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ABSTRACT

Summarizing workshop sessions re: American Indian curriculum development for pre-school to grade 3, grades 4-8, and grades 9-12 (handled individually), this document includes strategies for facilitating community involvement, determining the appropriateness of instructional materials, and delivering American Indian heritage, history, and culture into a school curriculum using materials available from the National Indian Education Association/Project Media. The workshop summaries are brief, placing major emphasis on differing approaches and techniques for curriculum development as determined by the community being served. The appendices comprise the major portion of this document as follows: Curriculum is the Itinerary; Borrego Pass Parent Questionnaire: Parents with Children Not in Borrego Pass School; Borrego Pass Community Meeting and Minutes; Bicultural Situation Rating Scale; Bicultural Situation Rating Scale: Responses from Workshop; Charted Results from Bicultural Rating among Workshop Participants; Borrego Pass Kindergarten Questionnaire; Curriculum Stream Code; Instructional Materials Listing; Evaluation Data Collection Form; University of Oklahoma Southwest Center for Human Relations Studies; Native American Curriculum Planning Team Procedures; American Indian Heritage Studies Program and American Indian and Nature-Ethnic Studies; Indian Curriculum Development Outline; Indian Curriculum Workshop and Permeation Model; Curriculum Development for Native Americans, Grades 9-12. (JC)

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THE NATIONAL INDIAN EDUCATION ASSOCIATION

“Native American Curriculum Development Workshop”

U.S. DEPARTMENT OF HEALTH,
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NATIVE AMERICAN CURRICULUM DEVELOPMENT WORKSHOP

sponsored by

MEDIA EVALUATION AND DISSEMINATION BY INDIAN AMERICANS

January 24, 25, 26, 1977

Holiday Inn Central
Minneapolis, Minnesota

Rebecca Murray, Project Director

a service of the

NATIONAL INDIAN EDUCATION ASSOCIATION
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workshop summary and
curriculum notes

prepared for
PROJECT MEDIA

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I. INTRODUCTION

The National Indian Education Association, NIEA, exists to provide service and advocacy among Indian educators and educators of Indian children. The Media Evaluation and Dissemination by Indian Americans project, called "Project MEDIA," is among the services provided by NIEA. Project MEDIA conducts review and evaluation of instructional materials by American Indian people as regarding treatment of American Indian heritage, culture, and history. Details of Project MEDIA services as well as a listing of materials reviewed through the Project may be obtained by contacting:

NATIONAL INDIAN EDUCATION ASSOCIATION
Project MEDIA
1115 2nd Avenue South
Minneapolis, Minnesota 55403
(612) 333-5341

The Native American Curriculum Development Workshop is a Project MEDIA service requirement, stipulated in the funding grant as a Project activity. The workshop intends to respond to a continuing expression of need for assistance in utilization of resources for production of instructional materials to meet educational needs of American Indian children.

Materials identified and collected through Project MEDIA were represented at the workshop. Four educators with experience and expertise in curriculum planning for American Indian children conducted workshop sessions. Entries listed with Project MEDIA provided excellent materials for curriculum development using techniques and strategies suggested by workshop leaders.

Generally, the curriculum development workshop was planned to illustrate:

1. Strategies to involve American Indian Community People in the curriculum setting process;
2. Strategies to approach curriculum decision makers regarding the appropriateness of including American Indian Heritage, History, and Culture as part of the schools' curriculum content areas; and
3. The delivery of American Indian Heritage, History, and Culture into the content of a schools' curriculum through materials available from the NATIONAL INDIAN EDUCATION ASSOCIATION, PROJECT MEDIA.

The curriculum workshop goals were:

1. Inform participants of materials dealing with American Indian Heritage, History, and Culture which are cataloged at the NATIONAL INDIAN EDUCATION ASSOCIATION, PROJECT MEDIA.
2. Demonstrate techniques that have been used in preparing school curriculum content from the areas of American Indian History, Heritage and Culture.
3. Demonstrate the use of materials cataloged at the NATIONAL INDIAN EDUCATION ASSOCIATION, PROJECT MEDIA in preparing school curriculum content in the area of American Indian Heritage, History, and Culture.

4. Demonstrate the use of materials dealing with American Indian Heritage, History, and Culture from the NATIONAL INDIAN EDUCATION ASSOCIATION, PROJECT MEDIA as appropriate support materials in additional areas of the school's curriculum content, such as in English, Literature, Reading, Writing, History, and the like.
5. Describe strategies useful in apprising curriculum decision makers of the appropriateness of including American Indian Heritage, History, and Culture in the schools' curriculum content.
6. Describe strategies that will systematically draw from American Indian people who are clients of a given school, those elements of American Indian Heritage, History, and Culture which are believed appropriate to the curriculum content of that school.
7. Describe additional sources of materials and resource persons dealing with American Indian Heritage, History, and Culture in curriculum subject content.

The workshop was in session approximately 6 hours per day, from Monday, January 24, through Wednesday, January 26. Participants also went to the NIEA offices to examine materials cataloged with Project MEDIA.

The curriculum topics and resource persons were as follows each day:

- | | |
|------------------------|--|
| Monday, January 24: | Pre-school to 3rd grade:
Mary and Don Creamer
Principal and Project officer
Borrego Pass School
Crown Point, New Mexico |
| Tuesday, January 25: | 4th grade through 8th grade:
Anita Chisholm
Program coordinator/specialist
Native American Curriculum
Project
Southwest Center for Human
Relations Studies
University of Oklahoma
Norman, Oklahoma |
| Wednesday, January 26: | Grades 9 through 12:
Tom Cummings
Curriculum Development Specialist
Native American Materials
Development Center
407 Rio Grande Boulevard NW
Albuquerque, New Mexico |



II. SOME NOTES ON CURRICULUM

Curriculum is a common term in Education's jargon. Unfortunately, "curriculum" is often used to refer to various and differing aspects of school operation and planning. This creates confusion and lack of clarity among educators and school clients. It is appropriate, therefore, to preface an account of a "Curriculum Development Workshop" with a few remarks intended to clarify the meaning of "curriculum."

"Curriculum" is best defined as a plan. Curriculum is the plan a school has to provide education for students. Curriculum is not limited to content in academic subjects. A school's curriculum is the total, complete, composite plan for instruction and other activities for students. Curriculum includes any activity planned for students under the auspices of the school setting. Hence, "extra-curricular" and "co-curricular" are inaccurate uses of the word "curriculum." A school activity, planned for students by school personnel and supported by school resources cannot, by definition be either "extra" to the school or "co-" to the school. The school's plan for educating students, the school's curriculum, will have numerous and different types of activities. All activities intend to deliver the school's curriculum to students. In short, a school's curriculum is the complete plan for education of students.

Curriculum development is the process of preparing a plan for education. As sound planning is a distinct, systematic, rigorous disciplined activity, curriculum planning, i.e. curriculum development is similarly distinct, systematic, rigorous and disciplined. Briefly, a plan describes a course of action leading to accomplishment of sought after ends. In education, curriculum must define the course of action that will produce educational ends to meet community expectations and needs of students. Curriculum development, the planning of education, must begin and end with educational needs of the students. The curriculum must be a clearly described course of educational action that will bring about the educational achievement and experience expected by students. Curriculum development requires accurate documentation of community expectations and educational needs of students.

The role of educational planners, i.e. curriculum developers, is to translate student educational need and community expectation to educational goals and learning objectives. Instructional strategies

and instructional materials are identified that will most effectively facilitate the delivery of the school's curriculum to students through achievement of learning objectives. Selection of materials is often confused with curriculum development. Instructional materials cannot constitute a curriculum. Instructional materials contribute to the delivery of curriculum to students. Materials facilitate student achievement of learning objectives called for in the school's curriculum.

It is a fundamental responsibility of educators to select instructional materials based on the capability those materials have to enable students to achieve maximum benefit from the school's curriculum. Teaching strategies must be selected that will best enable students, through the use of appropriate learning materials, to fulfill the curriculum requirements. Selection of materials and teaching strategy requires skilled judgment of educators. Educators must be able to identify the learning style of students. Materials and strategies which enable students to successfully accomplish the school's curriculum must be compatible with student learning style.

These distinctions are particularly crucial among educators who serve American Indian students. Curriculum must be planned to reflect the unique heritage and culture of the Indian community. Educational need will likely be a combination of skills necessary for success in contemporary society as well as honorable transmission of heritage and culture of the tribal background of students. The curriculum must incorporate these dimensions in viable educational and experience goals. The materials must be thoughtfully selected to accurately and thoroughly serve the diverse aspects of curriculum. Teaching strategies must account for Indian culture in both teacher behavior and student behaviors. These elements combine to guide students in achievement of the plan for education, the school's curriculum.

A curriculum development workshop must carefully distinguish among the components of curriculum. Participants must understand that curriculum development includes several aspects of systematic planning. The selection of materials is but one part of curriculum development, and can properly be done only after community expectations, educational needs of students, and unique learning style of students have been accurately established. The skillful curriculum worker will be certain that all components in curriculum development are carried out. The components of curriculum development can be represented schematically through the diagram on the following page.

The curriculum is all the components shown in the diagram. Documentation of those components is the written record of the school's curriculum. In this perspective, curriculum obviously is far more inclusive than the content of academic courses or a list of books!

Participants in a curriculum development workshop must carefully note the context of presenters' remarks. Presentations will be referenced to a particular component of curriculum development and how curriculum planning was achieved in a particular locale. The substance in a particular component may or may not be applicable in another situation. The process and techniques may parallel, however, as a successful strategy in serving an Indian community's needs and expectations may be useful to educators serving Indian communities elsewhere. Equipped with a productive orientation to curriculum and curriculum development, workshop participants can find fruitful experience in accounts of curriculum developers from schools serving other Indian communities.

CREAMER

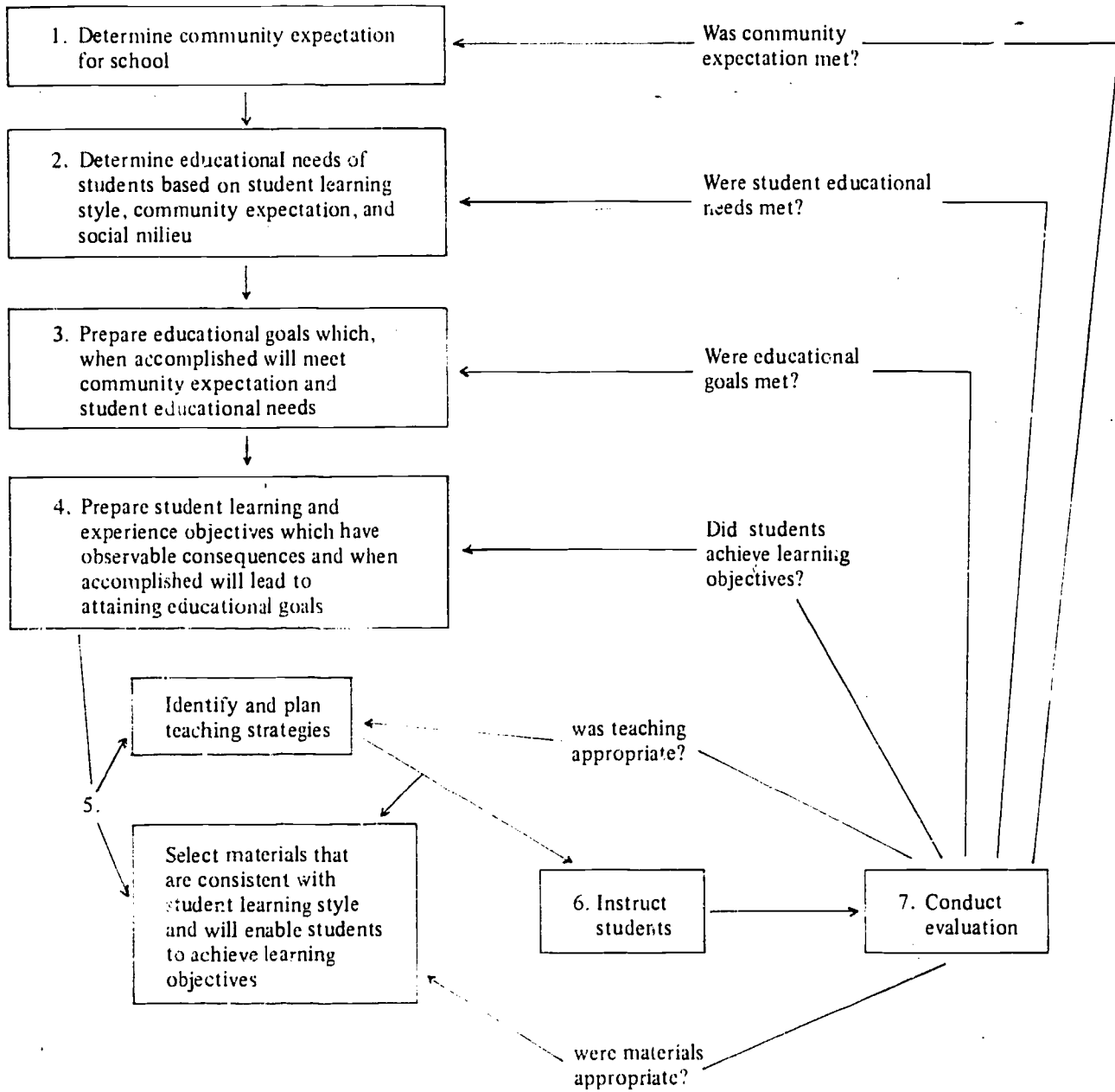
The Creamers, Mary and Don, work together as an educator-team at the Borrego Pass School on the Navajo reservation out of Crownpoint, New Mexico. The school is operated as an independent one-school district by two all-Navajo communities, through an elected School Board, which contracts with the BIA for funds, facilities, etc. for operation. The program they have developed over the last four years is bilingual, with instruction given chiefly in Navajo from K through 2, making the transition to English at 3rd grade. There is heavy involvement of local Navajo speaking community members in professional, para-professional, and specialized parent teaching roles. The school is currently developing methods of teaching English language competence that are more appropriate to Navajo cultural learning styles than present day ESL programs appear to be.

Mary, Navajo, received no formal education above 4th grade until after her high school years. She entered college via business school, entrance exams, and GED. Her advanced training is in Elementary Education, Administration, and Curriculum and Supervision, received at Arizona State University and Harvard University (where she is currently a Doctoral student). She has worked as a Head Start teacher, director, demonstration teacher, and training specialist, and as a staff member of the Navajo Tribal Division of Education. She is currently the Principal and administrative head of the Borrego Pass School.

Don, Anglo, was reared, educated, and lived the first thirty-five years of his life in the "main stream" Anglo culture, as a Presbyterian clergyman. After returning for more schooling, he entered Indian Education via the Indian Community Action Project at Arizona State University, as a Head Start child psychologist. His advanced training is in Educational Psychology, Counseling, Elementary Education, at Arizona State University and Tufts University. He has worked as a classroom consulting psychologist, staff trainer, behavior modification program planner, public relations director, reading instructor, curriculum planner, and school administrator. He is currently Director of Special Projects at the Borrego Pass School.

The Creamers have a family of four at home, three pre-school or elementary age daughters and a grown son, who also works at the School.

**DIAGRAM SHOWING COMPONENTS OF CURRICULUM DEVELOPMENT
IN SEQUENTIAL RELATIONSHIP**



In the following sections of this report, the curriculum development orientation, experience, and techniques of four educators are presented. These comments were drawn from the presentations made by each person during the Project MEDIA Curriculum Development Workshop. The intent of this report is to capture the essence of each person's presentation, relate the presentation to a general perspective on curriculum development suggested here, and include illustrations from each presenter's discussions with appended items. Quotations in each section are drawn from comments of the particular presenter.



III. CURRICULUM DEVELOPMENT FOR PRE-SCHOOL TO GRADE 3: Mary and Don Creamer

A. INTRODUCTORY REMARKS

"Curriculum is the itinerary that will take the child from where he is to where, to the best of your knowledge, he MAY WANT TO GO" (Appendix 1). Creamer compared curriculum with the image of a map or roadway. In the Navajo setting, curriculum is the plan to bring Navajo children into dominant society. Curriculum building is the science of building itineraries or routes to achieve learner goals. "Curriculum is a plan for learning and may include provisions for books, kits, pamphlets and the like." "Curriculum" is a latin word for marathon race, derived from "curri," to run and "culum," route. Creamer used the notion of a jig-saw puzzle to illustrate the distinction between curriculum and curriculum piece. Curriculum is the total, completed picture; as distinguished from a single piece of the puzzle. A book may be a curriculum piece but does not contain the entire curriculum, as a piece of the puzzle does not constitute the entire puzzle. Commercially prepared materials, such as textbooks may provide for a mass audience with middle range capabilities. Students with special or unique needs cannot be well served by commercial materials prepared without knowledge of those special needs.

The documentation of the school's plan, or "route" becomes the written description of the curriculum. The written document includes: goals, objectives, a description of teaching processes, listings of materials, and evaluation procedures.

B. CURRICULUM DEVELOPMENT COMPONENT NUMBER 1: Community Expectation

The organization within the Navajo Reservation and several communities is utilized to assess expectations for the school. The school employs a Parent Advisory Committee as a device to obtain information regarding community expectations for school.

The Committee meets regularly to discuss school matters with school personnel. Persons from the community also work in the school as hired aides and volunteers. This provides community members with first hand information regarding school operation. The experience at Borrego Pass shows community members will candidly comment on school matters. The Navajo reservation is organized around Chapters which are divisions within the reservation. Chapter meetings are held to discuss school matters. Appendix 2 shows a questionnaire which parents with children in Borrego Pass school complete at least once a year. Appendix 3 is a similar parent inquiry form, but this is distributed among persons whose children do not attend Borrego Pass. This provides additional information regarding community expectations. If parents send their children to other schools, such as religious private schools, the parents apparently hold expectations which are not fulfilled at Borrego Pass. Appendix 4 is an example of recorded minutes of school related discussions by community members. The record is signed by Parent Advisory Committee and School Board.

