Project Tradition and Technology (Project TNT) at Peach Springs Elementary School (Peach Springs, Arizona) is 1 of 12 programs recognized nationally as an outstanding model of bilingual education by the U.S. Department of Education. Project TNT is a process-oriented curriculum development model that identifies the community's needs and expectations for its children, and draws on the resources and expertise of the community and the school staff to plan and implement a challenging curriculum. Three interactive program models (the Hualapai Cultural and Environmental Curriculum, the Hualapai Literacy Model, and the Hualapai Interactive Technology Model) form an integrated bilingual bicultural core curriculum that develops student self-esteem, self-confidence in themselves as learners, and student pride in their heritage, as well as increasing academic achievement and language competencies. The key features and educational objectives of each of the three program models are outlined. This booklet provides information on program evaluation results, the Hualapai Reservation, the Hualapai language, the histories of bilingual education and technology use at Peach Springs School, the history of Hualapai schools since 1890, Peach Springs School students and staff, administration and organization at Peach Springs School, program success factors, program philosophy, the curriculum development process, instructional materials development, curriculum unit themes, and step-by-step criteria for becoming a replication site for this program. This booklet contains many photographs and graphics. (SV)
Hualapai and other cultures strive for same goals following different yet parallel paths.

Travel to four directions from Hualapai Reservation to learn.

Hualapai sharing, leading, and pointing the way to other cultures.

Other cultures sharing their ways with the Hualapais.

This project publication was made possible by a grant to the Peach Springs School District No. 8 from the United States Department of Education, Office of the Bilingual Education and Minority Languages Affairs (OPEMLA), Bilingual Education Act as amended by Public Law 98-511. Project Number G008710675-88. The opinions expressed herein do not necessarily reflect the position or policy of the United States Department of Education.

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PROJECT TRADITION AND TECHNOLOGY
(PROJECT TNT):
THE HUALAPAI BILINGUAL
ACADEMIC EXCELLENCE PROGRAM

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Petroglyph Drawings and Interpretations
LaVan Martineau
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>1</td>
</tr>
<tr>
<td>Dedication</td>
<td>2</td>
</tr>
<tr>
<td>The Hualapai Child's Interactive Learning Environment</td>
<td>3</td>
</tr>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>Program Developers</td>
<td>4</td>
</tr>
<tr>
<td>Overview and Key Features</td>
<td>6</td>
</tr>
<tr>
<td>Program Description and Goals</td>
<td>8</td>
</tr>
<tr>
<td>Evaluation Result</td>
<td>10</td>
</tr>
<tr>
<td><strong>PROJECT TRADITION AND TECHNOLOGY (PROJECT TNT)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PROGRAM DESCRIPTION</strong></td>
<td></td>
</tr>
<tr>
<td>The Hualapai</td>
<td>12</td>
</tr>
<tr>
<td>The Hualapai Language</td>
<td>14</td>
</tr>
<tr>
<td>History of Peach Springs School</td>
<td>16</td>
</tr>
<tr>
<td>Peach Springs School Administration and Organization</td>
<td>18</td>
</tr>
<tr>
<td>Program Success Factors and Commitment</td>
<td>20</td>
</tr>
<tr>
<td>Philosophy and Theory of the Project Tradition and Technology</td>
<td>22</td>
</tr>
<tr>
<td>Hualapai Cultural and Environmental Curriculum Model</td>
<td>24</td>
</tr>
<tr>
<td>Hualapai Literacy Model</td>
<td>26</td>
</tr>
<tr>
<td>Hualapai Interactive Technology Model</td>
<td>28</td>
</tr>
<tr>
<td>Curriculum Implementation and Integration</td>
<td>30</td>
</tr>
<tr>
<td>Curriculum Development and Classroom Materials</td>
<td>32</td>
</tr>
<tr>
<td><strong>REPLICATION INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>Information Needed To Become An Adoption Site</td>
<td>34</td>
</tr>
<tr>
<td>Steps For Becoming an Adoption Site</td>
<td>34</td>
</tr>
<tr>
<td>Criteria For Adoption Site Selection</td>
<td>35</td>
</tr>
<tr>
<td>Stages and Processes For Program Replication</td>
<td>38</td>
</tr>
<tr>
<td>Replication Agreement</td>
<td>40</td>
</tr>
<tr>
<td>Adoption Sites</td>
<td>42</td>
</tr>
</tbody>
</table>
FOREWORD

PROJECT TRADITION AND TECHNOLOGY
HUALAPAI BILINGUAL ACADEMIC EXCELLENCE PROGRAM
(Project TNT)

Project TNT is one of twelve programs recognized nationally as an outstanding model of bilingual education by the Office of Bilingual Education and Minority Language Affairs, U.S. Department of Education. The primary goal of the Academic Excellence Program funded under Title VII of the Elementary and Secondary Education Act (Public Law #100-29) is to assist exemplary programs of transitional bilingual education (TBE), developmental bilingual education (DBE), and special alternative instruction (SAI) to disseminate information about their programs. These programs have established themselves as exemplary programs in their respective districts, and have met the requirements of the Academic Excellence Program at the national level. The focus of the Academic Excellence Program is dissemination of information about the program, with support provided for its adoption in other districts.

Programs funded under Academic Excellence must meet three criteria:

1. They must meet the requirements of programs of transitional bilingual education (TBE), developmental bilingual education (DBE), and special alternative instruction (SAI).
2. They must have an established record of providing academically excellent education.
3. They must be designed to serve as models.

This document describes the Project Tradition and Technology (Project TNT) developed by the Peach Springs Elementary School District in Peach Springs, Arizona, and outlines the expectations and commitment required of other educational programs seeking to adopt the Project TNT model. The step by step criteria involved in becoming a replication site is provided in this document.

Projects seeking additional information concerning the adoption of the Hualapai Bilingual Academic Excellence Program: Project Tradition and Technology (Project TNT) should contact:

Hualapai Bilingual Academic Excellence Program:
Tradition and Technology (Project TNT)
Peach Springs School District #8
403 Diamond Creek Road, P.O. Box 360
Peach Springs, AZ 86434
(602)769-2202
The Vision of the Hualapai Elders, their concern for the education of our children, their sharing of knowledge, through their roles as culture-bearers and teachers of

The Language
The Traditions
The Technology

provided the knowledge-bearing from which the Project Tradition and Technology was developed.
THE HUALAPAI CHILD'S
INTERACTIVE LEARNING ENVIRONMENT

NATURAL ENVIRONMENT
- repeating cycles
- observation models
- respect
- land
- Colorado River
- ranching
- beading
- discovery
- harmony
- adaptation
- soil
- creation
- seasons
- animals
- ancestors

COMMUNITY & SCHOOL ENVIRONMENT
- Hualapai Tribe
- legends
- survival skills
- technology
- games
- children
- computers
- elders
- birth
- hard copy
- harmony
- discovery
- sports
- modem
- data
- reset
- art
- clouds
- fall
- rocks
- earth

HOME ENVIRONMENT
- spiritual
- homes
- skills
- kinships
- peers
- mother
- experiences
- self-esteem
- recreation
- escape
- art
- data
- reset
- art
- clouds
- fall
- rocks
- earth

CHILD
- intuitive learning
- uniqueness
- language
- respect
- print
- sports
- modern
- data
- delete
- save
- disk
- copy
- monitor
- mentors
- marriage
- guide
- Grand Canyon
- topography
- heavenly bodies
- life & death cycles
- natural foods
- rock writing
- culture
- oratory
- clothing
- love
- foods
- recreation
- responsibilities
- extended families
- curiosity
- exercise
- copy
- disk
- save
- delete
- Reset
- art
- clouds
- fall
- rocks
- earth

Baby in cradle (Education begins at birth)

11

3
Project Tradition and Technology (Project TNT) is a process-oriented curriculum development model that identifies the needs and expectations of a community for its children. It uses the resources and expertise of the community, and the school, to develop and implement a challenging curriculum.

**COMMUNITY MEMBERS** Community members, who played a development of program materials, and the writing of the Hualapai language and resources to ensure the success of the school program.

Elders provided the vision and

**PARENTS** Parents, the child's first and most important teachers, were involved in all stages of development, and continue to serve on the Parent Advisory Committee (PAC) and support ongoing school.

**TRIBAL GOVERNMENT** The Hualapai Tribal Council originally developed, approved and sanctioned language and culture to be included in the school curriculum. Coordination with the school results in joint involvement and support for extra-curricular activities.
SCHOOL ADMINISTRATION  The school administrators played key roles in the curriculum development process and in the integration and institutionalization of the Project TNT. Their community knowledge and support, combined with personal educational training and expertise, resulted in the development and implementation of this nationally recognized program.

THE SCHOOL BOARD  The School Board provided the direction needed in seeking resources with which to plan and develop the Project TNT and had the wisdom to commit to a long-term plan to fully develop the school program.

CLASSROOM TEACHERS  The classroom teachers at Peach Springs School make Project TNT happen with children and parents. Four Hualapai classroom teachers earned their degrees and bilingual endorsements through the Title VII program. Seven teachers earned their English as a Second Language (ESL) endorsements.

