

Resources

Many of the resources in this section have been mentioned in the *Indigenous Evaluation Framework* chapters. Others were not specifically mentioned within the text, but are useful when considering responsive and responsible evaluation.

CREATING THE STORY—*Examples of Conceptual Models:*

- I43 Trail to the Tribes Theory of Change (Mekinak Consulting)
- I44 GK-12 Conceptual Map of Program (Mekinak Consulting)
- I45 Center for Learning and Teaching Concept Model (Mekinak Consulting)
- I46 Community Health and Social Functioning (Drawing by Amy Bowers-Yilmazer)

BUILDING THE SCAFFOLDING

American Evaluation Association Public Statements:

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- I49 Scientifically Based Evaluation Methods
- I50 NAEP, PISA, TIMSS: A Brief Comparison (Prepared by Robert Kansky)
- I53 National Indian Education Study 2007 (Executive Summary—Full report at: <http://nces.ed.gov/nationsreportcard/pubs/studies/2008457.asp>)
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- I61 Methods for Gathering Information (National Science Foundation)
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University of Alaska GK-12 Evaluation Plans:

- I63 Connecting Core Values to GK-12 Evaluation Process
- I64 GK-12 Draft Evaluation Plan
- I66 Examples of Connecting Core Values to GK-12 Draft Evaluation Plan

OTHER RESOURCES

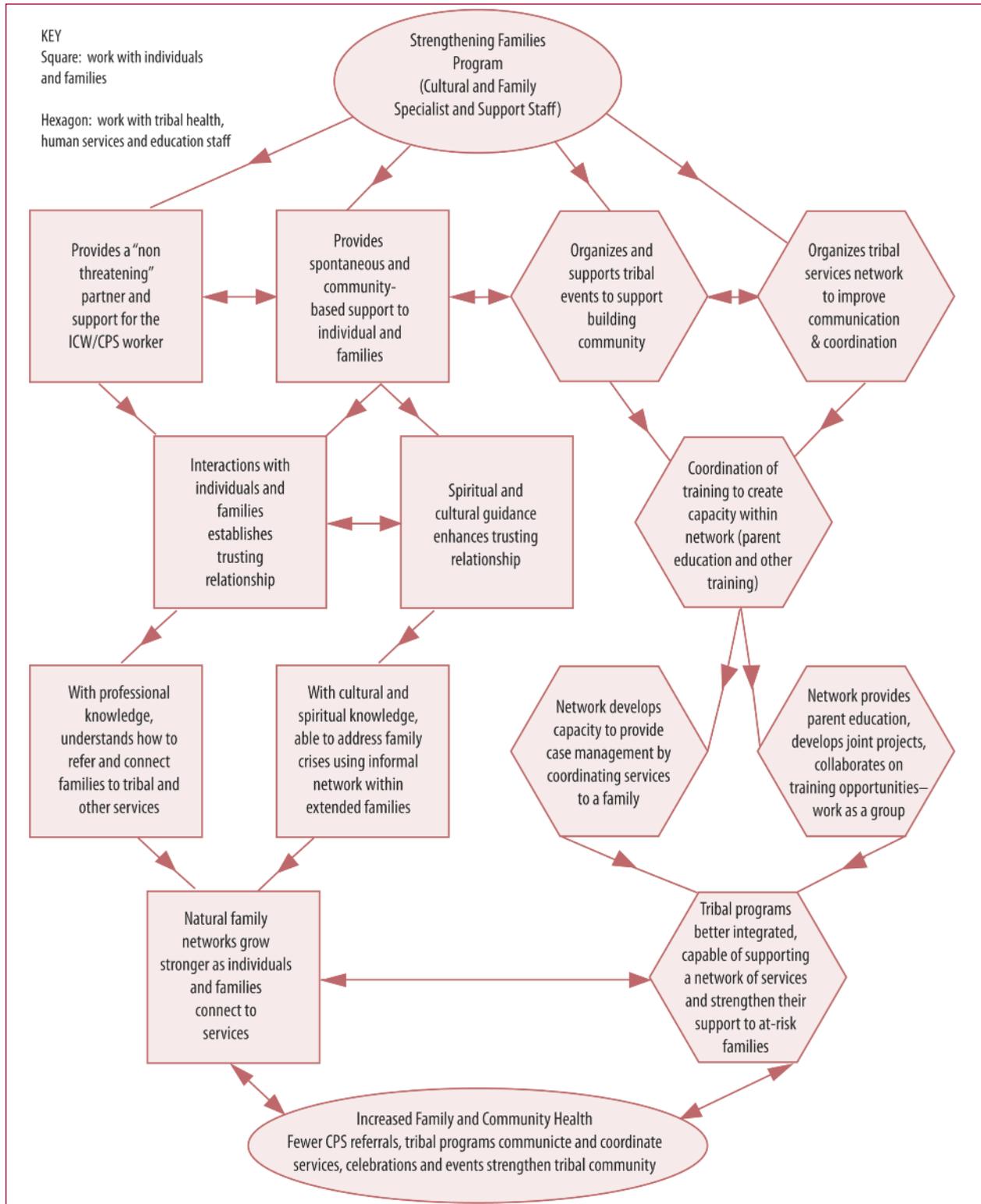
- I67 “Indigenous Evaluation: Respecting and Empowering Indigenous Knowledge” (Tribal College Journal)
- I71 Guiding Principles for Evaluators (American Evaluation Association)