C. CURRICULUM DEVELOPMENT COMPONENT NUMBER 2: Student Need

The distinction between community expectation and student need is very delicate. Indeed, a distinction is debatable. The issue, nonetheless, is to formulate curriculum that will meet educational needs of students. Community expectation is a level or dimension of that need. Student educational need is more precise and can be more directly addressed with sound curriculum. The school at Borrego Pass exercises great care in determining student need as basis for curriculum.

In communities where schools serve American Indian children, a basic element in curriculum development is identification of needs that grow out of Indian heritage and culture. Borrego Pass has developed the "Bicultural Situation Rating Scale" (Appendix 5) to assess American Indian culture in the community. The instrument was administered to workshop participants (Appendix 6) and the profile showed a mixed Indian culture representation among the workshop participants (Appendix 7). This instrument can be used to determine the extent American Indian culture is a substantive force to include in curriculum development.

The process for determining student educational need is generally known as "needs assessment." Creamer used the following diagram to suggest that "needs assessment" is a process link between WHERE THE STUDENT IS and WHERE THE STUDENT SHOULD GO:

WHERE THE STUDENT IS:	NEEDS ASSESSMENT	WHERE THE STUDENT NEEDS TO GO
Information source: 1. Generalizations from research and literature of education 2. Teacher Observations	at Borrego Pass, uses: 1. Parent Advisory Committee 2. School Board 3. Chapter meeting 4. Community Meeting	defined through educational goals, learner objectives, and learner experiences

Responsible curriculum planning determines where the student is. Devices to make this determination are developmental and change with use over time. "Kids are the 'Number 1' place to start curriculum planning . . . teachers are the 'Number 1' observers of kids . . ." Thus, both kids and teachers are important elements in curriculum planning. An example of this emphasis is the kindergarten questionnaire (Appendix 8) which is completed every six weeks for each kindergarten child. This device serves also as an evaluation instrument (curriculum component number 7).

The situation in Navajo communities has important implication for language instruction. For most children, the first language is Navajo. The school then, must use Navajo language to teach English. Children learn first to communicate in English and then English is taught as part of the curriculum's learner objectives.

D. CURRICULUM DEVELOPMENT COMPONENT NUMBER 3; Education Goals

Educational goals are general statements of purpose to link student need with instruction. Goals have neither observable phenomenon or time dimension. Conversely, learner objectives describe a specific observable quality, to be achieved in a specific time frame. Education goals are a basis for learner objectives.

The state department of education in most states provides a description of education goals that should be in curriculum of states' schools. For Bureau of Indian Affairs schools, each agency typically has a description of school curriculum goals, called MGS, Minimum Grade Standards. The Navajo agency specifies end of grade competency standards. The North Central Association of Schools and Colleges provides educational goals for schools' curriculum.

E. CURRICULUM DEVELOPMENT COMPONENT NUMBER 4; Student Learning Objectives

Student learning objectives describe specific student behaviors, in a time frame. What the student learns in the schools' instruction program, contributes to achieving educational goals described in the curriculum. Learning objectives must be planned to be compatible with the learning style of students. Hence, arbitrary division of learning according to pre-determined time sequence is generally unproductive. Learner objectives are achieved according to the learners' capacity to respond, not according to educators' predetermined time requirements. Commercially prepared materials, if not carefully examined for the appropriateness to a given group of students, will prescribe unsound time requirements, on some estimated average student response pattern.

Learner objectives for academic subjects begin with an intellectual analysis of content structure. In commercially prepared materials, this is a scope and sequence description of the subject. Any basal textbook series, e.g. reading, mathematics, language-arts, has a scope and sequence chart showing objectives, in sequence from beginning, usually Kindergarten or grade 1, to conclusion at grade 6. This structure, however, is based on typical response by average youngsters from the dominant culture. Appendix 9 illustrates how intellectual analysis in mathematics is carried out at Borrego Pass. The resulting sequence does not map over time, i.e. the sequence does not prescribe what should be done at first, second or subsequent grades. Only the order of teaching and learning is designated. The purpose of sequence is to break learning objectives into steps students can productively follow. Scope and sequence analysis to meet educational needs of children at Borrego Pass was done according to the following outline:



CURRICULUM TOPICS
The SCOPE of the subject

SEQUENCE:

The order each topic is taught/learned; but NOT the amount of time each topic will require

	A	B	C	D	...	K
1						
2						
3						
4						
5						
.						
.						
.						
N						

Teachers at Borrego Pass carry out scope and sequence analysis through the following steps:

1. Determine how various authors and investigators view the structure of the subject.
2. Examine published scope and sequence data. This is obtained from publisher samples or at the University curriculum materials depository.
3. Lay out scope of subject.
4. Determine what scope and sequence is applicable to educational goals at the school.
5. Draft subject scope for the school, and define as learner objectives.
6. Place learner objectives in proper sequence.

F. CURRICULUM DEVELOPMENT COMPONENT NUMBER 5; Teaching Strategies and Materials

Teaching must account for student learning style. Within American Indian communities, behavior patterns associated with tribal culture will demand careful attention by the teacher. "A substantive orientation to local Indian culture will enable teachers to plan effective teaching strategy without offending the children's heritage and culture. Excessive dependence on verbal behavior is a frequent error among non-Indian teachers of Indian children. Indian children typically do not talk as much as non-Indian children. Teachers must use non-verbal means to communicate with children in the instruction process. The students' dominant language must be considered. In Borrego Pass most children speak only Navajo language when entering school."

Teaching activities that draw upon both concrete and abstract experience are required. Real experiences with field trips provide act with things and interaction with people in other places

and should be part of teaching strategy. Creamer advocates perceiving children according to the "Piaget" developmental model which is the notion of 'conservation of matter and quantity.' This indicates that pre-school children have an undeveloped sense of mathematics. Children typically enter an operational stage of understanding abstract number concepts toward the end of elementary school. Instruction in mathematics for pre-school children must be done with concrete representations of numbers.

Instruction materials can be justified as long as the activities and content relate to learning objectives. Commercial materials must be scrutinized against criteria of appropriateness to student learning style and learner objectives of the school's curriculum. If commercial materials are unavailable, then teachers must prepare materials to provide activities associated with curriculum topics' scope and sequence. Appendixes 9 and 10 illustrate materials preparations done by teachers and staff at Borrego Pass. Materials catalogued at Project MEDIA can be particularly useful in curriculum topics dealing with American Indian subjects. Materials listed with Project MEDIA offer the advantage of having been reviewed by American Indian educators and investigators for accurate treatment of American Indian heritage, culture and history.

G. CURRICULUM DEVELOPMENT COMPONENT NUMBER 6; Instruction

The dynamics of schooling are set through instruction. Instruction draws upon the creative skill of teachers. Instruction is the process of implementing the school's curriculum (plan for education). The finest curriculum can be rendered ineffective with poor instruction. Conversely, superb instruction, carried out randomly, without a sound curriculum as a guide is but directionless activity in the course of a child's schooling. Instruction and curriculum are essential, inseparable parts of quality education for children. A plan can go nowhere without skilled delivery of that plan. A fine delivery mechanism is of no use without a sound plan to follow. As an old bromide asserts, "If you don't know where you are going, all roads take you there . . ."

CHISHOLM

Anita Sue Chisholm was born in Shawnee, Oklahoma where she graduated from high school in 1960. She attended Northwestern Oklahoma State and received a B.A. in Art Education in 1969. In 1972 she received a Masters in Education (Guidance and Counseling) at the same college. She is presently a doctoral candidate in Higher Education/Student Personnel Services at Oklahoma University.

Ms. Chisolm has had a varied career in several areas, predominantly in serving as a consultant/program coordinator for developing Native American-related curriculum and serving the same capacity and also editor of the Oklahoma Native Curriculum Guide 1975, which was the first comprehensive curriculum guide relating to Native American curriculum to be published in Oklahoma and disseminated statewide. She has worked as a school counselor, art instructor, elementary teacher, employment counselor, panelist for reading federal proposals (Elementary-Secondary Education Act), and as a human relations facilitator for teacher workshops and Indian education workshops. She currently holds this position for the Oklahoma State Department of Education.

I. CURRICULUM DEVELOPMENT COMPONENT NUMBER 7; Evaluation

Evaluation is both the beginning and ending of the curriculum development cycle. Evaluation is a process to determine if accomplishments have been made and if those accomplishments meet expectations and needs. Evaluation is a continuous part of a viable school operation. Creamer noted an external evaluator may provide useful information to school people, assisting with review of both students' achievement of learning objectives, and the appropriateness of programs to serve student need and community expectation.

Test scores are one type of useful data. Generally, scores from commercially-produced achievement tests have limitations similar to commercial instruction material. Scores from commercial tests have a principal usefulness in their capacity to show a relationship to some general mainstream of achievement in curriculum content. It is appropriate to examine both correct and incorrect responses for this purpose.

Evaluation at Borrego Pass is viewed as the total process of getting "feedback . . . where we are going and how well . . ." Information for evaluation process is secured through meetings, as noted in part B above, as well as through parent interviews. Teacher observations, noted in part F above serve also as information sources in evaluation. Appendix 11 contains examples of forms used for gather data used in evaluation.

In summary, Creamer stressed the necessity to attend to all components in curriculum development. When the school serves American Indian children, a particularly crucial responsibility is placed upon educators to attend to these components because of the unique needs of Indian children.



IV. CURRICULUM DEVELOPMENT FOR GRADES 4 THROUGH 8: Anita Chisholm

A. INTRODUCTORY REMARKS

"Curriculum (provides for) the total of all experiences a student has in school . . . all that happens to kids in school is part of the curriculum . . . all activities, clubs, and (the impact of) all personnel are part of the curriculum."

One of the components under the Southwest Center for Human Relations Studies is Native American Curriculum Development. The goal of the Native American Curriculum project, Appendix 12, is to " . . . permeate the curriculum content with Native American culture and heritage . . . develop materials to deliver Native American content (and thereby) . . . to change attitudes of people toward Native American people . . . when you walk into an Oklahoma school . . . know what tribal groups are represented in that area . . . so the genuine multi-cultural nature of society will be evident . . ."

The thrust of this curriculum orientation is to achieve better sense of self among American Indian students while making teachers more aware of American Indian heritage and culture, and creating a better understanding of American Indian people among non-Indians. A positive impact upon school policy and teacher practices will be achieved when American Indian culture permeates the school curriculum. The Southwest Center intends to provide curriculum materials for each Oklahoma tribal group and disseminate these among schools and tribes in Oklahoma. Chisholm's presentation included a display showing an Oklahoma map with the approximate location of tribal groups in Oklahoma.

B. CURRICULUM DEVELOPMENT PROCESS

Community expectation and student need are assumed in the process discussed. The steps in the process discussed by Chisholm are equally applicable to determining community expectation and student need.

The initial step in the process to address "Permeation of Curriculum" is contact with the district. Contact begins with administrative personnel; i.e. superintendent, principal and Board of Education. Local Indian Education committee and Johnson O'Malley committees are contacted as well. A positive approach, emphasizing benefits to the school has been an effective procedure leading to the establishment of curriculum planning process. A Native American Curriculum planning team is established. Specific expectations for team members are shown in Appendix 13. A crucial facet of the team is clear delineation of tasks and careful monitoring of each member's task. Clear schedules for review and research need to be established. Curriculum planning teams exist for a school year and conduct through investigation and review of materials to deliver American Indian heritage into the curriculum. Examples of curriculum guides, for Indian culture, prepared by curriculum planning teams, were circulated among workshop participants. The guide was an extensive detailed description for instruction, showing teaching activities and materials, and listing additional materials applicable to activities in the guide. Appendices 14 and 15 contain structures outlines for preparation of instruction units dealing with American Indian culture. These outlines show in great detail several aspects that can be successfully included in instruction units for American Indian curriculum subjects. Appendix 14 deals with an instruction unit prepared for American Indian culture. Appendix 15 suggests how information

about American Indian heritage, culture, and history can be introduced as support information in other content areas of a school's curriculum.

"Indian Curriculum Workshop: Permeation Model" developed by Dr. Ricardo Garcia has been an effective procedure for planning instruction to address American Indian heritage in the schools' curriculum. A description of the model is included in Appendix 16.

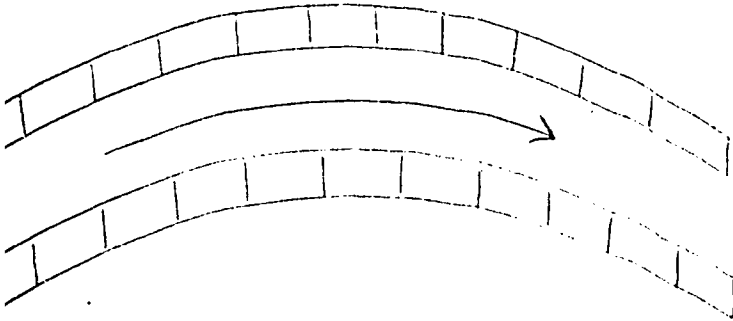
Chisholm has shown effective techniques for introducing American Indian heritage and culture into schools' curriculum. Planning process activities show extensive involvement of community Indian people and school personnel. The techniques described by Chisholm deal essentially with preparing learning objectives, teaching strategies, and materials for American Indian culture as components in curriculum development.

V. CURRICULUM DEVELOPMENT FOR GRADES 9 THROUGH 12: Tom Cummings

A. INTRODUCTORY REMARKS

"Curriculum should be:

1. Child centered;
2. a bridge between where a child is and where a child may want to go;



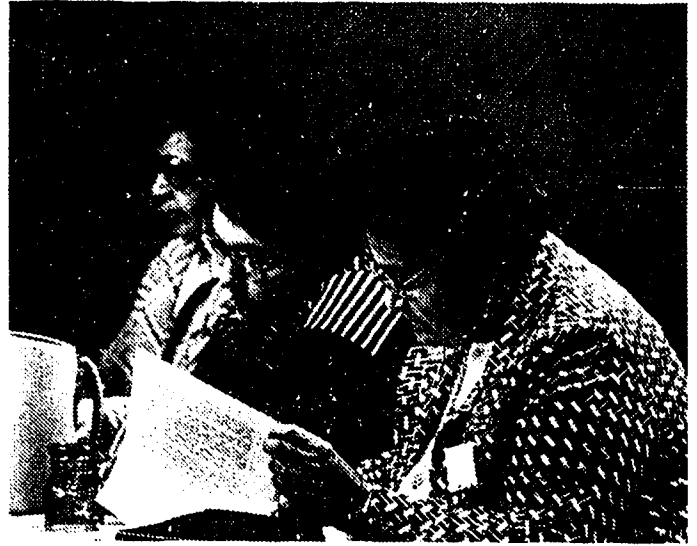
where child is CURRICULUM where child should be

3. a process, continued and constantly being expanded and changed because needs of children change; and
4. an integrated whole, components of curriculum do not exist as separate entities."

"Curriculum cannot be developed with a group of experts sitting around a room making curriculum."

B. CURRICULUM DEVELOPMENT COMPONENTS NUMBERED 1 AND 2: Community Expectation and Student Need

The procedure employed for curriculum preparation attempts to establish community expectation and student need. Fifty persons from the Ramah community were interviewed for 2 days to dis-



cuss education issues. The interviews generated education goals reflecting community expectation and student need. Following this activity, educators select materials that will assist students to achieve education goals. Of particular concern in the Ramah community is the matter of language. Ninety-eight percent of the students' first language is Navajo. Materials for instruction, then, must be in Navajo. This requires most materials to be prepared by school people. A display of materials was included in the workshop presentation. Students, parents, and teachers collaborated on materials, prepared in Navajo language, that communicate concepts dealing with math, science, social studies and language arts as well as other academic subjects from the school's curriculum. Of particular interest were materials, published by National Geographic Society, showing natural phenomena with narrative in Navajo.

Cummings forwarded the notion of "gap analysis" which defines the difference between current achievement level of students and the availability of materials to address learner objectives. Materials development involves parents, students and teachers. Materials are developed in both Native language and English. Examples of such materials were shown to workshop participants, and included stories written by children, with guidance from adults, parents and teachers. Stories included various adventures with "coyote." Other materials attempted to bridge Navajo culture with contemporary dominant culture. For example, one item showed both the Navajo and geo-physical explanation of how the cliffs at a specific location on Navajo land were formed.

Using a document entitled "Curriculum Development for Native Americans, Grades 9-12" (Appendix 17) Cummings provided an exemplary illustration of several curriculum development components.

The curriculum is based on Navajo philosophy and tradition which is transmitted to youth in the home. The community's expectation is for youth to learn the basic tenets of Navajo philosophy. Educational need arose in that students differed in educational goals and objectives across typical content areas, language arts, mathematics, social studies, and science. Notation is included for material and instruction technique. The curriculum shows particular creativity in the manner that Navajo philosophy is the beginning point for instruction in each curriculum subject

CUMMINGS

Tom Cummings was raised near Boston, in Danvers, Massachusetts. He attended Harvard University where he majored in Anthropology. After working for the Park Service in Santa Fe, he was drafted and sent to Japan in the Signal Corps. He spent his off-duty time teaching English and learning to speak the Japanese language. After his discharge, he returned to the Southwest for a time before leaving for Taiwan where he taught English at Taiwan Normal University for seven years. He organized an Asian Studies Program at Taipei American School while learning Chinese and Taiwanese. In 1965 he joined VISTA (Volunteers in Service to America) and worked for a year at Nenahnezad, on the Navajo Reservation. He returned to Harvard for a Master's degree in education and taught the following summer at the Arizona Indian Student Demonstration Program at Arizona State University. Cummings also served as executive director of Northwest New Mexico Economic Opportunity Council, an Office of Economic Opportunity community action program. In 1970 he worked for the Ramah Navajo School Board to establish a Navajo community-controlled school. The Ramah Board set up the Native American Materials Development Center in Albuquerque in 1976 where he currently works as a curriculum development specialist writer.

ea. The link between the students' native culture and contemporary issues is artfully placed, drawing upon the students' immediate experience and consciousness.

