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Culturally Responsive Schooling for Indigenous Youth: A Review of the Literature

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This article reviews the literature on culturally responsive schooling (CRS) for Indigenous youth with an eye toward how we might provide more equitable and culturally responsive education within the current context of standardization and accountability. Although CRS for Indigenous youth has been advocated for over the past 40 years, schools and classrooms are failing to meet the needs of Indigenous students. The authors suggest that although the plethora of writing on CRS reviewed here is insightful, it has had little impact on what teachers do because it is too easily reduced to essentializations, meaningless generalizations, or trivial anecdotes—none of which result in systemic, institutional, or lasting changes to schools serving Indigenous youth. The authors argue for a more central and explicit focus on sovereignty and self-determination, racism, and Indigenous epistemologies in future work on CRS for Indigenous youth.

KEYWORDS: Indian education, Indigenous peoples, multicultural education.

Culturally responsive schooling (CRS) for Indigenous¹ youth has been widely viewed as a promising strategy for improving the education and increasing the academic achievement of American Indian and Alaska Native² (AI/AN) students in U.S. schools. CRS is advocated for not only by a number of scholars but by many tribal communities and Indigenous educational leaders as well (Beaulieu, 2006b; Beaulieu, Sparks, & Alonzo, 2005; Demmert, Grissmer, & Towner, 2006; Demmert, McCardle, Mele-McCarthy, & Leos, 2006; Dick, Estell, & McCarty, 1994; Klump & McNeir, 2005). Coming largely out of the cultural difference literature, CRS assumes that a

firm grounding in the heritage language and culture indigenous to a particular tribe is a fundamental prerequisite for the development of culturally-healthy students and communities associated with that place, and thus is an essential ingredient for identifying the appropriate qualities and practices associated with culturally-responsive educators, curriculum, and schools. (Alaska Native Knowledge Network, 1998)

This educational approach requires a shift in teaching methods, curricular materials, teacher dispositions, and school–community relations.

The growing diversity of students in schools paired with the continued homogeneity of teachers makes the call for CRS more important than ever:

There are approximately 624,000 AI/AN students enrolled in elementary and secondary schools in the United States; they account for 1% of the total public school enrollment (Freeman & Fox, 2005). Approximately 92% attend public schools while 7% attend schools operated or funded by the Bureau of Indian Affairs. (Tippeconnic & Faircloth, 2006, p. 1)

When the academic performance of Indigenous students is compared to that of other groups of students, disparities are evident. For example, AI/AN students are more than twice as likely as their White peers to score at the lowest level on the National Assessment of Educational Progress (NAEP) reading assessments and almost 3 times as likely to score at the lowest level on the NAEP assessments for mathematics (Freeman & Fox, 2005). On the other hand, White students are 3 to 5 times more likely than their AI/AN peers to score at the highest levels on both the NAEP reading and mathematics assessments (Freeman & Fox, 2005). Similar disparities are found on almost every measure of academic success (i.e., from standardized test scores to graduation rates to discipline referrals to postsecondary completion to presence in special education and gifted and talented programs). Schools are clearly not meeting the needs of Indigenous students and change is needed if we hope to see greater parity in these (and other) measures of academic achievement. CRS is central to discussions about improving the education of Indigenous youth.

The primary purpose of this article is to review the literature on CRS for Indigenous youth in the United States. There is a significant amount of research and writing on this topic and on the topic of multicultural education, broadly speaking. The abundance of this work makes it difficult for most educators to access and make sense of this topic. We hope to provide a comprehensive, yet readable, overview of this work to prompt discussion and changes in practice among educators working with Indigenous students. Change is clearly needed. Although CRS has been advocated for over at least the past 40 years, we still see schools and classrooms that are failing to meet the needs of Indigenous students. The increased emphasis on standardization and high-stakes accountability under the No Child Left Behind Act of 2001 (NCLB) seems to have resulted in less, rather than more, culturally responsive educational efforts and more, rather than no, Indigenous children left behind in our school systems. We want to suggest that although the plethora of writing on CRS that we review here is insightful, it has had little impact on what teachers do because it is too easily reduced to essentializations, meaningless generalizations, or trivial anecdotes—none of which result in systemic, institutional, or lasting changes to schools serving Indigenous youth. We hope, then, that this review will initiate and contribute to discussions about how we might provide more effective teacher preparation that both avoids these common pitfalls and helps educators negotiate the context of NCLB in ways that result in more equitable and culturally responsive education for Indigenous youth throughout the country.

To gather scholarship for this article, the Education Resources Information Center database was searched for references between the years 1980 and 2007. The following search terms were used: *instructional strategies*, *culturally relevant teaching/pedagogy/education*, *culturally congruent teaching/pedagogy/education*, and *culturally responsive teaching/pedagogy/education*. And all of these were paired with *Native American*, *American Indian*, and *Indigenous*. The *Journal of American Indian Education* was also searched for the same date range using the same search terms, as were an online book catalog, Amazon.com, and Google.³ All results were compiled with abstracts where available. After compiling the numerous articles, books, and Web sites, we read and typed notes on each of them. We then coded these notes according to themes derived directly from the notes.

In what follows, we first provide an historical overview of efforts to articulate CRS for Indigenous youth. Second, we discuss a number of definitions offered in the literature for CRS, including both what is and what is not included in most definitions. Third, we review the most common reasons given for educators to engage in CRS for Indigenous youth. Fourth, we provide an overview of the two most frequently discussed topics related to CRS for Indigenous youth: pedagogy and curriculum. Fifth, we discuss teacher characteristics that are necessary for engaging in CRS. Sixth, we discuss school- and district-level issues related to CRS. And finally, we share some case studies and examples of successful attempts at CRS for Indigenous youth. Throughout each of these sections, emphasis is on synthesizing and pulling out patterns from the large body of scholarship on CRS. Our guiding thesis throughout this discussion is that truly culturally responsive learning for Indigenous youth is a highly complex endeavor that requires systemic change within and across a number of levels in our schooling system. We offer seven areas of analysis in an effort to highlight these complexities and nuances. We will suggest that more explicit and sustained attention must be paid to tribal sovereignty and self-determination, the racism experienced by Indigenous youth, and Indigenous epistemologies if educators and scholars hope to move away from the essentializations, generalizations, and easy anecdotes that seem to derive from much of the literature and instead move toward engaging in genuinely culturally responsive learning for Indigenous youth.

Before proceeding, we should explain our use of two important terms: *culture* and *Indigenous*. We fully recognize that the prevailing construct of *culture* is an anthropological invention created by Western science (Smith, 1999; Wagner, 1981), however we also understand that *culture* is often used to talk about a wide range of things, beliefs, and behaviors. In a recent discussion in *American Anthropologist*, several anthropologists and a legal scholar debated the concept of culture (Borofsky, Barth, Shweder, Rodseth, & Stoltzenberg, 2001). We do not intend to repeat the arguments here, but we do want to argue that culture is many things to many people. Following Brayboy (2005), we use the idea of culture as a concept that is simultaneously fluid and dynamic, and—at times—fixed and stable. Like an anchor in the ocean, it is rooted to some place—for many Indigenous peoples, the seafloor is the lands on which they live and their ancestors lived and roamed before them. The anchor shifts and sways, like culture, with the changing tides, ebbs, and flows of the ocean or the life, contexts, and situations for Indigenous peoples.

The three overarching themes presented by Borofsky et al. (2001) are informative because they illustrate the complexity of the concept of culture. In one sense, culture is “beliefs, behaviors, and/or artifacts [that] are portrayed as developing through time, often toward some progressive end” (p. 433). This definition addresses the dynamic and settled nature of culture by addressing beliefs and behaviors, but it also offers room for movement and growth. Deloria (1970) has argued that those practices (or a form of culture) growing from Indigenous traditions must change, adapt, and adjust because little can be expected in terms of change from the “power brokers” in society. These abilities to change and adapt are, at times, in tension with the second and third concepts of culture outlined by Borofsky et al. (2001): “Culture is often portrayed as the beliefs and/or behaviors people retain despite interaction with the ‘West’” (p. 433). This form of culture is rooted in resistance. The third form “is still more political”; it focuses on “a people’s shared beliefs and behaviors that distinguish them from others and, at the same time, offer them a sense of shared meaning” (p. 433). For Indigenous peoples, then, the second form may be links to traditions and/or ontologies (ways of being in the world) that set tribal peoples apart and separate them from members of the larger population in the United States. These ontologies directly relate to the concept of nation building inherent in the third concept of culture. Returning to the analogy of the anchor, these forms of culture are rooted in something that is solid and mostly unchanging. When the changes do occur, the anchor shifts but eventually settles and becomes rooted to another (mostly) stable form. These forms of culture may be manifested in the meanings associated with ceremonies or traditions that have been carried out for thousands of years and that define—at least in part—the nature of a people. Taken together, these three forms of culture offer a range of possibilities for our discussion. Most important, we believe it is important to agree on the fact that there are components of belief systems and behaviors that have remained stable but that Indigenous peoples have adapted and adjusted throughout time, both for survival and because they are, like all humans, groups of peoples who create and transmit culture.

Throughout this article, we will use *American Indian* and *Alaska Native* interchangeably with *Native* and *Indigenous* to reference groups of people who claim the earliest connection to land bases in the United States. Indigenous peoples are those who have inhabited lands before colonization or annexation; have maintained distinct, nuanced cultural and social organizing principles; and claim a nationhood status. Indigenous peoples are both self-identified and are recognized by members of their community.⁴ Importantly, the recently approved Declaration on the Rights of Indigenous Peoples provides an internationally recognized statement on the rights of Indigenous peoples throughout the world to maintain their cultures and languages.⁵

Historical Overview of the Push for CRS for Indigenous Youth

It will be helpful for readers to have an historical perspective of the interest in and push for CRS among Indigenous youth. CRS is certainly not a new phenomenon or a passing fad; instead, it has been central to tribal nations’ calls for improved schooling since at least the early part of the 20th century.

Perhaps the first officially recognized call for CRS came in 1928 with the publication of the *Meriam Report* (Meriam et al., 1928; Prucha, 2000). Although the *Meriam Report* criticized a number of areas of governmental policy with respect

to tribal nations, the report noted Indigenous education as one of the most deficient areas with the most negative consequences for tribal communities. The *Meriam Report* called for more Indigenous teachers, early childhood programs, and the incorporation of tribal languages and cultures in schools. The report was “a forerunner in the idea that incorporating culturally-based education was a necessary component of a school’s culture if Native American students were to succeed academically as students and play a meaningful role as citizens” (Demmert & Towner, 2003, p. 2). Although the *Meriam Report* was a clear call for change, little change occurred until more than 30 years later.

In the 1960s and 1970s, tribal nations and urban Indian communities increased pressure on the federal government to facilitate educational change and greater tribal control over the education of Indigenous youth. These efforts led to a number of important pieces of legislation and federal investigations related to Indigenous education and, specifically, the role of tribal languages and cultures in schools serving Indigenous youth. In 1969, the U.S. Senate issued a report titled *Indian Education: A National Tragedy—A National Challenge*, which was the beginning of a series of important events (Special Subcommittee on Indian Education, 1969). The Havighurst Report of 1970 offered data on the academic performance of Indigenous youth and the lack of curriculum that supported tribal languages and cultures in schools (Fuchs & Havighurst, 1973; Havighurst, 1970), the Indian Education Act of 1972 included opportunities and funding for creating tribal culture and language programs for schools and support for increasing the number of Native educators, and the Indian Self-Determination and Education Assistance Act of 1975 facilitated the development of schools and educational programs that were tribally controlled (Demmert & Towner, 2003).

In the 1980s, the educational anthropology literature exploded with a focus on CRS (called by a number of names; see, e.g., Brown, 1980; Deyhle, 1986; Greenbaum & Greenbaum, 1983; McLaughlin, 1989). This scholarship, combined with related work in the fields of education and multicultural education, seemed to bring the discussion of CRS into the mainstream. Furthermore, the rapidly increasing racial and ethnic diversity among youth in U.S. schools in the 1980s and 1990s also resulted in an increased interest in CRS among a wide array of educators. Scholarship from disciplines as diverse as anthropology, psychology, applied linguistics, and sociology added to the growing body of knowledge about the challenges minoritized students were facing in schools. As Pewewardy and Hammer (2003) note, “much was learned about student motivation, power relations, and resistance . . . ; language and cognition . . . ; culture and cognition . . . ; and motivation and learning styles . . . , to mention only a small sample of this body of work” (p. 1).

In the 1990s, another series of federal legislation and reports were issued relating specifically to Indigenous youth in schools. The Native American Languages Act of 1990/1992 formalized the importance of the federal government’s role in preserving, protecting, and promoting the rights and freedoms of tribal language use and preservation. In 1991, the U.S. Department of Education issued a report titled *Indian Nations at Risk: An Educational Strategy for Action Final Report* (Indian Nations at Risk Task Force, 1991), and in 1992, the White House Conference on Indian Education and a follow-up report were completed (White House Conference on Indian Education, 1992). In 1998, President Clinton issued Executive Order 13096 on AI/AN education, which included recognition of the “special, historic

responsibility for the education of American Indian and Alaska Native students,” a commitment to “improving the academic performance and reducing the dropout rate” of Indigenous students, and a nationwide effort among tribal leaders and Indian education scholars to develop a “research agenda” guided by the goals of self-determination and the preservation of tribal cultures and languages (“American Indian and Alaska Native Education,” 1998). This 1998 Executive Order includes the goals of evaluating “promising practices used with” Indigenous students, evaluating “the role of native language and culture in the development of educational strategies,” and assisting “tribal governments in meeting the unique educational needs of their children, including the need to preserve, revitalize, and use native languages and cultural traditions.” However, a new Executive Order (13336) signed into law on April 30, 2004, did not include the final of these three goals (American Indian and Alaska Native Education, 2004); instead, this new Executive Order focuses attention on Indigenous students meeting the goals established in NCLB. This is a significant change and highlights our concern—and that of many Indigenous communities—that schools are moving further away from providing an effective, high-quality, and culturally responsive education to Indigenous youth. We agree with Inupiaq scholar Leona Okakok’s (1989) insightful commentary. She writes, “To me, educating a child means equipping him or her with the capability to succeed in the world he or she will live in” (p. 253). She continues by making a powerful (and political) statement that “education is more than book learning, it is also value-learning” (p. 254). Indeed, to equip a child with the capability to exist in the world requires value judgments about what that child needs to succeed. The values, ideas, and priorities embedded in NCLB are not necessarily shared within tribal nations and Indigenous communities.

