relevant materials and activities that promote self-confidence. For example, the inclusion of information about famous Indian athletes, actors, singers, artists, or writers can help promote a sense of pride in the Indian student. Such activities send a strong message to students that a teacher cares about his or her students and what is important to those students.

The learning styles research is open to criticism on several levels. First, only a few styles (e.g., field-dependence/field-independence, reflectivity/impulsivity) have been researched extensively; few have compared students within or among their tribal nations. Second, this research rarely is linked to issues regarding teachers' learning styles and/or teaching pedagogies. And, perhaps most importantly, there is little evidence to suggest that distinguishing students according to their learning styles makes any significant differences in their academic performances. Finally, the bulk of the learning styles research has been conducted with children rather than adults (Conti & Fellenz, 1991). Consequently, it is unclear how or whether the current findings apply to the field of adult Indian education (Aragon, 2002; Charter, 1996). Each of these areas needs further research before we can accept or reject the saliency of learning styles as a way of addressing the needs of American Indian/Alaska Native students.

Much of the learning styles research on American Indian/Alaska Native students has as its ideological base the primacy of the individual and individual differences. However, this may be an ideological blind spot that prevents researchers from understanding the role of tribal culture in supporting students' learning and teachers' instructional decisions. Thus, we may need to turn to other disciplines for additional insights into school performance.

Conclusion

This research indicates that curriculum or educational models that select one body of information to be presented to all students at a set time and at some forced rate cannot possibly accommodate all learners. Valid school reform is that which considers students' differences and strengths. It is no longer possible to deny the existence of cultural assets and variations among culturally different groups. Although educators verbalize that all children, regardless of age, race, or religion, have an equal right to effective education, they have not realized the extent to which ethnic and cultural differences influence learning and achievement (Dunn, Gemake, Jalali, & Zenhausern, 1990).

The failure of programs aimed at reducing dropout rates and the inability to produce effective communication between majority and minority members are, in part, due to misconceptions and stereotypical notions about American Indian/Alaska Native students. Educators must guard against stereotypical views gleaned from representations of a culture in the literature that ignore the dynamic lived realities of the people. Although such literature is a first step, it must be supplemented with real interaction with students, parents, and the community (MacIvor, 1999). New models and approaches must evolve that not only deal with these misconceptions, but also, more importantly, operate within a framework of equal respect for the similarities and differences among Native American/Alaska Native students.

Researchers have not begun to scratch the surface of the profound pedagogical traditions of American Indian/Alaska Native students. These traditions remain for educators to see today in the form of traditional tribal educational practices. However, during the past 500 years, every attempt has been made to dismember all independent American Indian/Alaska Native educational attempts, root and branch, and to defame and stigmatize anything that survives in order to disconnect American Indian/Alaska Native students from their ancestors.

Despite attempts to report the links between learning styles research (especially on language and thought), the vast majority of research on learning with American Indian/Alaska Native students made direct claims of deficits up until the 1960s (Deyhle & Swisher, 1997). Although the formal aspects of a Western education have served the colonizers' primary intent of oppression and assimilation (Duran & Duran, 1995), educators now have the unprecedented opportunity to integrate teaching beliefs surrounding cultural identity and language (Haynes Writer, 2001; McAlpine, Eriks-Brophy, & Crago, 1996). To maximize learning of American Indian/Alaska Native students, teachers can also infuse a traditional, culture-based curriculum (Cornelius, 1999; Harvey, Harjo, & Welborn, 1995), returning to the teaching and learning of art (Cajete, 1994) and the elders (Ross, 1996). It is important to learn from a variety of perspectives about educational excellence, especially from the learning styles' strengths of American Indian/Alaska Native students. Educators who conduct research in

American Indian/Alaska Native communities must understand the historical relationship between tribal communities and academia (Lomawaima, 2000), ascertain compliance with tribal law (Bowekaty, 2002), draw upon the wellspring of culturally responsive traditions, and help determine the overall beneficial effects the research will have for American Indian/Alaska Native communities.

In order to provide a viable educational environment for American Indian/Alaska Native students, teachers should try to identify the learning styles of their students, match their teaching styles to students' learning styles for difficult tasks (Lippitt, 1993), and broaden "deficit thinking" learning styles through easier tasks and drills. All students, regardless of ethnicity, stand to benefit from an understanding of different cultural values. The implementation of programs targeted toward the learning styles of students of varying cultures is consistent with American values, such as tolerance of difference and equality for all. An understanding of cultural values of others such as respect for elders that characterizes the American Indian/Alaska Native cultures is likely to become increasingly desirable as the percentage of elderly Americans increase in the coming years. Similarly, learning the American Indian/Alaska Native value of associating and living in harmony with nature may become essential as we run out of natural resources. As we become an increasingly diverse society, we must learn to understand and know how to work with other cultures that differ from our own.

Last, but certainly not least, when differences in learning styles are addressed, the American Indian/Alaska Native student will become motivated and encouraged to succeed. Personalization of educational programs make learning more meaningful to all involved. Ultimately, American Indian/Alaska Native students must believe that there is respect for their cultural backgrounds. Without this knowledge, the results can be disastrous. "Many educational traditions and practices have been lost or only remain in the memories of survivors of the indigenous peoples' holocaust" (Spring, 2000, p. xi). If Americans are to embrace diversity, the conscious and unconscious expressions of racism within our society must be identified and done away with (Pine & Hilliard, 1990). There is no choice. Schools can no longer afford to cast themselves as the guardians of the status quo, of some idealistic view of mainstream America that ignores the diversity of a multicultural, multiracial, and multitribal society.

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Endnotes

- ¹Given the multiplicity of worldviews and perspectives on the important issue of terminological identity, the term *American Indian/Alaska Native* is used in this article to refer to the descendants of the original inhabitants of the U.S., rather than *Native American*. Whenever possible, however, I attempted to refer to "American Indian/Alaska Native" by their preferred tribal community, tribal affiliations (e.g., Choctaw, Chickasaw Nation, etc.). But I understand that group members may self-identify themselves using broader terms, such as Indigenous Peoples, to place their tribal identities in a wider, more global context.
- ²Culturally responsive teaching centers the classroom instruction in multiethnic cultural frames of reference (Gay, 2000).
- ³Deculturalization is the educational process of destroying a people's culture and replacing it with a new culture (Spring, 2001).
- ⁴According to Churchill (1994), the term *genocide* was coined by Polish jurist Raphael Lemkin in 1944 by combining the Greek *genos* ("race" or "tribe") and the Latin *cide* ("killing").

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