RESOURCES

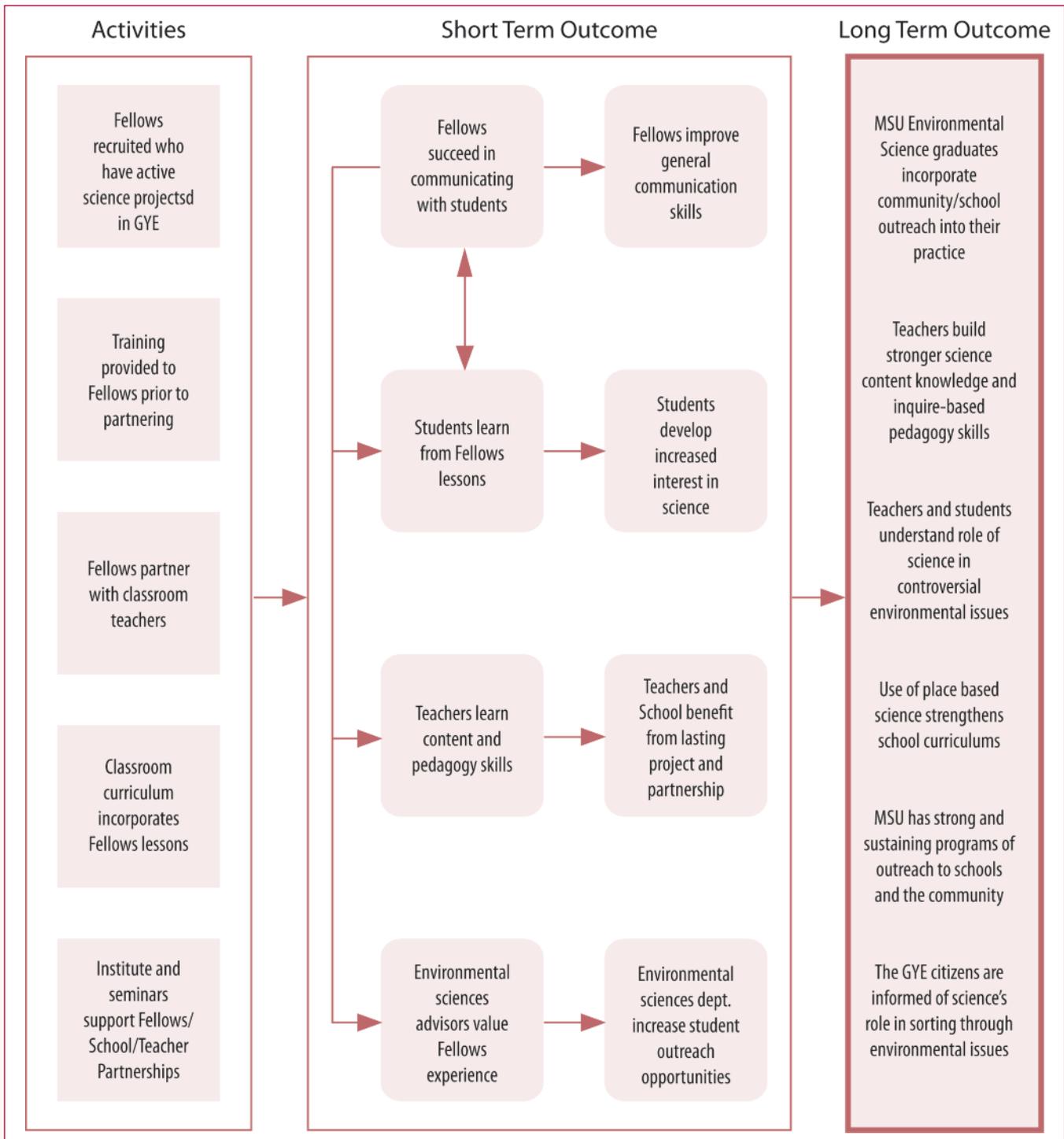
Resources



Trail to the Tribes Theory of Change

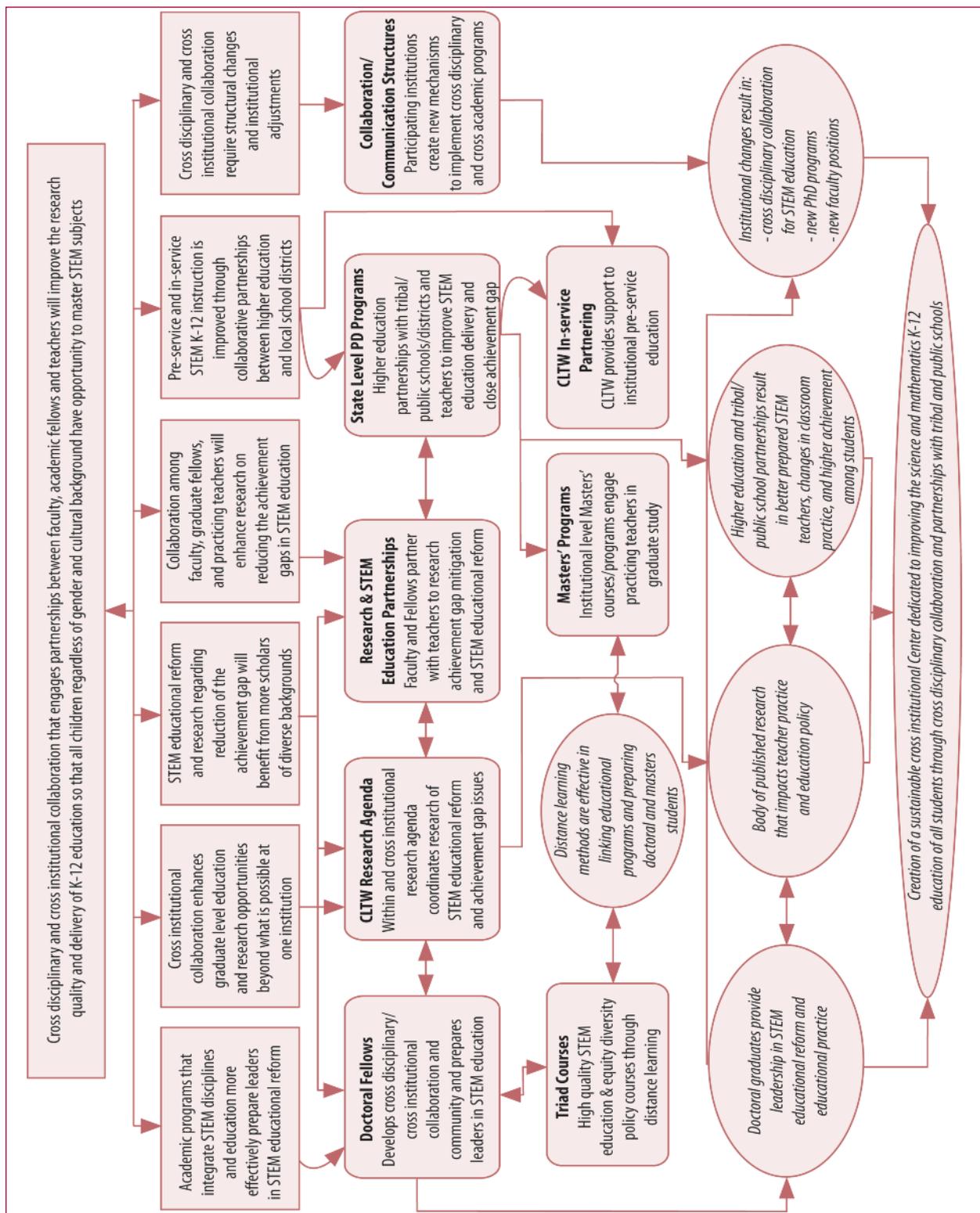


GK-12 Conceptual Map of Program

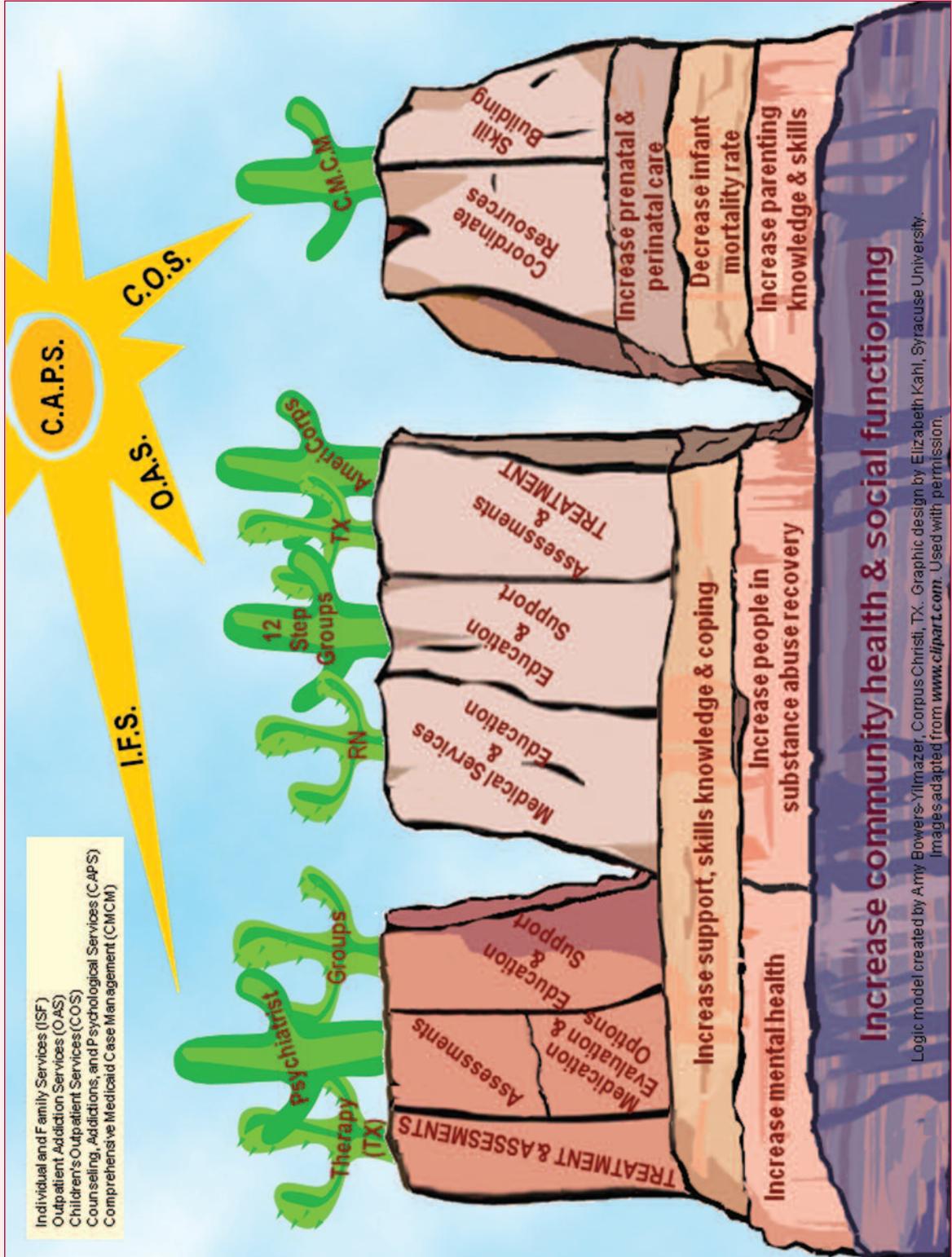


Greater Yellowstone Environment (GYE)—Program to help graduate students involved in educational science.

Center for Teaching and Learning Concept Model



Community Health and Social Functioning



Educational Accountability



Public Statement Educational Accountability

**American Evaluation Association
Approved November 1, 2006**

The American Evaluation Association (AEA) supports educational accountability systems that are methodologically sound and produce credible, comprehensive, context-sensitive information. Such systems can strengthen teaching, learning, and educational governance. With this statement, AEA hopes to contribute to the continuing public debate and evolution of educational accountability systems and, in concert with our *Guiding Principles for Evaluators* and our earlier statement on high stakes-testing in education, to affirm and extend AEA's tradition of encouraging high-quality evaluation.

Good evaluation has much in common with good accountability systems, including responsibility for assuring the highest quality data and their most appropriate use. Accountability systems are mechanisms by which (1) responsibilities and those responsible are identified, (2) evidence is collected and evaluated and, (3) based on the evidence, appropriate remedies, assistance, rewards, and sanctions are applied by those in authority. The relevance, accuracy, and completeness of the evidence are central to appropriate decision-making about policies, institutions, programs, and personnel and to the appropriateness of rewards and sanctions.

The research literature¹ identifies several important concerns that may arise with educational accountability systems, including:

- over-reliance on standardized test scores that are not necessarily accurate measures of student learning, especially for very young and for historically underserved students, and that do not capture complex educational processes or achievements;
- definitions of success that require test score increases that are higher or faster than historical evidence suggests is possible; and
- a one-size-fits-all approach that may be insensitive to local contextual variables or to local educational efforts.

The consequences of an accountability system that is not accurately or completely measuring student learning can be significant. An over-emphasis on standardized tests may lead to a decrease in the scope or depth of educational experiences for students, if the tests do not accurately measure the learning of some. In addition, if resource allocations are based on difficult-to-attain standards of success, an entire educational system may suffer. Consider in particular those schools that are struggling to serve students who face the greatest obstacles to learning. These schools may be at risk for having resources unfairly underestimated or disproportionately withheld.

AEA is dedicated to improving evaluation practice and increasing the appropriate use of evaluation data.¹ To encourage the highest quality accountability systems, we advocate approaches that feature rigor and appropriate methodological and procedural safeguards. AEA encourages movement in the following directions for educational accountability systems.

<http://www.eval.org/edac.statement.asp>

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- **Multiple measures:** Empirical evidence from multiple measures, data sources, and data types is essential to valid judgments of progress and to appropriate consequences. For example, at the local level, if teachers' assessments as well as standardized test scores were incorporated into accountability systems, this could provide more detailed information regarding curriculum mastery by students.
- **Measurement of individual student progress over time:** Many traditional assessments examine current achievement levels only. Including longitudinal data on student progress over time would increase the sensitivity of the system to changes in learning made by individual students and could help identify the effects of services provided.
- **Context sensitive reporting:** Reporting systems that promote awareness of the many influences affecting outcomes are part of a complete and accurate assessment of school quality and student achievement. Findings from research and evaluations should be reported and considered part of a comprehensive educational accountability system.
- **Data-based resource allocations:** If resource allocations take into consideration the needs and difficulties that are identified from comprehensive data of many types, the result could be greater equity in funding and increased support for teachers and schools that serve low-income and other high-risk students.
- **Accessible appeals processes:** The opportunity to appeal decisions enhances the fairness and transparency of an educational accountability system that is itself accountable for the appropriateness of its decisions and the accuracy, completeness, and relevance of its evidence.
- **Public participation and access:** Ideally, accountability systems should be developed and implemented with broad participation by many stakeholders. A system that is open to public involvement and scrutiny is likely to result in a more complete understanding of educational institutions, their contexts, the nature and success of their efforts, and the effects and appropriateness of the consequences of accountability systems.