BILINGUAL INSTRUCTIONAL AIDES  Ten Bilingual Instructional aides work as team-teachers with the classroom teachers. The Bilingual Instructors are highly trained specialists in Hualapai language and culture, and provide an important link to the parents and community. All are working towards degrees and certification.

SCHOOL SUPPORT STAFF  Staff members, including cooks, bus drivers, maintenance personnel, janitors, and office staff, are all from the community and serve as resource people. They help create a positive school atmosphere, interact with and assist students, and serve as role models representative of the community.

TITLE VII PROJECT TRADITION AND TECHNOLOGY INSTRUCTORS  The Title VII Project TNT staff provided the direction and coordination of the ongoing, development of Project TNT. The staff began the development, teaching, and writing of the cultural and environmental thematic units, studied linguistics and developed the Hualapai orthography, and produced Hualapai curriculum materials. Today the same staff provides Project TNT training to other schools.

Hualapai Tradition (Handed down by word of mouth from generation to generation)
PROJECT TRADITION AND TECHNOLOGY:
THE HUALAPAI BILINGUAL ACADEMIC EXCELLENCE PROGRAM:
CURRICULUM COMPONENT MODELS AND KEY FEATURES

Project TNT has three interactive program models: The Hualapai Cultural and Environmental Curriculum (HCEC); The Hualapai Literacy Model (HLM); and The Hualapai Interactive Technology Model (HITM). These three component models form an integrated bilingual bicultural Core Curriculum that develops students' positive self-images, self-confidence in themselves as learners, and pride in their heritage, as well as increased academic achievement and language competencies. Each program model has key features which make it unique. These key features interact to determine level of program implementation and student success.

HUALAPAI CULTURAL AND ENVIRONMENTAL CURRICULUM MODEL
Bilingual and Multilingual Curriculum Organizational Development and Integration with Community Participation

HUALAPAI INTERACTIVE TECHNOLOGY MODEL
Utilization of Technology for Program and Materials Development Program Management Program Instruction Student Access

HUALAPAI CULTURAL AND ENVIRONMENTAL CURRICULUM KEY FEATURES
Core Curriculum organized around thematic units Based on unique cultural experiences of the community Utilizes the surrounding natural environment Child centered for active learning Meets the educational needs of Hualapai children Maximizes use of local resources Involvement of elders, parents, and community members Integration of all content areas Highly adaptable Supports district and state educational requirements Supports district and state education requirements for English

ENGLISH - HUALAPAI LITERACY MODEL
English - Hualapai Language Development for Bilingual Children Emphasizing Communicative Competence

TEACHING HUALAPAI CULTURE
HUALAPAI LITERACY MODEL KEY FEATURES

- New Concurrent use of Hualapai and English
- Development of communicative competencies
- Based on Hualapai Oral-Traditions
- Writing of an unwritten native language
- Developmental approach in the acquisition of literacy skills
- Literature-based reading program
- Emphasis on comprehension and content area reading
- Utilizes the writing process
- Incorporates word processing as part of the writing program

HUALAPAI INTERACTIVE TECHNOLOGY MODEL KEY FEATURES

- Technology and media support and enhance Core Curriculum
- Incorporates all technology in interactive systems
- Computer network system
- Maximizes student access to technology as a learning tool
- Computer Aided Instruction (CAI) for reinforcement
- Computer Managed Instruction (CMI) for individualization
- Administrative Computer Assisted Management (CAM)
- Student developed TV and video productions
- Maximizes visual and auditory learning styles of students

Understanding the computer

Student listening to teacher and reading

BEST COPY AVAILABLE
The three interactive program models of the Curriculum have the same philosophic base, shared general education goals, and goals specific to each component model. These three models reinforce and support each other in developing student competencies.

Educational Goals

The Hualapai Bilingual Academic Excellence Program defines curriculum as all of the experiences of the learner within the school setting. The following goals provide the foundation for the Hualapai Bilingual Academic Excellence Program:

1. The students will become fluent and literate in the English and Hualapai languages so that they may participate more fully in using both.
2. The students will develop positive self-concepts as the curriculum focuses on recognizing individual and cultural differences as assets and promoting pride in cultural values and accomplishments.
3. The students will develop a feeling of adequacy and security, both in their own culture and in the Anglo culture, through learned knowledge, skills, and emotional maturity which will enable them to make significant choices in their adult lives.
4. The students will develop thinking, decision-making, and problem-solving skills through inquiry using the Hualapai culture and environment as a primary resource.
5. Students will develop an awareness of the multiple and diverse cultures in the United States, a general knowledge of Native American tribal groups and their contributions to North American cultural history, a functional knowledge of various cultural groups in the greater Southwest, and specific knowledge of the Hualapai culture.
6. The students will have access to a variety of teaching methods and experiences that provide for different styles of learning.
7. The students will develop a positive attitude toward using technology and thus become better motivated in their studies through the utilization of technology as a learning tool.

Hualapai Cultural and Environmental Curriculum Model

The Hualapai Cultural and Environmental Curriculum (HCEC) is the outcome of a carefully planned curriculum development process. This process allows for the inclusion of the Hualapai language and culture in all aspects of the curriculum and provides a way to communicate the needs and expectations of the community for its children in the school curriculum.

The Hualapai Cultural and Environmental Curriculum (HCEC) develops concepts and skills that enable the learner to function effectively in a variety of social, cultural, and linguistic environments and situations. The Hualapai curriculum uses a student-centered holistic approach to learning, based on the child's natural ability to learn, using the language, culture, and experiences of the Hualapai child as content for the curriculum. The curriculum uses thematic, environmentally-based instructional units that integrate traditional subject areas and develop specific concepts and abilities.

The Hualapai Cultural and Environmental Curriculum additional goals.

8. The students will use their unique characteristics, values, and cultural experiences as a base for their cognitive development.
9. The students will develop an awareness of their natural environment, an appreciation for the balance of nature, and specific knowledge for living in harmony with the natural world.
10. The students will develop an appreciation for and understanding of Hualapai oral traditions, and a respect for the wisdom of Hualapai traditions and history.
The Hualapai Literacy Model (HLM) uses the new concurrent, natural language approach to developing communication skills. Each child is encouraged to talk and write about his own experiences, to develop skills according to his level and ability, and to construct personal meaning through writing. Hualapai oral traditions are the base upon which oral and written language are developed. Reading is viewed as a transactional process, which is transactional in nature, encouraging the student to bring his experiences and personal meaning to a text. Oral language development and literacy skills are integral to the Hualapai Cultural and Environmental Core Curriculum.

Hualapai Literacy Model (HLM) and Language Arts Policy (School Board Adopted 8/85) additional goals:

11. The students will become proficient and literate in English and Hualapai.

12. The students will participate in dialogue between teacher and student, recognizing that each has something important to say and together they can work to comprehend the meaning of others in oral and written Hualapai and English.

13. The students will develop an understanding of reading and writing as transactional processes and will bring meaning to and derive meaning from what they read, write, and experience.

The Hualapai Interactive Technology Model (HITM) demonstrates the use of computer and video technology and instructional media to support bilingual education in all aspects of the curriculum. Areas of computer technology include use of Computer Managed Instruction (CMI), Computer Assisted Instruction (CAI), word processing with compatible speller, and data base access. Instructional Television programs from Arizona School Services Through Educational Technology (ASSET) program provide support to all subject areas. Interactive video and laserdiscs are utilized. Students learn the technical elements of video production, and participate in special activities to develop their communication skills. The Hualapai Interactive Technology Model (HITM) supports and enhances all aspects of the HCEC Core Curriculum.

Hualapai Interactive Technology Model (HITM) additional goals:

14. The students will have access to a variety of technologies and become proficient in their use.

15. The students will increase their communicative competence in Hualapai and English through the use of various technologies.

16. The students will develop an awareness of the future impact of technology, and the role it will play in their adult lives and chosen careers.
A strong evaluation component has contributed to the success of the Project Tradition and Technology (Project TNT) Program. Ongoing evaluation and systematic feedback allows for continued improvement in Project TNT. The evaluation design incorporates collection of formative and summative data. Objectives are developed for each program component area using measurable criteria.

A management-by-objective year-long plan is developed, including timelines and delegation of responsibility. A review of the level of implementation of each program component is completed during the evaluator’s site visits, and he provides recommendations for successful program implementation. Summative data for completion of the annual evaluation report is collected during site visits and at the end of each project year.

Assessing student performance is at the core of the evaluation activities. Accurate and detailed records are maintained on each student. Data are collected and recorded on individual student profile sheets. At the end of each project year, data from the profile sheets are analyzed to complete a summative assessment of the English language proficiency and to measure progress on achieving project objectives. A summary of the past three years’ (1985-88) student evaluation results shows the program effects on the student achievement.