Definitions of CRS

The literature on CRS for Indigenous youth is a substantial and still growing body of scholarship. It also comes out of other, even broader, bodies of literature on multicultural education, cultural difference, and improving the academic achievement of youth who are not members of the dominant cultural group in the United States. The general message out of this larger body of scholarship is that students of color and students from low-income backgrounds consistently and persistently perform lower than their peers according to traditional measures of school achievement because their home culture is at odds with the culture and expectations of schools. This mismatch in cultures results in the perennial “achievement gaps,” and in response to these gaps, educators have theorized that schooling must be designed and practiced in ways that more closely match the cultures students bring with them from home. Importantly, this scholarship is not specific to Indigenous youth but rather argues that CRS can lead to improved learning and achievement among all minoritized youth. It is also important to keep in mind that this literature is somewhat inconsistent with respect to the name given to these culturally based educational practices; some of the most commonly used names are culturally responsive, culturally relevant, culture-based, and multicultural education. Various scholars also focus their attention on different aspects of education; some speak only of curriculum, others only of pedagogy, and still others of the entire schooling process (including, for example, disciplinary policies, classroom management, building design, etc.). For the purposes of this article, we will use the

phrase *culturally responsive* and *schooling* rather than *education*. Culturally responsive seems to be the most commonly used name in the literature on Indigenous youth, and we are specifically discussing the schooling of AI/AN students rather than the other places, ways, and means through which these youth are educated. Furthermore, “the dynamic nature of the word ‘responsiveness’ suggests the ability to acknowledge the unique needs of diverse students, take action to address those needs, and adapt approaches as student needs and demographics change over time” (Klump & McNeir, 2005, p. 4).

Before reviewing the literature that focuses on specific aspects of CRS for Indigenous youth, we want to provide a general overview of some of the definitions offered by various scholars for CRS. We are focusing here, and in the remainder of this article, on the scholarship that speaks directly to the education of Indigenous youth. One of the most general but direct explanations is that CRS is that which “makes sense” to students who are not members of, or assimilated into, the dominant social group (Klug & Whitfield, 2003, p. 151). In a similar vein, CRS has also been described as that which “builds a bridge” between a child’s home culture and the school to effect improved learning and school achievement (Pewewardy & Hammer, 2003, p. 1). And related but still more specific, Klump and McNeir (2005) draw on the multicultural education literature to note that

culturally responsive education recognizes, respects, and uses students’ identities and backgrounds as meaningful sources for creating optimal learning environments. Being culturally responsive is more than being respectful, empathetic, or sensitive. Accompanying actions, such as having high expectations for students and ensuring that these expectations are realized, are what make a difference (Gay, 2000). (p. 3)

The ability of educators to engage in CRS requires that they have a certain degree of cultural competence themselves. Becoming a culturally competent educator is a constant learning process that requires flexibility and adaptability on the part of the educator depending on the particular students and contexts with which they are working. Diller and Moule (2005) define *cultural competence* as “mastering complex awarenesses and sensitivities, various bodies of knowledge, and a set of skills that taken together, underlie effective cross cultural teaching” (p. 5). The awareness, knowledge, and skills required are not often the focus of typical teacher education programs, nor have most of the White, middle-class women who become teachers in the United States grown up with this background. Thus, becoming a culturally competent educator requires additional time and energy devoted to this important goal. This can be accomplished in a number of ways, including teachers exploring the communities in which their students live, participating in community events, and collaborating with community members on projects both within and outside of the school (McCarty & Watahomigie, 2004). In what follows, we will briefly review some of the definitions offered for culturally responsive curriculum, teaching, and schooling.

Belgarde, Mitchell, and Arquero (2002) define *culturally responsive curriculum* as that which “generally validates the cultures and languages of students and allows them to become co-constructors of knowledge in the school setting” (p. 43). They go on to explain that teachers must “infuse the curriculum with rich connections to students’ cultural and linguistic backgrounds within family and community contexts”

(p. 43). Klug and Whitfield (2003) rely on Ismat's definition of *culturally responsive curriculum*; they note:

Ismat (1994) characterizes culturally responsive curriculum as that which (a) capitalizes on students' cultural backgrounds rather than attempting to override or negate them; (b) is good for all students; (c) is integrated and interdisciplinary; (d) is authentic and child centered, connected to children's real lives; (e) develops critical thinking skills; (f) incorporates cooperative learning and whole language strategies; (g) is supported by staff development and preservice preparation; and (h) is part of a coordinated, building-wide strategy. (p. 151)

Because the curriculum offered to students is only one aspect of the schooling process, other scholars have focused their energy specifically on the pedagogy and teacher qualities needed for culturally responsive teaching. Pewewardy and Hammer (2003), drawing on the work of Phuntsog (1998), offer a comprehensive summary of this literature; the most important qualities they identify are

(1) cultural literacy . . . ; (2) self-reflective analysis of one's attitudes and beliefs . . . ; (3) caring, trusting, and inclusive classrooms . . . ; (4) respect for diversity . . . ; (5) transformative curriculum to engender meaning. . . Each of these elements has appeared in discussions of effective practice in American Indian and Alaska Native education and each is based on the central and critical role of the teacher in creating a classroom that respects diversity and ensures the self-worth of all children. (p. 1)

And finally, although curriculum and teaching are two central aspects of schooling, they do not make up the totality of the schooling process. Earlier reviews of the literature on CRS have offered helpful and comprehensive summative definitions of CRS. These earlier reviews highlight the idea that CRS entails a number of important elements that relate to curriculum, pedagogy, school policy, student expectations, standards, assessment, teacher knowledge, community involvement, and many more. In the remainder of this article, we will discuss each of these elements by drawing on the literature that specifically addresses CRS for Indigenous youth. First, however, we want to discuss three topics that are rarely included in discussions of CRS: sovereignty, racism, and epistemologies. We argue that these three elements represent a critical hole in most of the current work on CRS and that they are necessary for the successful implementation of CRS for Indigenous youth.

Sovereignty and Self-Determination

One of the most important factors that the brief history of the push for CRS brings to our attention is the central place of sovereignty and self-determination for tribal nations and Indigenous peoples. The unique status of tribal nations as political entities within the United States means that issues of Indigenous education must be understood, researched, analyzed, and developed in ways that take into account the sovereign status and self-determination goals of Indigenous communities (Brayboy, 2005). Unfortunately, however, the overwhelming majority of scholarship on CRS for Indigenous youth is silent on this important issue. Very few authors even mention sovereignty or self-determination let alone connect these concepts to their analyses of CRS.

Although it is far beyond the scope of this article to detail the historical, legal, and ethical foundations of tribal sovereignty and self-determination, a few points

are worth highlighting. Hundreds of treaties and thousands of constitutional rulings, executive orders, and legislative acts have acknowledged and reaffirmed the sovereign status of tribal nations, the unique government-to-government relationship between tribal nations and the federal government, and the trust responsibility of the United States to tribal nations (Wilkins, 1997, 2002; Wilkins & Lomawaima, 2001). The ramifications on education for Indigenous youth are both wide and deep in scope, but they include—at a minimum—that tribal nations have inherent rights to determine the nature of schooling provided to their youth. This right is more threatened than ever given the current conditions under NCLB, high-stakes accountability, and standardization (Lomawaima & McCarty, 2006), which is precisely why clear understandings of sovereignty and self-determination must become central to any future discussions of CRS for Indigenous youth.

In 1991, Kirkness and Barnhardt noted that Indigenous communities desired an education that would bring them “not just empowerment as individuals but empowerment as bands, as tribes, as nations, and as people” (p. 3). Deloria and Wildcat (2001) also note the important connection between self-determination and education, and even more recently, in interviews with tribal leaders across the United States, Beaulieu et al. (2005) noted that sovereignty was one of the central themes identified by interviewees:

Witnesses identified education as a fundamental aspect of tribal sovereignty. The devolution of the trust relationship of the federal government to tribal government is a growing concern, given the growing presence of State governments in the education of Native students in tribal jurisdictions, as well as state involvement in determining the context for BIA funded education including both Tribal and federal operated schools. The need for tribal consultation involving NCLB and the shifting intergovernmental, tribal, federal, and state relationships in Native education was strongly identified. It is noted that States are increasingly controlling the education contexts through standards accreditation and teacher certification which is now aligned with direct Federal management of provisions of NCLB affecting Indian education in State public schools and tribal education while the tribal voice appears to be unnoticed. (p. 19)

The message is clear: Although tribal communities have a strong sense of the connections between education, sovereignty, and self-determination, these connections are rarely recognized among mainstream educators or educational policy makers. An important exception resides in the Coolongatta Statement on Indigenous Rights in Education, which is an international effort among Indigenous peoples from a number of countries to reassert their identities as tribal nations and the status of education as a human right (<http://www.wipcehawaii.org>; King, 2005). But among scholars of Indigenous education, the connections between CRS and sovereignty and self-determination are rarely explicit. In fact, Brayboy’s (2003) point about the “failure to explicate the unique political status of American Indian tribes” (p. 2) in the recent book on CRS for Indigenous youth by Klug and Whitfield (2003) can be extended to virtually all of the books and articles we reviewed. The one exception may be an edited book by Swisher and Tippetconic (1999), but although the editors note that the chapter authors “support the concept of tribal self-determination in education” (p. 295), we found this support more implicit than explicit. This failure among so many scholars writing about CRS for Indigenous youth represents

a critical area for new work—and an area that educators must become more familiar with and knowledgeable about.

Racism in Schools

Another important area that was rarely acknowledged in the literature reviewed for this article is the racism present in schools and endured by Indigenous youth across the country. A few scholars note the important role racism has played and continues to play in the academic achievement of Indigenous students, but as with sovereignty and self-determination, the concept of racism was rarely integrated with analyses of CRS. Cleary and Peacock (1998) note this absence as well: “No existing book and few articles on teaching American Indian students have addressed the complex and troubling issues that characterize contemporary American Indian education within the context of racism and oppression” (p. 61). This absence is curious because “effective [teaching] strategies are easily thwarted by potent sociocultural forces endemic to American life, including forces of ethnocentrism and racism” (Garcia & Ahler, 1992, p. 25). We do not mean to suggest that no scholarship exists on the racism faced by Indigenous youth in schools; rather, we are arguing that the scholarship on CRS rarely includes discussions of racism and how racism might relate to the need for and the effectiveness of culturally responsive educational practices.

We know that racism is a pervasive and consistent element in the schooling experiences of Indigenous youth. Students experience racism in a number of ways and from a variety of sources, including paternalism, prejudice, harmful assumptions, low expectations, stereotypes, violence, and biased curricular materials (see, e.g., Deyhle, 1995; Hickling-Hudson & Ahlquist, 2003; Sparks, 2000; Ward, 1998). Another common form of racial oppression against Indigenous youth in schools is the use of euphemisms (Hilliard, 1978). Through euphemisms, issues of concern are presented in ways that do not make the majority or dominant social group uncomfortable. As Grant and Gillespie (1993) note,

in the case of schooling, the problem would be the lack of success of Native students in the present school system. Native students are portrayed as having too many problems, thereby freeing educators from acknowledging that they and the system are the real problem. (p. 28)

These sorts of euphemisms are part of a larger culture of whiteness that predominates in most U.S. schools; this whiteness is manifest in the predominantly White educational faculty, the social relations, the norms and expectations, and the inequitable access to resources and quality education within our school system (see, e.g., Castagno, 2006; Lee, 2005; Sleeter, 1996). These are just a few of the reasons it is critical that educators attempting to engage in CRS understand the dynamics of racism and the ways in which racism and oppression affect efforts at providing a high-quality CRS to Indigenous youth. The Critical Race Theory scholarship (see, e.g., Bernal, 2002; Delgado & Stefancic, 2001; Ladson-Billings & Tate, 1995; Tate, 1997) offers a more broad discussion of the pervasiveness of racism in society, and Brayboy’s (2005) work on Tribal Critical Race Theory along with Grande’s (2004) *Red Pedagogy* sheds light on the various forms of colonization affecting Indigenous students (see also Castagno, 2005; Castagno & Lee, 2007). As with the concepts of sovereignty and self-determination, racism,

its manifestations, and its effects must be made a more explicit part of the discussion among scholars researching and writing about CRS.

Indigenous Epistemologies

Indigenous epistemologies is another theme that is rarely discussed in the scholarship on CRS. We suggest, however, that any discussion of CRS for Indigenous youth must take into account issues of sovereignty and racism as well as the epistemologies of Indigenous peoples and tribal communities. The task of succinctly defining what we mean by Indigenous epistemologies here is daunting. Instead of offering a detailed definition, we will offer some of the components that compose the notions of Indigenous epistemologies. Battiste (2002) notes that “Indigenous knowledge comprises the complex set of technologies developed and sustained by Indigenous civilizations” and that these knowledges are “passed on to the next generation through modeling, practice, and animation” (p. 2). Other Indigenous scholars note that these knowledges serve as threads, which, once woven together, make up the cultural cloth of particular communities (Meyer, 2001). There are components of these knowledge systems that include a central focus on communities (Battiste, 2002; Deloria, 1970), a sense of relationality (Burkhardt, 2004; Marker, 2004; Meyer, 2001), notions of responsibility to self and community (Basso, 1996; Burkhardt, 2004; Deloria, 1970; Medicine & Jacobs, 2001), a rootedness in place (Barnhardt & Kawagley, 2004, 2005; Basso, 1996; Cajete, 2001; Marker, 2004; Okakok, 1989), and a responsible use of power (Basso, 1996; Stoffle, Zedeno, & Halmo, 2001). Indeed,

the educational journey of modern Indian people is one spanning two distinct value systems and worldviews. It is an adventure in which the Native American sacred view must inevitably encounter the material and pragmatic focus of the larger American society. (Deloria & Wildcat, 2001, p. v)

This is not to say that all Indigenous peoples ascribe to the same epistemology. Battiste (2002) reminds us of this reality:

Within any Indigenous nation or community, people vary greatly in what they know. There are not only differences between ordinary folks and experts, such as experienced knowledge keepers, healers, hunters, or ceremonialists, there are also major differences of experiences and professional opinion among the knowledge holders and workers, as we should expect of any living, dynamic knowledge system that is continually responding to new phenomena and fresh insights. (p. 12)

We must be vigilant in our resistance to essentialize and generalize any group of people, but we must also come to understand that multiple epistemologies exist and are valid and that these epistemologies are intimately connected to schooling, education, teaching, and learning. Furthermore, reclaiming Indigenous knowledges and epistemologies is an important strategy toward the actualization of sovereignty and self-determination among tribal nations (Wilson, 2004).

