

## **What is Culture-Based Education? Understanding Pedagogy and Curriculum**

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To understand the pedagogy associated with teaching in a Culturally-Based Education (CBE) setting for Native American students (this includes American Indians, Native Alaskans, and Native Hawaiians) there must be a basic understanding of what it includes. First and foremost is the recognition that CBE programs will not be all the same and may vary for different Indigenous student groups schools serve; second, assessment tools have to be developed that will accurately measure the levels of a school's CBE program that reflects the priorities of the students community; and third, assessment tools must be developed that are linguistically as well as culturally appropriate that meet the academic priorities and needs of the community.

Issues of culture, language, cognition, community and socialization are central to learning. The primary socialization of infants and young children (as well as all later socialization into new communities of practice) is accomplished through joint, meaningful activity with guidance by more accomplished participants, principally through language exchanges or other semiotic processes. Language vocabularies and routines acquired by learners through these processes are the elements that account for community, linguistic and cultural continuity and are the primary cognitive tools for individual and group problem solving and adaptations (e.g., culturally-based secondary socialization processes like schooling can be facilitated by activating the learners' cognitive and linguistic tools laid down by community socialization). Primary to this understanding is that activity (primarily joint activity) is the setting in which language and cognition are developed, and that patterns of activity have a cultural basis.

Harvard professor Jerome Bruner notes, "culture shapes mind...it provides us with the tool kit by which we construct not only our worlds but our very conceptions of our selves and our powers." He further states that "you cannot understand mental activity unless you take into account the cultural setting and its resources, the very things that give mind its shape and scope. Learning, remembering, talking, imaging: all of them are made possible by participating in a culture" (Bruner, 1996, pp. x-xi). A child's education must include social, emotional, and ethical competencies as well as academic priorities. A growing number of schools serving indigenous communities agree with these premises conceptually. The task as we envision it is to accomplish this in a culturally compatible and supportive environment.

In recognition and support of these positions I helped bring together a group of like-minded schools and professionals. This consortium of schools and educators represent a variety of institutions that focus on the development and strengthening of a CBE curriculum through teaching in their Indigenous language, or through teaching the Indigenous language as a subject as part of a school improvement strategy. This consortium developed a set of CBE rubrics to help define what one might strive for in a CBE program. Although this set

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of rubrics was designed specifically for the tribal and community groups in our consortium, I believe they have implications for a broader selection of schools interested in developing a CBE curriculum. For the purposes of this paper I have identified three types of schools. First is Generic (designed to meet the academic needs of students without regard to the multicultural or ethnic mix of students), second is Multicultural (designed to meet the cultural as well as academic needs of the different student racial or ethnic groups served by a school or system), and third is Culture Specific (designed to meet the needs of a specific cultural or ethnic group of students).

The public school systems in each state may be defined as Generic (because they are designed to meet the academic needs of all students without regard to the racial or ethnic mix of students served by each local school. In many cases it may be appropriate to define the public schools as Culture Specific because many believe public schools reflect the cultural mores and priorities of middle class America. In either case the language of instruction is English with limited opportunity to learn one's heritage language or one's indigenous language if that language is other than English.

In this presentation the CBE pedagogy and curriculum priorities proposed are Culture Specific. That is, the programs I work with focus on a particular Indigenous cultural group and a specific language (although there may be students from other language groups in the classroom or school). The movement to develop a specific language and cultural focus in modern times has its genesis from Rough Rock Demonstration School founded in 1966, Klawock Public School in 1968, and the Bethel School District under the auspices of the Bureau of Indian Affairs in 1968. These school-based cultural and indigenous language programs pre-date the Indian Education Act of 1972 (now referred to as Title VII of No Child Left Behind Act or NCLB), which offered the first large-scale opportunity for Indian and Native groups to develop CBE programs. The language in the Indian Education Act of 1972 supported the idea of CBE as well as the development and use of Native languages in K-12 schools and early-childhood education opportunities. The Act resulted from the 1969 U.S. Senate Report, *Indian Education: A National Tragedy—A National Challenge*, which is based on a review of early literature and reports on Indian Education and national testimony gathered by a special sub-committee in the U.S. Senate to look for ways to improve the educational opportunities of Indian students.