Educational accountability has the potential to improve the quality of our schools and the experiences and achievements of our children. The concerns and strategies outlined above are intended to encourage educational accountability systems that fulfill that potential.

Development of this statement

A task force composed of David Bernstein, Linda Mabry (chair), Howard Mzumara, Katherine Ryan, and Maria Whitsett was authorized by the AEA Board of Directors to prepare a public statement for issuance by the organization on the subject of educational accountability. Plans, progress, and a draft were presented to AEA members at three town hall sessions during the 2003-2005 association conferences. Additional internal review of drafts was provided by ten AEA members. External review was also provided by a state commissioner of education, a prominent measurement author and technical advisor to many states, a former president of the National Council for Measurement in Education and American Educational Research Association, and the president of a regional education board. The resulting statement was submitted to the AEA Public Affairs Committee, revised based on their feedback, edited or reviewed by two former AEA journal editors and two presidents, and resubmitted. Preliminary Board approval was obtained June 24, 2006, after which the statement was released for online review and comment by the full AEA membership, revised again, and approved by the Board November 1, 2006.

Scientifically Based Evaluation Methods



Public Statement Scientifically Based Evaluation Methods

**American Evaluation Association
Approved January 26, 2003**

American Evaluation Association Response to U. S. Department of Education
Notice of proposed priority, *Federal Register* RIN 1890-ZA00, November 4, 2003, "Scientifically Based Evaluation Methods"

The American Evaluation Association applauds the effort to promote high quality in the U.S. Secretary of Education's proposed priority for evaluating educational programs using scientifically based methods. We, too, have worked to encourage competent practice through our *Guiding Principles for Evaluators* (1994), *Standards for Program Evaluation* (1994), professional training, and annual conferences. However, we believe the proposed priority manifests fundamental misunderstandings about (1) the types of studies capable of determining causality, (2) the methods capable of achieving scientific rigor, and (3) the types of studies that support policy and program decisions. We would like to help avoid the political, ethical, and financial disaster that could well attend implementation of the proposed priority.

(1) Studies capable of determining causality. Randomized control group trials (RCTs) are not the only studies capable of generating understandings of causality. In medicine, causality has been conclusively shown in some instances without RCTs, for example, in linking smoking to lung cancer and infested rats to bubonic plague. The secretary's proposal would elevate experimental over quasi-experimental, observational, single-subject, and other designs which are sometimes more feasible and equally valid.

RCTs are not always best for determining causality and can be misleading. RCTs examine a limited number of isolated factors that are neither limited nor isolated in natural settings. The complex nature of causality and the multitude of actual influences on outcomes render RCTs less capable of discovering causality than designs sensitive to local culture and conditions and open to unanticipated causal factors.

RCTs should sometimes be ruled out for reasons of ethics. For example, assigning experimental subjects to educationally inferior or medically unproven treatments, or denying control group subjects access to important instructional opportunities or critical medical intervention, is not ethically acceptable even when RCT results might be enlightening. Such studies would not be approved by Institutional Review Boards overseeing the protection of human subjects in accordance with federal statute.

In some cases, data sources are insufficient for RCTs. Pilot, experimental, and exploratory education, health, and social programs are often small enough in scale to preclude use of RCTs as an evaluation methodology, however important it may be to examine causality prior to wider implementation.

(2) Methods capable of demonstrating scientific rigor. For at least a decade, evaluators publicly debated whether newer inquiry methods were sufficiently rigorous. This issue was settled long ago. Actual practice and many published examples demonstrate that alternative and mixed methods are rigorous and scientific. To discourage a repertoire of methods would force evaluators backward. We strongly disagree that the methodological "benefits of the proposed priority justify the costs."

(3) Studies capable of supporting appropriate policy and program decisions. We also strongly disagree that "this regulatory action does not unduly interfere with State, local, and tribal governments in the exercise of their governmental functions." As provision and support of programs are governmental functions so, too, is determining program effectiveness. Sound policy decisions benefit from data illustrating not only causality but also conditionality. Fettering evaluators with unnecessary and unreasonable constraints would deny information needed by policy-makers.

While we agree with the intent of ensuring that federally sponsored programs be "evaluated using scientifically based research . . . to determine the effectiveness of a project intervention," we do not agree that "evaluation methods using an experimental design are best for determining project effectiveness." We believe that the constraints in the proposed priority would deny use of other needed, proven, and scientifically credible evaluation methods, resulting in fruitless expenditures on some large contracts while leaving other public programs unevaluated entirely.

<http://www.eval.org/doesstatement.htm>

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NAEP, PISA, & TIMSS: A Brief Comparison

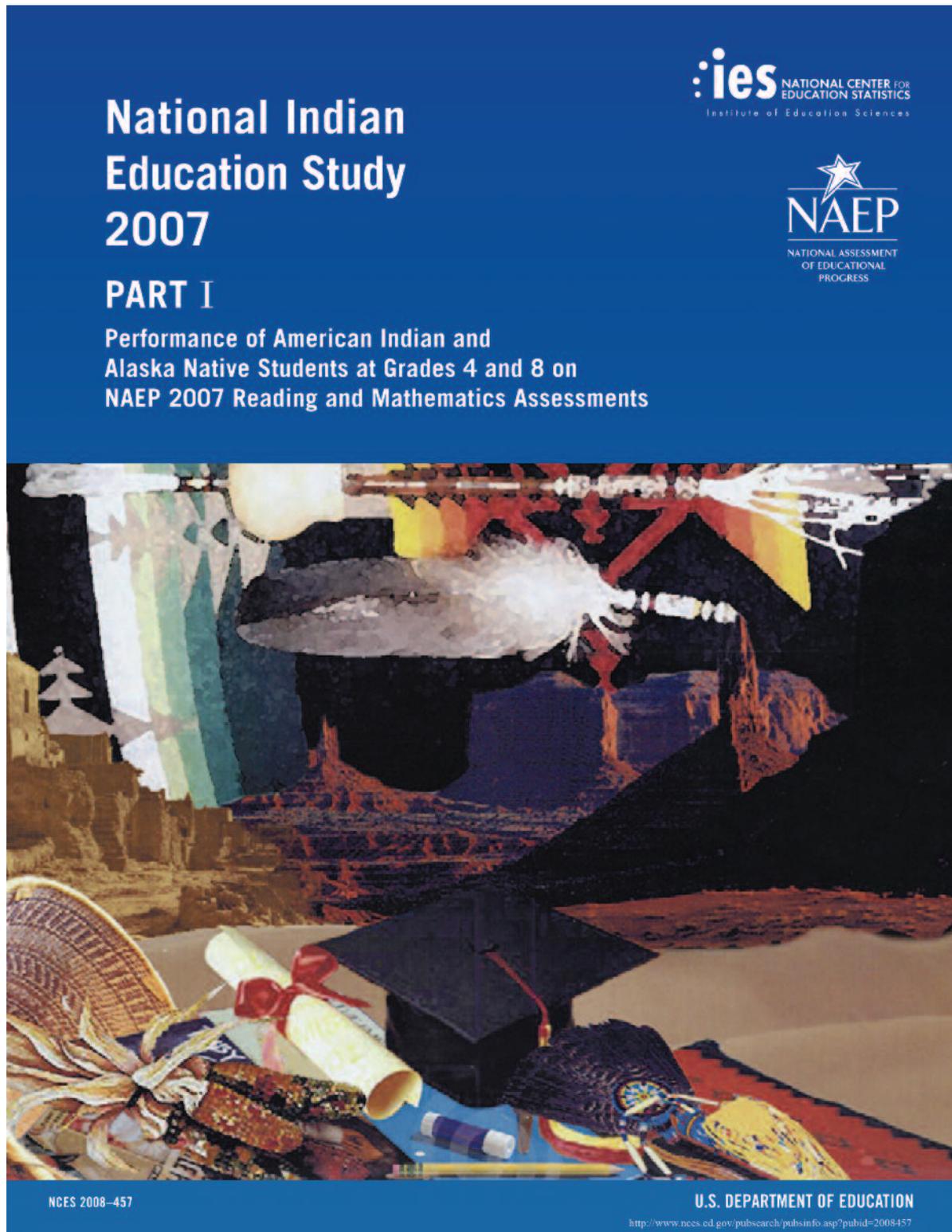
Prepared by Robert Kansky, Professor at the Science and Mathematics Teaching Center at the University of Wyoming.

NAEP: National Assessment of Educational Progress	
Main Question Addressed	What do U.S. students know and what are they able to do in each of the subjects tested?
Units of Comparison	States
Year Begun	1969 (first testing of science); 1973 (first testing of mathematics)
Countries Participating	United States
Content Area(s)	The national version of NAEP gathers data in the areas of reading, writing, mathematics, science, U.S. history, geography, the arts, and foreign languages.
Grade/age of Test Takers	Grade 4 (9-year olds); Grade 8 (13-year olds); Grade 12 (17-year olds)
Testing Cycle	Mathematics and science are tested at all three grade/age levels every four years. The most recent testing occurred in 2004.
Comments	<ol style="list-style-type: none"> 1. The content of NAEP is determined by the U. S. Department of Education. Items are designed to sample what is sometimes called the U. S. "intended curricula." 2. NAEP results are a measure of what students have learned of the "intended curricula." Hence, it is sometimes said to measure the "attained curricula." NAEP survey data collected from students and teachers also provides a measure of what actually is taught and how it is taught (sometimes called the "implemented curricula" or "delivered curricula"). 3. NAEP has three forms: <ul style="list-style-type: none"> • Trend NAEP consists of test items that have been used repeatedly over the last 30 years. Currently, trend items in mathematics and science are administered every two years to national samples at all three grade/age levels. • Main NAEP consists of items that reflect current thinking about what a student can/should know and be able to do in a content area. It is administered to national samples. Each content area has its own cycle of administration; for mathematics and science, the cycle is every four years. • State NAEP once was voluntary, but now is required of all states (in mathematics and reading) at Grades 4 and 8 in order to remain eligible for certain federal funds. It still is voluntary at Grade 12, although there is an effort to get all states to participate. State NAEP is limited to four content areas (mathematics, science, reading, writing); mathematics and science are tested every four years.
Oversight Organization	National Assessment Governing Board
Web Site	http://nces.ed.gov/nationsreportcard