**LANGUAGE ASSESSMENT SCALES (LAS)**

Comparison of Mean Scales and Level Scores Within Grades For Three School Years, 1985-86, 1986-87, and 1987-88

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**SUMMARY**

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<td>1987</td>
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<td>1988</td>
<td>1-7</td>
<td>157</td>
<td>84.90</td>
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Table 1
IOWA TESTS OF BASIC SKILLS
Cumulative Decile Distribution of NCE Scores
Based on the Combined Data of Three Years (1985-88)
For the Subtests of Reading, Language, and Math
Grades 2-8

<table>
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<th>Reading N=146</th>
<th>Language N=146</th>
<th>Math N=146</th>
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<tr>
<td>Above 50th NCE</td>
<td>13.7%</td>
<td>28.0%</td>
<td>14.4%</td>
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<td>Above 40th NCE</td>
<td>40.4%</td>
<td>51.7%</td>
<td>38.6%</td>
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<tr>
<td>Above 30th NCE</td>
<td>66.4%</td>
<td>71.2%</td>
<td>49.2%</td>
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<tr>
<td>Above 20th NCE</td>
<td>87.0%</td>
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<td>86.4%</td>
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<tr>
<td>Below 20th NCE</td>
<td>13.0%</td>
<td>13.0%</td>
<td>13.6%</td>
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Table 2

IOWA TESTS OF BASIC SKILLS
Number and Percent of Students Gaining
Two or More NCEs On the Subtests of
Reading, Language, and Spelling
Grades 3-8

<table>
<thead>
<tr>
<th>YEAR</th>
<th>GRADES</th>
<th>N=</th>
<th>%</th>
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</thead>
</table>
| 1985-86 | Grades 3-8 | 115 | 54 | 47%
| 1985-87 | Grades 3-8 | 100 | 58 | 38%
| 1985-88 | Grades 3-8 | 108 | 55 | 31%

<table>
<thead>
<tr>
<th>YEAR</th>
<th>GRADES</th>
<th>N=</th>
<th>%</th>
</tr>
</thead>
</table>
| 1985-86 | Grades 3-8 | 115 | 58 | 50%
| 1985-87 | Grades 3-8 | 100 | 55 | 55%
| 1985-88 | Grades 3-8 | 108 | 52 | 48%

<table>
<thead>
<tr>
<th>YEAR</th>
<th>GRADES</th>
<th>N=</th>
<th>%</th>
</tr>
</thead>
</table>
| 1985-86 | Grades 4-8 | 96 | 45 | 47%
| 1985-87 | Grades 4-8 | 81 | 40 | 49%
| 1985-88 | Grades 4-8 | 89 | 41 | 46%

Table 3

Table 4

PEACH SPRINGS SCHOOL 8TH GRADE GRADUATES
PERCENTAGE RATES OF POSTSECONDARY EDUCATION AND VOCATIONAL EDUCATION
1976-1989

<table>
<thead>
<tr>
<th>YEAR GRADUATED FROM PEACH SPRINGS</th>
<th>YEAR GRADUATED FROM HIGH SCHOOL</th>
<th>PERCENTAGE GRADUATED</th>
<th>POSTSECONDARY EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976-84</td>
<td>1983-88</td>
<td>84%</td>
<td>31%</td>
</tr>
<tr>
<td>1975</td>
<td>1984-90</td>
<td>100%</td>
<td>31%</td>
</tr>
</tbody>
</table>

57% of the high school graduates/general education diploma recipients have attended college or vocational education institutions.

Table 4
The Hualapai Reservation is located in northwestern Arizona. The Hualapai are members of the Yuman language family, a group of people indigenous to the territory stretching from Southern California to the Grand Canyon, and from the Pacific Ocean to the mountains and deserts of Central Arizona. The Hualapai originally Hwal bay means People of the Tall Pines, Pai People (Bay) the 14 bands traditionally occupied a sixth of the state of Arizona.

The Hualapai Reservation covers a million square acres, the Northern boundary is in the middle of the Colorado river in the Grand Canyon. The Reservation was created by Executive Order in 1883. The land has rolling hills, rugged mesas, breathtaking cliffs, and deep gorges. Most of the people live in Peach Springs, the tribal capital. Peach Springs is located 50 miles east of Kingman, on Historic Route 66. The community name came from springs which had peach trees cultivated the tribe.

Traditionally people lived by gathering seeds, roots, berries, nuts, and fruits, and by hunting wild game. Wherever sufficient water was available, the Hualapai irrigated small plots of land and grew corn, beans, squash, and watermelons. To maximize the use of subsistence resources, the Hualapai divided into bands, consisting of several extended families, under the leadership of a headman. In recent times, the Tribal Council replaced the traditional sociopolitical organizations, and the Hualapai population was relocated to the town of Peach Springs.

Traditional Hualapai culture is a vital part of everyday life, with families linked together by kinship ties traced back many generations. Social and ceremonial gatherings, such as dances, meetings, festivals, and holidays play an important role in the unification of the community. The Hualapai language, used extensively on these occasions, is the tongue in which most children are actively socialized at home. Hualapai language and culture remain integral to the modern Hualapai community connecting traditional and contemporary tribal lifestyles.
THE HUALAPAI RESERVATION

LOCATION: Northwestern Arizona
Part of 3 Arizona counties, Coconino, Yavapai and Mohave

ALTITUDE: 4,800 Feet

WEATHER: Yearly average temperature
High 81, Low 35
Average yearly rainfall 10.8 Inches

POPULATION: 1,506 (1980)
1,083 (1983)

TRIBAL GOVERNMENT:
Tribal Chairman, Vice Chairman, 7 Member Council
Fire Department:
8 volunteers
Chief and 4 officers, 1 patrol car

LABOR FORCE DATA:
1988 Total Indian Population 1,450
Persons under 16 years olds 500
Employed 217
Unemployed 424
Unemployment Rate

ECONOMIC ACTIVITIES: Tribal economy is based on cattle ranching, tourism, river raft trips, hunting and fishing expeditions, cutting timber and crafting traditional and modern folk art. Tribal, public school, state and federal governmental services provide most of the full time employment.

COMMUNITY FACILITIES: Peach Springs has a general store, two service stations, a senior citizen's center, tribal museum and print shop, hunting lodge, gymnasium, community center, youth center, rodeo arena, skills center, three churches, Head Start center, and a elementary school.

CULTURAL EVENTS: Annual All Indian Invitational Sports Tournaments are held throughout the year. Memorial gatherings take place in the spring and summer. Rodeos and parades, pageants and fashion shows are held in conjunction with Indian Day in the fall. Celebrations of seasonal harvesting of native plants and gardens unite the community, as do social and ceremonial gatherings, dances, fumtures and festivals. Contests for prizes awarded for writing or artistic talents are held. The community also celebrates special holidays with school events.
THE HUALAPAI LANGUAGE

The Hualapai language is a vital part of the community and a critical link with tribal heritage. The oral tradition of the Hualapai transmits the language, history, values, and mores of the culture. Oral tradition teaches the way things are to be: sharing, helping one another, living in harmony with nature, and the basic philosophy of the culture. Oral tradition is the conveyer of memories passed on from generation to generation; memories of the land once occupied by the Hualapai, contacts with other tribes, their history; it tells the people who they are today on the basis of who they were yesterday.

Hualapai belongs to the Yuman language family. With its several dialects, it is one of the three Upland Pai languages (Hualapai, Havasupai and Yavapai). Hualapai is the language of family and home life. A recent home-language survey indicated that 91% of the students hear Hualapai spoken at home by one or more adults. Hualapai traditions and cultural knowledge used to remain outside the sphere of formal school activities until the advent of bilingual education.

HUALAPAI ORTHOGRAPHY

a a: ae ae: aw ay
b ch d d e e:
ey f g h i i:
j k l m n ng
ny o o: p q s
sh t t th u u:
uy v w y

Home Language Use
Proficiency
K-8
Arizona State Home Language Survey

English Language
Proficiency
K-8
IOWA test of Basic Skills (ITBS)
[Reading, Language, and Math]

Hualapai Oral Language
K-8
Hualapai Oral Language Test (HOLT)

Written Language Proficiency
K-8
Writing Sample Holistically scored LAS Writing

Oral English Proficiency
K-8
Language Assessment Scale (LAS)
HISTORY OF BILINGUAL EDUCATION
AT PEACH SPRINGS SCHOOL

1975-78
Bilingual Education Basic Program Funded
Writing of the Hualapai Language Begun
Began Development of the Hualapai Cultural and
Environmental Curriculum (HCEC)
Staff Trained in Hualapai Literacy
Language Proficiency Instruments Developed
Producer of Classroom Materials Begun
Hualapai Dictionary and Primers Published
Attended SI NA Summer of 1976
Founded and Began Yuman Language Institutes Summers of 77 & 78

1978-81
Second Basic Program Funded
Continued Language Study
Hualapai Reference Grammar Completed
Continued Writing of Units and Lesson Plans
Publication of Language Arts Guide and First Hualapai
Studies Curriculum Guide and Calendar
Publication of Anthology and Mescal Book
Founded and Began American Indian Language
Development Institutes Summers of 1979, 80, and 81
One Hualapai Bilingual Aide received Bachelor of Science Degree

1981-84
Funded as Title VII Demonstration Project
HCEC Training Manual Completed
Hualapai Literacy Model Development Begun
Second Expanded HCEC Guide Published
Spirit Mountain Published
13 Native Language Classroom Books Published
AILDI Summers of 1982, 83, and 84