One of the most frequently noted differences between Indigenous epistemologies and dominant mainstream epistemologies is the holistic nature of the former. Multiple scholars have explained the Indigenous worldview as placing emphasis on the big picture and its meaning rather than the smaller parts that make up the whole (Deloria & Wildcat, 2001; Rhodes, 1994; Swisher & Tippeconnic, 1999). In a similar vein, other scholars have noted the relational worldview of many

Indigenous peoples in which connections and interrelations between living beings and the natural world are central to understanding and living in the world (Cleary & Peacock, 1998; Klug & Whitfield, 2003).

Another aspect of epistemology concerns the nature of knowledge. Rhodes (1994) explains that whereas the majority of Americans see knowledge as available for anyone to gain and use, many Navajo people see knowledge as more restricted and subject to appropriate use. There are some things that are not meant to be known or are only meant to be known by particular people. Furthermore, with knowledge comes the burden of using it correctly and using it for the good of the group rather than for individual gain. Understanding varying conceptions of knowledge is central to understanding and practicing CRS for Indigenous youth. As Deloria and Wildcat (2001) note,

as Indians we know some things because we have the cumulative testimony of our people. We think we know other things because we are taught in school that they are true. The proper transition in Indian education should be the creative tension that occurs when we compare and reconcile these two perspectives. (p. 86)

They further explain that knowledge in mainstream educational settings is generally the memorization of facts and a narrow set of specialized concepts and rules. This is manifested in the divisions schools draw between subject areas and the strict categorization of our curriculum. Deloria and Wildcat (2001) explain that within Indigenous epistemologies, knowledge of a unified and complex reality is far more valuable. Battiste (2001) extends this when she cautions scholars to resist the urge of seeing Indigenous knowledge systems in opposition to mainstream ones. She notes:

Indigenous scholars discovered that Indigenous knowledge is far more than the binary opposite of western knowledge. As a concept, Indigenous knowledge benchmarks the limitations of Eurocentric theory—its methodology, evidence, and conclusions—reconceptualizes the resilience and self-reliance of Indigenous peoples, and underscores the importance of their own philosophies, heritages, and educational processes. Indigenous knowledge fills the ethical and knowledge gaps in Eurocentric education, research, and scholarship. By animating the voices and experiences of the cognitive “other” and integrating them into educational processes, it creates a new, balanced centre and a fresh vantage point from which to analyze Eurocentric education and its pedagogies. (p. 5)

This new vantage point can lead to a rethinking of the ways that epistemology informs the CRS literature.

Some understanding of epistemological concerns is important for educators hoping to engage in CRS for Indigenous youth because one’s epistemology is fundamental to how he or she sees the world, understands knowledge, and lives and negotiates everyday experiences. We do not mean to suggest here that teachers must give up their own epistemologies and adopt those of the community in which they teach. Indeed, this may be neither possible nor appropriate in some cases. Instead, educators must come to know that multiple epistemologies exist and that their students may come to school with a very different worldview than they themselves have grown up with. Multiple epistemologies can and must coexist within

school settings (Herr, 1995; Jacobs & Reyhner, 2002), and we would likely serve Indigenous youth more effectively if we did a better job integrating multiple epistemologies within our pedagogy, curricula, and educational policies.

We want to reiterate that part of what we discovered in our review of the literature on CRS for Indigenous youth was the absence of the three concepts that seem to us to be of utmost importance when considering the schooling of Indigenous youth: self-determination and tribal sovereignty, racism, and Indigenous epistemologies. Especially in the current context of standardization and accountability, these are critical areas for inquiry, research, analysis, and theorizing. Although our goal in what follows is to synthesize the existing literature, we will also suggest ways that issues related to self-determination and tribal sovereignty, racism, and Indigenous epistemologies might be integrated into the existing scholarship to advance an even stronger and more nuanced understanding of CRS for Indigenous youth.

Reasons Offered for CRS

A number of reasons are cited in the scholarship as to why educators should engage in CRS for Indigenous youth. These reasons are about, first, what students come to school with and, second, what educators want students to leave school with. CRS is seen by many scholars as necessary because Indigenous students come to school with different learning styles and cultural practices that result in incongruity between teaching and learning. The learning styles and cultural differences of Indigenous youth and tribal communities are perhaps the two most common themes addressed in the literature on CRS for Native students. It is important to note, however, that these two emphases place the focus of the “problem” on Indigenous peoples rather than on schools or educators. CRS is also viewed by many scholars as necessary because its goal is to produce students who are bicultural and thus knowledgeable about and competent in both mainstream and tribal societies.

Learning Styles of Indigenous Youth

For many years now, various scholars have argued that Indigenous peoples possess particular learning styles that put them at a disadvantage in schools because schools generally assume a very different learning style. Ross (1982, 1989) offers a representative example of the oft-cited right-brain dominance perspective. He argues that Indigenous peoples are right-brain dominant and that schooling for these youth should, therefore, address right-brain functions, such as holistic perspectives, instinct, dance, music, spatial orientation, and feminine qualities. Even more recently, Goin (1999) makes the same argument that “American Indians are primarily right-brained” (p. 2) and that right-brained intelligences include spatial, musical, interpersonal, and bodily kinesthetic. It is important to note that much of the work on brain dominance, Ross’s included, is both racist and sexist in nature. Scholars and educators must continue to be alert to assumptions and expectations that construct Indigenous youth and communities in these ways.

Closely related to the brain dominance arguments are discussions of learning styles. Although multiple definitions of learning styles exist in the literature, most revolve around the notion that one’s learning style is their most commonly used and most effective mental processes and instructional settings (More, 1989). Because one’s learning style is the way in which they most easily and effectively

learn, students who are taught in their preferred learning style are said to demonstrate higher levels of school achievement (Gilliland, 1995). Scholarship on learning styles generally argues that youth from similar cultural backgrounds share a common learning style. As Gilliland (1995) notes, “although there are great individual differences, common patterns of thinking styles, learning styles, and interests characterize students who share a common cultural background” (p. 52). More (1989) concurs and adds that learning styles are acquired through life experiences, which explains how culture has an influence on them.

In his review of the Native American learning styles scholarship, More found five dimensions of learning styles: global/analytic, verbal/imaginal, concrete/abstract, TEF (trial, error, feedback)/reflective, and modality. Like other scholars, he suggests that Indigenous youth generally fall on the opposite side of these dimensions than the majority of students in public schools. Most scholars agree on a general set of learning style characteristics shared by Indigenous youth. Butterfield (1994) offers a representative summary by noting that “many American Indian and Alaskan Native students show strengths in visual, perceptual, or spatial information as opposed to information presented verbally and frequently use mental images rather than word associations” (p. 4).

In our review, the most commonly cited learning styles for Indigenous youth included visual, hands-on, connecting to real-life, direct experience, participating in real-world activities, global, seeing the overall picture before the details, creative, holistic, reflective, collaborative, circular, imaginal, concrete, simultaneous processing, observation precedes performance, and naturalistic (Cleary & Peacock, 1998; Davidson, 1992; Gilliland, 1995; Goin, 1999; Hilberg & Tharp, 2002; More, 1989; Sparks, 2000; Swisher & Deyhle, 1989; Tharp & Yamauchi, 1994). This scholarship supports Swisher and Deyhle’s (1989) conclusion that “American Indian students come to learn about the world in ways that are different from mainstream students” (p. 4). In their very recent review, Lomawaima and McCarty (2006) found similarly cited categories as we did, but they caution against making one-dimensional generalizations about Indigenous students:

The alleged attributes of Native students’ difference constitute a lexicon of marvelous abundance (Lomawaima, 1995, 2003): Nez Perce kindergarten students who possess “less developed” visual perception . . . and “severe linguistic inadequacy” . . . are among the fundamentally “disadvantaged” children from “cultures of poverty.” . . . Less loaded language classifies Indians as silent learners . . . ; observational or “private” learners . . . ; cooperative verses competitive . . . ; visual learners . . . ; field-dependent or field-independent learners . . . ; “right-brained” or “whole brained” learners . . . ; and “ecological,” “holistic,” or “spiritual” learners. . . . We do not want to dismiss out of hand the literature cited above. Much of it is instructive, well-crafted research. Just as importantly, we absolutely know that culturally rooted practices produce distinct orientations toward teaching and learning (McCarty, Wallace, Lynch, & Benally, 1991). We must recognize the serious error, however, of reducing our ideas of any learners to one-dimensional proportions. (Lomawaima & McCarty, 2006, p. 21)

Cleary and Peacock (1998) concur with Lomawaima and McCarty’s (2006) caution about resisting the essentialism that often pervades the learning styles discourse, and they add that all students employ multiple learning styles at various

times and in different contexts. Although some may conclude that Indigenous students as a whole possess different learning styles than their White peers, we must also recognize that there may be just as much variation within the group as there is between groups. Furthermore, some scholarship suggests that pedagogical strategies that were once argued to be effective for Indigenous learning styles are actually effective in producing higher achievement levels in all students (Hilberg & Tharp, 2002), and that all students perform better when teachers are able to modify curriculum and instruction to better meet their students' needs (Klump & McNeir, 2005). Cleary and Peacock (1998) pose an important question to consider in the discussion of learning styles: "How much of what teachers say is learned from workshops on American Indian learning styles (or multicultural education workshops or courses), and how much is based on unbiased observation and experience?" (p. 152). Keller (2005) also provides insightful direction: "Native students may be better served if we focus on 'What teaching accommodations have proven most effective in helping Native students succeed?' rather than 'How do Native students learn?'" (p. 1).

Tribal Cultural Practices and Cultural Differences

The scholarship on CRS for Indigenous youth is replete with references to the cultural differences between Indigenous youth and their peers. Some of the most common cultural practices that researchers highlight include differences in the way people show they are paying attention and giving respect, the meaning of passive behavior, the willingness of people to influence others, linguistic and social interactions, and the meaning and use of silence (Basso, 1996; Cleary & Peacock, 1998; Kasten, 1992; Lomawaima & McCarty, 2006; Philips, 1983; Plank, 1994; Powers, Potthoff, Bearinger, & Resnick, 2003; Tharp & Yamauchi, 1994, 2000; Wax, Wax, & Dumont, 1969, 1989). The use and meaning of silence is an especially popular theme in the literature on Indigenous youth in school (Foley, 1996). Powers et al. (2003) note that

non-Native teachers may misperceive American Indian/Alaska Native students to be uninterested in developing a relationship with them, or to be overly shy, rude, or immature (Hornett, 1990; Kasten, 1992; Murdoch, 1988; Plank, 1994). Any of these conclusions may impede the formation of interpersonal relationships between school staff and Native students. (p. 19)

The stereotype of the silent Indian persists to this day, and many educators misinterpret silence by their Native students. Other scholars have noted that listening and observing are highly valued skills in many Indigenous communities and that students from these communities are likely to exhibit behavior at school that they have been socialized into valuing even when the school may value very different behaviors (Cleary & Peacock, 1998; Grant & Gillespie, 1993).

Another common cultural practice noted in the literature is the tendency to learn by example in natural settings from one's peers and other community members. Scholars talk about how tribal communities view nature as an important teacher, that education occurs by example, that skills are learned from siblings and peers, that learning occurs through observation and participation in everyday activities, that education is for the betterment of the group, that relationships and reciprocity are highly valued, that individuals are taught to act competently or not at all, and that Native peoples are more collaborative and less competitive (Cleary & Peacock,

1998; Deloria & Wildcat, 2001; Demmert, 2001; Gilliland, 1995; Grant & Gillespie, 1993; Hilberg & Tharp, 2002; Jacobs & Reyhner, 2002; Swisher & Deyhle, 1989). Each of these cultural practices may be different from the cultural norms of the dominant culture, and each has implications for teaching and learning.

One of the reasons it is important for educators of Indigenous students to have an awareness of cultural norms and practices in the communities where they teach is that CRS requires that educators use culture to teach effectively. As one tribal leader in Belgarde et al.'s (2002) study explained, "do not teach our children our culture. Use our culture. Use our culture to teach them" (p. 42). And even more recently, tribal leaders across the country expressed a "significant concern for the diminishment of schools to provide effective and meaningful education for Native students" (Beaulieu et al., 2005, p. 16). The connection between employing students' cultural background, effective teaching, and improved learning is highlighted by many scholars. "A substantial number of studies have shown that when local knowledge plays a dominant role in instruction (usually in combination with use of the Native language), improvements are seen in various performance and attainment measures" (Demmert, 2001, p. 19). Other scholars argue that educators must know and understand culture to provide an effective education for Indigenous students (Demmert & Towner, 2003; Gilliland, 1995; Klug & Whitfield, 2003; Reyhner, 1992c; Rhodes, 1994). Still others argue that using students' culture in the classroom results in more engagement and better classroom management (Gilliland, 1995; Rhodes, 1994; Taylor, Stevens, Peregoy, & Bath, 1991). And yet others focus on the improved learning that occurs when educators use students' cultural backgrounds in the classroom (Demmert & Towner, 2003; Tharp & Yamauchi, 1994).

Some of the ways the literature advises educators to use culture to provide a more effective education include using images of tribal life, projecting an unhurried demeanor when interacting with Indigenous students, integrating oral and written tribal histories and stories with the curriculum, teaching through observation, working from student strengths, and inviting elders and other communities members to teach lessons (Deloria & Wildcat, 2001; Reyhner & Jacobs, 2002; Rhodes, 1994; Sparks, 2000). Skinner (1999) notes a core set of shared values and cultural norms that educators should draw directly on:

Amidst our cultural and linguistic diversities, we share guiding values that could form the base of a tribal code of education or could become curricular content, learned through interdisciplinary activities. These shared values include:

- generosity and cooperation
- independence and freedom
- respect for elders and wisdom
- connectedness and love
- courage and responsibility
- indirect communication and noninterference
- silence, reflection, and spirit. (Skinner, 1999, p. 17)

Importantly, employing culture to teach more effectively is not easy and can be worse than doing nothing if done superficially or inaccurately. As Deloria and Wildcat (2001) note, "unless we incorporate features of our cultures into a

holistic and integrated indigenous process of education, what we have produced is most likely ‘educational tokenism’” (p. 39).

