

# Preparing Native American Children for Academic Success: A Blueprint for Research

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William Demmert, Peggy McCardle, Joan Mele-McCarthy,  
and Kathleen Leos

In this paper, we review some evidence from background reports addressing Native American students' academic performance and approaches to enhancing that performance. These reports contributed to the organization and content of the Colloquium on which this and the preceding special issue of the *Journal of American Indian Education* was based. We then present the Blueprint developed through information from these reports, the current research information presented at the Santa Fe Colloquium and in this issue, and the discussions and interactions with the community of researchers and educators who attended the Colloquium and follow-up meeting or provided their written input on these issues.

## Federal Reports, Legislation, and Mandates

The Indian Nations At Risk Task Force, chartered on March 8, 1990, by the U.S. Department of Education, was charged with studying the status of Native education in the United States, and with issuing a report focused on improving the academic performance of Native American students. That report, *Indian Nations At Risk: An Educational Strategy for Action* (Demmert & Bell, 1991), presented a researched-based strategic framework for improving schools serving Native American students. This framework emphasized four national priorities that the Task Force recommended as necessary for improving academic performance and promoting self-sufficiency among Native students:

1. Developing culturally, linguistically, and developmentally appropriate parent-based, early childhood education programs.
2. Promoting students' tribal language and culture as a responsibility of the school.
3. Training Native teachers in order to increase the number of Indian educators and other professionals with a focus on improving the quality of instruction.
4. Strengthening tribal and Bureau of Indian Affairs colleges as a way of enhancing communities and preparing students to succeed when they move on to four-year colleges and universities.

After the 1992 release of *Indian Nations At Risk*, President Clinton called for a White House Conference on Indian education (White House Conference on Indian Education, 1992). This Conference produced a set of recommendations (Strang, Von Glatz, & Hammer, 2002) consistent with the *Indian Nations At Risk* report. These two reports have directly or indirectly influenced all of the following legislation or funding for programs:<sup>1</sup> a) The Native American Languages Act of 1992 (PL 102-524); b) the Native Hawaiian and Alaska Native education amendments to Title VII, Part B and Part C with language supporting the development of programs that meet the special language and cultural needs of Native students; c) the amendment to Title VII, Bilingual Education, Language Enhancement, and Language Acquisition Programs (PL 103-382) allowing for the development of Native languages as long as English is one of the priorities; d) the enactment of two Presidential Executive orders (Clinton, 1998; Bush, 2004) regarding the education of Native Americans and meeting their special cultural and linguistic needs; and e) the establishment of a partnership between the Council of Chief State School Officers and the Educational Testing Service to support the development of plans for twelve State Departments of Education, to narrow the achievement gap for Native American students.<sup>2</sup>

In addition to their focus on classroom education, both Presidential Executive Orders set the stage for a greater focus on research into the education of Native American students. The Office of Indian Education initiated a series of meetings and hearings on research needed to provide high quality information on ways to improve academic performance of Native students. As a result, the U.S. Department of Education is including a larger sample of Native students in some of their current and future data collection activities. For example, Native students will be oversampled in the National Assessment of Educational Progress. Data from the Early Childhood Longitudinal Study, Birth Cohort already contains such an oversampling (ECLS-B; Flanagan & Park, 2005). The earlier data collection efforts resulted in Demmert, 2001; Demmert & Towner, 2003; Grissmer, Demmert, & Towner, 2006; and the most recent U.S. Department of Education report on American Indian and Alaska Native children (National Center for Education Statistics, 2005a).

As one response to President Bush's Executive order, the U.S. Department of Education, the National Institute of Child Health and Human Development, and the Western Washington University developed a partnership to convene a colloquium. First, they brought together a select group of researchers and practitioners of Native education programs, in Santa Fe, New Mexico, in March, 2005. The group was asked to focus on ways to improve the academic performance of Native students, on research involving Native students, and research on non-Native students that might have implications for Native students. As noted in the acknowledgements section in the first of these thematic issues (McCardle & Demmert, 2006), several additional partners joined the effort to cosponsor this colloquium. A summary document was developed from that colloquium, and a follow-up meeting was held in August, 2005, in Washington

DC, to obtain additional input on the colloquium participants' recommendations for both research and practice.