Cummings illustrated the use of provocative films as instructional materials. The film entitled "Broken Treaty at Battle Mountain" is shown. From the film, conclusions can be drawn which relate to scientific, social, educational, personal, cultural, and economic issues, depending upon the learner objectives for the instruction period and the educational goals over a longer time.

The important consideration regarding materials, is that materials must contribute to the learning objectives and educational goals of the curriculum. Accordingly, curriculum is first. Materials must be selected as appropriate to the curriculum. Cummings observed "Curriculum and materials must be brought together. Materials without curriculum are useless . . . curriculum with appropriate materials is equally useless."

In summary, Cummings showed a quality example of school curriculum prepared to serve the unique culture of an American Indian community. The basic consideration of the curriculum was the life philosophy of the Indian community. The school curriculum is a link between American Indian philosophy and contemporary society, providing a vehicle for youth to learn skills for productive life while simultaneously learning their native culture. Materials and instruction strategies must be selected to support the curriculum within the learning style of students.

71. SUMMARY AND CONCLUSIONS

Curriculum development is a continuing process essential to quality education. While components of curriculum development can be asserted as applicable to schools generally, the nuances of community expectation, student need, student learning style, and available resources will demand that curriculum development is different at every school. A process or technique cannot be transferred and applied directly from one setting to another.

In the curriculum development workshop summarized in this report, three separate approaches and experiences are presented. To attempt to apply any one of these, directly, without modification

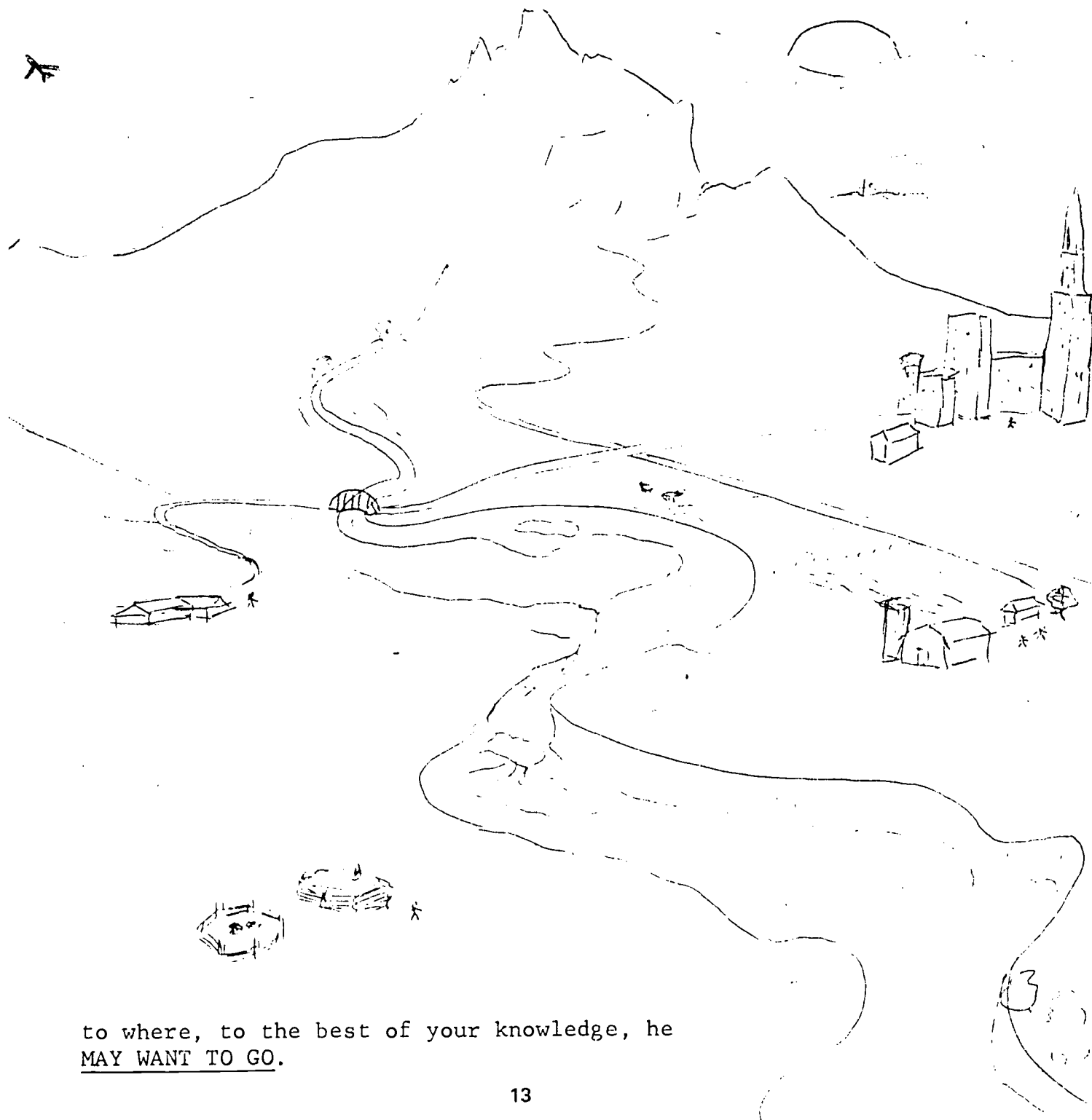


would serve neither presenter nor user. What can be learned, however, is dramatic documentation that curriculum planning serves the educational needs of Indian children. Each presenter demonstrated that sound educational programs, producing evidence of meeting educational needs of Indian children come about with arduous effort applied through systematic techniques of planning.

All presentors gave ample evidence that parents and community are involved in curriculum development components. Arbitrary decisions by school people are shunned in all cases. Formats, outlines, procedures, and questionnaires were generously provided. These are perhaps best used to stimulate inquiry among schools elsewhere. The application of a particular strategy or a particular instrument cannot be drawn from either workshop participation or reviewing written records of workshop proceedings. Individual contact with presentors is necessary to examine in depth, any of the particular items or techniques presented. In short, quality education for Indian children requires vigorous curriculum development. Proper curriculum development requires substantive attention to each curriculum development component with the community served.

CURRICULUM IS:

The itinerary that will take the child from where he is



to where, to the best of your knowledge, he
MAY WANT TO GO.

13

see p 12 in original

18

APPENDIX 2

COMMUNITY QUESTIONNAIRE I : Borrego Pass School; Parents with Children Currently Enrolled

Family Name _____

Number of children at Borrego Pass School _____

Grades of children at Borrego Pass School _____

Number of children at another primary school _____

Person interviewed:

Mother _____

Father _____

Both _____

Other _____

Years of schooling of parents:

Mother _____

Father _____

Where?

Interviewer _____

Date _____

1. Did you attend any of the following activities?

Halloween Carnival
 Parent Day
 Thanksgiving Dinner & Turkey Shoot
 Christmas Dinner
 Bookmobiles & Movies
 Other

2. For what reasons were you unable to attend?

No ride
 No babysitter
 Didn't know about it
 Had other plans
 Didn't want to go

3. Have you been to visit the school for any reason other than a planned activity? Yes _____ No _____
 How many times? _____

4. Have you ever been to an Annual Corporation Meeting?
 Yes _____ No _____

5. Have your children's teachers been to your home to visit?
 Yes _____ No _____
 Have you met your children's teachers (at a home visit or at school)? Yes _____ No _____

6. Have the teachers told you how your children are doing in school? Yes _____ No _____

7. What else would you like to know about how your children are doing at school?

8. Do your children bring home schoolwork? Yes _____ No _____
Do you help your children with schoolwork? Yes _____ No _____
Do you discuss school work with your children? Yes _____ No _____

9. Would you like to be a parent aide or trainee? Yes _____ No _____
Or would you like to be involved in the school program in any other way? Yes _____ No _____

10. How can parents support a school program?

11. What do you feel the most important educational goals of Borrego Pass School are? Please rank these pictures in the order of the most important to the least important.

English reading
English writing
Math
Navajo Language
Navajo Culture
Social Studies
Science
Art, Music, Recreational Activities

12. What do you want your children to learn at Borrego Pass School? What do you expect them to be able to do when they leave Borrego Pass School? Where do you want them to go when they leave Borrego Pass School? What should the goals of Borrego Pass School be?

13. Why are these goals important?

14. Do your children attend school regularly? Yes _____ No _____
When they are absent, what is the reason for the absence?
15. What classes would you want your children to take that you don't believe they are taking now?
16. Do you like your children to go on school sponsored field trips? Yes _____ NO _____
Where would you like your children to go on field trips?
17. Would you want your children to go to Borrego Pass School if the seventh and eighth grades were available here? Yes _____ No _____
18. Would you like to have PE included in the school curriculum?
Yes _____ No _____
19. Do you feel that the school needs a recreational/all purpose room? (One that could be used for basketball, volleyball, PE, games, meeting area, programs, cold weather activities)
Yes _____ NO _____
20. What do you as a parent want the school to do academically?
socially? culturally?

APPENDIX 3

COMMUNITY QUESTIONNAIRE II: Borrego Pass School; Parents of school children enrolled elsewhere

Family name _____

Number of children in school _____

Grades of children in school _____

Schools children are attending:

Person interviewed:

Mother _____

Father _____

Both _____

Other _____

Years of schooling of parents:

Mother _____

Father _____

Where?

Interviewer _____

Date _____

1. Do you have primary age children who attend a school other than Borrego Pass School?

2. Have you ever sent your children to Borrego Pass School?
Yes _____ No _____
When?

3. Where do they go to school now?

4. What are some of the reasons they go to (name school which children attend)?

Better bus schedule
Better time schedule
Different curriculum
Different facilities (gym, auditorium, etc.)
Better teachers
Placement program
Prefer boarding school
Child wanted to transfer
Other

APPENDIX 4

The committee, while advisory in formal capacity, is powerful, in that it has the capacity not only to advise, but to consent to project modifications, budget changes, and any major change made in project implementation. It has the privilege of meeting jointly with the School Board to advise on program plans, and has done so on numbers of occasions in the past. Two of the members are School Board members, and provide liaison with the Board, by design.

Meetings of the committee are open to the public. Classes of the school are likewise open at any time to parents or interested members of the community, without notice except for a courtesy stop at the school office. Additionally, a formal program of involving parents in observation of the classes of their children has been developed under Title IV, PART A, and will be implemented this year, as described in an excerpt from the Part A proposal in Appendix A. Under this component, the PAC is provided with the services of a full time Home-School coordinator, to assist it in its efforts to serve the school in evaluation, parent involvement, and student recruitment.

- C. The bilingual/bicultural educational model of which this project forms a part, is based upon a composite picture of student needs which has been generated by and through the Parent Advisory Committee, in consultation with members of the school staff. The assessment process reviews the results of pre-test and post-test administration of academic assessment instruments (to date under the Title I ESEA project at the school), parent and community member comment and opinion, expressed either publicly or privately, and staff opinions expressed in public meetings or planning sessions.

A current statement of the needs of the children of the community, has been developed as a result of the needs assessment process, and amended from time to time. This statement, in its most recent form, as approved in public meeting in December, 1975, follows:

NEEDS OF THE STUDENTS

The principal educational needs of the students, that have been identified, are as follows:

1. to learn to speak, read and write Navajo and English well.
2. to understand mathematical concepts and to do arithmetic operations well, without merely memorizing answers and ways of writing them down.
3. to understand the natural world both from the Navajo point of view and from the Anglo (science) point of view.

4. to understand the human world in which they live, beginning with the Navajo family and relationships, but including the other peoples who live beyond the community and reservation.
5. to know some of the past history of the Navajo people, and of other peoples.
6. to learn to behave properly in any place they go. to be able to go to strange places and know how to take care of themselves.
7. to respect other persons and behave properly toward them. To listen to the opinions of others and consider them. To communicate both ways with adults, and to accept adult guidance.
8. to be able to participate in the activities of the world around them confidently. To know how to keep themselves well and strong.
9. to take care of material things. To use school resources without destroying them.

D. Certification of parent consultation and involvement

The public meetings at which this project has been presented, have provided ample opportunity for any member of the communities served by the Borrego Pass School to review and discuss the adequacy of current school programs to meet the special educational needs of the Indian children of the communities, and the manner in which this project, and all other planned projects of the school, will coordinate to meet these special needs, within the limits of the money available for this purpose.

ATTEST: 2/28/76 MAURCHAP O
 Date Vice Chairman, Parent Advisory Committee

2/27/76 Frank H. Anderson Sr.
 Date President, Borrego Pass School Board

APPENDIX 5

BICULTURAL SITUATION RATING FOR THE NATIVE AMERICAN STUDENTS YOU EITHER WORK WITH OR ARE CONCERNED ABOUT. MARK ONLY THOSE STATEMENTS THAT SEEM GENERALLY TRUE OF YOUR SITUATION.

1. Degree of awareness of Native American (abbreviating=NA) Culture
(Give your situation one point for each of the following that is true:)

- +__a. NA language is used by many (or most) NA adults in the student's home community as the major medium of communication.
- +__b. Many (or most) of the students speak the NA language as a means of communication among themselves.
- +__c. The community maintains an active NA cultural life (i.e. ceremonies, get-togethers, home story telling and value training, NA artists actively producing, or other similar activities)
- +__d. Students show evidence of home-based knowledge of NA history, leaders, customs, legends, & oral traditions.

(Take one point OFF for each of the following that is true:)

- __e. The students live in dormitories away from home for a major part of the time
- __f. The main source of information the students have about NA cultures, history and their heritage is prepared school curriculum materials or the public library.
- __g. Student's living situation is dispersed throughout a larger, culturally diverse community
- __h. Students are subtly "put down" by peers for being Indian or using NA language, or are discouraged from doing so by school policy.

2. Degree of NA control of school curricula and policies

(Give your situation one point for each of the following that is true:)

- +__i. NA people are included among the instructional personnel in more than "token" numbers, at more than para-professional levels.
- +__j. NA people are in decision making positions in the school administrative structure.
- +__k. NA parents have an active role in advising on school goals, programs, funding, etc., and are listened to.
- +__l. NA people are elected members of a School Board with actual control of school policies, budgets, personnel, selection, etc.
- +__m. NA people are in the majority on such a School Board and function at least occasionally to control its decisions in keeping with their knowledge of the desires of the NA community.

(Take one point OFF for each of the following that is true)

- __n. There is a significant NA population in your school system (10% or more) but NO NA personnel in the Teaching staff.
- __o. Your school system has a consistent record of indifference or hostility toward inclusion of NA cultural instruction in its curriculum for NA students.

(cont. Next page)

- __p. NA parents commonly feel "unwelcome" in dealing with the school administration or their children's teachers.
- __q. You feel that NA members, or a NA majority on the School Board, are dominated by non-NA members or Administrators.
- __r. All three of o., p., and q. are True in your situation

3. The state of you School's NA Curriculum Resources, or being-developed kinds of curricula that are used, or that you need to start with in developing curricula for use, or in getting already developed curricula into the school system:

(Give your situation one point for each of the following:)

- + __s. Reading materials in a NA language for early grades.
- + __t. Math materials for delivery in NA language, either orally by teachers, or in written NA language
- + __u. Science materials in NA language as above, or designed to include NA values,
- + __v. Social studies materials that begin with child's NA home and community to expand to include non-NA society.

(Take one point OFF for each of the following:)

- __w. NA History or Cultural Heritage materials must be recovered to introduce NA students to their own cultural antecedents.
- __x. Readily available NA History or Cultural Heritage resources exist dealing with students own cultural background, but you have not been able to get the school to use them or they have been eliminated as "non-essential".
- __y. An exclusive emphasis upon "Indian Club" type activities (dance teams & craft activities is used to represent the NA culture in the school curriculum.)
- __z. No NA curriculum resources exist for your NA cultural group except the personal knowledge of a diminishing group of older people, or historical records.

TOTAL + points _____ (13 possible)

TOTAL + points _____ (13 possible)

RATING

Rating can be anywhere from +13 to -13

The purpose of this rating is not to classify some situations as "better" or "worse" than others, but simply to indicate the general kind of problem faced by curriculum developers who are attending this workshop, for the benefit of the leaders in relating their experience to the needs of the attendents.

APPENDIX 6

BICULTURAL SITUATION RATING FOR THE NATIVE AMERICAN STUDENTS YOU EITHER WORK WITH OR ARE CONCERNED ABOUT. MARK ONLY THOSE STATEMENTS THAT SEEM GENERALLY TRUE OF YOUR SITUATION.

1. Degree of awareness of Native American (abbreviating=NA) Culture
(Give your situation one point for each of the following that is true:)

- +9 a. NA language is used by many (or most) NA adults in the student's home community as the major medium of communication.
- +6 b. Many (or most) of the students speak the NA language as a means of communication among themselves.
- +17 c. The community maintains an active NA cultural life (i.e. ceremonies, get-togethers, home story telling and value training, NA artists actively producing, or other similar activities)
- +11 d. Students show evidence of home-based knowledge of NA history, leaders, customs, legends, & oral traditions.

(Take one point OFF for each of the following that is true:)

- 4 e. The students live in dormitories away from home for a major part of the time
- 15 f. The main source of information the students have about NA cultures, history and their heritage is prepared school curriculum materials or the public library.
- 19 g. Student's living situation is dispersed throughout a larger, culturally diverse community
- 22 h. Students are subtly "put down" by peers for being Indian or using NA language, or are discouraged from doing so by school policy.