Furthermore, we want to caution researchers, educators, and policy makers against the relatively simple integration of the material aspects of culture at the expense of systemic change within schools serving Indigenous youth. Hermes’s (2005, 2007) work with the Ojibwe highlights how inserting cultural knowledge as self-contained curricular material fundamentally changes the meaning of culture, forces students to choose between being “academically successful” or being “an Ojibwe” (p. 57), and fails to alter the culture and structure of schooling. We share Hermes’s concerns and fear that much of the scholarship on CRS encourages educational approaches that assume culture to be something that can and should be taught as a discrete school subject. Our discontent with these tendencies provides yet another impetus for our suggestion that sovereignty and self-determination, institutional racism, and Indigenous epistemologies must take center stage in future articulations of and for CRS for Indigenous youth.

Anticipated Outcomes of CRS

There are a number of outcomes scholars suggest result from CRS for Indigenous youth. We can learn something about the suggested outcomes by looking at what research has shown to be the outcomes when CRS is not practiced. Belgarde et al. (2002) offer a concise summary: “Most studies found that American Indian students were forced to assimilate into the dominant mainstream culture, experienced cultural discontinuity, suffered from low self-esteem and performed poorly in academe” (p. 44). Skinner (1999) adds that when schools neglect Native cultures and present curricular materials that are biased or not culturally relevant, Indigenous students are “robbed” of their cultural pride and personal identities. And Deloria and Wildcat (2001) extend the discussion to the impact on tribal communities (rather than simply individuals) by noting that Indigenous peoples

presently do not know how to bring knowledge and information back to the tribe because [schools] have not paid sufficient attention to the history and culture of our people. We have been deluded into thinking that there is no applicability of information on behalf of the tribe or no possibility of making our knowledge meaningful. (Deloria & Wildcat, 2001, p. 86)

It may be helpful to understand the theoretical explanations for why these negative outcomes result from mainstream schooling of Indigenous youth and why other, more positive, outcomes are connected to the practice of CRS for Indigenous youth. The most commonly held theoretical explanation is that of cultural difference or cultural compatibility theory. This theory posits that schooling is most effective when there is a greater match between the cultural norms and expectations of the school and those of the students. Demmert and Towner (2003) add cognitive theory and cultural-historical-activity theory (CHAT) to this discussion. Cognitive theory suggests that learning occurs more readily when prior knowledge is activated and connected to new information being presented and that CHAT “places more emphasis on community-level elements for connectivity, thereby multiplying the richness of potential associations between student experience and the academic curriculum” (Demmert & Towner, 2003, p. 9). These authors point out an important similarity between the three theoretical explanations—that is, that

they all agree that education ought to be based on personal and community-level connections to students' experiences, cultures, and knowledge. Demmert and Towner further suggest that researchers must consider all three of these theoretical explanations when trying to make sense of the outcomes of various educational approaches for Indigenous youth.

The majority of scholarship we reviewed for this article was not strongly grounded in theory but instead offered data-based discussions of various observed outcomes of efforts at CRS for Indigenous youth. Some claims were quite vague and noted outcomes such as "students do well" (U.S. Department of Education, 2001, p. 3), CRS makes "a positive difference" (Lipka, 1990, p. 20), and CRS is "essential to successfully educating" Indigenous youth (Powers et al., 2003, p. 20). Other claims were more specific and focused on particular aspects of student behavior, achievement, knowledge, and dispositions. Our review concurs with Demmert's (2001) that

a series of studies conducted in the past 30 years collectively provides strong evidence that Native language and cultural programs—and student identification with such programs—are associated with improved academic performance, decreased dropout rates, improved school attendance rates, decreased clinical symptoms, and improved personal behavior. (p. 17)

A number of additional studies support these conclusions. In general, scholars have found that efforts at CRS for Indigenous youth result in students who have enhanced self-esteem (Agbo, 2004; Cleary & Peacock, 1998), develop healthy identity formation (Trujillo, Viri, & Figueira, 2002), are more self-directed and politically active (Garcia & Ahler, 1992), give more respect to tribal elders (Agbo, 2004), have a positive influence in their tribal communities (Cleary & Peacock, 1998; Pewewardy, 1998; U.S. Department of Education, 2001), exhibit more positive classroom behavior and engagement (Cleary & Peacock, 1998; Lipka, 2002), and achieve academically at higher rates (Apthorp, D'Amato, & Richardson, 2002; Demmert, 2001; Demmert & Towner, 2003; Klump & McNeir, 2005; Smith, Leake, & Kamekona, 1998; Swisher & Tippeconnic, 1999; Taylor et al., 1991; Zwick & Miller, 1996). A smaller body of scholarship points to the importance of recognizing all voices in the classroom and ensuring that Indigenous students are not silenced in the schooling process (Belgarde et al., 2002), which in turn leads to more meaningful educational experiences and student empowerment (Gay, 2000; Nieto, 2004; Reyhner, 1992b). And still other research points to the enhanced learning outcomes for both Indigenous and non-Native students when tribally focused curricula are used (Lipka & Adams, 2003; Lipka, Hogan et al., 2005; Lipka, Parmelee, & Adams, 2005).

The Alaska Native Knowledge Network has developed a list of standards for students involved in CRS. The cultural standards for students they suggest include the following:

1. Culturally-knowledgeable students are well grounded in the cultural heritage and traditions of their community.
2. Culturally-knowledgeable students are able to build on the knowledge and skills of the local cultural community as a foundation from which to achieve personal and academic success throughout life.

3. Culturally-knowledgeable students are able to actively participate in various cultural environments.
4. Culturally-knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.
5. Culturally-knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them. (Alaska Native Knowledge Network, 1998)

These standards are meant to sit alongside the strictly academic standards advanced by NCLB, school districts, and mainstream educational leaders.

Recent research by McCarty, Romero, and Zepeda (2006) among Indigenous youth in the Southwest suggests that many young people in tribal communities have pride in their heritage language and culture. Although some youth also recognize the privileging of English within the United States and the connections between English and whiteness, many still possess a genuine interest in learning and retaining their linguistic abilities in their tribal language. As McCarty et al. (2006) note, these interests among youth “constitute crucial resources to be tapped in tribal-community efforts to revitalize heritage languages” (p. 42). But these interests among youth and the efforts within tribal communities are in jeopardy given the ways that NCLB has been enacted and the intense pressures on schools to make adequate yearly progress. In fact, a major concern among Indigenous educators is the impact of NCLB on CRS efforts (Beaulieu et al., 2005)—in other words, many Native adults see value in facilitating the learning of tribal cultures in school, but they see this goal taking a backseat to the priorities mandated by the federal government. Importantly, however, although most Indigenous parents are interested in and supportive of including culture in the school curriculum, Yazzie (1999) points out that “how and whether to teach tribal cultural knowledge in schools remains controversial” (p. 92).

This interest and controversy is highlighted in recent scholarship published by the United States Department of Education:

Research generally supports the premise that students do well when their culture and language are incorporated into their education. There appear to be at least two approaches in the views of educators and parents about the proper role of Native language and culture in the school. The first perspective generally appears in situations where the tribe or village’s language and culture ought to be pervasive and structure the overall educational experience. This perspective does not exclude having the student master English or the subject matter that is expected of students in majority culture schools, but it puts a premium on local ways of knowing. The second perspective appears where Native students are not in the majority in the schools and Native parents are only one strand among the voices seeking to shape the school’s approach. In this second perspective, the objectives appear to be more limited although no less important; that is, the school should respect the cultures of its Native students, support and promote the search by Native students to understand who they are in a multicultural world, and provide opportunities for those students and the students from other backgrounds to learn about Native languages and cultures. The goal in this second perspective is to teach non-Indian students about Indian cultures and history, and to instill respect for these cultures. (U.S. Department of Education, 2001, p. 16)

Other research supports this summary, adding that a number of Indigenous adults believe that children should have an opportunity to learn their culture and language to preserve their tribal identities, that they should learn traditional values from elders, that tribal languages and cultures are an important aspect in the education of Indigenous youth, and that schools ought to become clearinghouses for community traditions and cultures (Agbo, 2001, 2004). It is important for teachers to realize that they are inherently and consistently engaged in cultural production and reproduction. The transmission of dominant cultural knowledge and norms occurs on a daily basis in U.S. schools, and the consistent message in much of the research is that successful teachers of Indigenous youth also work to transmit values, beliefs, knowledge, and norms that are consistent with their students' home communities (Franklin, 1995; Grant & Gillespie, 1993; Ogbu, 1987). This message comes not only from researchers but also from Indigenous parents, youth, and educational leaders; thus, the teaching of tribal cultures and languages in schools serving Indigenous youth is a shared priority among a range of constituents (Cahape & Howley, 1992; Tharp & Yamauchi, 1994). In Cleary and Peacock's (1998) research with both Native and non-Native teachers of Indigenous youth, this message was central. Although both groups of teachers believed it was important to teach tribal cultures alongside "academics," the Native teachers in the study "saw it as an imperative, essential part of the school" (Cleary & Peacock, 1998, p. 109).

None of the scholarship we reviewed for this article indicated that Indigenous youth should learn tribal cultures and languages at the expense of learning mainstream culture, English, and the typical "academic" subjects generally taught in schools. This is an important point because the shared assumption by most scholars, parents, and educational leaders is that schools should facilitate the acquisition of all of these knowledges and skills—what we might call a "both/and" approach rather than an "either/or" approach. The scholarship on multicultural education provides a nice backdrop for this argument. Scholars such as Delpit (1988, 1995), Ladson-Billings (1994, 1995a, 1995b), Sleeter and Grant (2003), and many others have suggested that students must become knowledgeable about and comfortable within both the mainstream culture and their home cultures. Delpit, for example, argues that students who are not part of the "culture of power" must be explicitly taught the rules and codes of that culture to be able to successfully negotiate it and make decisions about how and when they will negotiate it. Ladson-Billings adds the important component of high expectations and academic success for all students. Scholars discussing Indigenous education make similar arguments about the need to teach Indigenous youth about the dominant culture (Franklin, 1995), hold them to the same high academic expectations that we hold for their White peers (Agbo, 2001, 2004), and provide explicit and direct instruction about dominant cultural and academic norms, expectations, and skills (Cleary & Peacock, 1998). Fortunately, in the past three decades,

a growing number of Indigenous students have the opportunity to use Indigenous knowledge and language to meet "both" local "and" Western education goals (Swisher & Deyhle, 1987; Swisher & Tippeconnic, 1999; Yazzie, 1999). This "both/and" paradigm (Lipka & McCarty, 1994) supports an educational approach that values both Native and Western knowledge. (Lipka, 2002, p. 3)

According to the literature reviewed for this article, what this amounts to is the need and desire for Indigenous youth to become bi/multicultural⁶ and the important role of the school in facilitating that process. This is perhaps the most fundamental goal of CRS addressed in the literature. When teachers, curricula, and schools provide a challenging and high-quality education that is intimately connected and relevant to tribal communities, they will be far more likely to graduate youth who are academically prepared, connected to and active members of their tribal communities, and knowledgeable about both the dominant and their home cultures. Indeed, as Cleary and Peacock (1998) note, “a primary ingredient of American Indian student success is the ability to live successfully in both the American Indian culture and the majority culture” (p. 121). Successfully negotiating these “two worlds” requires students to “code switch” (Delpit, 1988; Klug & Whitfield, 2003), a skill that is more easily obtained when tribal cultures are a visible and central part of the school (Gilliland, 1995). This code switching results in Indigenous youth who are both academically and culturally prepared to succeed in the mainstream culture and in their tribal communities (Deyhle, 1995; Deyhle & Swisher, 1997; Reyhner & Jacobs, 2002).

The reasons most often cited in the literature for CRS shed light on the importance of self-determination and tribal sovereignty, racism, and Indigenous epistemologies. Much of the learning styles literature risks either implicitly or explicitly making broad generalizations and essentializing what is actually an incredible range of variation. This work and the way it is often read perpetuate racist beliefs and schooling practices. Furthermore, many of the presumed “cultural” reasons for engaging in CRS would be better understood if reframed in relation to Indigenous epistemologies. And finally, the anticipated outcomes of Indigenous youth successfully negotiating multiple and varied contexts becomes even more critical when connected to tribal sovereignty and the goals of self-determination.

Curricular and Pedagogical Strategies for CRS

Two aspects of schooling that have a significant and direct impact on students are pedagogy and curriculum. Accordingly, a substantial amount of the literature we reviewed for this article focuses on pedagogical techniques and curricular materials teachers could use in their classrooms with Indigenous youth.

Pedagogy

Many Native adults are concerned that the increased focus on testing and standardized direct instruction has resulted in a decline in pedagogical approaches that are culturally responsive to Indigenous youth (Beaulieu et al., 2005). The typical teacher-centered direct instruction approach employed in most classrooms often fails to meet the needs of Indigenous students (Cleary & Peacock, 1998; Jacobs & Reyhner, 2002). This is, in fact, a widespread concern nationwide and among educators and researchers working with students from other ethnic and racial groups as well. This concern makes sense since studies have shown that when teaching methods are adapted to be more congruent with students’ cultural norms, academic achievement generally improves (see, e.g., Deyhle & Swisher, 1997; Grant & Gillespie, 1993; Vogt, Jordan, & Sharp, 1993).