### **Relevant Summary Research Reports**

*Improving Academic Performance Among Native American Students* (Demmert, 2001), is a systematic review of the research literature that addresses early childhood environment and experiences; Native language and cultural programs in schools; teachers, instruction and curriculum; community and parental influences on academic performance; student characteristics; factors leading to success in college; Native American students leaving school before graduation; and international comparisons. Though limited, the literature on young Native children indicates that providing opportunities for early development of language and other skills can have significant influence on how well young children will do academically in their later lives. Information regarding influences of Native language and cultural programs in schools shows a direct connection to student motivation, sense of identity and self, and positive attitudes, and that all of these are associated with improved academic performance. Information on teachers, instruction, and curriculum tells us that teachers competent in their subject areas, given a variety of instructional approaches and a challenging, culturally-based curriculum, can motivate students to do well in school. In addition, there is information indicating that local attitudes, use of traditional knowledge, and support from parents can all have positive influences on students' academic performance (Demmert, 2001).

Selected student characteristics like language ability, traditional knowledge, motivation, positive life experiences, early goal setting, basic skills, and the ability to balance conflicts between home, community, and school, all contribute to a student's ability to succeed in school. Factors leading to success in college, including basic academic skills, support from community and family, mentors, and levels of social and cultural maturity influence whether a student succeeds or fails academically. Native American students leaving school before graduation generally show high levels of absenteeism. In addition, many of these students have poor teacher-student relationships, lack parental involvement and support, have poor academic performance and English language skills, and demonstrate social and cultural adjustment conflicts. Many are bored with school life and curricula, considering them irrelevant to what students want to do in life. They often move from one school to another and have transportation difficulties. Substance abuse is also identified as a reason for leaving school early. It is interesting to note that international comparisons with research information on indigenous students show a high level of comparable problems and suggested solutions.<sup>3</sup>

The ECLS, a five year longitudinal study of young children entering kindergarten, funded by the U.S. Department of Education, provides data on Native students, along with information on white, Hispanic, and African American children. Using the ECLS data, Demmert, Grissmer, and Towner,

(2006) report that Native American children start kindergarten with significantly lower reading and general achievement scores than white children or children from other ethnic groups. In addition, while their math scores are comparable to other minority groups, they are significantly lower than those of white children. Achievement levels for reading, mathematics, and general knowledge are linked to a number of child, parent, and community characteristics, including parental education and family economics; number of siblings and of child's caregivers, and the biological relationships of those caregivers, as well as emotional connection to the child; maternal age at child's birth, birth weight, and parental report of child health; presence of learning, speech, and/or hearing disabilities; number of children's books in the home and frequency of reading to the child; and language spoken at home. Additional analyses suggested that there is a relation between the number of risk factors present in a young child's environment and predicted scores on measures of academic performance, that Native students do as well or better than African and Hispanic American students by grade four, and that family characteristics account for about one-half of the achievement gap between white and Native American students. The remaining gap seems to be accounted for by characteristics associated with the wider community (such as poverty or geographic location). Rural students tend to score lower on average than urban students; this is important, given that 70 per cent of Native students live in rural areas.

Demmert, Grissmer, and Towner (2006) also review the 1990-2001 NAEP data. These data reveal that Native American students are below white students in achievement in reading, mathematics, and science, but that, in most cases, they do as well as or better than African and Hispanic American students in these subject areas. The exception is Native students' scores in geography, where they do as well as white students in standardized tests.

The National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network reported that two of the most accurate predictors of the 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: interpersonal skills (the quality of social relationships with peers) and work-related social skills (a child's degree of independence, responsibility, and self-control) at age 54 months (NICHD, 2004). The report indicates that high quality in parenting, child care environments, and the first grade classroom, are linked to later levels of academic performance.