1984-90
Basic Program Funded for Technology
Development of the Hualapai Interactive Technology Model
Computer and Video Technology Added
Staff Training in Computers and Video Technology
Wildlife Book Published
Use of Technology With Hualapai Literacy Model
AILDI Summers of 1985, 86, and 87
Three Hualapai Bilingual Aides Receive B.S. Degrees

1987-90
Funded as Academic Excellence Project
Tradition and Technology Training Manual Published
Model Replication Began at Havasupai, Santa Rosa Ranch, Indian Oasis and San Simon Schools

Students learning both
rock writing and English

Bilingual (Talking in
English and Hualapai)
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>The War Department withdrew its troops from Fort Mohave and turned it over to the Interior Department to use as a school for Mohaves, Chemehuevis, and Hualapais.</td>
</tr>
<tr>
<td>1891</td>
<td>Fort Mohave school officials sent a dozen Hualapai children to Albuquerque Indian School without parental knowledge.</td>
</tr>
<tr>
<td>1894</td>
<td>Massachusetts Indian Association sent Miss Calfee to establish a school at Hackberry.</td>
</tr>
<tr>
<td>1896</td>
<td>Bureau of Indian Affairs (BIA) opened a Day School for Hualapais in Kingman.</td>
</tr>
<tr>
<td>1900</td>
<td>Truxton Canyon Indian Boarding School established.</td>
</tr>
<tr>
<td>1930</td>
<td>Bureau negotiated with Mohave County School District to pay tuition for Hualapai students to attend Public School in Kingman, Day School established at Frazier's Well.</td>
</tr>
<tr>
<td>1938</td>
<td>BIA Day School established at Peach Springs (Doll Factory).</td>
</tr>
<tr>
<td>1951</td>
<td>Public School built at Peach Springs (One room-presently Resource Room for Peach Springs School District #8).</td>
</tr>
<tr>
<td>1957</td>
<td>Public School built at present site.</td>
</tr>
<tr>
<td>1967</td>
<td>A $215,000 School Bond Issue passed to expand the size of the school (4 classrooms).</td>
</tr>
<tr>
<td>1975</td>
<td>Beginning of Title VII Hualapai Bilingual Bicultural Education.</td>
</tr>
</tbody>
</table>
HISTORY OF TECHNOLOGY

1975-76  Black and White video camera purchased
1976-77  Franklin Computer and Intercom system installed
1977-78  Cable TV system installed in school (5 off-air channels)
1978-79  Color Video Recorder (VCR) purchased
1979-80  A portable TV was made available for classroom use. Telephones were installed in classrooms, with intercom and cable television capabilities
1980-81  Cable TV installed in all classrooms - 7 channels. VCR cassettes—Mastervideo cassette control system was purchased and installed for school-wide use
1981-82  Several more Apple and Franklin PC computers were purchased for limited classroom use -- Peach Springs Staff Members attended video camera classes offered by Mohave Community College
1982-83  Computers were networked with Hard Disk (5 meg)
1983-84  Installation of a computer lab. Teacher use of computers to enter attendance and lesson plans (10 meg hard disk)
1984-85  Computer Lab was expanded with additional software, purchase of ASSET tape series. T.V., production studio, laser discs and videotapes.
1985-86  All classes were required to use the computer lab. Satellite dish and video production system were purchased. Cable T.V. system was enlarged to 17 channels
1986-87  Apple computers and printers were purchased. Color monitors (25") were installed in all classrooms with an intercom system adapted to dial up VCR programs from all classrooms. Student records, attendance, and most district operations were computerized; 80 meg hard Disk System with 18 complete courses were made available for CAI, and curriculum makes use of word processing
1987-88  Six Macintosh computers were purchased with two LaserWriter printers for office use, materials management, and production. An Apple Talk System connector kit with Apple modem was installed
1990  The Tradition and Technology Project has been funded for a second three year cycle as one of the twelve OBEMA Academic Excellence Programs in the nation.
Peach Springs School is the only educational institution on or within 40 miles of the Hualapai Reservation. The existing school district was established in the mid-1950's. The school administrative, classified currently has a staff of 36 people and 219 students in grades Kindergarten to eighth grade. The students are the fourth generation of tribal members to attend school. The chart below presents information on the Peach Springs staff and students.

<table>
<thead>
<tr>
<th>CURRENT</th>
<th>219</th>
<th>Students, 99% are Indian</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENROLLMENT:</td>
<td></td>
<td>65% Are Hualapai speakers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75% Identified as Limited English Proficient</td>
</tr>
<tr>
<td>SCHOOL STAFF:</td>
<td>78%</td>
<td>Of the Total School Staff are Hualapai</td>
</tr>
<tr>
<td></td>
<td>47%</td>
<td>Of the Certified Staff are Hualapai</td>
</tr>
<tr>
<td></td>
<td>47%</td>
<td>Of Certified staff have Bilingual Education endorsement</td>
</tr>
<tr>
<td></td>
<td>53%</td>
<td>Of Certified staff have ESL endorsement</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>Of Bilingual Instructional Aides are enrolled in college degree program</td>
</tr>
<tr>
<td></td>
<td>10.7</td>
<td>Average Number of Years For Certified Staff taught at Peach Springs School Dist. #8</td>
</tr>
<tr>
<td></td>
<td>6.2</td>
<td>Average Number of Years For Bilingual Instructors taught at Peach Springs School Dist. No.#8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average Number of years for Administrative Staff is 15 years.</td>
</tr>
</tbody>
</table>
PROGRAM SUCCESS FACTORS AND COMMITMENT

During the Tradition and Technology (TNT) Program's fifteen years of operation, students' academic achievement and language skills have significantly improved. These improvements are attributable to a marked increase in students' motivation and interest in a curriculum that reflects their language and culture. Success is also reflected in the repeated positive responses of parents, community members, classroom teachers, and the students themselves. The Arizona Department of Education gave the school special commendation for the program's scope, the design of the Hualapai curriculum, the materials development component, and for educational innovation. Program elements that have made the Hualapai Bilingual Program successful are described below.

Long-Term Support By School Board And School Administration Strong, consistent School Board and administrative direction since 1975 has provided the TNT Program a system of accountability, and assurance that Hualapai language and culture curriculum will continue. In 1981, the Peach Springs School Board concluded that the programs' approach was effective and sensitive to Hualapai students' academic needs and the educational goals of the community, and adopted the TNT Model as the school's Core Curriculum.

Long-term Support By Parents, Community Members, And Tribal Government Parents and community members are aware of and involved in on-going program development and implementation. Hualapai elders and community members assist in classroom activities, language and cultural materials development, writing grant proposals, and dissemination of program information. The Parent Advisory Committee (PAC) is active in policy making and makes recommendations on all Federal Programs decisions to the School Board. The Tribal Council is consulted for assistance in developing materials, recruiting resource people, developing proposals, and disseminating information about the program. They also decide on which elements of Hualapai language and culture are appropriate to be included in the school curriculum.

Commitment To Staff Development And Training A major program focus is staff development involving the bilingual staff, faculty, and community members. Involving parents and elders increases the feeling that the program "belongs" to them. Training of all personnel has a multiplying effect; the greater personal investment participants have in the program, the more willing they are to ensure continued success. Bilingual aides see their future with the Peach Springs School District because the skills they learn are applicable chiefly in the local context and training is given for college credit. Four aides have received their degrees since the program began. Approximately 80% of the previous year's staff remain each school year, which provides curriculum continuity and classroom stability for students.

Parent participation in school

BEST COPY AVAILABLE
Policy For Commitment To Implementation And Integration

Training in curriculum implementation and integrative instructional strategies is ongoing. The bilingual instructional staff are required to participate in training activities which upgrade their skills. They assist the classroom teachers, who are responsible for incorporating the Hualapai Program into daily class activities. Non-certified and certified personnel work together in a team-teaching approach to ensure program success.

Improvements In Student Motivation And Attendance

The inclusion of culturally and linguistically relevant materials in the school curriculum has had numerous positive results. Student motivation is reflected in improved test scores and increased attendance rates. Students over time are able to reap the cumulative benefits of continuous and consistent instruction. Through Title VII training activities, staff skills have improved. And with the low staff turnover rate, teachers and aides are better able to plan and implement an exciting curriculum for the students.

Commitment To Quality Materials Development

The TNT Program made a commitment to the production of attractive, high quality, curriculum materials. The TNT staff believes the manner in which subject matter is presented is as significant as the actual content of the materials. Extensive materials development has taken place, providing students with many culturally-oriented materials comparable in quality to other curricula used in the classroom.

Evaluation Results

A strong Evaluation Component has contributed to the success of the TNT Program. Ongoing evaluation and systematic feedback allows for continued improvement in the TNT Program. A review of the level of implementation of each program component is completed during the evaluator's site visits, and recommendations for successful program implementation is provided. Both qualitative and quantitative information is used to continue to refine and improve all components of the program. Summative data for completion of the annual evaluation report is collected during site visits and at the end of each project year.
The Tradition and Technology (TNT) Program promotes a positive order of beliefs: that man is a social being who interacts with his world in a significant role in harmony with nature; that the nature of man is active; and that knowledge results from the interaction of man and his environment. Wisdom is identified as the dynamic process of becoming and the purpose of life is to develop human uniqueness. An individual's culture and language shapes his perceptions and values. Each individual is important to the community, and everyone plays a significant role within the community. Each American Indian tribe holds its own unique beliefs and values, which are reflected in the language and culture of the community.