More (1989) suggests that teachers ought to adopt a teaching style that is in line with their students’ learning styles and that this is particularly important for

teachers of Indigenous youth because one's teaching style is generally based on their own learning style and most teachers come from different cultural backgrounds and thus have different learning styles from many of their Native students. Other scholars recommend a series of general pedagogical techniques that are believed to work well with Indigenous students. One of the most popular is cooperative learning, which is argued to reduce the traditionally competitive nature of schooling and increase student engagement (Cleary & Peacock, 1998; Demmert, 2001; Gilliland, 1995; Grant & Gillespie, 1993; Pewewardy & Hammer, 2003; Sparks, 2000). Gilliland (1995) points out, however, that "cooperative learning is not a single method, or several methods. It is an attitude toward students, a concept of learning, a whole way of life within the classroom and, hopefully, throughout the school" (p. 43). To truly be engaging in cooperative learning school wide, schools would need to be organized around and constantly employing values such as cooperation, sharing, and harmony while recognizing that both students and teachers have important things to contribute to the learning process (Klug & Whitfield, 2003; Taylor et al., 1991). Because it closely matches the values and behaviors within many tribal communities, the use of cooperative learning with Indigenous students appears to improve student achievement and student attitudes (Taylor et al., 1991).

Another commonly cited pedagogical technique in the literature on CRS for Indigenous youth is the creation of a visual learning environment within the classroom. Scholars suggest that teachers integrate the visual arts across the curriculum, design learning activities that allow students to observe, and use tools such as paper, markers, videos, and chalk (Cleary & Peacock, 1998; Gilliland, 1995; Grant & Gillespie, 1993; Philips, 1983). The use of visual learning is meant to complement, not replace, the use of oral teaching methods so that learning is maximized by the use of diversified techniques (Sparks, 2000; Tharp & Yamauchi, 1994).

Scholars of CRS also argue that teachers must employ pedagogical techniques that explicitly connect learning to students' everyday lives. When education takes a holistic approach with multiple and obvious connections to students' worlds outside of school, it is both more interesting and more effective for Indigenous youth (Gilliland, 1995; Klug & Whitfield, 2003). The suggestion that schooling take a more holistic approach means simply that the goal is to understand "many aspects [of a concept] at the same time and the interrelationships involved" (Rhodes, 1994, p. 92). This approach may require a loosening of disciplinary boundaries within schools, but it certainly would result in more authentic and real-life application of learning. Some concrete ways to employ a more holistic approach in which learning is connected to students' lives are to integrate experiential learning, service learning, hands-on learning, and field trips (Cleary & Peacock, 1998; Hall, 1996).

Another general pedagogical technique discussed in the literature on CRS for Indigenous youth is related to time within the classroom. Multiple scholars advocate for teachers to increase the wait time between question and answer and the time they give students to process information (Gilliland, 1995; Rhodes, 1994). Studies have found that many Indigenous students are socialized to wait to speak or act until they are confident in their correctness or mastery, so extended wait times and opportunities for observation within the classroom allow students to confidently respond to teachers' requests (Deyhle & Swisher, 1997; Swisher & Deyhle, 1989). In a related vein, students are generally more involved in classroom

discussions when they are allowed to set the pace of the conversation rather than having to follow the teacher's tempo (Tharp & Yamauchi, 1994).

And finally, Cleary and Peacock (1998) suggest that to motivate students to learn, teachers must also connect "to the human need for self-determination" (p. 212). They argue that teachers need to tap into this desire to engage their students in the schooling process, and that teachers can help students develop strategies for understanding and acting on the world around them. This is not unlike much of the literature on multicultural education that argues that students must learn to "read the world" and act in ways that create social change and, ultimately, lead to greater equity and social justice (Freire, 1970; Nieto, 2004; Sleeter, 1996; Sleeter & Grant, 2003). When students feel empowered and have greater agency within their schools and communities, education is both more meaningful and socially responsible.

Before moving into some of the pedagogical strategies suggested for particular subject areas, we want to share a couple summaries offered in the literature on culturally responsive pedagogy. Cleary and Peacock (1998) offer the following patterns of successful teacher practice:

the need to build trust; to connect with the community; to establish cultural relevance in the curriculum; to tap intrinsic motivation for learning; to use humor; to establish family support; to provide situations that yield small successes; to make personal connections with students; to use highly engaging, activity-based learning and, in some cases, cooperative learning; to provide role models; to be flexible, fair, and consistent; and to provide real audience and purpose for student work. (p. 13)

Similarly, Swisher and Deyhle (1989) offer the following suggestions to teachers of Indigenous students:

- Be aware of the "pacing" of activities within a time framework which may be rigid and inflexible;
- Be aware of how questions are asked; think about the discussion style of your students;
- Remember, some students do not like to be "spotlighted" in front of a group;
- Provide time for practice before performance is expected; let children "save face," but communicate that it is "okay" to make mistakes;
- Be aware of proximity preferences; how close is comfortable;
- Organize the classroom to meet the interactional needs of students; provide activities which encourage both independence and cooperation;
- Provide feedback that is immediate and consistent; give praise that is specific. (pp. 9–10)

All of these suggestions are mentioned by other scholars as well and provide specific pedagogical advice for teachers hoping to employ CRS with Indigenous youth. In addition to these suggestions, some scholars have focused on pedagogical strategies within particular subject areas, so we will briefly discuss the areas of math, science, and language arts.

Most of the suggestions for culturally responsive pedagogy in math and science are consistent with the general suggestions discussed earlier. Unfortunately, math and science are most often taught through abstract and isolated concepts rather than through more tactile, visual, and holistic stimuli (Gilliland, 1995). But as Butterfield (1994) notes,

practices most consistent with how Native students learn mathematics and science best include (a) simultaneous processing (seeing the whole picture) instead of successive processing (analyzing information sequentially), (b) instruction that builds on American Indian and Alaskan Native strengths as learners, (c) using hands-on materials or manipulatives, and (d) structuring classrooms to support cooperative learning. (pp. 4–5)

Teachers must also be clear, explicit, and direct about the terminology used in these subject areas. Many of the terms used in math and science have different meanings than their everyday meanings, and this can be especially confusing for students whose first language is not English (Davidson, 1992; Gilliland, 1995). Teachers may be more effective teaching such concepts in students' native language first and then relating that understanding to the English terms. Furthermore, recent research that demonstrates clear connections between how people think and what people think has clear implications for math and science teaching. Bang, Medin, and Atran (2007) are exploring the "cognitive consequences of different conceptualizations of nature and the place of humans within it" and suggest a number of implications for improved science learning among Indigenous children (p. 13868). Indeed, learning will be improved when teachers draw on the epistemological and cultural orientations of students within their classrooms.

As with math and science, language arts and literacy instruction seems to be most effective when drawing on the strategies discussed earlier. It is important for teachers to realize that literacy can be an especially frustrating learning experience for any student who is continually corrected and that this frustration can lead to resistance among students (Cleary & Peacock, 1998). It is also important for teachers to be aware of the tasks they are asking students to engage in because "most American Indian students are expected to respond to literature and other school materials in ways that have not been modeled to them" (Cleary & Peacock, 1998, p. 190). To overcome these barriers, teachers can connect language arts and literacy learning to real-life experiences, give students real audiences with real purposes to write for, teach students explicitly how to engage in abstract analyses, and read potential language arts texts with the cultural knowledge and language of the community in mind (Cleary & Peacock, 1998; Gilliland, 1995). A number of scholars also recommend the use of whole language approaches to literacy learning for Indigenous youth because they incorporate oral language practice, integrate culturally relevant materials, and provide more explicit connections to real world experiences (Gilliland, 1995; Goodman & Wilde, 1992; Grant & Gillespie, 1993; Kasten, 1992; Klug & Whitfield, 2003; McCarty, 1993b).

Curriculum

Like pedagogy, curriculum is another area discussed frequently in the scholarship on CRS for Indigenous youth. This focus should not be surprising since a school's curriculum closely shapes what material students are exposed to on a daily basis. The traditionally Eurocentric focus of the curriculum in U.S. schools has been critiqued by countless scholars in the field of multicultural education, and Indigenous peoples across the country are concerned about the narrowing of the curriculum given the recent emphasis on standardization and testing. Unfortunately, "Native languages and culture have not been well represented in schools' curricular

program and attention to the arts, music, and literature is generally being diminished” (Beaulieu et al., 2005, p. 16). Cleary and Peacock (1998) agree, noting “there is a mismatch between what might be relevant curriculum and what American Indian students actually experience in many schools” (p. 51). But this mismatch and lack of representation is curious because policy studies, research, and evaluation studies have consistently found that Indigenous students’ academic performance is improved when school curricula promote the language and culture of the local community (Demmert, 2001). It is, in fact, counterintuitive to assume that students would do worse in school when the curriculum is related to their everyday lives, represents their cultures and communities, and validates their cultural integrity (Grant & Gillespie, 1993; Native Education Initiative of the Regional Educational Labs, 1995; Noley, 1992). Other concerns about the curriculum expressed in the scholarship on CRS for Indigenous youth include that the mainstream curriculum generally trivializes and stereotypes tribal cultures, that Native students are too often exposed to remedial curricular materials, and that teachers rely too heavily on textbooks that ignore Indigenous experiences (Powers et al., 2003; Reyhner, 1992a, 1992b).

In response to these concerns, a number of scholars have suggested alternative curricula that are more culturally responsive to Indigenous students and tribal nations. We might think of these curricular suggestions as composing a “transformative curriculum” that *both* integrates cultural knowledge *and* questions the assumptions of traditionally Eurocentric school curricula (Pewewardy & Hammer, 2003). In fact, a number of tribal communities have created curricula for use in schools serving their youth (Reyhner & Jacobs, 2002), but much more work is needed in this area (Rhodes, 1994). The Alaska Native Knowledge Network (1998) provides an exemplary model in developing its own cultural standards for curriculum. They have adopted these curricular standards to complement the standards set forth by external governmental agencies to ensure that local cultures and languages are represented in school curricula:

- A culturally-responsive curriculum reinforces the integrity of the cultural knowledge that students bring with them.
- A culturally-responsive curriculum recognizes cultural knowledge as part of a living and constantly adapting system that is grounded in the past, but continues to grow through the present and into the future.
- A culturally-responsive curriculum uses the local language and cultural knowledge as a foundation for the rest of the curriculum.
- A culturally-responsive curriculum fosters a complementary relationship across knowledge derived from diverse knowledge systems.
- A culturally-responsive curriculum situates local knowledge and actions in a global context. (Alaska Native Knowledge Network, 1998)

One of the primary messages is that curricula must be connected to students’ lives, represent their cultural and linguistic backgrounds, and present accurate images of both the past and present (Agbo, 2001; Skinner, 1999). Culturally responsive curriculum will tap into students’ curiosity and engage them in topics that are interesting to them; it does this without watering down, but rather by

strengthening, the quality of learning materials (Cleary & Peacock, 1998; Sparks, 2000).

In addition to these general curricula suggestions, some scholars also offer suggestions for making the curriculum of particular subject areas more culturally responsive to Indigenous youth. In what follows, we briefly share these suggestions for math, science, social studies, and language arts.

The most commonly cited curricular approach to math for Indigenous students is ethnomathematics. Ethnomathematics is recommended because it draws connections between home and school and, therefore, promotes academic success among students. According to Apthorp et al. (2002),

ethnomathematics is the study of traditional and everyday mathematics and the integration of findings from this study into the development and use of curricular methods and materials that are aligned with content standards (Brenner, 1998; Davidson & Miller, 1998). Ethnomathematics “acknowledges the value of the knowledge base that children themselves bring to school” and engages children in activities based on everyday mathematics in ways that help them “develop meaningful problem solving and greater mathematical power” (Brenner, 1998, p. 239). (p. 9)

To successfully implement ethnomathematics, teachers must “identify culturally specific and everyday knowledge,” develop “responsive curricular materials,” and “use formative evaluation to make adaptations and revisions” (Apthorp et al., 2002, p. 11). As with other curricular areas, it is important that the integration of culture is not trivial (Nelson-Barber & Estrin, 1995), and it must require students to regularly use systematic language activities (Davidson & Miller, 1998). Although Gilliland (1995) does not specifically advocate ethnomathematics, he advises similar curricular strategies. He recommends that math teachers infuse their curriculum with examples and situations involving Indigenous peoples, such as the “Aztec calendar” and “Mayan numeration,” because students will learn more when they see connections to their own life and cultural backgrounds (Gilliland, 1995, p. 155). Taylor et al. (1991) suggests math activities that involve tessellations “for artistic creativity and geometric exploration” (p. 15) and beadwork for its “reliance on geometric patterns” (p. 19). Lipka and others in Alaska have developed and studied the use of a Yup’ik-centered math curriculum in a number of southwestern Alaskan communities; their work supports that of others and calls for a more sustained commitment to the development and integration of culturally responsive and tribally specific math curricula in schools serving Indigenous youth (Lipka, 1990, 1994; Lipka & Adams, 2003; Lipka, Hogan et al., 2005; Lipka, Mohatt, & the Ciulistet Group, 1998; Lipka, Parmelee et al., 2005). Overall, then, the consensus is that math curriculum needs to include cultural relevance and be built around local interests and cultures (Davidson, 1992).

Similar recommendations are made for science curricula in schools serving Indigenous youth. School science generally relies on learning from textbooks and memorizing discrete facts, but a more culturally responsive science curriculum might include the vast stores of Native knowledge “of nature, of animal ways, and of the uses of plants”; explicit instruction in the language of science; field trips; and observation of nature (Gilliland, 1995, p. 34). Gilliland (1995) provides a number of curricular topics that should be integrated into science teaching for Indigenous students:

Indian students should know that at the time of the European invasion of America, American and European natives were approximately equal in scientific knowledge, and that much of the Indians' traditional knowledge is still useful today. Teach your students about the Mayas' advanced knowledge of astronomy, the Aztecs' study of genetics, the Incas' technical approach to architecture and their intricate use of brain surgery, the fact that although their approach was different, most North American tribes were more knowledgeable than their European peers in zoology and in the use of herbal medicines. Let them know that their own ancestors contributed more different food plants to our present diets and the rest of the world than their European counterparts did. Then ask parents and local elders to accompany your classes on field trips to teach them where to find edible wild plants and material for weaving and other projects, and have them teach the students about the local animal life. (p. 150)

It is important for teachers to be aware of and treat appropriately the connections many Indigenous peoples make between spirituality and science. Although much tribal knowledge of the earth, animals, and humans is intimately tied to moral and spiritual values, many teachers are reluctant to bring spirituality into the classroom (Pewewardy & Bushey, 1992). However,

if we remember that spirituality is the way we form relations with a universal higher power and all of Creation, including our relationships with others, we can readily determine that there is a place in education for spirituality and ceremonies cementing those relationships for American Indian students. (Klug & Whitfield, 2003, p. 161)

The opposite side of this issue is when teachers include curricular material that is offensive to or against the spiritual and moral beliefs of Indigenous students. Many biological experiments and activities may be taboo for some Native students, and teachers should be aware of local norms before including these activities in their science curriculum (Gilliland, 1995).