Demmert and Towner (2003) review the research literature on the influences of Native language programs and culture-based education (CBE) programs. They report research that reveals a direct relationship between culture-based education and academic performance, supporting the hypothesis that comprehensive CBE programs, along with strong Native language programs, exert a positive influence on academic, social, and cultural development as well as individual identity, especially when started early in a youngster's life.

In summary, the 1990-2001 NAEP data and the individual state reports on annual student progress (National Center for Education Statistics, 2005b) required by the No Child Left Behind Act (NCLB, 2001) indicate that most schools serving Native American students are not doing well in meeting their academic needs. Large numbers of Native students are not meeting expectations for annual yearly progress, and the research data on early childhood education provides compelling information on some of the basic issues that can lead to a high percentage of Native students demonstrating poor academic performance (Demmert, Grissmer, & Towner, 2006 in press).

In a comprehensive review of the research data on the education of Native American students, an analysis of summary reports on the influences of Native language programs and CBE, and practical experiences of a limited number of exemplary educational programs serving Native students, one finds a set of common characteristics associated with programs and students that are successful. These have been described in detail in the previous issue of the *Journal of American Indian Education*, Improving Academic Performance among American Indian, Alaska Native, & Native Hawaiian Students: Report of a National Colloquium, I-Programs & Practices. However, it must be clearly stated that causal connections cannot be drawn, since most of research data is qualitative, the limited quantitative data is largely non-experimental, and many of the programs that are demonstrating success in reaching high expectations and adequate yearly academic progress are too new to have large quantities of analyzable data. Nonetheless, it is clear that some actions are important to pave the way for successful academic performance:

- Rigorous, research-based training of teachers to be academically and culturally competent;
- The creation of a school environment that is culturally and linguistically congruent with the community or communities served;
- The establishment of partnerships among all stakeholders that expand the traditional notion of “extended families” and that expect and promote an attitude of confidence and success;
- The development of linguistically and culturally fair teaching and learning strategies, and of assessment tools for monitoring student progress to these teaching and learning strategies; and
- The creation of stimulating early learning environments for young children that promotes all areas of development.

### **Considerations for Forging a Blueprint for Research on Academic Performance and Success**

Based on the presentations and discussions that occurred during the Santa Fe Colloquium in March 2005, and the follow-up meeting with federal agency representatives in Washington D.C. on August 17, 2005, it was clear that the original Indian Nations At Risk Task Force recommendations are still appropriate

and worth pursuing in today's environment. Thus, the Blueprint for improving academic performance and well being of Native American students expands original recommendations made by the Indian Nations At Risk Task Force, and draws from the additional research and incorporates that information in an expanded set of recommendations.

There are four broad but crucial questions that were offered by the colloquium participants as foundational to a research blueprint. The participants felt that these questions should guide how researchers approach the communities in which they wish to conduct research and the design and goals of the research itself, whether or not the research investigators are themselves Native Americans. Naturally, examination of the skills and content to be taught are a focus of any research on student outcomes, but the priorities and contributions of the family and local community must also be considered. Thus, the following four questions were part of the overall thinking that contributed to the Blueprint presented in this paper: What are the necessary skills that a student must master in order to have the opportunities that can lead to a successful, satisfying, life? What must a student learn in order to make a meaningful contribution to one's community and society at large? What are the priorities of the student's family and community? What are the relative responsibilities of the school, the local community, and society at large, to the development of each individual's intellectual abilities?

What are the necessary skills that a student must master in order to have the opportunities that can lead to a successful, satisfying, life?

The initial response to this question is naturally that all students, regardless of race, ethnicity, or Native heritage, must gain specific academic skills in order to succeed in today's world, whether within the local community or in the larger, national and global communities. These skills include the foundational abilities of reading, writing and mathematics. It is important that, in defining these foundational skills, the priorities of the student's family and community be considered and incorporated. Each student must develop the skills and knowledge necessary to succeed in contemporary society, but these should be a composite of the knowledge and skills developed early in life from the cultural environment in which the student lives and grows; the skills and knowledge acquired during formal education; and the knowledge and skills required by one's future job or profession as an adult. Ideally, these will be integrated into a coherent curriculum or approach to education.