In keeping with the stated experiential philosophy of the Tradition and Technology (TNT) Program, the Hualapai Literacy Model (HLM) and the Hualapai Interactive Technology Model (HITM) add to and strengthen the Core Curriculum. The TNT Program believes that language development occurs in all curricular areas, and a holistic language approach is integrated throughout the school program. Language learning occurs when the individual is actively engaged in tasks in which he discovers and explores concepts familiar to his environment. Maximizing the best possible use of technology expands students' conceptual ability. Man is forever evolving and adapting to environmental and technological changes. Peach Springs School has demonstrated that technology plays an important role in supporting, enriching, and expanding the school curriculum and assists in the implementation of all aspects of the bilingual education curriculum.
Life is education and education is a continuous, life-long process. Learning is holistic and includes mental, physical, and affective processes. Children learn and express themselves best in the language of the home and community. Humans learn through experience and learning takes place through a developmental process. To take the risks necessary for learning, the child needs a strong sense of personal worth and high self-esteem. Learning is maximized when teaching builds on the child's strengths. Learning and teaching styles at home allow children to freely explore their environment with peers, to interact with others and with their environment. Students are taken for direct experiences with local community resource people, natural materials and local sites. Teachers act as mentors, facilitators of learning, and co-inquirers in the learning process. Learners are given options or alternatives and held responsible for the decisions they make. Problem solving is an important learning strategy. Intelligence is viewed as an active, continuous, organized process of adaptation to the social and physical environment.

This holistic approach to learning, based on cognitive field learning theory, requires that learning activities be open for replication and communication through a wide variety of experiences. Perceptions differ from one individual to another. Genuine learning requires that students construct meaning for himself. Any and all subject areas provide opportunity for the students to speak, listen, read, write, and communicate clearly. In the TNT Program, all aspects of language learning are considered part of a whole, the major function of which is communicative competency. As an important part of the learning-teaching process, all students and teachers are provided access to the use of technology. The teacher is viewed as the most important part of the educational program. Technology provides teachers with more time to teach. Technology is a tool and a motivational factor for more effective student learning.
THE HUALAPAI CULTURAL AND ENVIRONMENTAL CURRICULUM MODEL

The educational program at Peach Springs School integrates Hualapai culture and incorporates a variety of cultural and environmental experiences in the learning activities of the students. The Hualapai Cultural and Environmental Curriculum (HCEC) was developed using Tyler's classic curriculum model. Nine stages of development form the “process model” used for program development and program replication. The organizing principle of the curriculum is thematic units. Themes formulate the content of the units and are based on topics relevant to the Hualapai Indian community. Each unit theme is developed with increasing complexity in four developmental levels from Kindergarten through eighth grade. This spiral organization insures the continuing development of the child's concepts and cognitive skills.

Learning experiences are incorporated into all the curriculum units utilizing activities which require active student participation and use of concrete materials. Children proceed at their own rate, using their own styles, learning through observation of community role models and demonstration teaching methods, through use of materials from the local environment, use of the natural environment as an alternative classroom, and use of the values and norms of the community as the basis for classroom interaction.

Curriculum materials relate to life and experiences on the Hualapai reservation. Discovery and experiential activities are integral to the curriculum implementation. Field trips are used to explore the local environment, such as the geological formations in the Grand Canyon. Activities include interviewing elders, harvesting native foods, round up, reading rock writing, and researching traditional stories. The Hualapai and English languages are used throughout all instruction in a holistic language orientation. All lessons include speaking, listening, reading, and writing in English and Hualapai. Art projects involve crafting materials which reflect the experiences and interests of the Indian child. Finished products are displayed in the school and at community gatherings.

Curriculum guides have been developed for Hualapai Studies, Science, Math, and Language Arts. The themes in these guides provide content that has a special relationship to the community and the environment of the reservation. Each guide includes up to 80 themes or topics that are selected by the teachers as they plan their year-long instructional programs. From the themes, concepts and skills are developed in all the traditional curricula areas, appropriate to grade level requirements of the district and the State of Arizona's Essential Skills Lists.
CULTURAL AND ENVIRONMENTAL CURRICULUM DEVELOPMENT OUTLINE

The curriculum processes outlined below provide a firm foundation for the development of curriculum based on the linguistics and cultural background of a community and its children. This curriculum approach provides a realistic and basic framework for designing curricula to meet the educational needs of the learners and develop the bilingual skills and bicultural knowledge expected by the community. The formulation of educational goals results from a study of the learners and their society, based on contemporary experience and reported research. A comprehensive statement about the learner and the community provides the background and rationale from which educational goals can be inferred.

I. Describe the Characteristics of the Learners
   a) Ages, grades and distribution
   b) Language use at home and school
   c) Learning styles at home and school
   d) Important experiences

II. Describe the Characteristics of the Community
   a) Demographics, tribal affiliation, socioeconomic levels
   b) Social and physical environment, dwellings, settlement patterns, ways people live and work together
   c) Community-related issues and problems
   d) Nature of language usage and its influence

III. State the School's Philosophy of Education
   a) The belief system, values, and their implication for education
   b) Who is man and how does he fit into the world? What is the relationship and interaction between man and nature?
   c) What is education? Traditionally? Today?
   d) What is truth? Does man have choices? How is man flexible? How is man unique?

IV. State the School's Theory of Learning
   b) What role(s) does language(s) play in learning?
   c) Is learning passive? Active? What roles do the community, the environment, adults, other students play?
   d) What content is relevant to the child?
   e) What activities fit the child's learning styles?

V. State the School's Educational Goals
   a) What are the relevant social, political, and economic opportunities in the community?

b) Relevant social, political, and economic opportunities in the broader society?

c) Language use in the community and broader society?

d) Skills necessary to function in the community and broader society?

VI. Select and Organize Content and Materials
   a) Language proficiency tests/linguistic analysis
   b) Culturally and environmentally based thematic units
   c) Materials available, materials needed
   d) District and state requirements

VII. Select and Organize Learning Experiences
   a) New concurrent language methods, literacy development
   b) Experiential based activities
   c) Field trips, use of local environment
   d) Demonstration, observation, use of concrete materials, self-paced materials
   e) Use of technology

VIII. Describe Implementation/Integration Strategies
   a) Team planning, classroom organization, use of guides, use of technology
   b) Team teaching, concurrent language usage
   c) Staff development, coursework, summer institutes
   d) Staff training, preservice and inservice programs, classroom demonstration

IX. Develop Evaluation Design
   a) Student profiles-language assessment, academic performance
   b) Effectiveness of curricula and materials
   c) Evaluation of activities, objectives, and staff effectiveness
   d) Analysis of overall results compared to program goals
The Hualapai Literacy Model (HLM) is based on a natural holistic approach to developing children's communication skills. The language and experiences that the children bring to school form the foundation of the language and literacy curriculum. Each child is encouraged to speak and write about his experiences, developing personal skills according to his level and ability. Use of the writing process refines children's thinking skills. It is emphasized across content areas. Use of computers for word processing is an integral part of the writing program. The Core Curriculum is language based. The Hualapai Literacy Model (HLM) uses the new concurrent language method to develop bilingual language skills. Through the processes used to develop children's listening, speaking, reading, writing, and thinking skills. The Hualapai Literacy Model (HLM) demonstrates an effective approach to developing language and literacy skills in two languages.

**VISUAL LITERACY**

**ORAL LANGUAGE**

LISTENING

SPEAKING

**RECEPTIVE LANGUAGE PROCESSES**

**EXPRESSION LANGUAGE PROCESSES**

THINKING

CULTURAL IDENTITY

ENVIRONMENTAL EXPERIENCE

**WRITTEN LANGUAGE**

READING

WRITING

**COMPUTER LITERACY**
THE NEW CONCURRENT LANGUAGE APPROACH

The Hualapai Literacy Model (HLM) is a language maintenance program which uses the new concurrent bilingual language methodology. This approach promotes a balance in the use of two languages while teaching in the content areas. Both languages are used interchangeably according to pedagogic and social-linguistic considerations. Languages are switched to reinforce concepts, vocabulary, cultural awareness, or to respond to cues initiated by the student. In the new concurrent method structural code switching is used to accomplish a specific goal. Use of this method has strengthened Hualapai students' interdependent language and conceptual skills.

THE READING PROGRAM

In the Hualapai Literacy Model (HLM):
Reading is done for a purpose: enjoyment, information, and survival.
Reading is a developmental process and occurs over time.
Reading is not a hierarchy of the skills, but is a continuum of development resulting in comprehension.
Reading is an integral part of all subjects studied.
Reading varies according to purpose, content, and context.
Reading is a transaction—bringing meaning to and taking meaning from text.