2. Degree of NA control of school curricula and policies

(Give your situation one point for each of the following that is true:)

- +12 i. NA people are included among the instructional personnel in more than "token" numbers, at more than para-professional levels.
- +20 j. NA people are in decision making positions in the school administrative structure.
- +12 k. NA parents have an active role in advising on school goals, programs, funding, etc., and are listened to.
- +10 l. NA people are elected members of a School Board with actual control of school policies, budgets, personnel, selection, etc.
- +13 m. NA people are in the majority on such a School Board and function at least occasionally to control its decisions in keeping with their knowledge of the desires of the NA community.

(Take one point OFF for each of the following that is true)

- 13 n. There is a significant NA population in your school system (10% or more) but NO NA personnel in the Teaching staff.
- 13 o. Your school system has a consistent record of indifference or hostility toward inclusion of NA cultural instruction in its curriculum for NA students.

(cont. Next page)

- 2b. NA parents commonly feel "unwelcome" in dealing with the school administration or their children's teachers.
 - 16a. You feel that NA members, or a NA majority on the School Board, are dominated by non-NA members or Administrators.
 - 7r. All three of o., p., and q. are True in your situation
3. The state of you School's NA Curriculum Resources, or being-developed kinds of curricula that are used, or that you need to start with in developing curricula for use, or in getting already developed curricula into the school system:

(Give your situation one point for each of the following:)

- +11s. Reading materials in a NA language for early grades.
- +5t. Math materials for delivery in NA language, either orally by teachers, or in written NA language
- +5u. Science materials in NA language as above, or designed to include NA values,
- +12v. Social studies materials that begin with child's NA home and community to expand to include non-NA society.

(Take one point OFF for each of the following:)

- 16w. NA History or Cultural Heritage materials must be recovered to introduce NA students to their own cultural antecedents.
- 10x. Readily available NA History or Cultural Heritage resources exist dealing with students own cultural background, but you have not been able to get the school to use them or they have been eliminated as "non-essential".
- 13y. An exclusive emphasis upon "Indian Club" type activities (dance teams & craft activities is used to represent the NA culture in the school curriculum.)
- 14z. No NA curriculum resources exist for your NA cultural group except the personal knowledge of a diminishing group of older people, or historical records.

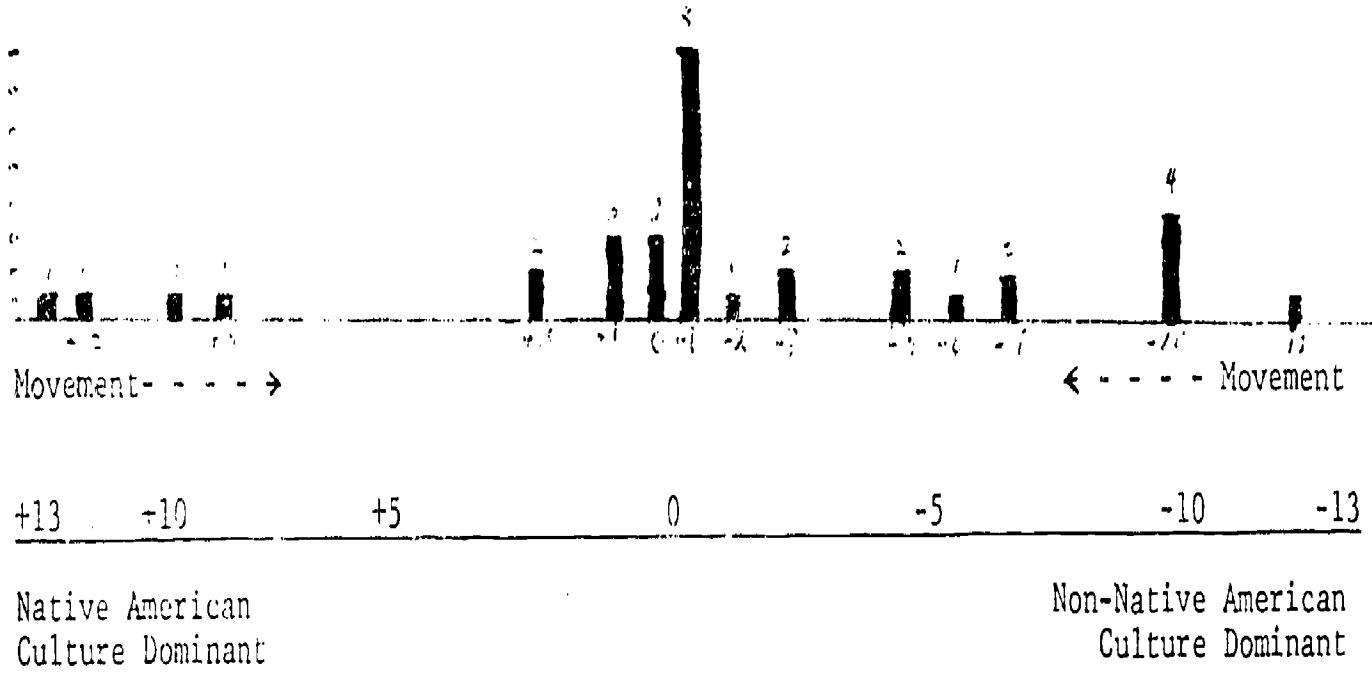
TOTAL + points _____ (13 possible)

TOTAL + points _____ (13 possible)

RATING

Rating can be anywhere from +13 to -13

The purpose of this rating is not to classify some situations as "better" or "worse" than others, but simply to indicate the general kind of problem faced by curriculum developers who are attending this workshop, for the benefit of the leaders in relating their experience to the needs of the attendents.



+13

+10

+5

0

-5

-10

-13

Native American Culture Dominant

Non-Native American Culture Dominant

APPENDIX 8

BORREGO PASS SCHOOL
October 6, 1976

NAVAJO CULTURE

1. Is child eager to participate in Navajo culture events?
2. Does child volunteer information about Navajo culture?
Does child talk about Navajo events in the classroom?
3. What are the child's reactions to parent aides and parent trainees? Does the child participate in what aides are teaching?
4. Is Navajo culture as an academic area a new area to the child? Does the child come from a traditional family or a non-traditional family?
5. Does child's school work (drawings, stories, art work) reflect Navajo culture?

BORREGO PASS SCHOOL
October 6, 1976

SELF CARE DEVELOPMENT

1. Does he take some responsibility for dressing himself? Can he manipulate buttons, zippers, belt buckles, Put on coat? Trousers? Does he need to be reminded to take off or put on coat in cold weather? Hang up coat? Take it home with him?
2. Does he seem to take some responsibility for getting to school (as far as you know)? Is he frequently late? Absent? Does he arrive at school as if he wants to be there?
3. Does he take responsibility for toilet needs? Need to be reminded? Can he manipulate flush handle? Faucets? Does he flush toilet and wash hands? Can he redress himself? Does he have "accidents"? If so how does he handle them? Ignore them? Seem ashamed and attempt to conceal them? Seek help? Attempt to take care of situation and redress himself?
4. Does he take some responsibility for personal cleanliness and neatness? Seem to be aware of and enjoy new or clean clothing? Look forward to and enjoy bathing? Does he need repeated reminding or urging to brush teeth? Does he seem to take care of clothing and possessions? Blow nose when needed? Cover mouth when sneezing or coughing?
5. Does he participate readily in clean-up activities? Take extra responsibility for putting away those things he was using himself? Put away one toy before starting to play with another? Clean up spills and messes made while playing or working in classroom?
6. Does he show evidence of attempting to solve problems for himself? Does he "stick up for himself" on the playground? Show ability both to share and to hang on to toys that he has which other children want?
7. Is he aware of simple safety rules on the playground? Of traffic signs and safety procedures necessary for getting around his own and the school's neighborhoods? Does he show awareness of safe play with other children regarding roughness, throwing, using weapons? Does he accommodate for smaller size and strength of other children?

SELF CARE DEVELOPMENT

8. Does he seek appropriate aid when hurt? When others are hurt?
9. Is child able to describe home? Know who neighbors are? Know direction to home?
10. Is he able to participate in mealtime activities without difficulty? Handle table utensils without undue spilling? Will he try new foods? Wash hands before eating without special urging? Is he learning to keep inappropriate things out of his mouth (clay, toys, toothpaste eating, foods taken from the floor, etc.)?

APPENDIX 9

CURRICULUM STREAM CODE

Objectives are identified first by code letter, and then numbered sequentially within the curriculum stream which that letter identifies.

Objectives are presented as a continuum within each "grade level", in order to ensure that prerequisite skills and concepts from one curriculum stream are encountered prior to their applications in another related stream.

The code identifications are provided to help the teacher to identify previous steps in a curriculum stream, even if found in a prior "grade level", to enable a student to go over things he has not yet mastered, or to pursue a particular stream beyond his regular "grade level" on the basis of special interest or abilities.

The particular "streams" identified below are only one analysis among many possible ones. In some cases, there are areas of overlap between them, and sharp distinctions cannot, and need not, be drawn. We believe that they are, nevertheless, helpful in identifying a reasonably smooth sequence of concept and skills development.

- A. Concept development Those activities or experiences that provide a basis in concrete experience for the abstractions and symbols of later mathematical operations.
- B. Set Theory and Experience A special sub-classification of "A" above, which involves grouping and re-grouping of objects and identifying the groups by the number of objects in them.
- C. Inequalities Activities involving comparison of either concrete or abstract quantities to identify likenesses and unlikeliness. At more advanced levels in which unknown quantities are involved, becomes "Equations".
- D. Notation Activities involving symbolic recording of the numerical information derived in "A" through "C", communicating with it, and interpreting it.
- E. Symbolic Computation "Doing arithmetic" with written problems. In this set of objectives this is to be attempted only after the concrete transactions represented by the written symbols are thoroughly understood.
- F. Measurement The application of skills gained in "A" through "D" above in quantifying distance, volume, mass, time, value, etc.
- G. Time A separable sub-category under "F", requiring special treatment because of its more abstract character, and the special traditional systems of measurement.
- H. Money Same type area as "G".
- I. Geometry Another separable sub-category under "F", involving shapes and their areas, volume, and properties.
- J. Rational Numbers A separable sub-category under "D" involving the expression of a ratio between two numbers. Includes principally "fractions" and "decimals".
- K. Problem Solving The application of skills gained in "D" and "E" above to the solution of "problems" presented in verbal form ("word problems").
- L. Sequences The identification and use of sequential mathematics-related patterns, including both "counting by" various intervals, and the names of various units of measurement, time interval, etc.
- M. Rote Memorization The planned development and use of memory skills as a means of increasing speed and accuracy in any aspect of "D" through "L" above. In virtual every aspect of these objectives it is intended that rote memorization will be the last step in the learning process, and that no child will be required to memorize facts and symbolic computation procedures which he has not thoroughly mastered conceptually first, and demonstrated operationally by successful application in all other related curriculum streams.

		EXPOSURES (NOTE MONTH AND YEAR)				MASTERY	EXPOSURES (NOTE MONTH AND YEAR)				MASTERY	
1	Distinguish objects as alike and unlike. *						B 12 D 3	Distinguish between sets of two and three and one and correctly match each with the numeral and the Navajo and English names. Demonstrate that two is one more than one and three is one more than two, using manipulatives.				
2	Compare the size and shape of objects: long/short, big/little, thick/thin, and tall/short. *											
3	Compare objects as longer-shorter or same length. *											
1	Sort like objects into pairs. *						B 13 D 4	Distinguish between sets of three and four and correctly match each with the numeral and the Navajo and English names. Demonstrate that three is one more than two and four is one more than three, and two more than two.				
4	Illustrate the meaning of such terms as: few, many, more, and less. *											
5	Sort a variety of objects into categories by attribute and re-sort into other categories by different attributes. Using the teacher as a secretary develop a list of attributes by which objects can be classified. *						B 14 D 5	Demonstrate that a set of three may be divided into a set of one and a set of two, and that a set of four may be divided into two sets of two, or a set of one and a set of three.				
6	Sort a variety of objects into groups the members of which are as unlike as possible. *						B 15 D 6	Distinguish between sets of four and six and correctly match each with the numeral and the Navajo and English names. Demonstrate that a set of six may be divided into a set of four and set of two, three sets of two, two sets of three.				
2	Identify a collection of the same or different objects as a "set". *											
3	Sort a set into sub-sets. Identify them as "sub-sets". *											
4	Duplicate a given pattern of sub-sets within a larger given set. *						B 16 D 7	Distinguish between sets of six and five and correctly match each with the numeral and the Navajo and English. Demonstrate that five is one more than four and six is one more than five.				
5	Discover and continue an established and repeating pattern. *											
6	Pupil will create his own pattern. *											
7	Pattern and re-pattern a set of a given size as many ways as possible. *						B 17 D 8	Sort, re-sort and name all of the combinations from 1-6. Pair each with the correct numeral.				
8	Make several sets from a given set, by using various attributes. *											
1	Replace a set with a concrete representative for the group. *						B 18 D 9	Distinguish between sets of six and seven and correctly match each with the numeral and the Navajo and English names. Demonstrate that six is one more than five and seven is one more than six.				
9	Make sets equal to a given set of 0-10 members. *											
10	Match sets in a one-to-one correspondance to compare sets. Identify sets of the same number of members as "equal sets". *						B 19 D 10	Sort, re-sort and name all of the combinations from 1-7. Pair each with the correct numeral.				
ALL OF THE ABOVE OBJECTIVES ARE TO BE ACHIEVED WITHOUT USING NUMBER NAMES, OR DOING ANY ROTE SERIAL COUNTING.												
11 2	Using a variety of materials, Distinguish between sets of one and of three and correctly match each with the numeral and the Navajo and English Names.						B 20 D 11	Distinguish between sets of seven and eight and correctly match each with the numeral and the Navajo and English names. He will further demonstrate that seven is one more than six and eight is one more than seven.				

		EXPOSURES (NOTE MONTH AND YEAR)				MASTERY			EXPOSURES (NOTE MONTH AND YEAR)				MASTERY					
21 12	Sort, re-sort and name all of the combinations from 1-8. Pair each with the correct numeral.												D 21	Identify correctly one numeral in comparison with another as representing a number greater than, less than, or equal to.				
22 13	Distinguish between sets of eight and nine and correctly match each with the numeral and the Navajo and English names. Demonstrate that eight is one more than seven and nine is one more than eight.												B 28 L 1	Sequence sets from 0 to 10 in Navajo and English by size, and name aloud.				
23 14	Sort, re-sort and name all of the combinations from 1-9. Pair each with the correct numeral.												D 22 L 2	Sequence numerals in order of the size of the sets they represent, and name in order in Navajo and English.				
24 15	Distinguish between sets of nine and ten and correctly match each with the numeral and the Navajo and English. Demonstrate that nine is one more than eight and ten is one more than nine.												L 3	Using number names in order, count objects in the classroom or on the playground from 1-10 plus in Navajo and English.				
25 16	Sort, re-sort and name all of the combinations from 1-10. Pair each with the correct numeral.												J 1 A 8	Distinguish between parts and whole of a number of concrete examples (i.e. human body, table, chair, tree etc.)				
7 26 17	Given models of empty sets, correctly match the name "empty set" and the numeral /0/ with this set.												J 1 A 7	Predict accurately, from experience with concrete materials, that the whole of A. a given set of objects B. a given linear distance C. a given quantity of liquid D. a given weight of material will not be changed by being sub-divided into any number of parts.				
22 18	Pattern and re-pattern a set of 10 objects to see how many ways it can be patterned into 2 subsets and tell what combinations have been modeled. Record results with ready-made numerals. * ALL OF THE ABOVE ARE TO BE DONE WITHOUT ANY POTS, SERIAL COUNTING AND WITHOUT DIRECTLY NAMING THE NUMERALS (CALLING THE SYMBOL BY THE NAME SEVEN). STUDENTS SHOULD MAKE THE CONNECTION DIRECTLY BETWEEN THE NAME AND THE QUANTITY (I.E. THE "NUMBER") AND BETWEEN THE SYMBOL (THE NUMERAL) AND THE QUANTITY.												F 1	Use simple measures in cooking by recipe as: cup, teaspoon, and tablespoon.				
													G 1	Follow directions requiring two simple acts to be performed in order. Identify which came first, which next, which last.				
													G 2	Follow directions requiring three simple acts to be performed in order. Identify which came first, which next, which last.				
19	Children, will match in both directions the spoken Navajo and English number names for 0 through 10 with the numerals, presented in random order.												G 3	Identify which comes first, which next and which last among one (or more) series of 3 regular events in the school day.				
20	Write the correct numeral when the name of the numeral is stated orally in Navajo and in English, in random order.												G 4	Through systematic recall of events, establish meaningful use of the terms. "a week ago" and "a month ago."				