What must a student learn in order to make a meaningful contribution to his or her local community as well as to society at large?

Again, in defining the content of learning, the priorities required by a person's family and community and the skills necessary for achieving a successful and a satisfying life must be considered and integrated. Content areas such as mathematics, science, geography, literature, history and social studies, must all be included. Within these, the traditions and cultural values of the local

community and of Native peoples more generally should be incorporated. Indeed, in culture-based education, these values are foundational to teaching content. Louis Shotridge, a Tlingit academic from the early 1900s, labeled this concern for one's fellow man, or the concern for the well being of other members of your community, as a cultural characteristic of the Tlingit people; it is one that we all must consider, as a member of a particular clan or the larger society (Demmert, 1974). In other words, a social conscience is a priority for Native communities and should be taken into consideration in the design and conduct of research involving Native students and conducted within Native schools and communities.

#### What are the priorities of the student's family and community?

For our lead author, as an individual, this meant recognizing and appreciating his identity as a Tlingit and a member of the Oglala Tribe, learning the history and legends of his grandmother's clan, learning from his uncles as mentors, and listening and learning from other experts representing both sides of the Tlingit moiety. These initial mentors used the environment in which they lived and in which younger members grew and matured as "a place to learn." They expected their youth to master the local skills and knowledge, and to learn them sufficiently to be able to function as responsible, productive adults and to be able to pass them on to subsequent generations. In some sections of the extended family, this also meant learning the Native tribal language. These priorities were confirmed and supported by those offering input at the Santa Fe Colloquium, the follow-up meeting, and by email in response to the draft summary document they were provided. The point here is that any researcher should not only respect the particular culture, traditions and priorities of any community from which they draw research participants, but must also take into account how that culture and those traditions and priorities may impact whether and how data collection occurs, how questions are received, understood, and responded to. The article in this issue by also underlines the importance of taking culture into account in education research. Partnering with the members of the community has both altruistic and practical advantages and can provide richer data and richer experiences for both researchers and research participants. All can benefit from such partnerships.

#### What are the relative responsibilities of the school, the local community, and society at large, to the development of an individual's intellectual abilities?

This question is a broad and seemingly foolish one, given that we all must respond that the responsibilities are shared among all parties. And while there are no definitive answers that any one can offer, this is a question or issue that must be considered. The fact that school administrators and teachers, community leaders, family members, students themselves and the society at large, all have responsibilities for a student's education should guide how researchers design and conduct studies and how they involve all parties in that research.

## **An Example of Cultural Perspective**

In his youth, our first author and his sister were taught by their Tlingit grandmother that eating properly was important to develop strong and healthy bodies, and further that for his sister, her current nutritional status would ultimately affect her own children, determining whether they were strong, healthy and intelligent. This traditional knowledge about diet, passed down from one generation to the next, was ahead of its time, and is only now being demonstrated scientifically. Other tribal knowledge, generational practices, and beliefs based on practical experiences over time also may be as useful and necessary in today's environment as they were historically. Another such tradition is having uncles mentor the young men in a family. This practice of transferring knowledge and skills from one generation to the next included other mentors from the extended family, and on occasion, other members of a clan or community. Different skills and the application of those skills were passed on from one generation to the next as part of a process for insuring survival and continued development and change as new knowledge introduced additional challenges, but for the group and culture and for the individuals.

We present these examples and information on earlier traditions because we have learned, through both personal experiences and through educational and professional experiences that much of traditional knowledge and practices were well founded and have proven to have many parallels to scientifically based information. All individuals have tendencies for various skills and abilities that they build upon as they grow and mature. These skills and aptitudes are significantly influenced by the cultural environment in which we grow and mature; by the practical experiences we have (which include play and other social interactions), and by influences from the larger environments in which we live and work (Bruner, 1966; Demmert & Towner, 2003; Gardner, 1985, 1995; Morris, Pae, Arrington, & Sevcik, this issue; Sternberg, 1985; Sternberg, et al., 2000; Vygotsky, 1944,). Taking into consideration the community traditions that shape students is important in studying what they bring to academic learning tasks, how instruction can best be tailored to their needs, and in developing appropriate measures for both assessing their state of content knowledge and monitoring their progress. Respecting the value of what they learn within the culture and community can inform the design and conduct of research, thereby enhancing it, and will demonstrate respect for the culture and traditions of that community.