The consortium I reference above is a research project designed to assess the effectiveness of a strong indigenous language based program in a school culture that supports and reflects the cultural base of the students served (i.e., a CBE or Culture Specific program). Each school partner teaches in the indigenous language as the medium of instruction, teaches in a bilingual approach or teaches the language as a class or course. Our position is that teaching in more than one language, the inclusion of a CBE program and having teachers that know the languages and cultural base of the students will result in students that will do as well or better than their peers whom do not have the benefit of learning their indigenous language and receiving a program of culturally-based education.

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The assessment tool we developed for measuring levels of academic performance are called Curriculum Based Measures (CBMs) and are used for measuring basic skills in reading, writing and mathematics. At some point we hope to develop a set of CBMs that measure oral competence—Indigenous language expectations for high school students for which CBMs have not yet been developed and tested. We currently have a set of measurements in the language of instruction for reading and have developed a test set in mathematics and writing in Hawaiian, Navajo, Yupik and English (the latter for a specific CBE program that teaches in the English language with the Indigenous language currently taught through a class setting rather than through an immersion or bilingual context.

We also developed a set of CBE rubrics used to measure the level of a CBE program as defined by the rubrics. The CBMs are in the language of the school (with a set in Diné, Hawaiian, Yupik, Ojibwe and English) and meet national standards for validity and reliability. The CBE rubrics we have developed have five sets of rubrics, each with levels of CBE called indicators which are a general definition of CBE rubric levels and a set of exemplars for each indicator. These rubrics include:

1. Culturally-Based Indigenous Language Use
2. Culturally-Based Pedagogy
3. Culturally-Based Curriculum
4. Culturally-Based Patterns of Participation in Leadership and Decision-Making
5. Culturally-Based Methods of Assessing Student Performance.

The four different levels (indicators) for each of the Rubrics listed above from low to high are: 1) Not Present; 2) Emerging (Indicators); 3) Developing (Indicators); and 4) Enacting (Indicators).

### **CREDE principles for effective teaching**

Teachers are one of the most important aspects of *Atuarfitsialak* (“A Cool School” in Greenlandic) or schools that are able to help motivate students to achieve academically as well as socially, culturally, psychologically and spiritually or generally create an environment that will help meet the general-well being of indigenous students. Roland Tharp, a member of our consortium, promotes a research base set of principles for effective teaching that meets our view of pedagogy and classroom management. These seven principles have five implementation levels for assessing how well the principles have been implemented and include the following:

- *Teachers and Students Working Together*: Joint productive activity.
- *Development of Language and Literacy Across the Curriculum*. Development of the languages of instruction and the content areas is the meta-goal of all instruction...

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- *Connecting Lessons to Students' Lives.* Contextualize teaching and curriculum in students' existing experiences in home, community, and school.
- *Engaging Students with Challenging Lessons.* Maintain challenging standards for student performance; design activities to advance understanding to more complex levels.
- *Emphasizing Dialogue over Lectures.* Instruct through teacher-student dialogue, especially academic, goal-directed, small-group conversations (known as instructional conversations), rather than lecture.
- *Learning Through Observation.* Providing demonstration or models of requested performance.
- *Encouraging Student Decision Making.* Involving students in the choice or design of instructional activities.

The five different levels for assessing implementation of these seven principles from low to high are: 1) Not observed, 2) Emerging, 3) Developing, 4) Enacting, and 5) Integrating.

In an effort to identify a tool for assessing individual student wellbeing we develop a set of rubrics for measuring an individual student's level of understanding and application of his or her Native "Roots." This will take additional work but it is based on my own experiences, a field examination conducted among the Navajo by Florian Johnson, the Culture-Based Rubrics presented earlier, and work done in Hawaii on Hawaiian wellbeing.

The Indigenous Cultural (Socio-Psych) Wellbeing Continuum Rubrics have five levels of measurement and include:

1. Strong, positive indigenous identity and active involvement in cultural community;
2. Active and practical traditional spirituality.
3. Understands and demonstrates responsibility to family, community, and broader society.
4. Shows continuing development of cognitive and intellectual skills.
5. Knows, understands, respects, and applies kinesthetic activity for physical development.

The four different levels (indicators) for each of the rubrics listed above from low to high are as follows: 1) Not Present; 2) Emerging Indicators; 3) Developing Indicators; and 4) Enacting Indicators.