		EXPOSURES (NOTE MONTH AND YEAR)				MASTERY	EXPOSURES (NOTE MONTH AND YEAR)				MASTERY
	Distinguish between and use Navajo and English terms accurately for: yesterday, today, and tomorrow, morning, afternoon and night. this week, last week, next week					I 9	Use lines to form a boundary around concrete objects, areas, two dimensional shapes.				
						I 10	Distinguish between inside and outside of closed figures. Associate "shape" with the inside of the figure.				
						I 11	Identify geometric shapes as either like or not like each other.				
	Name the days of the week and differentiate between school days and week-end days. (English and Navajo)										
3	Demonstrate positional relationships: left, right, up, down.					I 12	Differentiate among geometric solids: cones, cubes and spheres as like/not like.				
	Use a simple balance scale to balance one heavy and a miscellaneous collection of lighter objects. Identify that they "weight the same", or are "equal" in weight.					J 2 B 29	Sort a set of 12 members sequentially into sub-sets of 1,2,3,4, and 6. Compare the sub-sets at each sorting to demonstrate that they are equal. (see B9) Identify them as "equal sub-sets". At each sorting:				
	Identify the coins by names: penny and cent, nickel and five cents, dime and ten cents; and correctly match each with numeral and number name. Identify the nickel and the dime as concrete representations for sets of five and ten cents respectively.					J 3	Record results of sorting into equal sub-sets by counting the <u>number of sub-sets</u> . (NOT the number of members in each sub-set.				
	Make lines of a variety of lengths and shapes.					J 4	Identify the original set as a "whole" and the equal sub-sets as "equal parts".				
	Make lines connecting two (or more, up to an extended series) dots.					J 5	Replace each "equal part" with a concrete representation. Identify the total set of concrete representations as a "whole" and each concrete representation as a part.				
	Distinguish straight lines from other lines.					J 6	Record results by counting the <u>number of parts</u> . (NOT the number of members in each sub-set.)				
	Identify "straight" and "curved" lines.										
5	Distinguish the place where two lines meet.					J 7	Use fractional term to record a sub-set of parts and the total number of parts in a whole.				
5	Distinguish which of a set of lines is longest and which is shortest.					J 8	Identify the fractional parts, "half", "quarter" (fourth), "third" and "sixth"				
7	Distinguish between open and closed figures.										
3	Identify the edges or limits of concrete objects, as lines.										

		EXPOSURES (NOTE MONTH AND YEAR)				MASTERY	EXPOSURES (NOTE MONTH AND YEAR)				MASTERY			
9	Relate to fractional regions of geometrical figures by using these as concrete representations of corresponding equal sub-sets of a whole.													
						B 33	Re-group a set of from 11 to 19 members into a group of 10 and remaining units. Record as one group of 10 and so many units.							
10	Relate fractional terms and notation to coins (half dollar and quarter dollar) by using coins as concrete representations of corresponding equal sub-sets of a whole.													
						B 34	Re-group sets of from 20 to 99 members into groups of 10 and remaining units. Record the number of groups of 10 and the units.							
9 11	Identify and read: 1/2, 2/2, 1/3, 2/3, 2/3, 1/4, 2/4, 3/4, 4/4, 1/5, 2/5, 3/5, 4/5, 5/5, 6/6.													
						B 29	Practice the convention of recording the tens first, and the units second. Name correctly any numeral between 1 and 99, when present in random order.							
24	Write the cardinal numerals to represent the number property of sets from 0 to 10, in random order.													
						L 5 M 1	Memorize the pairings 29-30, 39-40, 49-50, etc. to 99-100, and then repeat from rote memory the names of the number sequence by 1's from 1 to 100.							
25	Identify plus, minus, and equality symbols. Using blocks and quiscenaire rods to demonstrate the operations.													
						L 6	Use the memorized number sequence from 1 to 100 to count objects of any quantity between 1 and 100. Record answers in proper notation. Demonstrate comprehension of quantity by showing how many groups of 10, and how many objects left over, are in each quantity counted.							
30	Manipulate sets to demonstrate simple one digit addition and subtraction. Record answers in numerical notation.													
26 1	Write answers to addition and subtraction problems involving numbers between 1 and 10, with the problem presented in vertical or horizontal notation.													
						B 35 D 31	Re-group sets of more than 100 members into sub-sets of 10, and groups of 10 sub-sets, and remaining units. Record answer, as the number of units, number of sub-sets of 10, and the number of groups of sub-sets of 10. Observe convention of recording units to the right, and each next larger quantity to the left.							
27	Demonstrate comprehension of written problems in numeric notation by manipulating blocks or quiscenaire rods to represent addition and subtraction problems, and record both problem and answer in mathematical notation.													
						L 7	Name the set composed of 10 groups of 10 as "one hundred", and learn the names for corresponding sets from "two hundred" to "nine hundred".							
31	Re-group large sets into smaller sets for easier recognition of set size. Develop ability to recognize almost instantly sets of size up to 8, by re-grouping into combinations of two sets of from 1 to 4 members.													
						M 2	Memorize the pairings 99-100, 199-200, 299-300 etc. to 999-1000 and then repeat from rote memory any 25 member portion of the number-sequence from 1 to 999.							
32	Re-group a set into two groups when one group size is given.													

EXPOSURES (NOTE MONTH AND YEAR)				MASTERY	EXPOSURES (NOTE MONTH AND YEAR)				MASTERY
D 32	Record any number from its spoken name, or from a group of sets, or symbols of sets, from 1 to 999, accurately. Represent any written number from 1 to 999 with manipulatives showing how many units and groups of 10, and groups of 100 it represents. And read aloud any written numeral from 1 to 999.				B 39	Arrange a given set into groups of 10 and units, and after being asked to remove any lesser number, do so, and record the transaction as a subtraction sentence in numerical notation. Identify that the subtraction of more units than are represented in the units column of the initial set requires borrowing a set of 10 from the 10's column and combining it with the units temporarily until the subtraction is completed.			
B 36	Arrange a given set of objects into groups of 10 and units, and, after being given an additional set of 10, re-group and record as an addition sentence. Identify that the addition of 10 to any group of objects, changes only the number of groups of 10 and not the units.				D 33	Write, in horizontal and vertical numerical notation, addition and subtraction problems dictated in Navajo, using the common Navajo terms for plus and minus signs. The problems will range between 0 and 100. Repeat in English.			
B 37	Arrange a given set into groups of 10 and units, and after being given an additional set of more than 10, regroup and record as an addition sentence. Identify that the addition of enough extra units to these already recorded in the units column requires re-grouping them into a set of 10 and recording them in the 10' column. Identify this operation as "carrying" the units over into the 10 column.				F 2	Measure lengths of objects using various non-standard units. Record results and compare with those of others.			
K 2	Give the answer in Navajo to addition problems in which a two place number is added with one or more 10's with the sum not exceeding 100, when presented in spoken Navajo.				F 3	As a result of using non-standard measurement, find a need for standard measurement units. Explore possibility of different bases for these. Identify common units in both metric and English systems.			
E 2	Do addition of any two written two-digit numerals, without models, re-grouping and carrying, as necessary, with numerical notations alone.				F 4	Group 10 objects in order of measured length, then width, then height.			
B 38	Arrange a given set into groups of 10 and units, and after being asked to remove one or more sets of 10, do so and record the transaction as a subtraction sentence in numerical notation. Identify that the subtraction of sets of 10 changes only the numerals recorded in the 10's column.				I 13	Using a series of examples, and measurement, differentiate between a square and rectangle. Name correctly in Navajo/English.			
K 3	Give the answer in Navajo to subtraction problems in which one or more 10's are taken from a two place number, with the remainder more than 0, when presented in spoken Navajo.				F 5	Using a simple balance scale rank a series of 10 objects in order of weight, (from lightest to heaviest)			
					A 10	Continue a pattern made of geometric figures.			

A 2 Compare the size and shape
of objects: long/short,
big/little, thick/thin,
and tall/short. *

A 2

NR Math Activities Kit 254/ Y 11
Activity: # 8513

SRA Math Lab, Kit 136/ Y 9
Activities: Level 1 # 31
" 1 # 41

1" Color Cubes, Vert. 64
Activity: LR-6
1

(over)

A 1 Distinguish objects as
 alike and unlike. *

A 1

NR Math Activities Kit 254/ Y 11
Activities: # 8120 ; # 8130

Reasoning Activities Without Reading, Vert.
Activities: Lesson 93 / 176
" 94
" 104
" 116

Attribute Acrobatics, Vert. 49
Activity: "Matching" pages 1-2

A 4 Illustrate the meaning of
such terms as: few, many,
more, and less. *

A 4

Pattern Blocks Activities A, Vert. 56
Activities: pages 23-38

Mathematics for the Elementary School
Concept of Sets Unit I
Vertical file 382 Story 2
" " 383 Story 3

Reasoning Activities Without Reading, Vert. 176
Activities: Lesson 51 Lesson 96
" 53 " 108
" 54 " 109

A 3 Compare objects as longer-
shorter or same length. *

SRA Math Lab, Kit 136/ Y 9
Activity: level 1 # 51

Cuisenaire Rods, Kit 6
Activities: Cards, 1E, 1J, 2A,
2E,
2J, 2L, 2K, 6A, 6B, 6E, 6F,
7G, 10A, 10E.

36

43

10000-10000

Picture Graphs, Book 8

Activities: Vertical Bar Graphs, p. 4
Two-Way Graphs, page 3

Reasoning Activities Without Reading, - 176

Activities:	Lesson 8	Lesson 9	Vert.
Lesson 10	" 15	" 17	
" 16	" 18	" 27	
" 28	" 38	" 39	
" 48	" 49	" 50	
" 62	" 63	" 64	
" 76	" 77	" 104	
" 116			

A 5
Sort a variety of objects into categories by attribute and re-sort into other categories by different attributes. Using the teacher as a secretary develop a list of attributes by which objects can be classified. *

A 5

NR Math Activities Kit, Kit 254 / Y 11
Activity: # 8110

SRA Math Lab, Kit 136/ Y 9
Activity: level 1 # 61

Cuisenaire Rods, Kit 6
Activity: Card 1D

(over)

37

A 6
Sort a variety of objects into groups the members of which are as unlike as possible. *

A 6

SRA Math Lab, Kit 136/ Y 9
Activity: level 1 # 121

Attribute Acrobatics, Vert. 49
Activity: "Differences", pages 20-44

45

APPENDIX 11

TO 1ST AND 2ND GRADE TEACHERS:

Make a profile of each child using the attached guidelines. Attempt to incorporate each applicable question/category in the guidelines. Obviously, since the guidelines are so lengthy, not all of the questions will apply to every child. Use only those that you feel should be answered--especially if a critical need exists in any of these areas. This summary will go in the child's cumulative folder and will be helpful to you in discussing each child with the parents.

Any questions concerning the various checklists and the form to be used should be directed to Lis.

SUMMARY SHEET

Name of Student _____

Grade _____

Date _____

Age at time of evaluation
(years and months) _____

1. Attendance

Days present _____

Days absent _____

Total days in Grading Period _____

2. Motor Coordination I & II

3. Music & Art

4. Intellectual Skills

A. Math

Ability:

Achievement:

B. Science

Ability:

Achievement:

5. Social Adaptation

6. Language Skills

A. English Language

Ability:

Achievement:

B. Navajo Language

Ability:

Achievement:

7. Navajo Culture

8. Self Care

9. Personality

Questions to be answered about each child by the teachers.

1. What significant developments and changes are taking place with this child?
2. What particular educational needs of this child are of highest priority?
3. What specific things are the teachers doing to meet these needs?
4. Should any of these needs be referred to another source of evaluation or help?
5. What can parents do to help children meet these needs?
6. What specific activities does child enjoy? Dislike?

MATH CHECKLIST

For each of the categories, give examples of what has been covered. Indicate how many objectives has been introduced and how many have been mastered by each individual student.

Student has achieved mastery of (#) of (#) objectives divided among the following areas.

- / Concept Development
- / Set Theory
- / Inequalities
- / Notation
- / Symbolic Computation
- / Measurement
- / Time
- / Money
- / Geometry
- / Rational Numbers--Fractions
- / Problem Solving
- / Sequences
- / Rote Memorization

APPENDIX 12
UNIVERSITY OF OKLAHOMA
CONSULTATIVE CENTER FOR

EQUAL EDUCATIONAL OPPORTUNITY

As a public service to public schools in Oklahoma, the Consultative Center has two educational training programs on Indian Education.

INDIAN CURRICULUM

TRAINING MODEL

TITLE IV - CIVIL RIGHTS
(DESEGREGATION)

Anita Chisholm - Program Specialist

TITLE IV, PART B - INDIAN EDUCATION

Suzanne Sockey - Program Specialist

+ + + +

Public School personnel receive in-service training on Oklahoma tribal cultures and history. Committees of school personnel (5 institute team developers) are formed to plan and develop Indian Curriculum in 7 public school districts:

Oklahoma City
Tulsa
Muskogee
Ardmore
Anadarko
Shawnee
Jay

+ + + +

In-service training of public school personnel on Oklahoma tribal cultures and history is provided. Committees of school personnel, parents, students and local resource tribal people (8 institute team developers) are formed to plan and develop Indian Curriculum in 5 public school districts:

Carnegie
Idabel
Watonga
Wewoka
Pawnee

Major Goal: Implementation of curriculum on Oklahoma tribal nations on their customs and history in the public school systems to educate non-Indians about American Indian culture and to help improve self-identity and opportunities for Indian students.

Objectives:

1. Revise the curriculum to meet the needs of Native American students in 12 Oklahoma public schools in regional areas with significant Indian population.
2. To develop and implement a bi-cultural education curriculum in 12 Oklahoma public school systems.
3. To provide in-service educational programs to a selected curriculum planning team that will design, implement, and evaluate an educational program to more effectively meet the needs of Native American students.
4. To disseminate a bi-cultural education model to 100 Oklahoma public school districts with Native American populations.
5. This program will provide 600 man-days of in-service training for personnel in the 12 participating school districts.

APPENDIX 13

N A C U TEAM PROCEDURES

Step I. Select Local Coordinator

A. Qualifications of Local Coordinator

- a. knowledge of and interest in Native American Culture
- b. knowledge of curriculum and curriculum development
- c. knowledge of and interest in local Native American Resources
- d. ability to work effectively with teachers, school administrators; Indian Leaders; community leaders, and project staff
- e. 10-15% of time to devote to project
- f. persistence to follow through on project

B. Tasks of Local Coordinator

- a. local administration, project staff, and local advisory committee in selection of NACU teams and NACU themes
- b. become thoroughly familiar with objectives and evaluation of project
- c. assist each team in development of preliminary NACU plan (See Appendix A)
- d. assist project staff in development and implementation of team workshops
- e. attend advisory committee meetings if possible
- f. solicit civic organization support of project
- g. publicize project
- h. provide leadership to teams in development and testing of NACU
- i. coordinate team efforts
- j. assume leadership in identification of Native American Resources and resource persons to be available for resource pool
- k. confer with local school administration and staff regarding NACU development and testing
- l. assist project staff in planning and implementation of community workshops
- m. sign and approve all requests for payment; submit to project staff after approval. (See Appendix B.)

C. Process for Selecting Local Coordinator

- a. local school administration recommends 2 or 3 prospective coordinators to project staff
- b. project staff and local school administrators interview prospects
- c. project staff and local school administrators jointly agree on recommendation to local advisory committee
- d. local advisory committee approves or disapproves

Step II. Select Teams

A. Criteria for selecting a team leader

- a. should be a classroom teacher
- b. should have Native American students in class (10-20%)

- c. should be interested in improving Native American understanding and skills in the classroom
- d. should agree to give sufficient leadership to development of unit
- e. should agree to involve Native Americans in the development of the unit.
- f. should agree to test unit in class following development and suggest modification for revision
- g. team leaders are selected by local administrators and LEA Coordinator in consultation with project staff and approved by local advisory committee

B. Tasks and compensation for team leaders

TASKS:

- a. provide leadership for identification of NACU theme
- b. collaborate with local coordinator in identification of team members to assist in development of NACU
- c. attend 2 one-day workshops(will be paid stipend of \$20.00 plus travel)
- d. provide leadership to team; call meetings; notify team members along with local coordinator; keep record of team meetings
- e. take leadership along with local coordinator and other team members in development of NACU preliminary plan of action
- f. provide leadership in development of NACU after approval
- g. test NACU; suggest modification
- h. sign all requests for payment to members of team, keep record of payment requests

COMPENSATION:

\$5.00 per hour, out of school time, devoted to project. Total compensation cannot exceed \$250.00

C. Criteria for selecting team members:

Each LEA participating in the project should identify a pool of resource persons who are available to assist the LEA coordinator, team leader, and project staff in NACU development. Each LEA resource pool list should contain:

- a. the names, addresses, telephone numbers; occupations; area of expertise; and availability of local Native Americans who have potential to make contributions to the development of the NACU's
- b. the names, addresses, telephone numbers; occupation; area of expertise; and availability of Non-Indian Adults who have interest and potential to make contributions to the development of the NACU's
- c. the names, addresses, telephone numbers; grade, area of interest of Native American students who may make contributions as team members

D. Tasks and compensation of team members:

TASKS:

- a. should be familiar with purposes and objective of the project
- b. should meet with team to plan and develop NACU's
- c. should do basic tasks needed for the NACU as determined by the team and upon authorization of the team leader

d. should attend workshops (will pay stipend of \$20.00/day plus travel)
COMPENSATION: to be determined jointly by the team members, team leader
and LEA Coordinator. A rule of thumb to be followed is:

- a. \$5.00 per hour for person with degree and or equivalent expertise
and contribution potential
- b. \$3.00 per hour for community adult not meeting criteria under (a)
- c. \$2.00 per hour for students

NOTE: \$350.00 is the maximum allowable to each NACU for team members and consultant assistance. If a consultant is desired for whom compensation is greater than \$5.00 per hour, prior approval must be obtained from the project office.