## **The Blueprint**

All of what we have discussed to this point is stage setting to a research agenda, or Blueprint, of what types of research the community of researchers, both Native and non-Native, and practitioners, have told us is needed. This blueprint is meant to encourage research on the effectiveness of specific educational practices and instructional techniques, research to learn more about the interactions of culture,



language, and education, and the development of new measurement tools and instructional programs or interventions. It is neither exhaustive nor exclusive, but we hope, as do all those who participated in its development, that this blueprint will serve to generate greater research interest, research collaboration, and thus research knowledge that will benefit Native students and that will enable others to better understand the linguistic, cultural and educational approaches that are most beneficial to Native students.

### Blueprint for Research on Native American Students' Educational Issues

Before presenting this research blueprint, which represents the suggestions of many individuals who participated in the two meetings that were held, or provided input via email on the draft version of this document, some caveats must be offered. It was noted repeatedly throughout both meetings that, while the overarching term Native American is used, it is clearly recognized that not all Native American groups are the same. Even within the subcategories of American Indian, Alaska Native, and Native Hawaiian, there are subgroups with distinct cultures, traditions, and languages. Any research would need to take this into account.

### Necessary Conditions:

Colloquium participants indicated that, to move forward with research in this important area, there are major needs that must be met. First, tribal approval of research projects involving a majority of Native American students or being conducted in Indian or Native American Schools (whether public or private) should be obtained. Second, researchers must be knowledgeable about mixed-methodology research, and the field (both researchers and practitioners) must be aware and appreciative of all stages of research and what can be learned from them. More and better research tools are needed; this includes not only the development of new and better measures, but also the development of innovative approaches to the integration of qualitative and quantitative research. In order to test the efficacy of culture-based educational instruction and interventions, there must be sufficient well-tested and validated teacher preparation and professional development in place to reliably implement those instructional or intervention programs, and sufficient expertise within the research teams to monitor and document fidelity of implementation. Finally, researchers must be able to consider Native student education from various levels (the classroom, school, district, state, community, or family), and collaborations among tribal colleges and major research universities should be established to conduct research and to increase researcher capacity within Native populations.

### Types of Research Needed:

Many types of research are needed. The list below is neither all-inclusive nor exhaustive, but can serve to provide key examples of research that is needed. In addition, clearly the research will determine the methodologies used. Given these caveats, below are major research needs as recommended by colloquium

participants and interested parties who commented on earlier versions of this Blueprint.

Research is needed using varied methodologies. While experimental effectiveness studies are crucial, there is also a need for other types of research, including research using mixed methodologies. For example, exploratory research is needed that can assess the potential for using the unique circumstances and programs present in indigenous cultures for evaluating “natural experiments.” Such work could form the foundation for later work using experimental design. Research using extant data from three national studies (National Assessment of Educational Progress, Early Childhood Longitudinal Study [ECLS]- Kindergarten, and ECLS-Birth cohort) that have sufficient samples of Native Americans to allow sophisticated statistical analysis exploring the unique and common (across race/ethnicity) factors important to Native American educational outcomes from birth through at least eighth grade. In addition, policy case studies of other nations might be conducted, examining how those nations define culture-based education, and how and why they use and support this approach.

There is also work needed on the development or adaptation of research methodologies. This is as an overarching need for the study of educational issues for Native American students and their families, communities and schools. For example, culture-based methodologies are needed to enable the study of effectiveness, indeed to define what will constitute acceptable and appropriate measures of effectiveness, to avoid cultural incongruence in designing and conducting research and in reporting and interpreting the results. In addition, comparative studies of indigenous vs. social science methodologies could aid in defining programmatic domains. For example, is the social science process of interviewing and surveying adequate for understanding, defining, and thus incorporating into both research and practice the various domains of development for specific cultural groups? If not, what adaptations may be needed?