PISA: Program for International Student Achievement	
Main Question Addressed	What can students do with the mathematics and science they have learned?
Units of Comparison	Countries
Year Begun	2000
Countries Participating	Country participation varies from administration to administration. In 2003, the United States and 40 other countries participated.
Content Area(s)	Mathematics and science
Grade/age of Test Takers	Grade 10 (15-year olds)
Testing Cycle	Every three years; both areas were tested at each administration, but only one of the two emphasized. In 2003, mathematics was emphasized.
Comments	<ol style="list-style-type: none"> 1. PISA measures a student's ability to apply learning to real-world situations and to communicate solutions to others. 2. PISA tests mathematical literacy, scientific literacy, and problem solving. It defines the three terms as follows. <ul style="list-style-type: none"> • Mathematical literacy is an individual's capacity to identify and understand the role that mathematics plays in the world, to make well-founded judgments, and to use and engage with mathematics in ways that meet the needs of that individual's life as a constructive, concerned, and reflective citizen. • Scientific literacy is having the capacity to use scientific knowledge, to identify questions and draw evidence-based conclusions in order to understand and help make decisions about the natural world and the changes made to it through human activity. • Problem solving is an individual's capacity to use cognitive processes to confront and resolve real, cross-disciplinary situations where the solution is not immediately obvious and where the literacy domains or curricular areas are not isolated within the single domain of mathematics, science, or reading.
Oversight Organization	Organization for Economic Co-operation and Development (OECD)
Web Site	http://www.pisa.oecd.org

TIMSS: Trends in International Mathematics and Science	
Main Question Addressed	Based on the country's school curricula in mathematics and science, what knowledge and skills have students acquired by Grade 4 and Grade 8?
Units of Comparison	Countries
Year Begun	1995
Countries Participating	Country participation varies from administration to administration. In 2003, 25 countries participated at Grade 4, and 41 countries participated at Grade 8.
Content Area(s)	Mathematics and science
Grade/age of Test Takers	Grade 4 (9-year olds); Grade 8 (13-year olds)
Testing Cycle	Testing in both mathematics and science is done every four years; there is a variation in the grade/age levels tested. The most recent testing was in 2003.
Comments	<ol style="list-style-type: none"> 1. TIMSS measured what students have learned from each country's implemented curricula in mathematics and science. 2. TIMSS survey and video data also measure what is actually taught in different countries and how that "what" is taught in a sample of countries. 3. The 1995 testing also sampled students from "the final year of secondary school." There has been no testing at that grade level since 1995, and it is not part of the 2007 study now being planned. 4. The IEA also oversees PIRLS (Progress in International Reading Literacy Study). PIRLS, initiated in 2006, is administered every five years to students at Grade 4.
Oversight Organization	International Association for Evaluation of Educational Achievement (IEA)
Web Site	http://www.timss.org

National Indian Education Study 2007



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Student Artwork on the cover:
Untitled by Samuel Dalgai;
tribal affiliation: Navajo

The National Indian Education Study (NIES) is a two-part study designed to describe the condition of education for American Indian and Alaska Native students in the United States. The study is sponsored by the Office of Indian Education and conducted by the National Center for Education Statistics of the U.S. Department of Education. NIES is authorized under Executive Order 13336, *American Indian and Alaska Native Education*, which was enacted in 2004 to improve education efforts for American Indian and Alaska Native students nationwide. (See <http://www.whitehouse.gov/news/releases/2004/04/20040430-10.html> for details.)

Part I of the NIES is conducted through the National Assessment of Educational Progress (NAEP) and provides in-depth information on the academic performance of fourth- and eighth-grade American Indian and Alaska Native students in reading and mathematics. NAEP is a congressionally mandated project of the

U.S. Department of Education. By reporting student achievement data at the national, state, and local levels, NAEP plays an integral role in evaluating what our children know and can do in various subjects. NAEP is carried out by the Commissioner of the National Center for Education Statistics (within the Institute of Education Sciences). The National Assessment Governing Board oversees and sets policy for NAEP.

Part II of the NIES is a survey that describes the educational experiences of the fourth- and eighth-grade American Indian and Alaska Native students who participated in the NAEP assessments. The survey focuses on the integration of native language and culture into school and classroom activities.

Conducted in 2005 and 2007, NIES provides data on nationally representative samples of American Indian and Alaska Native students from public, private, Department of Defense, and Bureau of Indian Education funded schools. It is a reliable source of data on American Indian and Alaska Native students, especially for educators, administrators, and policymakers who address the educational needs of students. NIES is advised by a technical review panel; members of this panel include educators and researchers selected for their expertise in American Indian and Alaska Native education.

Executive Summary

The 2007 National Indian Education Study (NIES) was conducted by the National Center for Education Statistics on behalf of the U.S. Department of Education, Office of Indian Education. This report presents the results for Part I of the study focusing on the performance of American Indian and Alaska Native (AI/AN) fourth- and eighth-graders on the 2007 National Assessment of Educational Progress in reading and mathematics.

A national sample of approximately 10,100 AI/AN students at grades 4 and 8 participated in the 2007 reading assessment and 10,300 in the mathematics assessment. Results from this study are compared to those from the first NIES conducted in 2005. The results for 11 states with relatively large populations of AI/AN students are presented in addition to the national results.

READING RESULTS

Overall, the average reading scores for AI/AN fourth- and eighth-graders showed no significant change since 2005 and were lower than the scores for non-AI/AN students in 2007.

In 2007 at both grades, AI/AN students attending schools in which less than 25 percent of the students were AI/AN scored higher than their peers attending schools with higher concentrations of AI/AN students, and those attending public schools scored higher than their peers in Bureau of Indian Education schools.

Patterns in reading results vary when AI/AN students are compared to other racial/ethnic groups

While the overall average reading scores for AI/AN students were lower than the scores for non-AI/AN students at both grades in 2007, they were not consistently lower than the scores for all racial/ethnic groups.

- Average scores for AI/AN students were not significantly different from the scores for Black or Hispanic students but were lower than the scores for White and Asian/Pacific Islander students.
- Scores for higher-performing AI/AN students—those at the 75th and 90th percentiles—were higher than those of their Black peers.

- AI/AN fourth-graders attending city schools scored higher than their Black and Hispanic peers, and AI/AN eighth-graders attending rural schools scored lower than their Hispanic peers.

AI/AN students in some states score higher in reading than their peers in the nation

When compared to the scores for all AI/AN students in the nation, average reading scores for AI/AN fourth-graders in Oklahoma and eighth-graders in Oklahoma and Oregon were higher in 2007. Scores for AI/AN fourth- and eighth-graders in Alaska, Arizona, New Mexico, and South Dakota were lower than the average scores of all AI/AN students nationwide.

MATHEMATICS RESULTS

Overall, the average mathematics scores for AI/AN fourth- and eighth-graders showed no significant change since 2005 and were lower than the scores for non-AI/AN students in 2007. There was, however, an increase in the percentage of AI/AN fourth-graders performing at or above the *Proficient* level from 21 percent in 2005 to 25 percent in 2007.

In 2007 at both grades, AI/AN students attending schools in which less than 25 percent of the students were AI/AN scored higher than their peers attending schools with higher concentrations of AI/AN students, and those attending public schools scored higher than their peers in Bureau of Indian Education schools.

Patterns in mathematics results vary when AI/AN students are compared to other racial/ethnic groups

While the overall average mathematics scores for AI/AN students were lower than the scores for non-AI/AN students at both grades in 2007, they were not consistently lower than the scores for all racial/ethnic groups.

- AI/AN students at both grades scored higher on average than Black students, scored lower than White and Asian/Pacific Islander students, and had average scores that were not significantly different from Hispanic students.
- Scores for higher-performing AI/AN students—those at the 75th and 90th percentiles—were higher than scores for their Black peers.



Introduction

The National Indian Education Study (NIES) was conducted by the National Center for Education Statistics on behalf of the U.S. Department of Education, Office of Indian Education. NIES is the only nationally representative assessment of American Indian/Alaska Native (AI/AN) students. It lays the foundation for gathering useful trend data for this student population.

The NIES Project

This report, Part I of the study, focuses on the performance results of fourth- and eighth-grade AI/AN students on the 2007 National Assessment of Educational Progress (NAEP) in reading and mathematics. The first NIES study was conducted in 2005, and the results for 2007 are compared to results from that assessment in this report.

Presidential Executive Order 13336 called for a closer examination of the educational experiences and progress of AI/AN students, as well as the promotion of research opportunities and collaboration with tribal communities. The data presented in this report and the forthcoming Part II report provide additional information that will help inform policymakers, researchers, and educators.

NIES Part II will present the results gathered from questionnaires completed by AI/AN students, the teachers who teach them, and the administrators of schools that serve them, and will provide a snapshot of the cultural and educational experiences of AI/AN fourth- and eighth-graders.

Sample Design

The NIES sample was designed as an augmentation of the 2007 NAEP reading and mathematics assessment samples of AI/AN students in the fourth and eighth grades. Race/ethnicity information from official school

records was used to identify AI/AN students during sampling. In 2007, about 10,100 AI/AN students participated in the reading assessment, and about 10,300 AI/AN students participated in the mathematics assessment (table 1). The national results reflect the performance of students enrolled in public, Bureau of Indian Education (BIE), Department of Defense, and private schools. The percentage of sampled AI/AN students enrolled in schools other than public and BIE schools nationally was approximately 5 percent.

Table 1. Number of participating schools with AI/AN students and number of participating AI/AN students in NAEP reading and mathematics at grades 4 and 8: 2007

Grade	Reading		Mathematics	
	Schools	Students	Schools	Students
Grade 4	1,470	5,300	1,450	5,700
Grade 8	1,260	4,800	1,270	4,600

NOTE: AI/AN = American Indian/Alaska Native. The numbers of schools are rounded to the nearest ten. The numbers of students are rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP); 2007 National Indian Education Study.

Results are reported for 11 states with relatively large populations of AI/AN students. Nationally, AI/AN students comprise about 1 percent of all students, but in the 11 selected states combined, they make up almost



6 percent of the overall student population (table 2). Over 50 percent of the nation's AI/AN students reside in the 11 states for which state-level results are provided in this report, with about 42 percent residing in the other 39 states and the District of Columbia.