Step III. Develop and Test Units

A. Review of procedure previously outlined

- a. select LEA Coordinator
- b. select team leader
- c. develop team member pool list
- d. team leaders, working with the LEA Coordinator, team members, and project staff, submit NACU plans
- e. plans approved and/or modified and approved by project evaluation committee local advisory committees and local administration

B. Procedures following approval of NACU plan

- a. team leaders and LEA coordinator select appropriate team members to work on each NACU
- b. teams begin development of NACU's under guidelines provided by project staff and LEA coordinator
- c. teams complete tentative draft of unit to advisory committee and project evaluation committee
- d. approved/modified plan tested in classroom
- e. NACU with suggestions for modification submitted to LEA Coordinator and project staff
- f. project staff and evaluation committee modify and edit for publication

Preliminary Plan
NACU TEAM _____

. Check the applicable emphasis of this proposed NACU:

- a. _____ legends and stories; b. _____ arts and crafts; c. _____ literature and music; d. _____ local Indian personalities; e. _____ local tribal history;
- f. _____ local tribal customs and traditions; g. _____ local tribal values;
- h. _____ local tribal religions; i. _____ local tribal economics; j. _____ other

(specify)

. Brief description of this proposed NACU _____

. How do you propose to incorporate this NACU in the curriculum? _____

. How will team members be involved in the development and implementation of this NACU? _____

. What is the target population for which this unit will be developed?

Grade _____; Subject _____; Number of Native American Students _____

. When will preliminary draft of NACU be submitted? _____

. When will NACU be tested with class? _____

APPROVED: _____

Team Leader

Chairman Local Advisory Committee

LEA Coordinator

COMMUNITY INVOLVEMENT THROUGH
NATIVE AMERICAN CULTURAL UNITS
Title VII---Non-profit ESAA

School _____

Group (Staff involved, activities): _____

Local project coordinator or member in charge: _____

Objectives of session: _____

Program (what happened): _____

Were objectives met: Yes _____ No _____

When: Dates/date _____ Time from _____ to _____

Where was session held? _____

If consultants used, please list name, address and S.S. #.

Attendance (Please use additional sheet if needed.) _____

EVALUATION FOR BOOKS
(Filmstrips, Films, Etc.)

Title of book _____

Author _____

Annotated bibliography (Please write a short summary of book used.)

What was useful? _____

Did the book stereotype Native Americans? _____

Would you recommend this book to be used for research? Yes ___ No ___

Please list those pages you found useful for research. _____

Added comments: _____

AMERICAN INDIAN HERITAGE STUDIES PROGRAM
Title IX Ethnic Studies

American Indian and Nature
Report for In-Service Sessions

School _____

Group: (Total staff involved, activities) _____

(Local) Curriculum Specialist or member in charge _____

Objective of session: _____

Program (What happened?): _____

Were objectives met: yes _____ no _____

When: Date/dates _____ Time from _____ to _____

Where was the session held? _____

If Consultants used, please list name _____
address _____
S.S.# _____

Attendance: (Please use additional sheet if needed)

APPENDIX B

REQUEST FOR PAYMENT
NON-PROFIT INDIAN COMMUNITY PROJECT

Identification of team
to which services was
provided

Name of person requesting payment: _____

Address of person requesting payment: _____

Social security number _____

NATURE AND TIME OF INVOLVEMENT:

Date: _____ ; Number of hours spent on task: _____
Day of month

What did you do? _____

Date: _____ ; Number of hours spent on task: _____
Day of month

What did you do? _____

Date: _____ ; Number of hours spent on task: _____

What did you do? _____

Date: _____ ; Number of hours spent on task: _____
Day of Month

What did you do? _____

Signature of person requesting payment _____
Total hours claimed _____
Total amount claimed \$ _____

Team Leader signature _____
Project Coordinator signature _____

Coordinator signature _____
Cumulative total claimed this team _____

APPENDIX B
REQUEST FOR PAYMENT
ETHNIC HERITAGE STUDIES

Identification of team
to which services was
provided

. Name of person requesting payment: _____

. Address of person requesting payment: _____

. Social security number _____

. NATURE AND TIME OF INVOLVEMENT:

Date: _____ ; Number of hours spent on task: _____
Day of month

What did you do? _____

Date: _____ ; Number of hours spent on task: _____
Day of month

What did you do? _____

Date: _____ ; Number of hours spent on task: _____

What did you do? _____

Date: _____ ; Number of hours spent on task: _____
Day of Month

What did you do? _____

Signature of person requesting payment

Total hours claimed _____
Total amount claimed \$ _____

Team Leader signature

Project Coordinator signature

LEA Coordinator signature

Cumulative total claimed this team



AMERICAN INDIAN HERITAGE STUDIES PROGEAM

AMERICAN INDIAN AND NATURE

Title IX Ethnic Studies

OUTLINE

- I. Introduction
 - A. Goals and Objectives.
 - B. Historical overview of the _____ tribe.
 - C. Tribes belief of origin.

- II. Outline of _____ Public Schools Native American Heritage Studies of the _____ tribe.
 - A. Environmental attitudes of the _____ tribe relating to the
 1. Life styles
 2. Dwellings
 3. Clothing
 4. Diet
 5. Legends and myths
 6. Social customs
 7. Music and dance
 8. Philosophy/Religious Belief

- III. Specific parts developed in the Outline of the _____ tribe.
 - A. Environmental concepts of nature
 1. Life Styles
 - B. Legends and myths
 1. Role of the storyteller
 2. Natural phenomena
 3. Why storytelling is integrel part of Native American culture
 - C. Social customs and values
 1. Music and dance
 2. Philosophy and Religious beliefs

- IV. Annodated Bibliography of books, films, filmstrips in _____ Public Schools.

- V. Prominent _____ Indian Persons in Oklahoma and in the _____ Public Schools (Oklahoma) (Local area) --Person contacted at the local area who will come to speak or demonstrate various topics, artifacts. The various topics are listed by the name.

<ol style="list-style-type: none"> 1. 2. <p style="text-align: center;">etc.</p>	<ol style="list-style-type: none"> 1. 2. <p style="text-align: center;">etc.</p>	<p>area who will come to speak or demonstrate various topics, artifacts. The various topics are listed by the name.</p>
--	--	---

- VI. Student Tribal Breakdown in _____ Public Schools District.

- VII. Possible field trip experiences state-wide and locally (Names of museums, etc)

- VIII. Evaluation form
 1. Pre-test
 2. Post-test

AMERICAN INDIAN HERITAGE STUDIES PROGRAM
 AMERICAN INDIAN AND NATURE
 Title IX Ethnic Studies

OUTLINE

- I. Where did the _____ tribe originate?
 - A. Historical overview of _____ tribe
 1. Theories
 2. _____ tribe belief of origin

- II. How _____ tribes own unique environmental attitude, and response to nature related to;
 - A. Life Styles
 1. Dwellings, Lodgings, (ecological region)
 2. Clothing
 3. Diet

- III. How the _____ tribe communicated and interpreted the natural forces that surrounded them;
 - A. Tribal storyteller
 1. Role of the storyteller
 2. How animals came to be
 - B. How Legends and myths of the _____ tribe explained
 1. Natural phenomena (i.e. "How we got the corn")
 2. How animals came to be
 - C. Why storytelling is an integral part of the _____ tribe.

- IV. Unique values and customs of the _____ tribe.
 - A. Social Customs
 1. Tribal/clubs or societies
 2. Family/clans
 3. Village/government
 4. How customs influenced the behavior of the tribe
 - B. Customs concerning music
 1. who made the songs up
 2. What purpose did they have
 - C. Dances
 1. Function of each
 2. Purpose of each
 - D. Unique philosophy of the _____ tribe
 1. Religious belief
 2. Nature

- I. Introduction
 - A. Goals and Objectives
 - B. Brief Historical Overview of the _____ Tribe
- II. Outline of the Cultural Units of the _____ Public Schools
 - A. Origin
 - B. Life Styles
 - C. Social Customs
 - D. Economics
 - E. (etc.)
- III. Specific Parts Developed in Outline
 - A. Language Arts
 - 1. Myths
 - 2. Folklore
 - 3. Contemporary Drama
 - 4. (etc.)
 - B. Social Studies
 - 1. History
 - a. Pre-history, etc.
 - 2. Geography
 - 3. Social Customs
 - 4. (etc.)
 - C. Math
 - 1. Patterns
 - 2. (etc.)
 - D. Science
 - 1. Medicine
 - 2. Ecology
 - 3. (etc.)
 - E. Physical Education
 - 1. Games
 - 2. History
 - 3. (etc.)
 - F. Music
 - 1. Traditional
 - 2. Drum, etc.
 - G. Dances
 - 1. Buffalo Dance
 - 2. Stomp Dance, etc.
 - H. Drama
 - 1. Storytelling
 - 2. Puppetry, etc.
 - I. Home Economics
 - 1. Foods--diet
 - 2. Tribal Costumes, etc.
 - J. Art
 - 1. Clay--Sculpture
 - 2. Designs, etc.
- IV. Annotated Bibliography of Books, Films, Filmstrips in _____ Public School
- V. Possible Field Trip Experiences at the Local Level and State-Wide
- VI. Local Resource People Who Will Come to Classes for Presentation
List of Those Subjects Listed by Each Name
- VII. Student Tribal Breakdown in _____ Public Schools.
- VIII. Evaluation Form Used in Cultural Units

INDIAN CURRICULUM DEVELOPMENT OUTLINE

AREAS TO DEVELOP WITH PROPOSED ACTIVITIES

1. LANGUAGE ARTS
 - a. Myths
 - b. Legends
 - c. Chants
 - d. Oral tradition
 - e. Non-verbal communication
 - f. Sign language
 - g. Dialects and languages
 - h. Speeches
 - i. Contemporary Drama
 - j. Biographies
 - k. Autobiographies
 - l. Folklore
 - m. Musical and mystic legends
 - n. Poetry
 - o. Student anthology

2. SOCIAL STUDIES
 - a. History
 1. Pre-history
 2. Anthropology
 3. Before Columbus
 4. 1500-1700
 5. 1800's - Wars and Treaties
 6. 1900 - 1976
 - b. Geography
 1. Original location
 2. Mode of travel
 3. Removal
 - c. Social customs
 - d. Family life
 - e. Tribal Government
 1. Clan structure
 2. Society structure
 3. Leadership
 - a. Appointments
 - b. Elections
 4. Constitutions and by-laws
 5. Tribal discipline
 6. Law enforcement
 7. Councils
 - f. Flag history
 - g. Confederations of tribes
 - h. Property and mineral rights

3. MATH
 - a. Patterns - on geometric study
 - b. Counting
 1. Hand game
 2. Stick game
 3. Bone throw

4. SCIENCE
 - a. Dyes and paints
 - b. Medicine
 1. Herbs
 2. Roots
 3. Bark
 4. Grass
 5. Berries
 - c. Astronomy
 - d. Anatomy
 - e. Physics
 - f. Plants
 - g. Animal use
 - h. Ecology - balance of nature

5. PHYSICAL EDUCATION
 - a. Stickball
 - b. Dancing
 - c. Hand game
 - d. Lacrosse
 - e. History and related information would be given with all of above

6. MUSIC
 - a. Traditional
 - b. Contemporary
 - c. Flute
 - d. Drum
 - e. Bells
 - f. Rattles
 - g. Violin - Apache
 - h. Make and use as many above as possible

7. DRAMA
 - a. Storytelling
 - b. Dancing
 - c. Puppetry
 - d. Play
 - e. Skits

8. HOME ECONOMICS
 - a. Dressmaking
 - b. Food preparation
 - c. Recipes
 - d. Material preparation
 1. Hides
 2. Spoons
 3. Utensils
 4. Bowls

9. ART
 - a. Weaving
 - b. Dye making
 - c. Beadwork
 - d. Leathercraft

- e. Costume design
 - f. Mural art
 - g. Traditional Indian art
 - h. Jewelry-making
 - i. Pottery
 - j. Shadowbox
 - k. God's eye
 - l. Basketmaking
 - m. Make paints from earth elements
 - n. Paint with Indian-type tools
10. PSYCHOLOGY AND SOCIOLOGY
- a. American Indian psychology - see book by Bride
 - b. Sociology
 - 1. Family structure study
 - 2. Culture structure
11. WOODWORKING
- a. Canoe building
 - b. Totem carving
12. OTHER (not yet assigned to a category)
- a. Travois
 - b. Cowboys and Indian myth
 - c. Economics
 - d. Law
 - e. Penal Institutions

APPENDIX 16

INDIAN CURRICULUM WORKSHOP

- I. The Permeation Model: A Curricular Approach for the Development of Native American Materials
- II. Criteria Setting for Native American Materials Relevant to Oklahoma
- III. Stereotyping and Native American Materials
- IV. Practicum Session on Material Development

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Check on degree of quality for instruction and content.

Instructions: Place a number from one (1) through four (4) in the left column. On this scale from one to four, each number represents degree of appropriateness.

1 - not appropriate

2 - somewhat appropriate

3 - appropriate

4 - most appropriate

Content and Attitude.

- The materials contribute to worthwhile human relationships.
- The materials stimulate discussion regarding human problems and concerns.
- The materials utilize the language or dialect of the people portrayed.
- The materials contribute to the development of positive attitudes.
- The content is accurate in relation to the most recent knowledge of the subject.
- The materials avoid negative stereotypes and present true-to-life situations where necessary.
- The materials stimulate differing points of view.

Aspects of Teaching and Learning Skills.

- The materials enhance the development of sensory skills.
- Adequate provisions are made for review, summarization and reinforcement.
- The materials arouse curiosity leading to other learning.
- The materials are consistent with and supportive of local instructional aims and objectives.
- Information is presented in such detail as necessary to clearly communicate the message.
- The content is consistent with the age, conceptual development, and maturity level of the learners with whom I work.
- The materials provide a basis for skill and concept development.

LIKENESS AND DIFFERENCES

Native AmericanNon-Indian

An owl may be bad luck.

Black cat may be bad luck. Avoid the number 13.

Falling down during a dance is a bad omen.

Wishing performers good luck is taboo, instead say "Break A Leg".

Navahos burn hogan of dead, won't bury own dead.

Won't go through a cemetery at night.

Questions should be repeated three times before being answered.

Don't light three different people's cigarettes from one match.

Abstain from food and drink during Sun Dance.

Abstain from food and drink during Fast Week or Lent.

Wearing different headbands as status symbols.

Wearing star, bars, or pins on lapels as status symbols.

Consulting medicine man.

Consulting psychiatrist.

Use of spokesman instead of individual response.

Use of a mediation board in negotiations.

Suggestion. Teachers and students may develop a more comprehensive list together that is relevant to your tribe or tribes.

Analyze the following and identify the type of stereotype that each might represent (Noble Savage, Conquered Savage, or Savage Stereotype?).

1. "The only good Indian is a dead one."
2. "Their manners (Native Americans) are decorous and praiseworthy."

3. "These Indians--Creeks, Cherokees, Choctaws, Chickasaws, and Seminoles--had adopted some of the features of civilization; the Creeks and Cherokees especially had permanent homes and farms and had established representative government. Their removal required threats and even force."
The American Peoples Encyclopedia, p.200.

4. Lone Ranger: "HI! HO! Silver, away!"
Tonto: "QE'ME SABE!"
And they rode off into the sunset, the Lone Ranger and Silver followed by the ever loyal Tonto.

5. "Listen to these wild traditions,
To this song of Hiawatha!
Speak in tones so plain and childlike
That in even savage bosoms
There are longings, yearnings, strivings"

Henry Wadsworth Longfellow

Native American Stereotypes: An Overview

A stereotype is an exaggerated image or generalization that portrays a group of people. The portrayal is negative, divesting the individuals and people of the group of human qualities and characteristics that are positive. Moreover, the stereotype lumps a group or groups of people together as though they all had the same negative qualities or characteristics. Thus, in spite of the linguistic, tribal, and regional diversity of Native Americans in the United States, the Native American has been stereotyped (by Whites) into at least three general molds:

1. Noble Savage
2. Conquered Savage
3. Savage

Noble Savage Stereotype. The Iroquois people were used as the model for this stereotype. Native Americans were portrayed as good, honest, and fair ("noble"), but they were nevertheless uncivilized ("savage"), i.e., although Native Americans were good, they were uncivilized because they refused to take-on White ways. e.g. non-Christian.

Conquered Savage Stereotype. The Cherokee people were used as the model for this stereotype. Native Americans were portrayed as a conquered people who had somewhat assimilated (but not entirely) into White culture. These were the almost civilized people who were conquered and divested of most of their ways.

Savage Model. The Sioux people were used as the model for this stereotype. Native Americans were portrayed as warriors astride a horse on the warpath. The Native Americans with this stereotype, were neither "noble" nor "civilized." Their main functions were to wage "wars" and "massacres."

Keep in mind that these are only three stereotypes about Native Americans. Others could be construed. What is important to understand is that stereotypes divest people and groups of their diversity and their basic humanity. Yet, there is a tendency among humans to stereotype people and then to treat them as though they were the stereotypes themselves. For example, many Native American ways have been labelled as "silly superstitions." These customs and beliefs, when compared to non-Indian ways, seem no sillier nor superstitious than non-Indian ways. Notice the following "superstitions" of Native American and non-Indian ways in terms of likeness and differences.

Subject
Areas

Activities

Brainstorming on Curriculum
Materials

APPENDIX 16, P. 6

Techniques and Types of Materials

APPENDIX 16, P. 2

Techniques	Types of Materials
Learning Stations	
Interest Centers	
Media Corners	
Magic Carpets	
Game Tables	
Little Theaters	
Magic Circles	

APPENDIX 17

CURRICULUM DEVELOPMENT
for
NATIVE AMERICAN STUDENTS,
GRADES 9-12

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1.	The Navajo Philosophy of Education (NAMDC Summer Workshop 1976)...	2
2.	Bilingual Bicultural Core Curriculum: An Overview ...	12
3.	Language Arts:	
	a) Navajo	
	b) English	
4.	Social Studies: ...	17
	a) Legal Ed	
	b) Tsa'ászí	
	c) Problems	
5.	Science ...	25
6.	Math ...	37

NAVAJO PHILOSOPHY OF LIFE

In the Navajo worldview, man is a being with an inner core of life (Hwii'sizijinii). Hwii'sizijinii has an outer form, hayol (one's spirit and breath). Man's mind and speech are paired together. The mind is the inner core of speech. The ability to speak is the outer core of the mind. Man's mind gives him the ability to think and reason. This ability enables him to reflect upon the past and the future. Man's ability to speak enables him to verbalize his thoughts and reflections of the past, present, and future.