THE READING PROCESS

Listening to Literature
  Oral Traditions
  Predictable Books
Language Experience Stories
  Emergent Literacy
  Reading Conference
Independent Reading/Extensive Reading
  Home Reading
  Uninterrupted Sustained Silent Reading (USSR)
  Reading Conference
Sharing Stories With the Total Group
Literature Study Groups/Intensive Reading
  Computer Literacy
  Reading Across the Curriculum

HUALAPAI ORAL TRADITIONS

Hualapai language and history have been handed down for generations through a rich oral tradition. The Hualapai Literacy Model (HLM) is based on and respects this heritage. The HLM Model encourages the continuation of oral traditions by using elders in the school and by helping the students to learn the stories and history of their people. Stories and legends relate to environmental sites as well as tribal history. Oral traditions provide the students with a strong cultural identity, the values and morals of the Tribe, and a knowledge of Hualapai history, as well as a foundation for language learning. This strong oral language base is important in the development of communicative competencies.

THE WRITING PROGRAM

In the Hualapai Literacy Model (HLM):
Writing is done to communicate.
Writing is integrated into the total curriculum.
Writing is used to develop meaning and the ability to think.
Writing is used to learn sound/symbol relationships.
Inventive spelling is an early form of writing and is important in helping the student to develop fluency.
Writing is used to allow an individual to express herself/himself creatively.
Writing is done to clarify information and perceptions—to construct meaning.

THE WRITING PROCESS

Topic Selection
  Rehearsal/Writing Conferencing
  Webbing
Drafting
  Fluency
  Writing Conference for Clarity
Revision
  Writing Conference/Group Meetings
  Correctness
  Editing
Publishing
  Book Making
  Sharing Written Work/Authors Chair
TYPES OF WRITING
  Journal Writing/Logs
  Dictation/Chart Writing
  Narrative/Descriptive/Technical
  Writing Across the Curriculum
Computer Word Processing and Graphics Are Used For Writing, Editing, and Publishing
HUALAPAI INTERACTIVE TECHNOLOGY MODEL

The Hualapai Interactive Technology Model (HITM) is designed to expand, support, and enhance the classroom instructional program, and to provide students with motivation for learning. The HITM Model has four major technological components that are intrinsically interrelated. Each component has discrete functions as well as interacting with other technologies. These components include a computer network system, an instructional print media development system, an instructional television system including video and optical laserdiscs, and an interactive telephonintercommunications system connecting these technologies. The charts on these pages outline in detail the administrative and classroom uses of each of the model's technological components. Peach Springs School has been an innovative leader nationwide in its use of interactive technologies to expand and enrich its environmental and support the culture-based bilingual education curriculum.
INSTRUCTIONAL TELEVISION, VIDEO AND OPTICAL LASERDISC

Instructional television, video, and laserdisc technology maximizes visual and auditory learning styles of students. Student TV and video productions include use of TV sound studio and closed circuit TV system, camcorder, portable editing system, character generator and sound mixer-stereo console.

TNT VIDEO SYSTEM
HUALAPAI INTERACTIVE TECHNOLOGY MODEL

INSTRUCTIONAL TELEVISION, VIDEO AND OPTICAL LASERDISC

Instructional television, video, and laserdisc technology maximizes visual and auditory learning styles of students. Student TV and video productions include use of TV sound studio and closed circuit TV system, camcorder, portable editing system, character generator and sound mixer-stereo console.

TNT VIDEO SYSTEM
HUALAPAI INTERACTIVE TECHNOLOGY MODEL
Successful implementation and integration of the Tradition and Technology (TNT) Program into the Core Curriculum of Peach Springs School has occurred because of two factors: A School Board Policy making a commitment to bilingual curriculum implementation and integration with administrative support to ensure classroom level success; and effective instructional strategies used to integrate and incorporate the key features of the three program components, Hualapai Cultural and Environmental Curriculum (HCEC), Hualapai Literacy Model (HLM), and the Hualapai Interactive Technology Model (HITM). Instructional strategies that lead to program implementation have been identified for each of the curriculum component models, as well as strategies that assist in overall program integration. These strategies reflect program goals and objectives and provide specific methods for implementing and integrating a bilingual curriculum into a total school program.
INSTRUCTIONAL STRATEGIES

IMPLEMENTATION OF HCEC MODEL

Determine Objectives for each grade level using the District Adopted Hualapai Curriculum Guides
Specify classroom goals and objectives
Identify concepts and skills to be taught
Develop year long plan selecting grade level and special interest themes
Determine time requirements
Correlate with Arizona State Standards
Participate in Pre-Service Orientation/Training

IMPLEMENTATION OF HLM MODEL

Certified Teacher and Bilingual Instructional Aide utilize Hualapai and English using the New Concurrent Approach
Integrate use of languages throughout school day
Individualize language development
Plan for content area vocabulary development
Provide experience-based language activities
Use Hualapai as medium of instruction and to reinforce and expand concepts
Plan literature-based Reading Program
Plan process approach Writing Program
Participate in on-going literacy training

IMPLEMENTATION OF HITM MODEL

Outline use of Technology and Media in all content areas and throughout the school day
Plan computer use of Computer Managed Instruction (CMI), Computer Assisted Instruction (CAI), Word Processing, and Materials Production
Plan for Video use and video production
Schedule Instructional Television (ASSET), Video and Laserdisc viewing
Develop class video production
Utilize interactive technologies
Participate in on-going technology training

INTEGRATION OF PROGRAM MODELS

Develop detailed operational plan for each theme, including language use and use of technology and media
Plan weekly with Teacher, Aide, and Bilingual Staff
Bilingual staff provide assistance and support through joint planning, materials selection, classroom demonstration and peer coaching
Submit plans to Principal two weeks prior to teaching date
Instructional leadership through Principal and Director observations and feedback
Attend ongoing training for consistent and effective classroom implementation
Ongoing student assessment and program evaluation
Formal institutionalization of program through School Board Policy
The Tradition and Technology Program has a commitment to the production of attractive, high quality, curriculum materials. Students are provided with culturally-oriented materials comparable in quality to other curricula used in the classroom. Many locally developed bilingual classroom materials are used to support the teaching of the Core Curriculum. Bilingual classroom materials published using the Hualapai language are listed below.

### Hualapai Classroom Materials

**Hualapai Dictionary**, 160 pp., 1976

**Hualapai Primers (4)**, 16 pp., 1978

**Hualapai Calendar**, (black and white), 12 pp., 1979

**Hualapai Language Arts Guide**, 214 pp., 1980

**Hualapai Calendar**, (full color), 12 pp., 1981

**Hualapai Reference Grammar**, 452 pp., 1981

**Kathad Ganavj**, (Anthology of Hualapai Stories), 453 pp., 1981

**Viyal Nyuk**, (Book of Mescal), 20 pp., 1981

**Ethnobotany of the Hualapai**, 61 pp., 1982

**Hwalbay Gwadi: Hwalbay Spudi**, (Hualapai Cradleboard), 22 pp., 1982

**Hwalbay Gwe Gwi: Gwe Bu v**, (Hualapai Basketry), 21 pp., 1982

**Gigismas'm Mahank Miyuja**, (Merry Christmas), 24 pp., 1983

**Gwede Gaded'm G'manka**, (The Toy That Fell Out of Santa's Sleigh), 18 pp., 1983

**Gwe Ga Wichjik**, (Action Book), 16 pp., 1983

**Haka'am Gimi.jk**, (Colorado River Running), 18 pp., 1983

**H'de**, (Prickly Pear Book), 16 pp., 1983

**Ko'**, (Pinyon Book), 20 pp., 1983

**Monad**, (Banana Yucca Book), 16 pp., 1983

**Nya Hwalbay Yivch Yu**, (I Am A Hualapai), 22 pp., 1983

**Waksi: 'rich Hualapai**, (Cattle Ranching), 34 pp., 1983

**Historic Sites of the Hualapai**, 41 pp., 1984

**Hualapai Cultural and Environmental Curriculum Guide** (Social Studies and Science), 314 pp., 1984

**Spirit Mountain**, (Yuman Anthology of Stories and Songs), 344 pp., 1984

**Wildlife On The Hualapai Reservation**, 92 pp., 1986

### Hualapai Environmental Science

The **Hualapai Environmental Science Curriculum** contains thirty-three themes. The science curriculum is supplemented with *The Ethnobotany of the Hualapai*, a study of the plants on the reservation listing the scientific name, the Hualapai name and uses for the plant.

**Unit Themes:**
1. Air and Space Travel
2. Air
3. Anthropology
4. Applied Science
5. Archeology
6. Astronomy
7. Biology
8. Botany
9. Careers in Science
10. Chemistry
11. Classification
12. Ecology
13. Electricity and Comm
14. Electricity & Magnetism
15. Growth & Development
16. Health
17. Light
18. Matter and Energy
19. Measurement
20. Mechanics
21. Physiology
22. Psychology
23. Rational Thinking
24. Science Projects
25. Sense of Hearing
26. Sense of Smell
27. Sense of Taste
28. Sense of Touch
29. Sense of Vision
30. Vision
31. Sound
32. Statistics
33. Water
34. Zoology

### Hualapai Mathematical Concepts Development Curriculum

The **Hualapai Math Curriculum** supplements the school's regular program and takes into consideration special needs and mathematical concepts specific to the Hualapai Indian child. It suggests activities that can be incorporated into the thematic units to teach concepts and skills development.