Table 2. Total enrollment, AI/AN enrollment, and AI/AN students as a percentage of total enrollment in public elementary and secondary schools, by selected states: 2005–06

State	Total enrollment (all students)	AI/AN enrollment	AI/AN as percent of total
Nation	49,894,627	646,287	1.3
Total for selected states	6,394,808	374,960	5.9
Alaska	133,288	35,393	26.6
Arizona	1,094,454	67,498	6.2
Minnesota	839,243	17,400	2.1
Montana	145,416	16,422	11.3
New Mexico	326,758	36,210	11.1
North Carolina	1,416,436	20,463	1.4
North Dakota	98,283	8,483	8.6
Oklahoma	634,739	120,122	18.9
Oregon	552,194	12,986	2.4
South Dakota	122,012	12,775	10.5
Washington	1,031,985	27,208	2.6

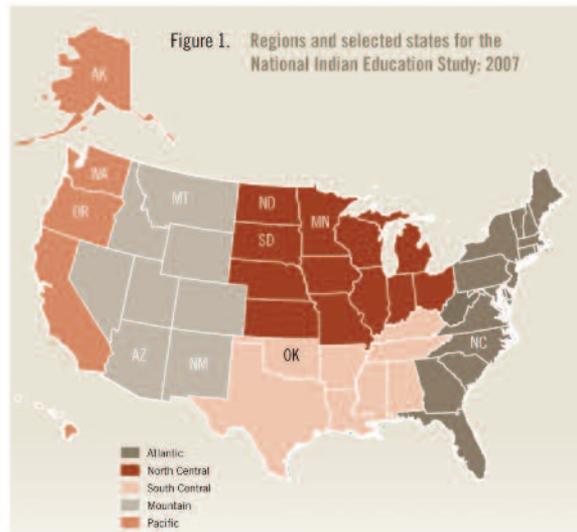
NOTE: AI/AN = American Indian/Alaska Native.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," unpublished data, 2005–06.

State-level results, drawn from public and BIE schools only, are compared to results from a national sample of AI/AN students from public and BIE schools.

High density schools were over-sampled for NIES 2007 to support the reporting of results based on "school density." (See Technical Notes for more details on the sampling design.) School density indicates the proportion of AI/AN students enrolled in a given school. Low density schools have less than 25 percent AI/AN students enrolled. High density schools have 25 percent or more AI/AN students enrolled.

Results are also reported in terms of five regions of the country: Atlantic, North Central, South Central, Mountain, and Pacific. The NIES regions are based on U.S. Census divisions and are defined to align with the distribution of the AI/AN student population. Like the national results, the regional data are based on the sample drawn from public, BIE, Department of Defense, and private schools. See figure 1 for a map of the regions.



NOTE: Selected states are identified using abbreviations. These states were identified by NAEP as having a relatively large proportion of American Indian/Alaska Native students as a percentage of the state's total population. Regions referenced in this figure were defined by NAEP exclusively for the National Indian Education Study.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 National Indian Education Study.

About This Report

This report describes the reading and mathematics performance of AI/AN fourth- and eighth-grade students by examining 2007 NAEP results for the nation, for regions, for selected states, and for groups of students defined by race/ethnicity, eligibility for free/reduced-price school lunch, gender, type of school location, type of school, and school density. Results are also compared to those from the 2005 assessments.

AI/AN student performance is compared to the performance of all other students in the nation or region. In addition, the sections discussing state results compare the performance results of AI/AN students within each state to those of AI/AN students in each of the other selected states, and to the performance of the national sample of AI/AN students.

Information is also provided about the design of the reading and mathematics assessments, including the frameworks, item maps, and sample questions. The Technical Notes discuss the technical procedures used for sampling and data collection and define the reporting variables.

Reporting NAEP Results

The students selected to take the NAEP assessment represent all fourth- and eighth-grade students across the United States. Students who participate in NAEP play an important role by demonstrating the achievement of our nation's students and representing the success of our schooling. NAEP data can only be obtained with the cooperation of schools, teachers, and students nationwide.

Understanding NAEP Results

Results in this report are presented in two ways: in terms of scale scores and as the percentage of students scoring at or above the three NAEP achievement levels. The average scale scores represent how students performed on the assessment. The achievement levels represent how that performance measured up against achievement expectations. Thus, the average scale scores represent what students know and can do, while the achievement-level results indicate the degree to which student performance meets expectations of what they should know and be able to do.

Scale Scores

NAEP average reading and mathematics scores are reported for grades 4 and 8 on separate 0–500 scales. Scale score results also are presented for students at various percentiles. An examination of scores at different percentiles on the 0–500 scale indicates whether or not average score results are reflected in the performance of lower-, middle-, and higher-performing students. Because NAEP scales are developed independently for each subject, average scores cannot be compared across subjects even when the scales have the same range.

Achievement Levels

NAEP results are reported at three achievement levels: *Basic*, *Proficient*, and *Advanced*. Achievement levels are performance standards defining what students should know and be able to do. They are set by the National Assessment Governing Board, based on recommendations from panels of educators and members of the public, to provide a context for interpreting student performance on NAEP. Achievement-level results are reported as percentages of students performing at or above *Basic*, at or above *Proficient*, and at *Advanced*.

As provided by law, the National Center for Education Statistics (NCES), upon review of congressionally mandated evaluations of NAEP, has determined that achievement levels are to be used on a trial basis and should be interpreted with caution. The NAEP achievement levels have been widely used by national and state officials.

NAEP ACHIEVEMENT LEVELS

Basic denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at a given grade.

Proficient represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter.

Advanced represents superior performance.

<http://nces.ed.gov/nationsreportcard/reading/achieve.asp>

<http://nces.ed.gov/nationsreportcard/mathematics/achieve.asp>

Item Maps

Item maps provide another way to interpret the average scores and achievement-level results for each grade. The item maps displayed in this report show concrete examples of what students at various achievement levels are likely to know and be able to do on NAEP reading and mathematics questions at different points on the 0–500 scales.

Interpreting Results

Comparisons over time or between groups are based on statistical tests that consider both the size of the differences and the standard errors of the statistics being compared. Standard errors represent the amount of uncertainty in estimates that are based on a sample instead of the entire population of interest. Estimates based on smaller groups are likely to have larger standard errors. The size of the standard errors may also be influenced by other factors such as how representative the students assessed are of the entire population.

When an estimate has a large standard error, a numerical difference that seems large may not be statistically significant. Differences of the same magnitude may or may not be statistically significant depending upon the size of the standard errors of the estimates. For example, a 2-point gain between 2005 and 2007 for non-AI/AN students may be statistically significant, while a 2-point gain for AI/AN students may not be (see figure 21 in the mathematics results section).

In the tables and figures in this report, the symbol (*) indicates that scores or percentages are significantly different from each other. A footnote beneath each table or figure explains which groups were compared.

Significance test results are not shown for all possible comparisons within each table or figure. NAEP results adopt widely accepted statistical standards; findings are reported based on a statistical significance level set at .05 with appropriate adjustments for multiple comparisons. Score differences or gaps cited in this report are calculated based on differences between unrounded numbers. Therefore, the reader may find that the score difference cited in the text may not be identical to the difference obtained from subtracting the rounded values shown in the accompanying tables or figures. The reader is cautioned that only those differences that are discussed in the text (for instance, a percentage or average score that is higher or lower than another), or that are indicated by the symbol (*) in the tables and figures, have been determined to be statistically significant using the criteria established for this report.

Cautions in Interpretation

Changes in performance results over time may reflect not only changes in students' knowledge and skills but also other factors, such as changes in student demographics, education programs and policies (including policies on accommodations and exclusions), and teacher qualifications. In addition to the overall performance of students in the nation, regions, and selected states, results are presented by different demographic characteristics (for example, gender, race/ethnicity, or eligibility for the National School Lunch Program). These results should not be used to establish a cause-and-effect relationship between demographic characteristics and achievement. Educational and socioeconomic factors may affect student performance in many complex ways.

Sample Guidelines for Engaging Elders

Listed below are a set of potential guidelines to follow when engaging elders. These are based upon suggestions from Dr. Rosemary Christensen. A professor at the University of Green Bay, Christensen guides those undergraduate students who choose to take an oral concentration involving meeting with and learning from Native elders.

Involve elders at the beginning of a project, rather than after the fact when you have already decided on methods and processes. Elders don't need to be intensely involved at the beginning, but can be informed of the project, invited to meetings and kept abreast of the project as its structure is developed.

Invite elders to suggest ways in which they would value being involved. Encourage them to let you know what they need or want to know about the project.

Be clear about how much of a time commitment you are expecting from elders (one year, six months, several weeks, or less).

Always inform elders if you plan to pay them for any activities (including attending meetings, reading or responding to survey materials). Include within your budget a nominal fee which may even be paid at intervals.

Check in regularly with elders to ensure they are aware of your project's planning and implementation. As there are many different ways to do this, determine what works best for your group of elders. You may provide information at intervals.

Always ensure elders know how to reach meeting or event destinations. Be prepared to offer transportation assistance.

Ensure meeting locations are accessible, safe and comfortable. If possible, designate a special area where elders can sit and relax.

Make sure elders are clear about dates and agreed places to meet.

Be aware of local norms/customs that need to be followed for elder comfort.

Be familiar with any gender issues that may arise. Be careful about joining into any local political issues.

Consider doing reciprocal work for elders. For example, offer to help out in the garden or perform light housework.

Occasionally check in with elders to ensure things are running smoothly; also ensure they still want to continue with the project.

When communicating with elders, remember the following:

- Give everyone an opportunity to talk, even if it is to agree with others or to indicate that they don't have anything to say at this time.
- Consider using an elder who is a natural facilitator to help in leading a discussion with others.
- Do not tell or lecture elders on what you know, or think you know. This approach wastes the elder's valuable time.
- Do not ask elders for advice on something that you are not planning to change.
- An elder may need a certain amount of face-to-face discussion to be comfortable with the give and take of information provided by both parties.
- Be aware of generational issues. Elders may not be able to use e-mail. Or, they may not want to receive phone calls during certain times or at certain places. Ask elders how best to contact them, or ask them who might act as a go-between.

Methods for Gathering Information

Information can be gathered in a number of ways. The National Science Foundation (NSF) has developed a table listing different methods and the advantages and disadvantages of each. The table below summarizes those major procedures.

To ensure we do not perpetuate the legacy of inappropriate information-gathering, we must continually reframe our methods so they are responsive to our communities, cultures, and traditions.