The physical part of man constitutes his inner body and his outer body—the inner part consists of all the internal organs which are vital to human life the outer part consists of all which can be seen as covering the internal body.

In order to function well, man must have internal and external energy which make his total being move with agility. This internal energy moves and motivates him to function at his capacity.

Man lives by means of four elements. His life stems from the (spirit) air, from the earth, from the fire, and the water.

The (spirit) air of the universe provides man's inner core of life with the ability to think well and to speak his mind well.

From (mother) earth man receives all that provides nourishment for his body, and all other material goods which he utilizes to live.

From fire man receives warmth for his body and light for the night. Fire is used for protection and guidance.

Water cools all things in the world and provides life for all things that grow.

Man uses all these things in peaceful harmony with his own being in order to live. However, it is most important that man must know, respect, be mature, and move in kinship with all things in the world. This is the only way good harmony results. In this way man is strong. Peace and harmony provide him happiness.

Man provides himself with knowledge by his ability to think and learn. This ability is very important in learning. There are four elements which must be included here.

First. Man must use his ability to see with his own eyes. When he watches the processes by which things are done, he learns.

Second. Man learns by all the stories that he is told. Stories which contain history, life experiences, and mythology. These things teach him.

Third. Man learns by providing himself with a teacher. He must reason and think through all that the teacher provides. This is also a way of receiving knowledge.

Fourth. Man must learn by doing everything that he is taught and all that he learns on his own. Man acquires maturity by doing all things that he learns. He learns to be mature by caring and wanting to become mature.

Man must live by kindness to all things. This includes recognizing and keeping the rules by which kinship is practiced, and living in kinship with the world about him. An outward kindness and kinship begins with knowing who your relatives are and helping one another to make life good for all.

This is the way man uses all that he possesses to acquire knowledge and respect for and kinship with all the life sustaining elements of the universe. This gives him strength, wisdom, maturity, and physical and inner well-being.

This is the way to seek the-everlasting-life-giving being (Si'ah Naaghái)
and the provider of all good and beauty (Bik'eh Hózhó) and always travel in
the pollen-path of life.

Dinéjí Óhoo'aah Baa Nitséhákees

I Diné Bee Hadilyaii

1. Ts'ídá átsé bóhólníihii bee hazhdít'éhígíí éí
Hwii'siziinii; éí bee jiiná. Ákóne' éiyá Hayol.
Hayol éiyá Hwii'siziinii yíł ahii'sinil. Hwii'siziinii
éiyá hayol nayiilná.

2. Áádóó bee ánáájít'éhígíí éiyá Háni' dóó Hwiinéé'.
Háni' dóó Hwiinéé' éí ahii'sinil. Háni' éí
hayi'di silá dóó Hwiinéé' éiyá ákáadi silá. Háni'
éiyá bits'áádóó nitsíjíkees dóó nahoji'á. Hwiinéé'
éiyá bits'áádóó yájíłti' dóó nahojilne'.

3. Áádóó bee ánáájít'éhígíí éiyá Hats'íís. Kwe'é
naakigo haz'á: Ła' éiyá hayi'di silái át'é; Ła'
éiyá hakáa'di silái át'é.

4. Áádóó bee ánáájít'éhígíí éiyá Hwiinéí dóó Hagáál.
Hwiinéí éiyá t'áá ákwííjí bee nijilnish dóó bee
nijighá. Hagáál éiyá bee na'adá. Diné bee hadilyaaígíí
éiyá kwe'é ályaa.

II Bee jiináanii

Kwe'é díí'go bíł haz'á:

(1) Nílch'i; (2) Nahasdzáán; (3) Kq'; dóó (4) Tó.

1. Nílch'i éiyá Hwii'siziinii dóó Hayol yee át'é,
áádóó aldó' bee nitsídziikes dóó bee yájiiti'.
2. Nahasdzáán bits'áádóó éiyá ch'iyáán dóó naalyéhé
a'áá ádaat'éhígíí nááhódló.
3. Kq' bits'áádóó éiyá hoozdo dóó adínidíin.
Kq' aldó' bee hats'áhoníyéé'.
4. Tó bits'áádóó éiyá náhoniik'áás dóó bee na'nisé'
dóó bee iiná.

III Bee jinooyééłii

Díidí Diné bee haho'diilyaago bee hazhdít'éhígíí dóó t'áá
át'é hanaagóó hanásiláhígíí éiyá bee nizhónigo jiiná.
Bee jiinánii nizhónigo choozhdool'iilígíí éi ts'idá
bitséedi hoł ééhózingo, dóó hoł ilíigo, dóó baa hojiyáago,
dóó baa k'ézhnidzingo t'éiyá há yá'át'ééh.
Díigi át'éego éiyá Diné jilínii bee hadziil dóó hoł
hózhó.

1. Bik'ehgo óhojiil'aah dóó hoł ééhózinígíí éiyá
hanitsékeesígíí ts'idá aláahdi bee ééhózin.
Kóne'é díi'go nááhást'á:

- a. Átsé éiyá t'áadoole'é hanáál, kót'éego á'al'íigo éi baa' ákozhnizin.
 - b. Áádóó óhoo'aah éiyá na'hodinitin dóó hol hane'go óhojiil'aah.
 - c. Bee naho'dinitinígíí yéego baa nitsíjikeesgo éiyá kót'éego bik'izhdiitíin. Bik'izhdiitíingo aldó' t'áadoole'é hol nibééhwiizíin.
 - d. T'áadoole'é ts'idá t'áá hó ájil'íigo t'éiyá hazhó'ó hol bééhoozíin.
2. Hojíyáago éiyá t'áadoole'é hol bééhózinígíí nizhónigo baa nijighá. T'áadoole'é hálak'ee silái, baa áhojilyáago éiyá ho'iyá jileeh.
 3. Hol íl'igo éiyá t'áadoole'é bee jiinaanii baa heqshnizin. Áádóó diyin dine'é danlínígíí dóó t'áadoole'é dadiyínígíí jidísin. Nahagháadi hanáálgo, dóó diyin biyáin hanáál bee hatáálgo, dóó sohodizingo, dóó diyin baa hane' hanáál baa hane'go, kót'éego dadiyínígíí jidísingo bóhojiil'ááh.

4. K'ézhnídzingo éiyá hak'éi ts'idá átsé hoł bééhózin
dóó biká anijílwo' dóó áádéé' háká anidaalwo'.
Kót'éego éiyá k'é bóhojiil'ááh.

IV Bee nihool'áii

Díidí Diné bee haho'dilyaago bee hazhdít'éhé'í nízhońigo
chihool'íigo t'éiyá bee jiináanii hoł bééhózin. Dóó hoł
nilí dóó bich'í' k'ézhnídzin. Kót'éego éiyá hojiyá dóó
hadziil dóó hoł hózhqo dooleel. Díi kót'éego éiyá
Si'ah Naaghái bił hojilq, dóó Bik'e Hózhq bił hojilq.
Áádóó Tádidiin beatiin bik'ehgóó joogáál dooleel.

A NAVAJO PHILOSOPHY OF EDUCATION

I. Man's Constitution and Innate Capacities

1. The first and most important element in man's constitution is the in-standing soul (Hwii'sizíinii). This soul is the means by which the person has life. Associated and paired with the soul is one's breath (Hayol). The inhaling and exhaling of air is a function of the in-standing soul.
2. A second pair of elements or innate capacities of a human being are the mind (Háni') and the voice (Hwiinéé'). The mind makes thought and planning possible, while one's voice makes speech and oral literature possible.
3. A third element in the constitution of a human being is the body (Hats'íís). The body is divided into inner and outer organs.
4. A fourth set of elements in the constitution of a human being is one's energy (Hwiinéí) and one's means of movement or travel (Hagáál). One's energy provides the everyday strength by which one works and lives. One's means of movement makes it possible to travel about.

These are the basic and most important elements, the innate capacities of a human being.

II. Life-sustaining Elements of the World.

There are four principal life-sustaining elements:

(1) air; (2) earth; (3) fire; and (4) water.

1. Air is the essential element in the soul and the breath, and it also is the means by which one thinks and speaks.
2. The earth provides food and many other life-sustaining materials.
3. Fire provides heat and light.
4. From water, things are cooled, life and growth are made possible.

This balance among the four basic elements and the innate capacities of man and the life sustaining elements of nature makes it possible to live well and comfortably.

III: What You Grow Up With.

Before the life-sustaining elements can be used properly, one must first be mature and possess knowledge of, respect for, kinship with the elements. These qualities give man his strength, his health, his happiness, and his sense of harmony and beauty.

1. One acquires knowledge in four principal ways:
 - a. One becomes aware of things by seeing them performed in one's presence.
 - b. One learns about things by being taught or told about them.
 - c. One acquires an understanding of things by intensive thought about them.

- d. Ultimate knowledge, however, is acquired from
and demonstrated by actual performance.
2. Maturity is found in the adequate performance of that which
one knows. Maturity comes from being given responsibilities
and from taking good care of them.
3. Respect for nature is acquired from:
 Reverence for sacred beings, places, and things.
 It is acquired from attendance at ceremonies, from
 hearing sacred songs sung and stories told, and from
 praying.
4. An attitude of kinship and kindness toward others is acquired
from familiarity with one's kinsmen and from cooperation with
one's kinsmen.

IV: Summary

Education is the process by which man uses his innate capacities to acquire knowledge of, respect for, and kinship with the life-sustaining elements of the universe. It is this which gives man his strength, his wisdom, his maturity, and his well-being. In this way one is united with the life-sustaining (Si'ah Naaghái) and beauty-radiating (Bik'eh Hózhí) elements of the universe and continues on the path of pollen.

BILINGUAL-BICULTURAL CORE CURRICULUM

AN OVERVIEW

CURRICULUM

"is not a task to be completed, but a process to be continued".

The Hadlow Report

Tom Cummings

Curriculum Development Specialist

January, 1977

1. LANGUAGE ARTS

For too long, Navajo children have been taught in a language that they do not understand. They have not learned effectively, and their self-image has suffered.

In a bilingual/bicultural core curriculum, Navajo is the first language of instruction for those children who enter school speaking only Navajo. Initial instruction in English inhibits rather than enhances the educational progress of Navajo-speaking children. Children learn best in their own language. Navajo-speaking children learn to read best in Navajo. These initial literacy skills in Navajo are then transferred to English literacy skills. Initial instruction in Navajo also enhances the student's self-image as a Navajo individual, a member of a Navajo family and a citizen of the Navajo Nation.

English is introduced as a second language. In subsequent years, as Aural/Oral English is mastered, it becomes the second vehicle of instruction while reading and writing in English is taught. Navajo continues to be used in all content areas at all grade levels, K-12.

For those children who enter school fluent in both Navajo and English, instruction is in both languages.

For those students who enter school speaking only English, English is the first language of instruction. These students take special Navajo classes to make them proficient in Navajo as soon as possible; they participate in regular classes in both Navajo and in English.

	Navajo-Dominant Students	English-Dominant Students
K-1	Reading readiness in Navajo	Reading readiness in English
1-2	Initial literacy in Navajo English as a second language Content in Navajo	Initial literacy in English Navajo as a second language Content in English
2-6	Develop Navajo literacy Introduce literacy in English Content in Navajo and English	Develop English literacy Introduce literacy in Navajo Content in English and Navajo
7-12	Build on literacy skills in Navajo and English Develop concepts and skills in all areas in Navajo and English	

SOCIAL STUDIES

Social Studies is a complex series of concepts, closely linked with language arts and other subjects. It is presented as a series of strands that are introduced at an early grade level and followed up year after year with increasing complexity and attention to their interrelatedness:

- Self
- Family
- Clan
- Community
- Chapter
- Tribe
- Group (e.g., Athapascan)
- Area (e.g., Southwest)
- Country
- Continent
- Hemisphere
- World

These strands deal with such closely interrelated subjects strands as:

- Government (controls on group living)
- Economics (ways of making a living)
- Values (religion, philosophy)
- Communication (language and technology)
- History (stories, legends, myths)
- Environment (natural, cultural)
- Recreation
- Education
- Health

Units include readings and discussions in both Navajo and English and various types of presentations (oral and written) in both Navajo and English by the students. For example, students might read selections in English on Navajo tribal government followed by discussion in Navajo.

Students are grouped by grade and ability levels in learning centers. Each learning center can be divided into smaller areas. There are two teachers per grade level, one Navajo language teacher and one English language teacher. These teachers team with a bilingual teacher-trainee and a parent-teacher.

The curriculum is constantly being developed in all core areas with input from teachers, administrative staff, community members, students, and specialists.

SOCIAL STUDIES

GRADE 9

Unit I:

I. K'é:

- A. Review clan system and student relationships and clan origins - expanding on those not covered in the 7th or 8th grade.

Recommendations: have a lot of role playing about immediate and extended family situations so that the clan system can be more meaningful to the student.

- B. Review do ajiliinii - in relation to clan system - expanding on what wasn't covered in previous grades.
- C. Review Kinaaldá and its implication to the maturation process of the student.
- D. Review physiological aspects of sexual development, VD, birth control.
- E. Mental and Emotional development as it relates to sexual development.
- F. Navajo value system compared with contemporary American values.

Unit II: Other Peoples and Cultures:

The course of study should include the following topics, always making a comparison with what we find in our own Navajo culture.

- A. Family patterns, types of subsistence, types of shelter, types of food and transportation.
- B. People to be studied:
1. Europeans
 2. Native Africans

Unit III: History:

- I. Navajo History 1920 - Present
- II. History of Africa

Unit IV: Institutions:

Unit V: The Environment and Resources - World Wide

A. Basic Survival Skills:

1. Old Navajo World
2. Modern Navajo World
3. Non-Navajo World among other American Indian Tribes
4. World Wide - other nationalities

B. Environment:

1. General geographical features - World Wide
2. Abuses of the natural environment
3. Conservation of the natural environment
4. Political issues regarding natural environment

C. Natural Resources World Wide:

1. Uses and depletion of natural resources
2. Abuses of the natural environment
3. Political issues regarding natural resources
4. Interdependence of people on resources

CURRICULUM GUIDELINE FOR 10th GRADE

- I. K'é
 - a. Social Organization and local communities
 - b. Marriage
 - c. Navajo child care
 - d. Family planning

- II. Other peoples and cultures
 - a. Alternative kinds of family and marriage compared to Navajo
 - b. Expanded; Alternative kinds of family and marriage in other cultures
 - c. Other American civilizations compared with Navajo:
 - Aztec 1). Olmec
 - Olmec 2). Maya
 - Toltec 3). Toltec
 - 4). Aztec
 - 5). Inca

- III. Institutions

Navajo Political thought and civics;

 - a. Household
 - b. Community
 - c. Chapter
 - d. Agency
 - e. Tribal Government
 - f. County
 - g. State
 - h. United States Federal Government
 - i. United Nations

IV. Environment

- a. Availability of Natural resources
- b. Uses, depletion of reservation resources
- c. Interdependence of all people on the earth
- d. Issues on uses and abuses of natural resources
- e. Modern survival skills

V. History: Navajo History;

- a. 1920-1930
- b. 1930-1940
- c. 1940-1950
- d. 1950-1960
- e. 1960-1965
- f. 1965-1970
- g. 1970-1975
- h. 1975-present

CURRICULUM GUIDELINE FOR 11th GRADE

I. K'é

- a. Social Organization of local communities.
- b. Marriage and family life
- c. Navajo Child Care
- d. Family Planning

II. Other Peoples and Cultures

- a. Alternative kinds of family and marriage patterns compared with Navajo
- b. Expanded; Alternative kinds of family and marriage patterns compared with Navajo.
- c. Major Civilizations of the World and their cultures--Iroquois League.
- d. Expanded; Major Civilizations of the world and their cultures--Iroquois League
- e. Major Civilization of the World and their cultures Japan and Navajo, Japan compared with Navajo.
- f. Expanded; Major civilization of the World and their cultures Japan and Navajo.
- g. Major Civilization of the World. China and Navajo.
- h. Expanded; Major civilization of the world. China and Navajo.

III. Institution: Contemporary Indian Affairs:

- a. Reservation Indians. BIA, PHS, OE, OEO:
- b. Expanded; Reservation Indians. OE, HUD, FBI, IRS, OEO.
- c. Urban Indians. BIA, PHS, OE, IRS.
- d. Expanded; Urban Indians. OE, HUD, FBI.
- e. Canadian Indians. Dept. of Indian Affairs, Schools, Economy.

- C
- f. Expanded; Canadian Indians. Economy, Government Policy, State policy - provinces.
 - g. Mexican Indians in Mexico. Indian policies, government, schools, state policies and Indians.
 - h. Expanded; contemporary Mexican Indian problems.

IV. Environment Philosophies of Nature and Reality. Compared with Navajo philosophy.

- a. Positivism.
- b. Expanded; Positivism.
- c. Idealism.
- d. Expanded; Idealism.
- e. Existentialism.
- f. Expanded; Existentialism.
- g. Buddhism.
- h. Hinduism.

V. History

- a. History of Asia - Japan.
- b. Expanded; Japan.
- c. History of Asia - China.
- d. Expanded; China.
- e. Isreal.
- f. Arab Nations.
- g. Indo European Peoples.
- h. Expanded; Indo European Peoples.