Social studies is another curricular area that is addressed specifically in the literature on CRS for Indigenous youth. As with other curricular areas, the general consensus is that social studies must be made relevant to tribal cultures and histories and that it must also be accurate and fair in its portrayal of Indigenous peoples both past and present. Gilliland (1995) offers the following suggestions for improving social studies for Indigenous students:

- teach from a multicultural viewpoint (p. 80),
- allow time for Native American history and culture (p. 81),
- give Native Americans their rightful place (p. 82),
- assure historical accuracy (p. 82),
- teach Native American contributions (p. 83),
- teach social studies as ongoing and dynamic (p. 84),
- integrate other subjects into your social studies unit (p. 84), and
- learn more about Native Americans (p. 84).

Other recommendations for more culturally responsive social studies curricula include teaching about tribal governments, presenting a balanced and honest image of Native histories, focusing on both the past and present, teaching about both

general patterns and the specific tribal nations in which your school is located, and focusing on the unique needs and interests of your students (Gilliland, 1995; Klug & Whitfield, 2003; LaCounte, 1992). In general, “the social studies curriculum should help American Indian students understand and function effectively in the personal, social, and cultural worlds in which they live” (LaCounte, 1992, p. 215).

Language arts curriculum also needs to be connected to students’ worlds and everyday experiences. Because reading is largely about making meaning of text, texts should be related to a world students can recognize (Cleary & Peacock, 1998; Gilliland, 1995; Reyhner, 1992c). This, of course, requires added work on the part of the teacher because most texts in our schools are more closely related to a world White, middle-class students can recognize. Language arts might also include stories from students’ local communities; these stories can be collected from elders and written down by students as a way to create more culturally relevant literacy materials.

With all curricular material, teachers must become diligent reviewers of the texts they are given to use in their classrooms. Current curricula should be examined for accuracy, inclusivity, bias, stereotyping, and omission and then used in critical and limited ways (Gilliland, 1995; Grant & Gillespie, 1993; Kaomea, 2005; Klug & Whitfield, 2003; Lipka, 2002; Seale & Slapin, 2006). This is important because, as Swisher and Tippeconnic (1999) note, “negative stereotypes coupled with inadequate and inaccurate information about this nation’s Indigenous peoples, particularly in social studies curricula, damage the self-concepts and subsequent behavior of our youth” (p. 303). Grant and Gillespie (1993) cite work by the Manitoba Indian Brotherhood in the following list of common biases found in school curricular materials:

1. Bias by omission—selecting information that reflects credit on only one group, frequently the writer’s or speaker’s group.
2. Bias by defamation—calling attention to the Native person’s faults rather than virtues and misrepresenting the nature of Native people.
3. Bias by disparagement—denying or belittling the contribution of Native people to mainstream culture.
4. Bias by cumulative implication—constantly creating the impression that only one group is responsible for positive development.
5. Bias by (lack of) validity—failing to ensure that information about issues is accurate and unambiguous.
6. Bias by inertia—perpetuation of legends and half-truths by failure to keep abreast of historical scholarship.
7. Bias by obliteration—ignoring significant aspects of Native history.
8. Bias by disembodiment—referring in a causal and depersonalized way to a group of people.
9. Bias by (lack of) concreteness—dealing with a race or group in generalizations that apply shortcomings, or positive characteristics, of one individual to the group. To be concrete, the material must be factual, objective, and realistic.
10. Bias by (lack of) comprehensiveness and balance—failure to mention all relevant facts that may help form the opinion of the students. (pp. 17–19)

This list helps illuminate why careful and limited use of standardized curricular materials is needed and why communities must also develop alternative and supplemental curricular materials that are culturally responsive to Indigenous youth and tribal nations. When communities and students are involved in the process of determining subject matter and creating curriculum, cultural responsiveness is more likely to be achieved.

The curricular and pedagogical strategies discussed in the literature are important, but we suggest that they might become even more powerful and meaningful for Indigenous youth and tribal communities if they were explored and analyzed within the context of sovereignty and self-determination, racism, and Indigenous epistemologies. Without a tight connection to these three themes, culturally responsive curricular and pedagogical efforts will continue to provide only surface-level and compartmentalized opportunities for Indigenous students to see themselves and their communities in schools. This, in turn, fails to honor the locally articulated priorities and needs within most Indigenous communities. Curricula and pedagogy developed with a deep understanding of sovereignty and self-determination, racism, and Indigenous epistemologies will be far more powerful in their ability to provide good schooling to Indigenous youth. These elements—particularly the first and last—are what set CRS for Indigenous youth apart from other educational efforts.

Educator Characteristics Necessary for CRS

Although curricular and pedagogical issues are certainly important for an understanding of CRS for Indigenous students, there are a number of teacher characteristics that are also necessary for CRS to be made a reality. Teachers must possess a particular set of dispositions, attitudes, values, and knowledges to be successful with Indigenous students.

Teacher Values, Attitudes, and Ideologies

One of the themes that came out of the literature we reviewed for this article was the importance of teachers' values, attitudes, and ideologies toward their students and toward Indigenous communities and cultures. However, although a number of scholars touched on this theme, it was rarely a central theme within articles and books; it generally took a backseat to the more common themes of curriculum and pedagogy. In Demmert's (2001) review, he notes that "teacher attitudes about students, knowledge of the subject matter, and understanding and knowledge about the culture of students are all shown to promote improved academic performance and student behavior (Yagi, 1985)" (p. 26). In a similar vein, other scholars have noted that CRS "relies on the development of certain dispositions toward learners" (Pewewardy & Hammer, 2003, p. 1). Yazzie offers one of the most direct and explicit points about the importance of teachers' values, attitudes, and ideologies:

Affective qualities, rather than skills or academic preparation, seem to characterize effective teachers in the research literature. Studies indicate that teachers who serve Native students effectively are informal, are caring and warm, give up authority, and have and show respect for the students. (Yazzie, 1999, p. 95)

The affective qualities to which Yazzie refers are also noted by a number of scholars in the multicultural education literature. Ladson-Billings (1995a) and Bartolome (1994) both argue that dispositions are critical to successful teachers of students of color, and other scholars of Indigenous education concur—noting the importance of teacher temperament, tolerance, flexibility, and overall disposition (Klug & Whitfield, 2003; Rhodes, 1994).

A related theme in the literature on CRS for Indigenous youth is the importance of caring relationships between teachers and students. Again, the theme of caring is common in the general multicultural education literature as well. First introduced by Noddings, caring is a main theme in an ethnographic study conducted by Valenzuela (1999). In her research, Valenzuela distinguishes between the authentic caring sought by Mexican American students and the aesthetic caring demonstrated by teachers. Powers (2006) notes a similar theme in research with Indigenous youth:

Dehyle (1992) observed Native students' mistrust of schooling as a reaction to negative stereotypes perpetuated by teachers. Conversely, she witnessed Native students' enthusiasm for learning under the instruction of approachable and caring teachers. She reported that "the issue of teacher caring" was very important to many of the Native youth (p. 31). Over one third of American Indian dropouts interviewed by Coladarci (1983) and almost half of those interviewed by Dehyle (1992) reported that their teachers failed to care about them. (p. 19)

Other scholars of Indigenous education have also noted the importance of caring relationships, mutual respect between students and teacher, and teachers being perceived as safe by Indigenous students (Cleary & Peacock, 1998; Gilliland, 1995; Swisher & Tippeconnic, 1999). Gilliland (1995) reminds us that "Kleinfeld (1979) found that the teachers who were most successful with Native students were those who were personally warm and supportive, as opposed to those who concentrate solely on academic tasks or have a detached demeanor" (p. 54). But although caring is an important affective quality for teachers hoping to practice CRS, caring is certainly not enough. In other words, we might think of caring as a necessary but not sufficient quality of effective teachers for Indigenous youth.

Another important disposition for culturally responsive teachers is an attitude and presence that expects high performance levels while caring about and understanding Indigenous youth—what some scholars have referred to as a "warm demander" (Kleinfeld, 1979; Swisher & Deyhle, 1989; Vogt & Au, 1995). In fact, a number of studies have suggested that an important common element in successful programs for Indigenous youth is the expectation for excellence (McCarty, 1993a; Rhodes, 1994) and that in unsuccessful schooling environments, Indigenous youth are negatively affected by teachers who hold low expectations for them (Chrisjohn, Towson, & Peters, 1988; Hornett, 1990). Thus, "teachers' expectations, academic encouragement, and provision of sufficiently challenging material appear to be critical instructional issues for Native students' school success" (Powers, 2006, p. 24).

A third important disposition of teachers who engage in CRS is an attitude of respect, appreciation, and value for tribal communities and cultures. A number of scholars suggest that this is not only a critical element for CRS but also the element

that is very often missing among educators serving Indigenous youth (Demmert, 2001; Garcia & Ahler, 1992; Grant & Gillespie, 1993). Given the high numbers of teachers who have no experience with tribal communities, this is an important area for better teacher education and support. Teachers must not only be interested in and value tribal communities, but they must also show similar interest in students' personal lives and be responsive to their students (Kleinfeld, 1979; Reyhner & Eder, 2004). Importantly, none of these dispositions are easy or quick to cultivate; in fact, "true appreciation and respect are attitudes that take a long time and a lot of effort to translate into behaviors. Appreciation and respect are the antecedent attitudes for teaching Indian children" (Garcia & Ahler, 1992, p. 14). Two strategies teachers can employ are to "watch more, ask less" (Rhodes, 1994, p. 197) and to appreciate and demonstrate appreciation for their own cultures, languages, and roots (Klug & Whitfield, 2003). These strategies are useful for all teachers of Indigenous students to keep in mind because White teachers as well as teachers of color can grow into becoming more reflective educators (Pewewardy & Hammer, 2003)—indeed, being more reflective is intimately connected to being a more authentically caring teacher and a warm demander.

Community Involvement and Support—It Goes Both Ways

Another common theme in the literature on CRS for Indigenous youth is the importance of community involvement and support both by the teacher and by the tribal community members. Teachers must know the community in which the school is situated, interact with community members, and support community agendas. On the other hand, members of the community must also be invited and welcomed into the school and be given plenty of authentic opportunities to connect with the school and the work of educators in the school.

A number of scholars discuss the need for teachers of Indigenous students to learn about local language issues and cultural practices and to support tribal nations in their efforts at linguistic and cultural preservation (Cleary & Peacock, 1998; McCarty, 1993a). Talking with people in the community is an obvious way to begin this process, and teachers are regularly advised in the scholarship to talk to mothers and work with their students' extended families (Gilliland, 1995; Jacobs & Reyhner, 2002; Klug & Whitfield, 2003; Weasel Head, 1993). Teachers are also advised to become familiar with the environment in which their students live by visiting homes, spending time at community events, observing and asking questions, working with students on community-based research projects, incorporating local events into the curriculum, tapping community resources, and allowing elders to become participants in the teaching process (McCarty & Shaffer, 1992; Rhodes, 1994; Skinner, 1999; Sparks, 2000; Swisher & Deyhle, 1989).

In addition to teachers becoming involved with and active in the local school community, scholars also note the importance of community members supporting and becoming involved in the schooling process. Tribal members, elders, parents, and other adults need to be given active roles in the development of culture-based education initiatives, programs, and school policies; invited in culturally appropriate ways to daily, weekly, or monthly schooling events; and generally be viewed as equal partners and collaborators in the schooling of their children (Demmert & Towner, 2003; Klug & Whitfield, 2003; Noley, 1992; Skinner, 1999). To facilitate this, schools must provide "ongoing staff development to improve communication

patterns with American Indian/Alaska Native parents” and “ongoing outreach to American Indian/Alaska Native parents that focuses on positive contacts with homes, rather than crisis intervention” (Butterfield, 1994, p. 5).

Parental and community support and involvement in schools is important for a number of reasons. Parents and other community members have the capacity to help their children negotiate the culture of the school, and they can provide much-needed sanctioning to their children about the importance of school so that students know they will be supported by their families in their pursuit of educational goals (Klug & Whitfield, 2003; Powers, 2006). “Parental input can [also] assist schools in refining curricula to become more culturally relevant and responsive to students” (Yazzie, 1999, p. 91). Demmert’s (2001) review raises an important point about community involvement and power. He writes:

More research is needed to sort out under what circumstances parental and community involvement works most powerfully; however, the research that exists supports the importance of local control on community attitudes and academic achievement among Native students. The research on how parental support influences students’ success is also very revealing. In light of this research, Native communities that have not yet gained control and taken direct responsibility for the education of their children must evaluate their role in the educational process. (p. 36)

In other words, parent and community ownership over schooling is an important aspect of actively engaging tribal sovereignty and realizing the goals of self-determination. As Deloria and Wildcat (2001) point out, local communities must take control of their local schools because “the thing that has always been missing in Indian education, and is still missing today, is Indians” (p. 152).

Teacher Knowledge

An unfortunate reality of AI education is that the vast majority of teachers lack much of the necessary knowledge to provide an effective, high-quality, and culturally responsive education to Indigenous youth (Agbo, 2001, 2004; Belgarde et al., 2002). The most obvious, but also most lacking, knowledge among teachers is an awareness and understanding of Indigenous cultures, histories, and political issues.