Advantages and Disadvantages of Various Data Collection Procedures*

PROCEDURE	ADVANTAGES	DISADVANTAGES
Self-administered questionnaire	Inexpensive. Can be quickly administered if distributed to a group. Well-suited for simple and short questionnaires.	No control for misunderstood questions, missing data, or untruthful responses. Not suited for exploration of complex issues.
Interviewer-administered questionnaires (by telephone)	Relatively inexpensive. Best suited for relatively short and non-sensitive topics.	Proportion of respondents without a private telephone may be high in some populations. As a rule, not suitable for children, older people, and non-English speaking persons. Not suitable for lengthy questionnaires and sensitive topics. Respondents may lack privacy.
Interviewer-administered questionnaires (in person)	Interviewer controls situation, can probe irrelevant or evasive answers; with good rapport, may obtain useful open-ended comments.	Expensive. May present logistical problems (time, place, privacy, access, safety). Often requires a lengthy data collection period unless project employs large interviewer staff.
Open-ended interviews (in person)	Usually yields richest data, most details, new insights. Best if in-depth information is wanted.	Same as above (interviewer administered questionnaires); often difficult to analyze.
Focus groups	Useful to gather ideas, different viewpoints, new insights. Good for improving question design.	Not suitable for generalizations about populations being studied.
Tests	Provide “hard” data which administrators and funding agencies often prefer: relatively easy to administer; good instruments may be available from vendors.	Available instruments may be unsuitable for treatment population; developing and validating new, project-specific tests may be expensive and time consuming. Objections may be raised because of test unfairness or bias.
Observations	If well-executed, best for obtaining data about behavior of individuals and groups.	Usually expensive. Needs well-qualified staff. Observations may affect behavior being studied.

* Adapted from the National Science Foundation, *User-Friendly Handbook for Project Evaluation: Science, Mathematics, Engineering and Technology Education*. NSF 93-152. p. 44.

Cultural Considerations for Gathering Information

The table below describes a variety of information-gathering methods and how they might be considered in order to ensure respect for cultural protocols and situations.

Gathering Information Procedure	Cultural Considerations
<p>Self-administered questionnaires that respondents complete</p> <p>Useful to gauge satisfaction with a program activity or event, or to determine what people need or want from a program.</p>	<p>This is an efficient way to gather information, but it has the following limitations:</p> <ul style="list-style-type: none"> • The terms and language should be at a level appropriate to the literacy level of respondents. • In some situations, terms may need to be translated. • Best used when participants have only a few responses to choose from (i.e. a close-ended question survey), but elders and others within a community may not like having to choose from forced answers. • Does not allow for relationship-building. Should be used only when respondents trust and understand the program, and the need for information. • Survey items should be clearly stated so there is no misunderstanding by those completing the questionnaire.
<p>Interviewer-administered questionnaires or open-ended questions by telephone</p> <p>Useful when time and distance makes in-person visits impossible.</p>	<p>This is another efficient way to collect information, but it, too, has its own set of limitations:</p> <ul style="list-style-type: none"> • Does not allow for relationship-building. Should be used only when respondents trust and understand the program, the caller, and the need for information. • Some populations may have limited access to telephones.
<p>Questionnaires and open-ended interviews in person</p> <p>Useful way to gather good information.</p>	<p>Visiting and talking about the program is an excellent way to gather information. Cultural considerations include:</p> <ul style="list-style-type: none"> • Plan on spending time developing relationships before getting to the purpose of the interview. • Avoid direct questions if possible. Instead, find ways to stimulate a conversation about the subject of the interview. • Ensure that confidentiality is maintained. • Ensure information has been correctly interpreted; check back with respondents to ensure their quotes are accurate and any information used within a report is correct. • Offer a gift of appreciation.
<p>Focus groups</p> <p>Good for getting multiple viewpoints about the program. More efficient than individual interviews.</p>	<p>Focus groups are useful, especially when people feel comfortable enough with each other and the subject to discuss their views and experiences. The cultural considerations for focus groups are the same as those for open-ended interviews. The Talking Circle methodology can be adapted for use in focus groups.</p>
<p>Tests and measurement instruments of performance or attitudes and behavior</p> <p>Important if the evaluation requires a measurement of learning or changes in attitudes or behaviors. These types of measurement tools need to be valid and reliable.</p>	<p>Often needed to show changes in some element of the program; should be used in ways that, regardless of results, ensure all those measured are treated with respect and encouraged to realize their unique gifts. Cultural considerations include:</p> <ul style="list-style-type: none"> • It is important that the measure is valid and actually measures the concepts or content central to the program. This applies to all tests or measurement instruments. Since Indian programs are place-based and community specific, it may be necessary to create measures or adapt those produced by publishers or other sources. • The measurement tool needs to be reliable—i.e., there is a consistency in responses if the test or tool is repeated again after the first administration. There are statistical measures for reliability which can be used, or you can pilot a measure using the test-retest process with a small sample of people to check for consistent responses. • When possible, authentic assessment or multiple ways of measuring also should be used. These include tests, written work, demonstrations, and artistic expressions (drawings, photographs).
<p>Observations</p> <p>A good method to describe what is happening in a classroom or at an event. It can also be used to assess demonstrations of participant accomplishments.</p>	<p>Observers can be recruited from the community to expand participation in the evaluation.</p> <ul style="list-style-type: none"> • Participants, such as students, can demonstrate their accomplishments to observers such as elders or tribal leaders. • Consider creating observation rubrics (sets of measurements) that elders or others can use to assess program events or student demonstrations. • Have observers practice using rubrics to ensure they are in agreement about observations.

University of Alaska GK-12 Evaluation Process and Draft Plan

The evaluation process is guided by core values identified in the American Indian Higher Education Consortium's (AIHEC) Indigenous Framework for evaluation. With support from NSF, AIHEC developed a framework based on Indigenous knowledge creation and core beliefs and values common in Native communities. The framework is designed to help Indigenous programs embed evaluation within Indigenous ways of knowing and values. It does not reject Western evaluation tradition, but rather guides programs to focus first on Indigenous framing and use this process to choose which Western evaluation methodologies are appropriate and which should be rejected or perhaps adapted.

Core elements of the AIHEC Indigenous Evaluation Framework and the ways in which they will be respected are illustrated in the following table.

Beliefs and Values (AIHEC Framework)	K-12 Project Evaluation Process and Practice
<p>Indigenous Knowledge Creation—Context is Critical</p> <ul style="list-style-type: none"> • Evaluation itself becomes part of the context, it is not an “external” function • Evaluation must situate the program by describing its relationship to the community, including its history, current situation, and the individuals affected • Evaluators need to address the relationships between the program and community • Evaluators must take special care to analyze specific variables and not ignore their contextual situations. 	<p>Evaluation will be embedded in the program from the beginning. The external evaluator will meet with major stakeholders to discuss evaluation planning and ways to ensure that evaluators choose and/or adapt only those Western evaluation research methods that will fit the core values of the program and the communities it serves.</p>
<p>People of a Place—Respect Place-based Programs</p> <ul style="list-style-type: none"> • Honor the place-based nature of many of our programs • Respect that what occurs in one place may not be easily transferred to other situations or places 	<p>The evaluation will capture contextual information regarding each community and consider how this information mediates program activities and findings.</p>
<p>Centrality of Community and Family—Connect Evaluation to Community</p> <ul style="list-style-type: none"> • Engage community when planning and implementing an evaluation • Use participatory practices that engage stakeholders • Make evaluation processes transparent • Understand that programs may not focus only on individual achievement, but also on restoring community health and well-being 	<p>The evaluation will use participatory practices. The draft evaluation prepared for this proposal will be reviewed and modified based on an inclusive process engaging major stakeholders. Efforts will be made to ensure that assessment of community-based research includes community members and local educators.</p>
<p>Recognizing our Gifts, Personal Sovereignty—Consider the Whole Person when Assessing Merit</p> <ul style="list-style-type: none"> • Allow for creativity and self-expression • Use multiple ways to measure accomplishment • Make connections to accomplishment and responsibility 	<p>Student performance will be assessed through teacher assessments, as well as by elders. Students will be asked to make connections between their research and their responsibility to use knowledge in ways that contribute to community.</p>
<p>Sovereignty—Create Ownership and Build Capacity</p> <ul style="list-style-type: none"> • Follow Native Institutional Review Board processes • Build capacity in the community • Secure proper permission if future publishing is expected • Report in ways that are meaningful to Native audiences as well as to funders 	<p>The evaluation will seek all appropriate approval processes, including formal IRBs and informal processes within communities.</p>

In addition to following the guidance of the *AIHEC Indigenous Evaluation Framework*, the evaluation will be based on a theory-of-change model. During an inclusive process at the beginning of the program, major stakeholders should help identify the conceptual model or theory-of-change for the program. The relationship of activities to outcomes should be mapped in a way that is useful to project participants, and the assumptions underlying those connections between program activities and outcomes should be made explicit so they can be assessed through the evaluation process. This process is tied to Indigenous ways of thinking because it involves creating the program evaluators hope to tell and then identifying how the evaluation—complete with the establishment of key questions, evaluation design, data collection and analysis—will capture the program’s final story. Within all Indigenous communities, lessons are learned through the telling of the stories.

The table below contains a draft evaluation plan subject to review by stakeholders. It outlines evaluation processes, indicators and timeframes based on key evaluation questions.