CURRICULUM GUIDELINE FOR 12th GRADE

I. K'é

- a. Social organization of local communities
- b. Marriage and family life
- c. Navajo child care practices
- d. Family planning

II. Other peoples and cultures

- a. Alternative kinds of family and marriage patterns compared with Navajo
- b. Expanded; Alternative kinds of family and marriage patterns compared with Navajo
- c. Major civilizations of the World: China
- d. Expanded; Major civilization of the world: China
- e. Major civilization of the World: Indian
- f. Expanded; Major civilization of the World: Indian
- g. Major civilization of the World: Europe
- h. Expanded; Major civilization of the World: Europe

III. Institutions: Political Science;

- a. Economic
 - capitalism
 - socialism
 - communism
- b. Political
 - democracy
 - republicanism
 - totalitarianism
 - aristocracy
 - monarchy
 - oligarchy

IV. Environment: Alternative Modes of Economic Development.

- a. Live Stock Improvement now.
- b. Live Stock Improvement in the Future
- c. Sources of energy now.
- d. Sources of energy in the future.
- e. Home and land development now.
- f. Home and land development in the future.
- g. Development of business on the reservation now.
- h. Development of business on the reservation in the future.

V. History;

- a. History of Europe 1200-1499
- b. History of Europe 1500-1599
- c. History of Europe 1600-1699
- d. History of Europe 1700-1799
- e. History of Europe 1800-1899
- f. History of Europe 1900-Present
- g. History of Hawaii 1700-1799
- h. History of Hawaii 1800-1899
- i. Statehood of Hawaii 1900-Present

SCIENCE

GRADE 9

I: K'é as related to: (2 weeks)

A. Four elements - Navajo view

B. Water

1. Uses - world wide
2. Misuse - world wide

II: Physical Science (10 weeks)

A. Chemistry of Water

1. Composition
2. Investigation tool - Scientific method
3. Relevant terminology
4. Measurements
 - a. Weight
 1. Metric system
 2. British system
 - b. Weight and volume relationships
 - c. Application of measurement to water use
5. Simple chemical reactions
 - a. Formula - weight
 - b. Simple chemical equation

B. Chemistry of common compounds

1. Chemical reactions
2. Physical reactions
3. Periodic table

- C. Tools of physical science
 - 1. Simple machines
 - 2. Complex machines
 - 3. Review other tools used in physical science
 - 4. Computations - experimentations
- D. Comparative uses of physical science
- E. Energy
 - 1. Electricity
 - 2. Magnetism
 - 3. Review others

III: Earth Science (10 weeks)

- A. Uses
 - 1. Natural Resources
 - a. Definition
 - b. U.S.
 - c. World Wide
 - 2. Non-renewable
 - a. Fossil fuels
 - b. Minerals and metals
 - 3. Renewable
 - a. Range Lands
 - b. Agriculture Lands
 - c. Plants
 - d. Air
 - 4. Biosphere - home for living
- B. Space Science
- C. Geophysics

IV: Life Science - Introduction to Biology with emphasis on: (12 weeks)

1. Plants
2. Zoology

V: Applied Science

A. World wide careers in applied science

1. Professional Areas:

- a. Health related
- b. Medicine
- c. Education
- d. Nursing
- e. Engineering
- f. Economics
- g. Aeronautics
- h. Chemistry
- i. Physics
- j. Architectural

2. Managerial Areas:

- a. Administration
- b. General Managers
- c. Businesses, Private, Corporate, etc.

3. Skill Areas:

- a. Carpentry
- b. Welding
- c. Mechanics
- d. Technicians
- e. Secretarial
- f. Laborers
- g. Janitorial

GRADE 10

I: K'é (one week)

- A. As related to earth, views on mineral development as an infringement upon Navajo sacred places.

II: Physical Science (10 weeks)

A. Chemistry

- 1. Experiments involving the three states of matter:
 - a. Solid
 - b. Liquid
 - c. Gas

B. Investigations

- 1. Analysis involving deductive and inductive reasoning.

C. Logic

D. Computation

- 1. Use of calculators (electronic and hand held)
- 2. Slide rules
- 3. Metric system
- 4. Orientation to lab. equipment, safety and technique
- 5. Terminology and language
- 6. Technical writing

E. Field trips, guest speakers, consultants

SUGGESTION: A separate introductory course dealing with the atomic theory using periodic chart

F. Physics (four weeks)

- 1. Mechanics:
 - a. Energy; Kinetic and Potential

- b. Computation:
 - (1) Use of calculators (hand held and electronic)
 - (2) Slide rules
- c. Terminology and Language

G. Astronomy

- 1. Earth and its relation to the solar-system.

III: Earth Science (seven weeks)

A. Geology: Introduction

- 1. Natural resources:
 - a. Renewable
 - (1) Soil
 - b. Non-renewable:
 - (1) Minerals:
 - (a) Gas
 - (b) Oil

IV: Life Science (seven weeks)

A. Botany

- 1. Plants
 - a. Classification
 - b. Genetics
 - c. Physiology
 - d. Plant pathology

B. Introduction to Native medicinal plants

- 1. Remedial Purposes

V: Applied Science (seven weeks)

A. Engineering

- 1. Surveying
- 2. Introduction to drafting

B. Ecology and Environmental Studies:

- 1. Health as related to man
- 2. Careers

GRADE 11

I. K'è (2 weeks)

A. As related to earth

1. As a provider of food
2. Shelter
3. Livelihood

B. As related to fire

1. As a source of energy

II: Physical Science (seven weeks)

A. Chemistry

1. Experiments and investigations involving:

- a. Compound reactions
- b. Introduction to qualitative analysis, i.e., identification of unknown elements in (liquid) solution.
- c. Computation
 1. Use of calculators
 2. Slide rules
 3. Metric system
 4. Terminology and language
 5. Technical writing
- d. Field trips and/or guest speakers

SUGGESTION: A separate course dealing with the theory plus periodic chart.

1. Composition and structure of molecules and atoms.

B. Physics (four weeks)

1. Magnetism
 - a. Electricity
 - b. Computation

1. Use of calculators
2. Slide rules
3. Metric system
4. Terminology and language
5. Technical writing

C. Astronomy

1. Solar system and its theoretical origins
2. Navajo beliefs about the solar system

III: Earth Science (nine weeks)

A. Natural resources:

1. Renewable:
 - a. Range
 - b. Water
 - c. Forestry
2. Non-renewable:
 - a. Fossil fuels
 - b. Coal
 - c. Ores, e.g., uranium

B. Paleontology:

1. Vertebrate
2. Invertebrate

C. Aesthetics:

1. Preservation - search for alternatives, i.e., other means of generating electricity, etc.

IV: Life Science (nine weeks)

A. Animal:

1. Classification
 - a. Navajo
 - b. Linnaean
2. Genetics

3. Physiology
 4. Pathology
 5. Ethology of animal behavior
- B. Ichthyology (fish)
- C. Amphibiology
1. Classification
 - a. Navajo
 - b. Linnaean
- D. Mammology
1. Classification
 - a. Navajo
 - b. Linnaean
 2. Genetics
 3. Physiology
 4. Pathology
- E. Ornithology
1. Classification
 - a. Navajo
 - b. Linnaean
 2. Genetics
 3. Physiology
 4. Pathology
- F. Reptiles
1. Classification
 - a. Navajo
 - b. Linnaean
 2. Genetics

- 3. Physiology
- 4. Pathology
- G. Biology
 - 1. Microbiology and lab.
 - 2. Macrobiology and lab.
- V: Applied Science (five weeks)
 - A. Food Production
 - 1. Animal husbandry
 - 2. Ranching
 - 3. Range management
 - B. Health
 - 1. Recreation
 - 2. Nutrition

GRADE 12

- I: K'é (two weeks)
 - A. As related to air:
 - 1. As a source of oxygen
 - B. As related to water:
 - 1. As means of existence
- II: Physical Science (two weeks)
 - A. Chemistry
 - 1. Experiments and investigations:
 - a. Quantitative analysis, i.e., measurements of chemical elements in unknown (liquid) solution.
 - 2. Computation:
 - a. Slide rule
 - b. Use of calculators
 - c. Metric system
 - d. Terminology and language
 - e. Technical writing

- SUGGESTION: A separate course dealing with atomic theory plus periodic chart.
- a. Composition and structure of atoms, i.e., nucleus, proton, electron, etc.

NOTE: Up to this point, the students will have explored the innermost component of the smallest particle of matter - the atom.

B. Physics: (five weeks)

1. Light

a. Natural:

(1) Solar energy

b. Man-made:

(1) Optics

(2) Laser beams

C. Cosmology

III: Earth Science (nine weeks)

A. Geology:

1. Physical: Types of rocks

a. Sedimentary

b. Igneous

c. Metamorphic

2. Minerals:

a. Metallic

b. Non-metallic

3. Land Forms:

a. Geomorphology - topographic features of the earth

4. Structural:

a. Stratigraphy - layers of geologic formations

b. Mountain ranges - their origins

c. Navajo and local geologic history in more detail

IV: Life Science (seven weeks)

A. Wildlife:

1. Habitats

2. Behavior
 3. Ecology
 4. Preservation and protection
- B. Anatomy of man:
1. Physiology
 2. Genetics
- V: Applied Science (eleven weeks)
- A. Natural Resources Development on Indian Lands:
1. Land
 2. Water
 3. Mineral
 4. Air
- B. Careers:
1. Professional and Non-Professional:
 - a. Study of Native Medicinal Plants
 - b. Soil Science
 - c. Agronomy
 - d. Agriculture
 - e. Hydroponics
 - f. Acquaculture

MATHEMATICS

GRADE 9

I. Algebra

Review and Stress:

- a. Inequalities
- b. Metric - English conversion of weights and volume to be reviewed in 9th grade Science.
- c. Graphs - X-Y axis as part of Algebra course.

II. Electives

General Math (as remedial or review course)

Business Math

Consumer Math

Culture Math (i.e., math in weaving, silversmithing, etc.)

The subjects listed below are recommended units in the above course:

<u>Business</u>	<u>Consumer</u>	<u>General</u>	<u>"Culture"</u>
Accounting	Interest Rates	Review or remedial courses	Weaving
Bookkeeping	Charge Accounts		Silversmithing
Farming	Unit Price Calculations		Livestock
Ranching	Checking Accounts		Ranching
Silversmithing	Consumer Laws		Farming
Weaving	Contracts		Animal Husbandry
Animal Husbandry (industry)	Real Estate		Building Trades
Business Law	Energy Calculations		
	BTU		
	Gas Mileage		
	Cost of Living		

GRADE 10

- I. Algebra II
- II. Plane Geometry
- III. Elective courses (same breakdown as Grade 9)

GRADE 11

- I. Solid Geometry
- II. Physics (Science)
- III. Trig
- IV. Elective courses (same breakdown as Grade 9)

GRADE 12

- I. Analytical Geometry
- II. Pre-Calculus
- Modern Math:
 - 1. Sets
 - 2. Set Theory
 - 3. Logic
- III. Elective courses (same breakdown as Grade 9)

BILINGUAL/BICULTURAL LAW-RELATED CURRICULUM

THE RAMAH MODEL

by

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Curriculum Development Specialist

January, 1977

- Introduction -

Ramah Navajo High School has researched, produced and taught a Bilingual Bicultural law-related-curriculum that emphasizes the pluralistic legal environment in which Navajo students live as citizens of the Navajo Nation as Americans. They are affected by their own Navajo law ways, and by local, state and federal laws. The Ramah Navajo community has tried to relate its own ideas about behavior and ways of problem solving to those of the dominant Anglo society.

Navajo students realize that both Navajo and Anglo law ways are relevant and worthy of regard. Navajo high school students are very different from Navajo adults reared in a traditional environment. As these students gain increasing understanding of both Navajo and Anglo concepts of law (especially dispute resolution) they can understand both, with increasing respect for the Navajo way. They will ask, "What works best for my People?" They will work to change alien institutions and ways of dispute-resolution that do not work for the Navajo People.

I Content Areas

A. Consumer Education

1. Goals

- a. To give the students a firm understanding of the Navajo People's traditional views of property, and to compare these to Anglo views, so that the students may act as sophisticated consumers in their own behalf and so that they may work with their parents for future economic development of their Navajo communities.
- b. To give the students a firm grasp of bargaining, contracting, and informal dispute resolution techniques so that they can use these in dealing with traders and car dealers without the aid of lawyers.
- c. To show how the state and tribal courts can be used to get consumer protection in individual disputes.
- d. To show how to use political strategies and community organization techniques to change legal and economic relationships with traders and car dealers in order to secure consumer protection for the Navajo People.

2. Problem Situations

- a. Navajo versus traders in various situations involving this monopolistic institutions in the rural areas of Navajo land.
- b. Navajo versus car dealers and town merchants. Within each relationship, there are specific elements that have their basis in both Anglo and traditional concepts of property. Chief among these are:

- Making of the contract - the bargaining experience.
- Money management - getting credit, understanding secured property, paying interest for credit.
- Dealing with disputes over fraud, shoddy goods, and other contract areas.
- Warrantees, guarantees.
- Insurance.

3. Teaching Strategies

Classes deal with specific disputes and encounters.

Students are encouraged to identify with these situations by techniques such as role playing.

Volume I or a 4-volume casebook, based on Navajo experience, deals with typical consumer problems and personal property disputes, and shows how these problems are presented in tribal and state courts and how they are resolved. Commentaries and discussion questions guide the students and teachers. These cases provide materials for role playing situations.

Class participation in real community events is a third teaching strategy in consumer education:

- Development of consumer cooperatives.
- Use of a local credit union by class members.

As students evaluate their own roles and those of the dispute resolvers, discussion follows:

- a) What is law and what is a legal system?
 - Traditional Navajo law-ways and customs

- Tribal sovereignty and jurisdiction
 - State and Federal government jurisdiction under the treaty of 1868.
- b) Type of Law
- Custom and culture: traditional law
 - Case law: the Anglo law codes
 - Statutory: how laws are made
 - Civil and criminal law
- c) How problems are solved in courts and in traditional ways
- Traditional ways of resolving disputes
 - The roles of the informal dispute resolvers (clan leader, headman)
 - The court systems:
 - Federal, State, Tribal
 - The roles of judge and jury
 - The roles of the lawyer and the lay advocate

B. Law and the Family

The focus is upon property (both real and personal) and how it is used and transmitted within the Navajo family. The rights and responsibilities of the husband, wife and children in a clan and the extended matrilineal family are the focal points of Navajo law.

1. Marriage: property disputes, grazing rights, land use
2. Children: their rights and duties
3. Death in the family: inheritance

The chief objective is to reorient the student to his family through both traditional and formal systems of law. The differences between the written tribal code and traditional ideas of family rights and responsibilities are very confusing to young Navajo. The destruction of parental authority Anglo education has created a gap that community controlled schools are only beginning to fill, as parents reassume disciplinary responsibility for their youngsters. Parent-teachers play an important role in the classroom as they are the experts who explain traditional Navajo laws.

C. Law and the Community

In the past, the Navajo People had special rules for dealing with the events that lead to injuries by or of other Navajo who were not their relatives. These rules of compensation (Naalyeeh) are like the private remedies in tort and criminal procedure. The curriculum deals with the problems of obtaining justice in the tribal courts in cases where personal injury or property damage have occurred.

D. *Dealing with...*

1. Topics

a. Getting relief:

Confusion about how the courts can be used and especially when the courts will help individuals and when the courts will act on behalf of the tribe to punish wrongdoers, is still widespread among both adults and young people.

b. The rights of defendants: what students should do if arrested or served with a civil process in the tribal or state courts.

c. The rights of students: the rights and responsibilities of students.

2. Teaching strategies: The most difficult concepts of Anglo legal tradition (negligence, criminal intent, rights against self-incrimination) have been incorporated into the tribal court system, but because these concepts are not interpreted through traditional means of righting injuries the student and his parents have difficulty securing justice in the tribal courts.

We concentrate on projects that allow students to make their own rules of conduct in their own schools. The process of making and enforcing laws is taught as the students draft and revise this code. The primary issues of due process and constitutional guarantees gain immediate relevance to them.

II. Curriculum Development

Other tribal groups wanting to create a comparative law-related curriculum should consider the following.

A. Preparation

The initial work of the legal staff is to collect field data for the curriculum.

1. The local legal specialist working with a consulting attorney:
 - a. Brings together existing materials on traditional ways of dispute resolution.
 - b. Develops tools to accurately determine local definitions and norms.
 - c. Interviews community leaders and legal service personnel to compile specific cases of disputes that illustrate both conflicts and conformity between traditional local law ways and Anglo law.
 - d. Reviews tribal court records to compile actual cases for inclusion in the curriculum.
2. Participating in the preliminary stage are: a consulting attorney, a local legal specialist, and the curriculum development specialist who helps to edit the field study data to the immediate needs of the classroom.
3. The compilation of field research data and information from those active in dispute-resolution will lead to a second stage: materials gathered on local law ways are combined with basic materials gathered from Anglo common law. This includes presentations on how laws guide the many day-to-day events that occur when a dispute is placed into the local or Anglo dispute resolution process.

B. Specific Materials

1. A four-volume text that utilizes the case method, setting forth disputes and commenting on how the parties to the disputes define the problems and resolve them. This text is supplemented by a series of videotapes, both in Navajo and in English, that deal with specific topics.
2. Materials produced by DNA (Navajo Legal Aid) and other outside SOURCES.
3. Materials compiled from books, magazines, newspapers, etc. Relevant to the bilingual-bicultural law-related curriculum.
4. Role-playing, including participation on "moot court", presentations in both Anglo and traditional contexts. Preparation for this stage of learning takes place after the class has had an opportunity to attend trials and customary dispute resolution procedures and after discussion of courtroom set-up, procedures, evidence, and the like.
5. The local legal specialist and the local language specialist develop a bilingual legal dictionary to be used as a teaching supplement.
6. The curriculum development specialist develops A/V teacher aids: videotapes, filmstrips, movies, and audio cassettes.

C. Use of Outside Resources

1. Published and unpublished anthropological resources are used in the comparative legal approach.