## **Conclusion**

A general summary of what we have learned from research on cognitive development, schooling, and academic performance that I have personally used in my work includes:

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1. Each of us possess a set of intelligences (cognitive skills) that an early stimulating environment and challenging experiences can influence (Sternberg, 1985; Sternberg, Forsythe et al., 2000; Sternberg & Grigorenko, 2000; Gardner, Howard, 1985; Sousa, 1998).
2. Early development of language and other literacy skills are closely associated with cognitive development and academic success in school ((Donovan et al., 2001; INAR, 1992; NICHD, 2004; O’Sullivan & Goosney, 2007).
3. Developing more than one language does not limit a person’s ability to learn and may even enhance cognitive development (Ackerman, 2004; Au, 1992).
4. Most young children are automatically programmed to use a certain section of the brain for learning a language and when they learn a second language early enough use that same part of the brain to learn second and other languages. Children learning another language later in life use a different part of the brain and it becomes a learning experience (and more difficult) rather than remaining a natural process (Pugh, 2006).
5. The influences of cultural environments are necessary for educators to understand because of the role this environment has on learning and what children become (Bruner, 1966; Demmert, 2001; Demmert & Towner, 2003; Gardner, 1985, 1995; Vygotsky, 1944).
6. Children where the language of instruction is different from the language of the home, or the child’s first language and where the testing of academic performance is in a second or third language, will not test well (Mullis, 2003; Rasmussen, 2003; Demmert, 2005).
7. Children who learn to read in one language are able to transfer the reading skills to reading in a second language (Bournot-Trites & Tellowitz, 2002).
8. Learning to read in the second language should be delayed until the learner is able to develop his or her reading skills to an automatic level (automaticity). The transfer from reading in the first language to reading in the second language then becomes a natural transition (practical experience of LKSD, Pūnana Leo, & Window Rock).
9. It takes 3–5 years to develop oral proficiency for limited English proficient (LEP) students and it can take 4–12 years to develop academic English proficiency (Devlin, 1997; Ontario Ministry of Education, 2001; Hakuta et al., 2000).
10. Moving from a Native language to English or French has been shown to affect a Native student’s self esteem if done before the first language has been well established (Bougie, Wright & Taylor 2003).
11. Dyslexic children use a different part of the brain than normal “readers” to read and if caught early enough can learn to develop that part of the brain that most of us use to read (Ackerman, 2004; Au, 1992).
12. High quality teachers that know context, pedagogy, and understand the different learning periods and preferences can be affective teachers (NCTAF, 1996; Cotton, 1995; Snow et al., 1998; Tharp, 2006).

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13. Physical activity develops a glucose important to cognitive development (building synaptic connections in the brain) and kinesthetic activity is necessary for the cognitive development of all young children (Bagley, 1996)
14. Two of the most accurate predictors of a young person's ability to succeed in school are reading readiness (phonemic awareness, vocabulary, alphabet naming, and listening comprehension) and two dimensions of a youngster's social behavior: 1) interpersonal skills (the quality of social relationships with peers), and 2) work-related social skills (a child's degree of independence, responsibility, and self-control) at 54 months of age (5 ½ years of age) (NICHD, 2004).
15. There are three environmental influences linked to levels of academic performance among young children. These influences include the following: 1) High quality parenting: the degree to which a youngster is provided with an enriched warm and responsive learning environment (which includes appropriate control and discipline over children, each closely associated with both higher first grade reading and mathematics skills); 2) High quality child-care environments: stimulating activity and nurturing as reflected in high quality parenting and 3) High quality first-grade classrooms: with a focus on literacy instruction, evaluative feedback, instructional conversation, and encouraging child responsibilities (NICHD, 2004).
16. The most important contributors to learning include the curriculum, teacher quality, instructional practices, and assessment include low child-to-teacher ratio and small classes; pre-literacy, and pre-numeracy activities; motor, emotional, and social development; health and nutritional services; including significant opportunities for structured and unstructured play (Lynch, 2004; Parlakian, 2004; Pica, 2006).

My research indicates a need to focus on:

- early childhood education
- health and wellbeing of prospective mothers
- development of language and other cognitive skills
- the inclusion of a culturally-based education
- the need to train, hire and maintain highly qualified educators that understand and support the social and cultural mores of First Nation peoples
- adequate financial support for schools
- the importance of “ownership of schools”

All of these are consistent with my own knowledge of the literature regarding what is necessary to provide high quality schools and schooling for Aboriginal students. The issues of identity, motivation, traditional knowledge, development of modern skills, and self-worth are all important elements leading to academic success.

**Note:** This is a summary provided by Dr. Demmert of his presentation on June 6, 2009 at the American Indian Teacher Education Conference at Northern Arizona University in Flagstaff, Arizona. He was not able to review the final document before his death and the editors take responsibility for any errors or omissions.

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