Draft Evaluation Plan for Indigenous Knowledge Systems, Science and K-12 Fellows Program

Evaluation Questions	Data Collection/Methodology	Performance Indicator	Timeline
How do K-12 fellows experience the following program components?			
Integrating a common course of study related to broad themes of Indigenous knowledge systems and Western science with their disciplinary studies	<ol style="list-style-type: none"> 1) Pre- and post-survey perceptions of knowledge systems and their relevance to their research and disciplinary study 2) Interviews to gather qualitative richness regarding experience 3) Documentation of publications and presentations 	<ol style="list-style-type: none"> 1) Fellows responses on pre-/post-survey will show a significant change in perceptions 2) Examples of experience that will suggest strengths to be supported and weakness to be corrected 3) At least one major publication/ presentation each year 	<p>Fall/Spring</p> <p>Spring</p> <p>Summer</p>
Designing place-based research projects in collaboration with indigenous community experts, university scholars and middle and high school teachers that explore hypotheses related to the intersection of Western and Indigenous systems of knowing	<ol style="list-style-type: none"> 1) Interviews to gather qualitative richness regarding experience 2) Inventory of field/observational place-based research for middle and high school student 3) Fellows write about their experiences working with community members and educators 	<ol style="list-style-type: none"> 1) Examples of experience that will suggest strengths to be supported and weakness to be corrected 2) 60% to 80% of the school projects are useful and disseminated for schools in state 3) Examples of experience that will suggest strengths to be supported and weakness to be corrected 	<p>Spring</p> <p>Ongoing</p> <p>Ongoing</p>
Working with community members, students and teachers in organizing and presenting research at Native science fairs	<ol style="list-style-type: none"> 1) Observation of science fairs 2) Elder assessments of fellows engagement with community 3) Interviews to gather qualitative richness regarding fellows experience 4) Fellows journals of their experiences working with community members and educators 	<ol style="list-style-type: none"> 1) All projected science fairs take place 2) 90% of elder assessments of fellows engagement is positive 3) Examples of experience that will suggest strengths to be supported and weakness to be corrected 4) Examples of experience that will suggest strengths to be supported and weakness to be corrected 	<p>Summer</p> <p>When most appropriate</p> <p>Spring</p> <p>Ongoing</p>

Evaluation Questions	Data Collection/Methodology	Performance Indicator	Timeline
How do middle and high school teachers and Indigenous community experts describe their collaboration with fellows and university faculty?			
Middle and high school teachers	Interviews/focus groups (via distance technology)	Examples of experience that will suggest strengths to be supported and weakness to be corrected	Spring
Indigenous community members	Interviews/focus groups (via distance technology)	Examples of experience that will suggest strengths to be supported and weakness to be corrected	Spring
What evidence is there of benefits to middle and high school students?			
How do students demonstrate understanding of place-based science that integrates different ways of knowing and doing research?	Student demonstrations at science fair	90% of schools working with K-12 will have local science fairs, 60% will participate in statewide fair	Spring
What evidence is there that students developed an appreciation for science?	Pre- and post-survey of interest in science	60% of students will show gains on science interest survey	Early Fall and Spring
What evidence is there of research and instructional collaboration within the University of the Arctic and Native organizations that can sustain the development of STEM scholars who are able to work within co-existing systems of thought and contribute to critically important place-based research?			
Did the project meet its goal to provide courses and seminars through the U.Arctic network?	Inventory of courses offered, course evaluations	Project will meet goals established for courses and seminars, 80% of fellows will favorably rate courses as very good to excellent	Spring
How did Native organizations contribute to K-12 place-based research projects?	Survey of individuals from organizations who engaged in the K-12 program	80% of those surveyed will favorably rate their experience in the project and they will provide examples of experience that will suggest strengths to be supported and weakness to be corrected	Summer
What are the major lessons learned through the K-12 program to inform continuing development of PhDs?	1) Interviews with major stakeholders (staff and advisory committee) 2) Summative assessment of all evaluation data	Examples of experience that will suggest strengths to be supported and weakness to be corrected	Spring Summer

Examples of Connecting Core Values to GK-12 Draft Evaluation Plan

Beliefs and Values (AIHEC Framework)	Ways in which Values are Addressed
<p>Indigenous Knowledge Creation—Context is Critical</p> <ul style="list-style-type: none"> • Evaluation itself becomes part of the context; it is not an “external” function • Evaluation must situate the program by describing its relationship to the community, including its history, current situation, and the individuals affected • Evaluators need to attend to the relationships between the program and community • Evaluators must take special care to analyze specific variables and not ignore their contextual situations 	<ul style="list-style-type: none"> • The evaluation planning begins with program implementation • Ensure that the context of the program is fully understood by any external evaluators and that it is described in any evaluation reports • Create opportunity for participatory evaluation practice • Use evaluation approaches that ensure multiple perspectives
<p>People of a Place—Respect Place-based Programs</p> <ul style="list-style-type: none"> • Honor the place-based nature of many of our programs • Respect that what occurs in one place may not be easily transferred to other situations or places 	<ul style="list-style-type: none"> • Capture contextual information regarding how the program is situated within the community and relates to other programs or initiative • Celebrate success, but do not conclude that what works in the local situation can be transferred or generalized to other contexts without appropriate adaptations
<p>Centrality of Community and Family—Connect Evaluation to Community</p> <ul style="list-style-type: none"> • Engage community when planning and implementing an evaluation • Use participatory practices that engage stakeholders • Make evaluation processes transparent • Understand that programs may not focus only on individual achievement, but also on restoring community health and well-being 	<ul style="list-style-type: none"> • Decide the roles community members or program participants can play in supporting the evaluation in its planning and implementation phases • Make the evaluation process transparent to staff, participants, community • Look for connections with other programs or projects in the community
<p>Recognizing our Gifts, Personal Sovereignty—Consider the Whole Person when Assessing Merit</p> <ul style="list-style-type: none"> • Allow for creativity and self-expression • Use multiple ways to measure accomplishment • Make connections to accomplishment and responsibility 	<ul style="list-style-type: none"> • Consider ways to capture individual or group achievement in multiple ways • Honor accomplishment while also valuing that everyone has value and gifts • Honor accomplishment and connect it to responsibility to self and community
<p>Sovereignty—Create Ownership and Build Capacity</p> <ul style="list-style-type: none"> • Follow Native Institutional Review Board processes • Build capacity in the community • Secure proper permission if future publishing is expected • Report in ways that are meaningful to Native audiences as well as to funders 	<ul style="list-style-type: none"> • Follow proper protocols for evaluation and research • Include consent processes that allow people to see how their information is interpreted • Include opportunities for community members to develop evaluation skills • Celebrate learning by sharing the lessons learned through the evaluation

Indigenous Evaluation: Respecting and Empowering Indigenous Knowledge



Resource Guide

Indigenous Evaluation: Respecting and Empowering Indigenous Knowledge

by Richard Nichols (Santa Clara Pueblo), B.S., and Joan LaFrance (Turtle Mt. Chippewa), Ed.D., MPA



BASKET WEAVING DEMONSTRATION. Photo courtesy of Ed LeBlanc, Archivist, Institute of American Indian Arts.

INTRODUCTION

Though based on Western research models, it has been said that evaluation is a practical craft; evaluators engage in the craft to contribute to program quality. Given this nod toward practicality, evaluators are free to explore cultural ways of knowing different from those traditionally taught in the Western epistemological tradition.

This is especially true when such exploration contributes to the usefulness and validity of evaluation within the program operations context. Just as action research models have evolved, evaluation practice has become more collaborative and responsive to evaluation stakeholders, including American Indian tribes, schools, and communities. Indeed, evaluation capacity building has become an embedded principle in such theoretical models as empowerment evaluation.

The American Indian Higher Education Consortium (AIHEC)'s Indigenous Evaluation Framing project is described elsewhere in this issue. Funded by the National Science Foundation, the project informs and creates evaluation designs that ensure validity and reliability based on indigenous ways of knowing and core values common to most, if not all, Indian communities. The following evaluation resources provide an overview of indigenous evaluation as an emergent field.

BOOKS AND ARTICLES

LaFrance, J. (Summer 2004).

Culturally competent evaluation in Indian Country. *New Directions for Evaluation*, No. 102, 39-50. Special issue: In search of cultural competence in evaluation: Toward principles and practices. Jossey-Bass and the American Evaluation Association.

Conducting culturally competent evaluation in Indian Country requires an understanding of the rich diversity of tribal peoples and recognition of Indian self-determination and tribal sovereignty, according to Dr. Joan LaFrance's chapter in this special issue. If an evaluation can be embedded within an indigenous framework, it is more responsive to tribal ethics and values. She says appropriate tribal protocols should be utilized for evaluation and argues that an indigenous orientation to evaluation has specific implications for the use of appropriate methodological approaches, for partnerships between the evaluator and the program, and for reciprocity.

LaFrance, J. & Nichols, R. (In Press). *Summary report: Stories from the focus groups on an indigenous framing for evaluation*. Alexandria, VA: American Indian Higher Education Consortium (AIHEC).

Developed with support from the National Science Foundation (NSF), this document highlights regional focus groups conducted as phase one of the Indigenous Evaluation Framing project. Three focus groups were conducted in the Southwest, Northwest, and Central Plains region inviting American Indian cultural traditionalists, educators, and evaluators to consider how to assess program merit or worth from a traditionalist perspective.

Based on a concept of evaluation as a joint journey between the evaluator and evaluation stakeholders to "create knowledge about a program," the focus group participants' information is being used to develop a training

curriculum on indigenous evaluation. Information was collected about tribal experiences with evaluation and cultural values regarding knowledge, judgment, and assessment of what is valued in Indian education. The stories also provide advice on practice and methodological implications for evaluation in American Indian communities. The Summary Report will be available at the AIHEC website (www.aihec.org) in Winter 2007.

The National Science Foundation, Directorate for Education and Human Resources, Division of Research, Evaluation, and Communications. *The Cultural Context of Educational Evaluation: The Role of Minority Evaluation Professionals*. Workshop Proceedings, June 1-2, 2000.

Since the 1990s, the National Science Foundation (NSF) has been concerned with increasing the capacity of evaluation practitioners in order to provide high quality evaluation services more responsive to minority concerns and community needs. This 2000 workshop was held to discuss issues related to increasing the supply of minority evaluators for mathematics and science programs and projects. Since then, the senior staff of NSF's Division of Research, Evaluation, and Communications has worked with the American Evaluation Association (AEA) to promote more minority participation in AEA's annual meetings and in its publications. NSF is in the process of developing theoretical models for training and capacity building in evaluation – models that will incorporate contextual factors and their influence on the process of evaluation.

The National Science Foundation, Directorate for Education and Human Resources, Division of Research, Evaluation, and Communications. *The Cultural Context of Educational Evaluation: A Native American*

Perspective. Workshop Proceedings, April 25-26, 2002.

The National Science Foundation sponsored this 2-day workshop to discuss issues of culturally responsive educational evaluation pertinent to Native Americans. The goal of this workshop was to offer direction for future planning of NSF evaluations and research activities and to focus on capacity building within the field of educational evaluation. Participants included evaluation and education experts from a variety of tribes and experience in national organizations, federal agencies, and schools and higher education institutions across the nation. This workshop was structured around three major themes:

- evaluation issues relating to the academic achievement of Native American students;
- education/training opportunities for Native American evaluators; and
- developing, maintaining, and expanding a network of Native American evaluators.