**Unit Themes:**
1. Developing Spatial Concepts
2. Sets
3. Seriation
4. Math Sentences
5. Number Sentences
6. Shapes and Geometry
7. Area
8. Volume/Mass
9. Movement
10. Graphs
Hualapai Cultural Studies

The Core Curriculum is referred to as the *Hualapai Cultural and Environmental Curriculum (HCCE)*. The *Hualapai Cultural Studies Guide* contains 84 thematic units developed for integrating different subject areas. The study units are culturally-based and relate specifically to the languages and experiences of Hualapai children. These interrelated units represent the curriculum framework of the TNT Model. The child's community, culture, and natural environment are viewed as the real classroom of learning.

**Unit Themes:**

1. Max PRICKY Pear
2. American Indian Day
3. Arizona Indians
4. Baskets
5. Building
6. Bowmaking
7. Calendar
8. Card Games
9. Celebrations
10. Clothing
11. Colors
12. Colorado River
13. Comm. Neighborhood
15. Community Roles
16. Community Services
17. Cradleboard
18. Design
19. Economics
20. Emotions
21. Ethnomedicine
22. Family
23. Foods
24. Gardening
25. Geology
26. Grand Canyon
27. Health & Well Being
28. Heavenly Bodies
29. Historical Sites
30. Household Furnishings
31. Housing & Shelter
32. Hualapai Anthology
33. Hualapai Doll
34. Hualapai Elders
35. Hualapai Leaders
36. Hualapai Paint
37. Hualapai Rugs
38. Hunting
39. Inter Tribal Pow Wow
40. Kindergarten
41. Ko’-Pinon
42. Language Experience
43. Manad-Banana Yucca
44. Mapping Skills
45. Mathematics
46. Measurement
47. Money
48. Music & Instruments
49. Native Animals
50. Native Dyes
51. Natural Resources
52. North American Indians
53. Oral Traditions
54. Poetry
55. Pottery
56. Ranching
57. Reference Skills
58. Reservation
59. Rockwriting
60. Seasons
61. Songs
62. Sweatlodge
63. Symbols
64. Tanning
65. Thanksgiving
66. Time & Clocks
67. Time & Sun Positions
68. Tools & Weapons
69. Topography
70. Traditional Education
71. Transportation
72. Tribal Government
73. Values
74. Viva! Mescal Agave
75. Warriors
76. Weather
77. Weaving
78. Yuman Games
79. Yuman Lg. History
80. Yuman Pow Wow

Hualapai Language Arts and Literacy Curriculum

The *Hualapai Language Arts and Literacy Curriculum Guide* includes listening, speaking, reading, and writing, plus a special section on grammar. Grammar, the structure of a language, enters into all language arts areas. The staff has also produced a comprehensive *Hualapai Reference Grammar* for detailed linguistic analysis. The *Hualapai Reference Grammar* and the objectives in the curriculum guide are cross-referenced.

**Unit Themes:**

1. **Listening**
   - Sounds
   - Speech
   - Directions
   - Recall
   - Emotions & Senses
   - Outcomes and Inferences
   - Description, Comparison
   - Classification
   - Fact & Fantasy
   - Opinion, Fact, Propaganda
   - Context Clues
   - Emotions & Senses
   - Grammatical

2. **Speaking**
   - Pronunciation
   - Vocabulary
   - Description
   - Narration
   - Interviewing
   - Conversation

3. **Reading Readiness**
   - Motor Skills
   - Time and Space
   - Concept
   - Auditory
   - Visual
   - Phonics
   - Alphabet
   - Vowels
   - Consonants
   - Pronunciation
   - Spelling
   - Phonology
   - Reading
   - Comprehension
   - Recall of Details & Main Ideas
   - Cause & Effect
   - Sequence of Events
   - Classification
   - Fact, Fantasy, Opinion
   - Outcome & Inferences
   - Propaganda
   - Relevance
   - Author’s Purpose
   - Emotion & Motives

4. **Reference and Study**
   - Book Format & Pictures
   - Spelling
   - Correspondence
   - Maps, Charts, & Graphs
   - Writing
   - Mechanics
   - Correspondence
   - Spelling
   - Paragraphs & Narrative
   - Creative Writing

5. **Guided Reading**
   - Sight Vocabulary
   - Experience Stories
   - Hualapai Readers
   - Hualapai Stories

6. **Comprehension**
   - Recall of Details & Main Ideas
   - Cause & Effect
   - Sequence of Events
   - Classification
   - Fact, Fantasy, Opinion
   - Outcome & Inferences
   - Propaganda
   - Relevance
   - Author’s Purpose
   - Emotion & Motives

7. **Reference and Study**
   - Concept
   - Auditory
   - Visual
   - Phonics
   - Alphabet
   - Vowels
   - Consonants
   - Pronunciation
   - Spelling
   - Phonology
   - Reading
   - Comprehension
   - Recall of Details & Main Ideas
   - Cause & Effect
   - Sequence of Events
   - Classification
   - Fact, Fantasy, Opinion
   - Outcome & Inferences
   - Propaganda
   - Relevance
   - Author’s Purpose
   - Emotion & Motives

8. **Reference and Study**
   - Book Format & Pictures
   - Spelling
   - Correspondence
   - Maps, Charts, & Graphs
   - Writing
   - Mechanics
   - Correspondence
   - Spelling
   - Paragraphs & Narrative
   - Creative Writing

9. **Grammar**
   - Sentence Types
   - Negation
   - Sentence Structure
   - Word Order
   - Auxiliaries
   - Nouns
   - Nominalization
   - Prepositions
   - Indefinite Pronouns
   - Demonstrative
   - Verbs
   - Verbal Affixes
   - Sound Symbolism
   - Useful Expressions
   - Expanding Sentences
Any school interested in becoming a Tradition and Technology Adoption site must take certain steps and meet adoption site criteria in order to be selected. The Tradition and Technology (TNT) Program includes three Components and involves training for implementation of a Cultural and Environmental Curriculum, a Bilingual Literacy Model, and the use of Interactive Technology. Certain essential elements must already be present in a school if they are to fully and successfully replicate this model. The staff of Peach Springs School has a commitment for training to the Adoption Site. Successful program replication will depend on the commitment and interest of a school and community. Willingness to be involved in curriculum development and innovative program changes will be a key factor in an Adoption Site’s successful implementation of the Tradition and Technology (TNT) Program.
TRADITION AND TECHNOLOGY
CRITERIA FOR ADOPTION SITE SELECTION

A School District or Bureau of Indian Affairs (BIA) School must meet certain established criteria in order to be considered for an Academic Excellence Replication/Adoption Site. Staff from the Peach Springs Tradition and Technology (TNT) Program will make a site visit prior to site adoption to assess if all of the criteria listed below is in place.

I. COMMUNITY AND SCHOOL BOARD COMMITMENT

- Tribal Language Policy or School Board Policy on Bilingual Education
- Active Parent Advisory Committee (PAC)
- Willing to Develop and Implement a Bilingual Education Program
- Parents, Elders, and Community Members Involved in the School
- Supportive Administrators

II. SCHOOL CURRICULUM

- Bilingual Curriculum Using Native Language Instruction
- English Language Program For Limited English Proficient (LEP) Students
- Bilcultural or Multicultural Content
- Commitment to Materials Development
- Whole Language or Language Experience Approach to Teaching Literacy
- Utilizes Computer and Video Technology

III. STAFFING REQUIREMENTS

- Bilingual Teachers or Bilingual Instructional Staff
- Staff Certified in Bilingual Education or English as a Second Language (ESL)
- Staff is Computer Literate
- Staff Trained in Video Technology
- Commitment to Staff Development and Training

IV. EQUIPMENT AND MATERIALS REQUIRED

- Classroom Computer/Computer Network System/Computer Lab
- Computer Software for Word Processing
- Video Equipment
- Access to Instructional Television

V. COMMITMENT TO PROGRAM REPLICATION AND TRAINING

- School Board and Staff Visit Peach Springs School For Observation/Training
- School Board Signs Replication Agreement With Peach Springs
- Staff Release Time For Replication Training
- Specialists Hired For Training in Curriculum, Literacy, and Technology (If Needed)
- Willing to Adapt and Develop Thematic Units With Cultural and Environmental Content
- Willing to Use the Hualapai Literacy Model
- Willing to Integrate the Use of Technology To Support Curriculum
- Willing to Participate in All Required Program Evaluation

VI. EVALUATION

- Collect achievement sub test data on reading, language and math; English oral language assessment; scores, retention; attendance, and placement of individual participating students.
- Classroom implementation data of teacher and staff questionnaires and classroom observations/evaluation.
PROJECT TRADITION AND TECHNOLOGY
Stages and Processes for Program Development
ACTION FLOW CHART

Stage 1: Development of Program Rationale/Action Plan

* Survey language use in community and school
* Identify community characteristics: perceived problems; educational goals
* Determine unique needs of children to be served
* Identify relevant learning-teaching styles

Stage 2: Commitment to Program/Curriculum Plan

* Form Curriculum Committee
* Form Parent Advisory Committee (PAC)
* Form Administrative Support Group: Tribal/Community
* Form Language Committee