A major focus is needed on measurement. This work should broadly include construct equivalence, measurement equivalence, and the development of measures for assessing, e.g., cognitive development, language development, and academic achievement, for identifying those who need intervention, and for monitoring student progress. New measures that are culturally (and where applicable) linguistically appropriate are needed. These could be researcher-developed independently in collaboration with test publishers; measures are specifically needed that would address culture-based education. Where measures exist, they may need to be adapted to be culturally or linguistically appropriate for use with Native students. Researchers will need to take into account the degree of alignment among states’ academic standards, classroom instruction, and assessments used with Native populations when using data or interpreting results from district or state level assessments. Finally, there is a great need for measures that can accurately identify learning disabilities in Native students. Again, culture and language will be important factors to take into account in the development or adaptation of such measures.

Studies are needed to document the efficacy of culture-based education (CBE). First, an operational definition of culture-based education must be developed, and used consistently within any study; ideally an agreed-upon definition could be used across studies to enhance comparability and/or integration of results. The effectiveness of professional development programs for culture-based education, using experimental design, should be examined. The effectiveness of cross-tribal studies of CBE, localized in different ways for different tribes, in terms of student outcomes, will be important in understanding similarities and differences, so that sharing of programs and materials can occur while preserving effective elements or adapting as necessary for specific groups of students. Quasi-experimental studies are needed to analyze indigenous knowledge systems as they are incorporated into or affect instruction/ student learning in conjunction with schooling.

There is an overall need for concept definition and clarification, as noted above in defining and measuring CBE. Defining the domains of childhood and adolescence in ways that incorporate traditional views would include understanding cultural conceptions of child development and how these compare with or relate to conceptualization of domains of child development in current developmental science. Comparative studies of the knowledge base produced by the two systems could be enlightening, and could ultimately form the basis for experimental or quasi-experimental studies. Exploring and defining the views of indigenous culture toward traditional scientific research and how research might be shaped, in order for it to be recognized as valid in these communities, will be important to communication and to the acceptance of and participation in research efforts.

Definitive research is needed to explore the possible trade-offs, if any, of providing CBE (what type, for how many grades, etc.) and more traditional education geared toward economic success in the larger community. It may be that these are mutually reinforcing. There are a variety of studies that could address this overall issue, at least some of which should employ experimental or quasi-experimental design. Research is needed to identify the factors that determine current attitudes or might shape future attitudes, preferences and implementation of parental choices for different types of schools. Studies are needed of the effect and impact of technology as it is being or could be used in indigenous communities to support education, and of the potential for expanded use. Some called for neuroimaging research, comparable to that done on reading, language, learning and learning disabilities in other populations. The effectiveness of after-school activities, and the outside-of-school lives of children in the communities, and how these link to and impact education outcomes should be studied. Ethnographic and mental health studies that communities can contribute to and participate in are needed, to help understand the interface between community and school in mental health issues, youth emotional development issues, risk factors, and young people's thinking and perceptions. Finally, the overall value, impact and effectiveness of family and child education programs,

and the circumstances under which they provide the most benefit should be examined.

Language, with its clear link to culture, is a major topic for research within Native American communities, which will require various types of research. For example, studies of student outcomes in Native language-based education are needed, in terms of at least Native language fluency, English language abilities, and reading. More needs to be known about the written forms of some Native languages, to ensure that the language is being taught as effectively as possible. Work is needed on how to determine the optimal age to switch from the Native language to English, for individual students and for groups. Neuroimaging studies could be important in learning more about the various languages in comparison to one another and to English, and about the impact of instruction and intervention in oral language and reading (See Pugh et al., this issue). Studies of community attitudes toward language immersion schools may indicate what aspects and/or outcomes can influence community attitude toward Native language instruction. Studies of different approaches to teaching language to Native students are needed, including both Native or Heritage language instruction and English instruction. This should include the effectiveness of these different approaches, which approaches work best for which students, and under what circumstances (e.g. classroom situations, school and community context); such research should build upon existing research on Heritage Language programs. Finally, as noted earlier, improved measures of oral language (in Native languages and in English), with both sociolinguistic and anthropologic perspectives informing the assessment of language abilities, are needed.