The discussions highlighted the history of research exploitation in Indian Country, which raises issues for evaluation. Evaluation is different from research in that it should respond to programs and not the Western notion of empiricism, which is the goal of research.

Participants noted that evaluation in Indian Country should be attentive to community ownership and participation, as well as traditional protocols and codes of ethics. It was noted that creating a cadre of Native American evaluators was only in its beginning stages and that there was a need for continued support from federal agencies such as NSF to keep the momentum going.

Evaluation should not be an "underfunded afterthought," doing only summative evaluation is passé. Evaluation should be formative, positive, developmental, and ongoing.

Furthermore, evaluations should involve not only administrators but also “frontline educators” and community members in the interpretation of data and their implications.

This resource, based on the input of many recognized experts in Indian education, provides an important introduction to the evolution of evaluation. New theoretical models (such as participatory, collaborative, and empowerment approaches) are being developed and implemented in Indian Country. The document can be down-

Information Age Publishing.

In this provocative chapter, Senese argues that cultural competency and responsiveness is important in evaluation. However, it fails to call attention to the ways in which the culture of capitalism feeds the culture of racism and the structural inequalities of oppressed people. He evaluated a community wellness program connected to a Navajo school.

Smith, L. T. (1999). *Decolonizing methodologies: Research and indigenous*

(HTHS). They were concerned with the problem of using “colonial” research tools and the English language in a program developed for and by tribal people. Using the metaphor of jazz, which they describe as a music form that offers the possibility of hearing the world differently, the authors explain how they approached program design and evaluation to be responsive and culturally appropriate. Using pragmatic, strategic, and self-reflective methodological approaches, they list methods for their evaluation that are comprehensive as

“evaluators are free to explore cultural ways of knowing.”

loaded at www.nsf.gov/pubs/2003/nsf03032/start.htm.

Nelson-Barber, S., LaFrance, J., Trumbull, E., & Aburto, S. Promoting culturally reliable and valid evaluation practice. In S. Hood, R. Hopson & H. Frierson (Eds.) (2005), *The Role of Culture and Cultural Context In Evaluation*. Greenwich, CT: Information Age Publishing.

This chapter describes the authors’ work with diverse communities, especially their work in Indian communities. The authors describe how contemporary approaches to evaluation (participatory practices, empowerment evaluation, etc.) alone cannot ensure cultural responsiveness. They outline standards for extemporary evaluation practice that considers cultural context and audiences. They argue that these standards suggest a new paradigm and roles for evaluators.

Senese, G. The PENAL Project: Program evaluation and Native American liability. In S. Hood, R. Hopson, & H. Frierson (Eds.) (2005), *The Role of Culture and Cultural Context In Evaluation*. Greenwich, CT:

peoples. London: Zed Books, Ltd.

This seminal text challenges Western research practices and advocates for the development and use of indigenous research methodologies that are more inclusive of indigenous “cultural protocols, values and behaviors” (p.15). Linda Smith, a Maori academician, notes that “research is not an innocent or distant academic exercise.” It occurs within “a set of political and social conditions” (p. 5). Chapter 8 of Smith’s text, “Twenty-Five Indigenous Projects,” provides generalized descriptions of research *projects*, i.e., research activities, which can resonate within an evaluation context in other Native communities.

White, C. & Hermes, M. Learning to Play Scholarly Jazz: A Culturally Responsive Evaluation of the Hopi Teachers for Hopi Schools Project, in S. Hood, R. Hopson & H. Frierson (Eds.) (2005), *The Role of Culture and Cultural Context In Evaluation*. Greenwich, CT: Information Age Publishing.

The authors describe the tensions involved in planning a culturally responsive evaluation study of the Hopi Teachers for Hopi Schools Project

well as responsive. They describe how they will explore new forms of presenting final reports that are culturally valid and open new ways of knowing.

OTHER RESOURCES

American Evaluation Association. Guiding Principles for Evaluators. www.eval.org.

Evaluation practitioners interested in how other professional evaluators view their craft might find the American Evaluation Association (AEA’s) principles of interest. AEA strives to promote ethical practice in the evaluation of programs, products, personnel, and policy. The principles are: (a) systematic inquiry, (b) competence, (c) integrity/honesty, (d) respect for people, and (e) responsibilities for general and public welfare. AEA has an Indigenous Peoples Topical Interest Group comprised of Native educators and evaluators who are American Indian, Hawaiian, and Maori, as well as non-Native educators and evaluators practicing in Native communities. www.eval.org/aboutus/organizations/tigs.asp.

Aroturuki me te Arotakenga. (Ministry of Maori Development),

Te Puni Kōkiri (Monitoring and Evaluation Branch), 1999. *Evaluation for Maori: Guidelines for Government Agencies*. www.tpk.govt.nz/publications/subject/default.asp.

The Te Puni Kōkiri is required to monitor and act as a liaison with each New Zealand government department and agency that provides — or has responsibility to provide — services to or for Maori people. The purpose of this monitoring function is to ensure the adequacy of services, based on the governmental treaty responsibility and priorities for serving the Maori population (which is approximately 20% of the population). The branch also advises appropriate evaluation systems for Maori. These guidelines were developed to ensure the collection of appropriate and quality information by agencies undertaking evaluations. The guidelines are a set of minimum critical success factors that should be considered by agencies when evaluating their programs. The guidelines include

ethical issues for consideration, ensuring that Maori are involved in evaluation planning and that their participation is built into the evaluation design, as well as the analysis of data and reporting of evaluation findings. They include many practical considerations that may be applicable to evaluators conducting evaluations in Indian communities. The documents are all freely downloadable.

Kamehameha Schools. Evaluation Hui. www.ksbe.edu/pase/pdf/EvaluationHui/03_04_17.pdf.

This Native Hawaiian *hui* — meeting or group — was borne out of the question of whether current approaches and methodologies for program evaluation and research were appropriate for the Native Hawaiian population. The hui is comprised of evaluators, program administrators, researchers, and educators that serve the Native Hawaiian population. In collaboration with New Zealand Maori colleagues, the hui serves as a forum for the

exchange of knowledge, ideas, and experiences about culturally responsive methods and protocols for the evaluation of programs serving these two indigenous cultures. The Evaluation Hui's vision is to create and initiate evaluation methods and outcomes that benefit the Kanaka Maoli and Maori. Their website contains a digital library of publications that document the conceptions and progress of the Evaluation Hui. The documents are all freely downloadable.

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Guiding Principles for Evaluators



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PRINCIPLES



The American Evaluation Association (AEA) strives to promote ethical practice in the evaluation of programs, products, personnel, and policy. AEA has developed these Principles to guide evaluators in their professional practice.

These Guiding Principles are an abbreviated version of the full principles that were developed and endorsed by the American Evaluation Association in 1994 and reviewed and revised in 2004. A full text of the Guiding Principles is available online at www.eval.org.

AEA Guiding Principles for Evaluators



- A. Systematic Inquiry:** Evaluators conduct systematic, data-based inquiries, and thus should:
1. Adhere to the highest technical standards appropriate to the methods they use.
 2. Explore with the client the shortcomings and strengths of evaluation questions and approaches.
 3. Communicate the approaches, methods, and limitations of the evaluation accurately and in sufficient detail to allow others to understand, interpret, and critique their work.
- B. Competence:** Evaluators provide competent performance to stakeholders, and thus should:
1. Ensure that the evaluation team collectively possesses the education, abilities, skills, and experience appropriate to the evaluation.
 2. Ensure that the evaluation team collectively demonstrates cultural competence and uses appropriate evaluation strategies and skills to work with culturally different groups.
 3. Practice within the limits of their competence; decline to conduct evaluations that fall substantially outside those limits, and make clear any limitations on the evaluation that might result if declining is not feasible.
 4. Seek to maintain and improve their competencies in order to provide the highest level of performance in their evaluations.
- C. Integrity/Honesty:** Evaluators display honesty and integrity in their own behavior, and attempt to ensure the honesty and integrity of the entire evaluation process, and thus should:
1. Negotiate honestly with clients and relevant stakeholders concerning the costs, tasks, limitations of methodology, scope of results, and uses of data.

2. Disclose any roles or relationships that might pose a real or apparent conflict of interest prior to accepting an assignment.
3. Record and report all changes to the original negotiated project plans, and the reasons for them, including any possible impacts that could result.
4. Be explicit about their own, their clients', and other stakeholders' interests and values related to the evaluation.
5. Represent accurately their procedures, data, and findings, and attempt to prevent or correct misuse of their work by others.
6. Work to resolve any concerns related to procedures or activities likely to produce misleading evaluative information, decline to conduct the evaluation if concerns cannot be resolved, and consult colleagues or relevant stakeholders about other ways to proceed if declining is not feasible.
7. Disclose all sources of financial support for an evaluation, and the source of the request for the evaluation.

- D. Respect for People:** Evaluators respect the security, dignity, and self-worth of respondents, program participants, clients, and other evaluation stakeholders, and thus should:
1. Seek a comprehensive understanding of the contextual elements of the evaluation.
 2. Abide by current professional ethics, standards, and regulations regarding confidentiality, informed consent, and potential risks or harms to participants.
 3. Seek to maximize the benefits and reduce any unnecessary harms that might occur from an evaluation and carefully judge when the benefits from the evaluation or

- procedure should be foregone because of potential risks.
4. Conduct the evaluation and communicate its results in a way that respects stakeholders' dignity and self-worth.
 5. Foster social equity in evaluation, when feasible, so that those who give to the evaluation may benefit in return.
 6. Understand, respect, and take into account differences among stakeholders such as culture, religion, disability, age, sexual orientation and ethnicity.

E. Responsibilities for General and Public Welfare:

- Evaluators articulate and take into account the diversity of general and public interests and values, and thus should:
1. Include relevant perspectives and interests of the full range of stakeholders.
 2. Consider not only immediate operations and outcomes of the evaluation, but also the broad assumptions, implications and potential side effects.
 3. Allow stakeholders' access to, and actively disseminate, evaluative information, and present evaluation results in understandable forms that respect people and honor promises of confidentiality.
 4. Maintain a balance between client and other stakeholder needs and interests.
 5. Take into account the public interest and good, going beyond analysis of particular stakeholder interests to consider the welfare of society as a whole.

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