Teachers must have knowledge of Indigenous cultural issues if they hope to be successful with Native youth. Agbo’s (2004) research, however, shows that many White teachers in schools serving Indigenous youth are “ignorant” of the local cultures and ways of doing things and that local community members believe it is crucial for teachers to understand the local culture and way of life given their positionality within the community and relationships with children. As he argues, the “successful implementation” of CRS depends on “teachers’ understanding of the Mohawk worldview, their recognition of ethnic content education and their ability to adapt teaching programs to suit the special conditions of the children” (Agbo, 2001, p. 46). Indeed, a number of researchers have argued that the overall impact of CRS will likely be minimal if White teachers fail to acquire the knowledge and skills needed to integrate and reinforce local community cultural norms in the classroom (Agbo, 2001; Klug & Whitfield, 2003; Tippeconnic, 2000). Important aspects of cultural knowledge that scholars have suggested teachers must acquire include

spiritual traditions, past and present issues facing tribal nations, characteristics of the local culture, broad as well as tribally specific histories, common manifestations and impacts of racism among Indigenous peoples, differences between and within tribal nations, issues surrounding language preservation, the history of Indigenous educational policies and practices, and the history and continuation of colonization (Gilliland, 1995; Jacobs & Reyhner, 2002; Klug & Whitfield, 2003; Pewewardy, 1994; Pewewardy & Hammer, 2003; Reyhner & Jacobs, 2002; Reyhner, Lee, & Gabbard, 1993; Swisher & Deyhle, 1989). Perhaps most important, and yet least often acknowledged in the literature, is that teachers must learn and know about the unique government-to-government relationship between tribal nations and the federal government, the federal government's trust responsibility to Indigenous communities, the legal/political status of Native peoples in the United States, and the importance of self-determination within tribal communities. This knowledge is almost never included in teacher preparation, and yet it provides the foundation for Indigenous education in this country.

In addition to these aspects of cultural knowledge, teachers also need more specific and sustained training in pedagogical knowledge as it relates to working with Indigenous youth. A number of Indigenous adults, however, feel that NCLB has resulted in the de-emphasis of this knowledge to focus more attention on standardized pedagogical strategies (Beaulieu et al., 2005). Instead, what is needed is sustained and in-depth training at both the preservice and in-service stages of teaching because brief and superficial training has been shown to have little or no effect on teacher attitudes and behaviors in the classroom (Butterfield, 1994). This training must include cultural knowledge, pedagogical knowledge, and information about how culture affects students' responses to schooling (Grant & Gillespie, 1993). Furthermore, as Hickling-Hudson and Ahlquist (2003) note,

teachers and teacher educators need to study alternative epistemologies, multiple perspectives, and critical multicultural pedagogies, including both-ways curricula, which would lead them to different ways of educating. They need to experiment with the difficult task of creating alternative curricula and pedagogical approaches that not only rock the boat but ultimately overturn the boat of the traditional curriculum grounded in the dominant culture of unexamined whiteness. (p. 89)

There is, in fact, a fairly extensive body of scholarship suggesting promising education practices for Indigenous youth, and teachers working with this population should be very familiar with this work (Native Education Initiative of the Regional Educational Labs, 1995). Other pedagogical knowledge teachers of Indigenous students must acquire includes how Native children learn to learn at home, theories and practices of first and second language acquisition, characteristics of exemplary Indigenous educational programs, developing culturally specific curricular materials, acquiring Indigenous literature suitable for the classroom, and how to effectively share Native histories in the classroom (LaCounte, 1992; Reyhner et al., 1993).

Facilitating the acquisition of this knowledge among teachers will require a revisioning and reorganization of teacher education programs (Barnhardt, 1994; Belgarde et al., 2002; Irvine, 1992). The teachers in Agbo's (2004) study would have preferred to learn the needed cultural and pedagogical knowledge in their

university programs, and it is quite likely that other teachers around the country share this preference. Such training will require a cross-disciplinary approach in which students gain an understanding of the fields of history, anthropology, sociology, and linguistics in addition to the traditional education curriculum. This is beginning to happen in some teacher preparation programs, and there are a handful of federally funded programs specifically geared to prepare Indigenous teachers for Indigenous schools. Recent research on these programs highlights the continued need for culturally and locally specific course development (Beaulieu, 2006a; Yazzie-Mintz, 2007). Teachers and teacher educators must shift their perspective from continually seeing students as “disadvantaged” to instead seeing teachers and other educators as disadvantaged because of our general lack of cultural knowledge and culturally responsive pedagogical knowledge—in other words, we need to start educating ourselves differently (Gilliland, 1995; Grant & Gillespie, 1993).

Klug and Whitfield (2003) offer a helpful discussion of the need for teachers to become bicultural. Here again, a shift in perspective is required for educators to see the necessity of becoming bicultural ourselves before we might hope to help our students become bi/multicultural. Educators “must be able to operate effectively within their own cultures and the cultures of their students” as well as be “aware of and sensitive to the strengths, needs, and potentialities of our Native American students” (Klug & Whitfield, 2003, pp. 2, 13). For teachers to become bicultural, they must confront their own prejudices and redefine their perceptions of Indigenous peoples, get involved in the community and learn about students’ backgrounds, and reshape their own identities by examining the world from multiple perspectives and taking risks in obtaining new knowledge (Klug & Whitfield, 2003). The Alaska Native Knowledge Network (1998) again provides helpful guidance in their cultural standards for educators:

- Culturally responsive educators incorporate local ways of knowing and teaching in their work.
- Culturally responsive educators use the local environment and community resources on a regular basis to link what they are teaching to the everyday lives of the students.
- Culturally responsive educators participate in community events and activities in an appropriate and supportive way.
- Culturally responsive educators work closely with parents to achieve a high level of complementary educational expectations between home and school.
- Culturally responsive educators recognize the full educational potential of each student and provide the challenges necessary for them to achieve that potential.

Each of these aspects of teacher knowledge plays a role in the improved schooling of Indigenous youth. Some research has shown a high correlation between teachers’ awareness, understanding, and appreciation of cultural knowledge and students’ successful academic performance (Butterfield, 1994). And on a broader scale, when teachers of Indigenous students possess the knowledge outlined here, students, schools, and communities are more likely to be positively influenced (U.S. Department of Education, 2001).

Despite appearing to be less of a priority than curriculum and pedagogy in much of the literature on CRS for Indigenous youth, teacher knowledge and characteristics become critical when self-determination and tribal sovereignty, racism, and Indigenous epistemologies are brought into the discussion. If educators working with Indigenous students gained an understanding of Indigenous epistemologies and adopted an explicit commitment to tribal sovereignty and self-determination, schooling would surely better meet the needs of both Native students and tribal communities. Additionally, when educators examine the structural racism present within their schools, curricula, and practices, they will likely begin engaging in less racist and more equitable schooling practices.

School- and District-Level Issues Within the Context of NCLB

Although the majority of scholarship we reviewed for this article focused on teacher- and classroom-level issues related to CRS, as we mentioned in the early pages, culturally responsive efforts need to be school wide and have relevance to larger policy issues as well. In the late 1980s, Hampton (1988) developed a list of criteria for an “Indian theory of education.” This list is applicable not only to teachers and classrooms but also to schools, districts, and even larger educational entities. Hampton argued that to be “authentically Native,” schooling must incorporate the following influences:

1. spirituality—an appreciation for spiritual relationships;
2. service—the purpose of education is to contribute to the people;
3. diversity—meeting the standards of diverse tribes and communities;
4. culture—a people’s way of thinking, communicating, and living;
5. tradition—continuity with tradition;
6. respect—the relationship between the individual and the group recognized as mutually empowering;
7. history—appreciation of the facts of Native American history, including the loss of the continent and continuing racial and political oppression;
8. relentlessness—commitment to the struggle for good schools for Indian children;
9. vitality—recognition of the strength of Indian people and culture;
10. conflict—understanding the dynamics and consequences of oppression;
11. place—the sense of place, land, territory; and
12. transformation—commitment to personal and societal change.

As Grant and Gillespie (1993) point out, one of the crucial “common denominators” is a concern for identity and a reclaiming of autonomy for Indigenous students and communities (p. 48). Ten years after the publication of Hampton’s list, the Alaska Native Knowledge Network developed a set of cultural standards for schools. Their list represents standards to which schools and districts should strive to be culturally responsive:

1. A culturally-responsive school fosters the on-going participation of Elders in all aspects of the schooling process.
2. A culturally-responsive school provides multiple avenues for students to access the learning that is offered, as well as multiple forms of assessment to demonstrate what they have learned.

3. A culturally-responsive school provides opportunities for students to learn in and/or about their heritage language.
4. A culturally-responsive school has a high level of involvement of professional staff who are of the same cultural background as the students with whom they are working.
5. A culturally-responsive school consists of facilities that are compatible with the community environment in which they are situated.
6. A culturally-responsive school fosters extensive on-going participation, communication, and interaction between the school and community personnel. (Alaska Native Knowledge Network, 1998)

Both Hampton's and the Alaska Native Knowledge Network's lists provide helpful criteria for schools and districts to consider in their efforts at providing CRS to Indigenous youth.

Other scholarship also provides guidance to schools and districts. In studies looking at successful school- and district-wide culturally responsive initiatives, a number of common characteristics emerge. One critical criterion is a strong and supportive administrator who shares the vision to make CRS a reality. Such an administrator must have a long-term commitment to the community, high expectations for faculty and students, and the ability to advocate for faculty to try new things in a risk-free school environment (McCarty, 1993a; Rhodes, 1994). A core of primarily local school personnel, consistent financial support, and quality technical support are also needed at the school and district level for CRS to really take hold and have a lasting impact in tribal communities (McCarty, 1993a). School climate is another critical element to successful CRS efforts. Powers's (2006; Powers et al., 2003) research suggests that school climate—which she defines as supportive personnel in a safe and drug-free environment—has a very large effect on Indigenous students' school success.

Scholarship on efforts in Hawaii and communities in the Navajo Nation provides examples of effective school-wide efforts at CRS. Projects such as Hawaii's Kamehameha Early Education Program (KEEP) and Arizona's Rock Point, Rough Rock, and Fort Defiance illustrate a number of common elements. For example, schools and teachers must be viewed as the primary sites of change—rather than maintaining the dominant and often discriminatory belief that it is the students who must change (Jordan, 1995). The KEEP model stresses the importance of educators drawing on cross-disciplinary knowledge about students, culture, language, and learning, as well as recognizing that smaller, incremental changes may be more realistic within large, publicly funded school systems (Jordan, 1995; Vogt & Au, 1995). The KEEP project also highlights how critical it is for teachers to have support, including time, resources, and tools, to reflect on their practice, conduct research within their own schools, and try new things with their students (Vogt & Au, 1995). The Rough Rock example provides pointed evidence of the importance of change being a grassroots effort that emanates from and has the support of the local community (Begay, Dick, Estell, Estell, & McCarty, 1995; McCarty, 2002; McLaughlin, 1995; Vogt & Au, 1995). Another important condition for success at the school and district level is a reevaluation of faculty and staff roles, status, and salaries so that hierarchies are minimized and locally specific cultures and languages are genuinely privileged (McLaughlin, 1995). And finally, regular program

monitoring, consistent funding, and the support of outside collaborators have all been shown to be important factors in school- and system-wide efforts at CRS for Indigenous youth (Begay et al., 1995; Holm & Holm, 1995).

The support and buy-in of parents and the local tribal community are also critical and can assist schools in providing valuable resources and support for culturally responsive educational efforts (Holm & Holm, 1995; McLaughlin, 1995; Vogt & Au, 1995; Ward, 1998). To ensure a critical mass of Indigenous students and parent support, Butterfield (1994) suggests that Native students be brought together in “schools of choice” or magnet schools in urban and racially diverse areas. This, of course, would require collaboration among neighboring districts and district leaders. On an even larger scale, Skinner (1999) recommends a “National Native Curriculum Project” funded and supported by the U.S. Department of Education as a mechanism for creating more accurate and culturally responsive learning opportunities for both Indigenous and non-Indigenous students in schools across the nation.

Educational standards and assessment represent two critical areas that must be addressed in the present educational climate of NCLB, accountability, and standardization. As Lomawaima and McCarty (2006) explain,

as pressures for standardization have mounted, with no evidence that the focus on standards and high-stakes testing improves educational outcomes or opportunities for Native youth, many Indigenous communities have looked to alternative institutional arrangements as a means of retaining control over their schools and ensuring that the curriculum is infused with local linguistic and cultural knowledge. (p. 159)

Some of the “alternative arrangements” that have been tried include charter schools and the establishment of local educational standards by which tribal schools are held accountable. The Assembly of Alaska Native Educators and the Alaska Native Knowledge Network provide an illustrative example of a tribal community (or, in this case, many tribal communities) coming together to create its own set of culturally responsive educational standards. These standards are a parallel set of standards meant to complement and add to the standards set by the federal government. The Navajo Nation is also moving toward determining its own culturally responsive and tribally specific educational standards, and other tribal nations may be considering similar alternatives. As Kawagley (1999), Apthorp (Apthorp et al., 2002), and others have noted, educational standards should specify Indigenous and mainstream knowledge, norms, cultures, languages, and pedagogies as complementary goals. Standards-based reform has the potential to be a powerful tool for tribal communities if these communities become involved in developing culturally responsive standards and related assessment procedures (Demmert, 2001).

In addition to the oft-cited test bias in most standardized forms of assessment, Rhodes (1994) suggests that Indigenous youth from reservation communities have a number of cultural predispositions that may further impede their success on standardized tests. He cites translation issues, decision-making processes, and norms around offering assistance as three possible factors affecting Native students’ performance on standardized tests. He also explains that most standardized tests are timed and require “quick answers, guessing, and risk-taking” but that many students raised in

tribal communities have learned to make decisions more slowly and accurately—a difference that may result in Indigenous students not completing much of the test in the given amount of time (Rhodes, 1994, p. 158). And finally, Rhodes cites Lamphere in noting that it is a cultural norm for some tribal communities to offer help to those in need and that this norm may distract Indigenous students during tests where individual work is required. Along these same lines, Solano-Flores and Nelson-Barber (2001) have argued that “cultural validity” be recognized as a key component of assessment design and implementation. Nelson-Barber and Trumbull (2007) recently explained why cultural validity is so important:

because sociocultural groups create meaning from experience in culturally determined ways, individuals have predisposed notions of how to respond to questions, solve problems, and so forth. It follows that these predispositions influence the ways in which they respond to test items. (p. 134)

Although standardized forms of assessment certainly may present difficulties for students who are not members of the dominant culture, they also represent inappropriate and inaccurate ways of assessing knowledge in some Native language immersion and culturally focused schools for Indigenous youth. This concern was raised by a number of the Native adults in recent testimony at regional hearings on NCLB sponsored by the National Indian Education Association (Beaulieu et al., 2005). Thus, more authentic indicators of learning are needed in schools serving Indigenous youth and are necessary for those providing CRS (Butterfield, 1994). A number of scholars have suggested the use of “performance assessment” (Cleary & Peacock, 1998; Fox, 1999; Grant & Gillespie, 1993) because it allows parents and communities to be involved, is more consistent with norms in tribal communities, provides space for students to assess their own progress, and provides an alternative way to demonstrate knowledge and skill.