There is a need for research on teacher preparation and ongoing professional development. Several questions were suggested for exploration under this topic. How do we infuse into teacher education programs instruction in the skills that will enable teachers to be culturally competent? This will of course require an operational definition of “cultural competence.” What are the benchmarks for determining whether institutions are able to teach or develop cultural competence in teachers, how can this be measured among teachers or students who are training to be teachers, and how can this information be incorporated into professional development for teachers already in the field? How can technology be used more effectively to deliver high quality professional development for teachers?

#### Research Priorities:

While all of the suggestions for research presented above are considered important, the input received from colloquium and workshop participants as well as others who emailed comments indicated that the following should be given high priority:

- Increasing the number of Native American researchers.
- Increasing the extent to which research on Native students is community-based, participatory research, and ensuring the inclusion of a variety (and where possible a combination) of research methodologies.
- Defining, examining, and addressing the achievement gap.
- Examining the effectiveness of culture-based education in comparison to existing instruction.
- Focusing on early childhood development.

In summary, there is a huge need for careful, rigorous research of all types, to address the many important issues that underlie educational performance in American Indian, Alaska Native, and Native Hawaiian students. The needed research ranges from ethnographic studies to neurobiological studies of the brain-behavior link. It includes the development of theories, measures, and methods, and will benefit from the development of research collaborations across disciplines, and across cultures. All research must respect the rights of those “human subjects” who are willing to participate, but the research called for in this Blueprint must also be designed and conducted within the context of respect for the traditions, culture, and priorities of the communities in which Native students live, grow, and are nurtured.

**William G. Demmert, Jr.** (Tlingit & Sioux), is Professor of Education at Western Washington University. He is also currently working with the RAND Corporation on a review of the research literature on the education of Native America, an analysis of the National Assessment of Educational Progress (NAEP) data targeting Native American students and the Longitudinal Study of Early Childhood education.

**Peggy McCardle** is Chief, Child Development and Behavior Branch, Center for Research for Mothers and Children, at the National Institute of Child Health and Human Development (NICHD). In addition to her oversight of the Branch, she directs the research program on Language, Bilingual and Bilinguality, as well as research on monolingual, bilingual and cross linguistic studies of language development. She is lead editor of the volumes *The Voice of Evidence in Reading Research* (Brookes, 2004) and *Childhood Bilingualism* (Multilingual Matters, 2006).

**Joan Mele-McCarthy** is a speech-language pathologist and currently holds the position as Director of Education at the Summit School. Prior to this position she served as the Special Assistant to the Assistant Secretary of the Office of Special Education and Rehabilitative Services in the U.S. Department of Education.

**Kathleen Leos** is Assistant Deputy Secretary and Director of the Office of English Language Acquisition (OELA) in the U. S. Department of Education. As the head of OELA, Leos is responsible for administering Title

VII of the *Improving America's Schools Act*, which supports high-quality instructional programs for linguistically and culturally diverse students. In addition to Title III and Title VII, her office supports foreign language programs for elementary, secondary and postsecondary school students and high-quality professional development programs for language teachers in these fields.

### Endnotes

<sup>1</sup>This position is the result of a review, analysis, and the combined practical experiences of the authors.

<sup>2</sup>Personal communication from Julia Lara, Deputy Executive Director, State Services and Technical Assistance, Council of Chief State School Officers, and Anne Gale, Associate Vice President and Corporate Secretary, Educational Testing Service, 2005.

<sup>3</sup>In addition to information provided from the international participants participating in the Santa Fe Colloquium, this international comparison is based on Demmert's work with the different Ministries of Education in nations and states that touch the Arctic Circle, referred to as the Circumpolar North, and with the international steering committee that he chairs. This steering committee has been in existence since 1975 and focuses on the education of indigenous peoples of the far north.

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