A final consideration in thinking about educational assessment is for communities and schools to think carefully about to whom schools and educators ought to be held accountable. Lomawaima and McCarty (2006) offer insight on this issue:

In contrast to test-driven accountability, some Native nations and states are adopting formal approaches to assessment that hold schools and educators accountable to the children, Native nations, and communities they serve. Cochiti educator Joseph Suina (2004) notes that Native language teachers in some New Mexico BIA and public schools feel “accountable to the tribal council first” (p. 291). “I let my elders advisory group know how the kids are doing,” one Native teacher reports; “they are the ones most interested and concerned.” (p. 163)

This notion of accountability to tribal nations and communities first is very much in line with the discussion above regarding tribal nations creating their own culturally responsive educational standards.

When policies, expectations, and entire school systems are centered around tribal sovereignty and self-determination, antiracism, and Indigenous epistemologies, Native students and tribal communities will be better served. Accountability measures, standardized tests, and countless other policies are too often developed and sustained according to dominant, mainstream norms and interests. We must center Indigenous norms and tribal nations’ interests if we hope to engage in CRS for Indigenous youth.

Case Studies of Successful Efforts at CRS

There are a number of examples in the scholarship of programs that have successfully developed and implemented CRS for Indigenous youth. What many of these case studies have in common is a “grass roots approach” in which local communities play a key role in developing and sustaining the program, sustained financial support, and careful record keeping of both achievements and setbacks (Demmert & Towner, 2003; Lipka & McCarty, 1994; McCarty, 1993a; Native Education Initiative of the Regional Educational Labs, 1995). We will review some of these examples here, but this is in no way meant to be an exhaustive list. We have focused on programs that integrated culture, broadly speaking, and omitted programs that are more focused on language issues and bilingual or language immersion models. We realize this is a somewhat superficial divide, as language and culture are so intimately related, but as with the rest of this article, the focus remains on CRS for Indigenous youth who may or may not be second language learners. At the same time, we agree with Hermes (2005, 2007) that there is great potential in “teaching culture through language” because of the ways language forces the centering of Indigenous epistemologies and may transform the culture of schools serving Indigenous youth and tribal communities. Lomawaima and McCarty’s (2006) recent book discusses a number of educational programs for Indigenous youth that have focused more specifically on language issues, and we would direct the reader interested in case studies of language programs to their insightful work.

One of the most studied efforts at CRS for Indigenous youth is KEEP. This program provided culturally responsive language arts and math instruction to Native Hawaiian students, which led to higher reading and math achievement among students in the program as compared to students not in the program (Apthorp et al., 2002; Brenner, 1998; Lipka, 2002; Tharp & Yamauchi, 1994; Vogt et al., 1993). When the techniques developed for KEEP were then attempted in a Navajo schooling context, similar results did not ensue—thus adding confidence to the conclusion that pedagogy and curriculum must be developed with the local culture in mind. Klump and McNeir (2005) note that the Center for Research on Education, Diversity, and Excellence has developed a set of standards for effective pedagogy based on KEEP findings as well as other successful case studies. These standards include the following:

1. teachers and students working together,
2. developing language and literacy skills across the curriculum,
3. connecting lessons to students’ lives,
4. engaging students in challenging lessons, and
5. emphasizing dialogue over lectures (Klump & McNeir, 2005, p. 6).

Again, we see the same message that schooling must be connected to student lives, engaging, and collaborative to be effective and culturally responsive for Indigenous youth.

Lipka (1990) shares a case study of a successful Yup’ik first grade teacher. This teacher, Mrs. Yanez, adapted her classroom to resemble the local community in terms of communication styles, values, praised behaviors, and curricular content.

She taught students “the 3 R’s while teaching them to be Yup’ik” (Lipka, 1990, p. 25). Her success is highlighted in one particular lesson where she used a local activity to teach literacy and math skills:

From the choice of activity, smelting, to presenting the lesson through demonstrating and observation, to connecting the importance of the lesson to community-based activities and kin, to the interactional style of the teacher all contribute to contextualizing this lesson. The implications of this case are that contextualizing classroom lessons and building on students’ prior knowledge can positively affect students’ classroom performance. (Lipka, 1990, p. 18)

Many of the elements discussed throughout this review of the literature on CRS for Indigenous youth are employed by Mrs. Yanez. Barnhardt (1990) also shares an example of a school serving Yup’ik youth that integrates Yup’ik cultural values, employs a bilingual curriculum, and maintains strong community support.

Rock Point and Rough Rock community schools, both on the Navajo reservation, provide two examples that are cited often in the literature. Both have been described as schools in which teachers are able to resist conventional schooling and instead experiment with CRS in the community’s native language (Holm & Holm, 1995; Lipka & McCarty, 1994). Outcomes of these efforts include Navajo children learning Navajo at no expense to their knowledge of English, higher scores on math and reading standardized tests, and more confidence and pride among students (Lipka, 2002). Similar efforts and results have also been reported at the Hualapai Bilingual/Bicultural Program in Peach Springs (Skinner, 1999; Watahomigie & McCarty, 1994, 1997; Watahomigie & Yamamoto, 1987).

Klump and McNeir (2005) provide four case studies of exemplary culturally responsive educational programs for Indigenous youth across the nation. The Russian Mission School in rural Alaska integrates Native knowledge with academic standards through a hands-on curriculum centered around subsistence activities indigenous to the local community. Students engage in learning experiences related to real activities that are of high interest to the community and draw on local resources, materials, and knowledge. As Klump and McNeir explain,

traditional knowledge is carefully integrated with academic standards. A unit on berry picking, for example, asks students to study and identify five types of berries, learn where those berries are traditionally harvested, and then use the berries to create traditional Yup’ik foods. The berry picking activity incorporates benchmarks from science, health, and personal/social skills standards. Students then demonstrate what they have learned through writing assignments and using technology to create a PowerPoint presentation about making traditional foods. “We’re very aggressive about using the standards,” notes Hull [a local educator]. “But we see Native culture as the pathway to that.” (p. 12)

The results of the Russian Mission School’s efforts have been positive: Enrollment rates have gone up; crime in the community has gone down; stronger connections between students, teachers, and elders have resulted; students are rediscovering aspects of their cultural heritage; and subsistence activities have increased throughout the community (Klump & McNeir, 2005).

The second case study provided by Klump and McNeir (2005) is also in Alaska. The Tuluksak School has acquired a school-based dog-sled racing team as a way to connect core curricular content and standards to culturally relevant, hands-on

activities. The dogs are integrated into home economics, science, and even reading, and the efforts have resulted in improved social and interpersonal skills among students. The Tuluksak School has also focused on retaining and training faculty because it traditionally has a very high teacher turnover rate. It provides a six-credit professional development course on Yup'ik culture and language to all teachers, training on instructional strategies for English language learners, and improved living conditions in the local community. Here too, the efforts have paid off with a much lower turnover rate among teachers. This case study highlights the need for schools to assess their local needs and resources and develop strategies that are culturally specific and responsive to changing conditions.

Two other case studies provided by Klump and McNeir (2005) also emphasize the importance of teacher knowledge and sustained teacher training if schools hope to provide CRS to Indigenous youth. On the Flathead Indian Reservation, the Salish Kootenai College has provided sessions in which tribal elders teach school faculty important aspects of the local culture and language. The goal is to improve the cultural competency of teachers over a number of days so that they retain the knowledge and implement it in their classrooms. And finally, the Title VII Indian Education Program at the Warren School has developed culturally responsive curricula and resources for teachers to use in their classrooms (Klump & McNeir, 2005). The materials are integrated throughout the school's curriculum in every grade. Both of these examples point to the importance of teacher knowledge, pedagogy, and curriculum in efforts to provide CRS to Indigenous youth.

A number of similarities can be drawn from the previous examples—all of which are highlighted throughout this article. These examples point to the importance of contextualizing or localizing curriculum and pedagogy so that it bears some connection and resemblance to the knowledge and learning of the local community. The examples also illustrate how the knowledge, norms, values, resources, and epistemologies of local communities must be viewed as legitimate and valuable and intimately integrated into schools. And finally, many of the examples highlight the ways in which Indigenous students are engaged and learning school knowledge at the same time and through experiences that also facilitate the learning of their local community knowledge, culture, and epistemology. Perhaps most importantly, these case studies provide concrete, real-life examples of schooling for self-determination.

Future Directions and Concluding Thoughts

What much of the previous discussion boils down to is that students will learn better and be more engaged in schooling when they can make connections to it. This is certainly neither new nor revolutionary information. But the fact that in 2008 we are still making this same argument and trying to convince educators of the need to provide a more culturally responsive pedagogy for Indigenous students indicates the pervasiveness and the persistence of the problem. Why is it that scholars are still making similar arguments today that were being made in the early 1980s and even earlier in the *Meriam Report*? We should find this question both frustrating but also, maybe, empowering. Perhaps it is frustrating because educators and policy makers have not taken the suggestions seriously and have continued schooling in a "business as usual" fashion (Beaulieu, 2006b; Sleeter & Grant,

2003). Or maybe the repetition of this scholarship over the past three decades should be viewed as empowering because there is such a vast body of literature supporting the same conclusion, and maybe we finally have amassed enough supporting research to convince educational leaders, policy makers, and financial officers that CRS needs a serious and sustained commitment. Unfortunately, Demmert (2001) has noted persistent and significant resistance to the implementation of CRS among most state and federal policymakers, and Klug and Whitfield (2003) have noted that many teachers continue to believe that educational strategies that integrate culture are inferior and remedial in nature. Our review of the literature, however, sheds light on a number of promising practices for schools and educators working with Indigenous youth. The programs, strategies, and efforts are certainly varied, but this may be necessary to provide effective CRS for the many diverse tribal nations and Indigenous communities in the United States.

A number of scholars have noted the limited nature of conclusive evidence supporting CRS for Indigenous youth. There is a plethora of scholarship consisting of case studies, program descriptions, and anecdotal calls for CRS, but many have noted that the causal links in this work are weak and that very few studies make strong claims about how students' academic performance is affected by efforts at CRS (Apthorp et al., 2002; Demmert, 2001; Demmert & Towner, 2003; Klump & McNeir, 2005; Lipka, 2002; Powers, 2006; Yazzie, 1999). Despite some of these concerns, all of the recent reviews agree with the conclusion that "congruency between the school environment and the language and culture of the community is critical to the success of formal learning" (Demmert, 2001, p. 9). As Demmert and Towner (2003) note, "what is needed, of course, is scientifically rigorous research that is on target regarding culturally based education as an educational treatment or program" (p. 31). Recently, however, the "Math in a Cultural Context: Lessons Learned from Yup'ik Eskimo Elders" has provided strong empirical evidence that the math performance of Native youth improves with this locally developed and culturally responsive math curriculum (Lipka, Shary, Adams, & Sharp, 2007). Clearly, more still needs to be known about the actual and causal links between CRS and Indigenous students' experiences and achievement in schools, but our review supports many others in claiming that we do know that positive results are often related to efforts at CRS. As Yazzie (1999) explains, "we can assume there is a direct relationship among culture, curriculum, and learning in American Indian schooling experience. But to what degree? We do not know" (p. 97). The in-depth case studies that currently make up the bulk of research in this area are exactly what is needed to reveal the complexity of CRS for Indigenous youth. Because the relationships between culture, curriculum, pedagogy, learning, and academic achievement are so complex, diffuse, interactive, and far reaching, equally complex and far-reaching research designs are needed. Research that examines both preservice teacher education and current schooling efforts in tribal communities and urban schools serving Indigenous youth must be pursued.

Clearly, more and better research and teacher training are needed if we hope to change the schooling experience for Indigenous youth in the United States. Still, however, we are left with numerous questions after reviewing this literature and thinking about the state of education for tribal communities in this country. For instance, what does CRS look like in practice in various contexts? Some of the case studies we described earlier begin to paint a picture, but more of this is certainly

needed. How do we prepare all teachers (both Indigenous and non-) to engage in CRS while also meeting the calls for standards and accountability (and is this even possible)? Given the current context of NCLB, we must develop strategies for educators to meet both of these imperatives. Tribal communities want good schools that provide an education that is culturally responsive and makes sense for their goals of self-determination; although this certainly includes the “core curriculum,” it includes much more. And finally, what (if anything) do the current NCLB standards provide for Indigenous communities? Is NCLB simply a return to assimilationist educational agendas, or are there ways to think about how standards might open up doors for engaging in CRS for Indigenous youth? We clearly need to make the current calls for standardization problematic because of their lack of attention to local and contextual issues and needs; this is a critical move along the path of self-determination and culturally responsive education among tribal nations and Indigenous communities.

Notes

1. We intentionally capitalize “Indigenous” in this article, although APA suggests that indigenous is “correct.” Our intent here is to note the political nature of this word and the role of human rights where Indigenous peoples across the world are concerned. Although we limit our discussion in this article to Indigenous peoples of the United States, we stand in solidarity with Indigenous peoples globally.

2. Throughout this article, we will use *Alaska Native*, *AIIAN*, *Native* or *Native American*, and *Indigenous* interchangeably. We are fully aware of the wide range and variation among the over 500 tribal nation groups in the United States. The purpose of this article, however, is to offer an overview of the literature that addresses these groups broadly.

3. We realize that there have been a multitude of master’s and doctoral theses that address these topics, but we only include a few here because of the extensive nature of materials available in other published forums. In no way is it our intent to discount the power of these documents; rather, we are constrained by space issues in this article.

4. This is a highly contested area, and it becomes more elusive as tribal nations are de-enrolling some of their citizens because of political disagreements. We recognize the contested nature of these discussions; our point here is that another person in the community must view an individual as being a member of that community for someone to be considered Indigenous.

5. Please see the International Work Group of Indigenous Affairs (2008) for a discussion of the definition of Indigenous peoples.

6. Although most of the literature references the goal of students becoming “bicultural” and able to “walk in two worlds,” we are cautious in our use of this language because of the way it obscures the complexity and multiplicity of the actual experiences and goals of many Indigenous youth and tribal communities.

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