Stage 3: Organization and Development of Curriculum

* Outline themes, content, and concepts to be taught
* Outline levels and skills
* Identify methodology to implement curriculum
* Develop curriculum framework

* Develop rationale for bilingual bicultural education
* Formalize plan of action for development and implementation of curriculum
* Formulate plan for acquisition and use of technology
* Write native language and develop material

* Determine what available materials can be used, where curricula "gap"
* Generate ideas for concepts and skills, and for content used to teach concepts and skills
* Select and acquire technological equipment and supporting materials
* Develop native language materials

* Conduct research
* Interview local resource person
* Use native language/culture
* Produce video, adapt software

* State inferred educational goals
* Develop and implement plan to organize curriculum including use of technology
* Support adoption
* PAC: participate as resource persons
* Tribal group support by resolution
* School administration active support

* Organize thematic units by concept or skill
* Organize and develop teacher identified guides using methodology identified
* Develop assessment
* Staff training

Technology (Teaching about computers)
Stage 4: Program Integration/Implementation

**Administration, Curriculum Supervisor, Resource/Target**
- Revise/refine teaching methodology to implement curriculum
- Organize and attend relevant on-site training activities
- Agree on class scheduling including computer lab and video studio

**Instructional Staff, Parents**

**Stage 5: Evaluation/Feedback**

**Curriculum Staff, Principal, Target Instructional Staff, Parents**
- Analyze feedback from teachers, students, and parents on program effectiveness and utility
- Incorporate feedback into ongoing materials and curriculum implementation

**Evaluate effectiveness of:**
- Planning and commitment
- Curriculum organization
- Use of technology
- Training plan
- Parent Advisory Committee
- Evaluate impact on students' achievement and motivation
- Evaluate perceptions of curriculum and use of technology held by community members

**Pilot program**
- Analyze results
- Build results into continuing program development and implementation and evaluation

*Finalize materials and technology for instructional use
*Add supplemental materials unique to community
*Plan evaluative and feedback activities

History of Technology
TRADITION AND TECHNOLOGY
MODEL REPLICA TION TRAINING PLAN
TRAINING TOPICS AND TIMELINES

CULTURAL AND ENVIRONMENTAL
CURRICULUM MODEL
TRAINING PLAN (Year I)

1. CURRICULUM DEVELOPMENT PROCESS
   (2 Days On-Site)
   Curriculum Overview
   Needs Assessment
   Write Philosophy of Education
   Describe Theoretical Base

2. CURRICULUM ORGANIZATION
   (2 Days On-Site)
   Form Curriculum and PAC Committees
   Determine Needed Material
   List Ideas For Content, Concepts, and Skills to be Developed
   Select Universal and Cultural Themes

3. UNIT PLAN DEVELOPMENT
   (2 Days On-Site)
   Ranching Unit
   Unit Plan Format
   Lesson Plan Format

4. IMPLEMENTATION PROCESS
   (2 Days On-Site)
   Completion of 10 Curriculum Units
   Compile Activity Sheets, Charts, and Resources
   Classroom Implementation

5. DRAFT CURRICULUM GUIDE
   (2 Days On-Site)
   Draft Completion of 10 Curriculum Units
   Clearly Outlined Implementation Process to Integrate Curriculum Units

HUALAPAI LITERACY MODEL
TRAINING PLAN (Year II)

1. THE HUALAPAI LITERACY MODEL
   (3 Days On-Site)
   TNT Model Description / Media Presentation Bilingual Language Learning
   The New Concurrent Method
   The Natural Approach to Developing Communicative Competence
   Whole Language Theory and Practice

2. THE WRITING PROCESS
   (2 Days On-Site)
   Constructing Meaning Through Writing
   Types of Writing
   Use of Writing in Thematic Units
   Activities for Writing

3. THE WRITING CONFERENCE
   (2 Days On-Site)
   Using Conferences to Teach Writing
   Editing for Clarity/Content/Correctness
   Publishing Edited Work
   Your Total Writing Program
   Classroom Implementation

4. ORAL LANGUAGE DEVELOPMENT
   (2 Days On-Site)
   Language Acquisition and Development
   Second Language Acquisition
   Listening Activities
   Speaking Activities
   Oral Traditions

5. READING IN THE LITERACY MODEL
   (2 Days On-Site)
   Reconstructing Meaning Through Reading
   Learning to Read
   The Reading Process
   Use of Literature Groups

6. THE READING PROGRAM
   (2 Days On-Site)
   Organizing Your Program/ Individualized Instruction/ Conferences/ Silent
   Reading(USSR)/ Home Reading/ Reference/Study Skills
   Classroom Implementation

7. THE LANGUAGE AND LITERACY CURRICULUM
   (2 Days On-Site)
   Putting It All Together
   Curriculum Units/Student/Selected Reading
   School Plan For Language and Literacy Curriculum
HUALAPAI INTERACTIVE TECHNOLOGY MODEL TRAINING PLAN (Year III)

1. UTILIZATION OF TECHNOLOGY (3 Days On-Site)
   The Role of Technology in the TNT Program
   TNT Model Description/Media Presentation
   Using Computers in the Curriculum
   Computer Literacy/CMI/CAI
   Selecting Software
   Word Processing/Literacy Model

2. MICROCOMPUTER WORD PROCESSING (2 Days On-Site)
   Teacher Applications/Recordkeeping and Management/Materials Development
   Student Applications/CMI/CAI/Educational Games/Graphics
   Word Processing/Writing in Two Languages
   Materials Production

3. ENRICHING THE CURRICULUM WITH INSTRUCTIONAL TV AND
   LASERDISCS (2 Days On-Site)
   Importance of Visual Learning
   Using Video and Laserdiscs
   Classroom Implementation

4. CORRELATION OF TECHNOLOGY AND CURRICULUM UNITS (2 Days On-Site)
   List Supporting Computer, Video, Laser, Media, Student and Teacher Developed Materials For Each HCEC Curriculum Unit

5. VIDEO PRODUCTION TECHNIQUES (2 Days On-Site)
   Video Production/Communication Skills Elements of Video Production
   Scripting/Story Boards/Editing
   Final Production

6. PRODUCING CULTURAL MATERIALS (2 Days On-Site)
   Review/Share Videos
   Critique Video Products
   Video of Elders/School Events/Field Trips

7. TECHNOLOGY AND CURRICULUM INTEGRATION (2 Days On-Site)
   Put It Together/The Enriched Curriculum
   Curriculum Units and Technology Support
   School Plan/Guidelines For Technology Use
HUALAPAI BILINGUAL ACADEMIC EXCELLENCE PROGRAM
REPLICATION AGREEMENT
BETWEEN
PEACH SPRINGS SCHOOL DISTRICT #8
AND THE ___________________________ SCHOOL BOARD

PEACH SPRINGS TO PROVIDE

The Peach Springs School District #8, through funding under ESEA Title VII, Bilingual Education Act, Academic Excellence Program grants, agrees to:

I. Provide on site training and materials to the Adoption school staff in the following areas:

A. TRAINING
   Year I  Site visit, begin 8 days of training on implementation of the Hualapai Cultural and Environmental Curriculum (HCEC)
            Site visit by Program Evaluator
   Year II  Provide 8 days of on-site staff training in the Hualapai Cultural and Environmental Curriculum (HCEC) and the Hualapai Literacy Model (HLM)
            Site visit by Program Evaluator
   Year III Provide 8 days of on-site staff training Cultural and Environmental Curriculum (HCEC), Hualapai Literacy Model (HLM) and the Hualapai Interactive Technology Model (HITM).
            Site visit by Program Evaluator

B. MATERIALS
   Training on the three components, ten (10) unit Curriculum Guide, copies of Hualapai Bilingual Materials Handouts and other materials for training

II. At the end of the third year, the Peach Springs School District #8, will provide the ADOPTION SITE School Board with a copy of the final evaluation report.

REQUIREMENTS FROM ADOPTION SCHOOL

The ADOPTION SITE School Board agrees to:

1. Replicate the Hualapai Bilingual Academic Excellence Program: Tradition and Technology, making a commitment to effectively implement the program including:
   a. The Hualapai Cultural and Environmental Curriculum Model (HCEC) adapting, developing and utilizing culture-based teaching units;
   b. The Hualapai Literacy Model (HLM) using a whole language approach with emphasis on writing;
   c. The Interactive Technology Model (HITM) using computers and computer assisted instruction (CAI), video production and educational television.

2. Implement the Hualapai Bilingual Academic Excellence Program: Tradition and Technology in order to improve the English-language skills of the Limited English Proficient (LEP) students in their schools, as has been done at Peach Springs.

3. Make a commitment for staff to participate in training at the local school by providing the necessary release time.

4. Hire specialists (or continue use of) in the areas of curriculum development, language and literacy development, and technology, as needed.
Send selected board members and school personnel to visit the Peach Springs School Program once a year during the three-year period.

6. Provide the necessary equipment to implement the Hualapai Interactive Technology Model (HITM), which includes computers and video equipment.

7. Participate in the necessary evaluation processes required for the ESEA Title VII Academic Excellence Grant Replication Site:

**Year I**

A. Collect individual student base-line data on participating students to include:
   1. Achievement Test Data (district used tests), subtests of reading, language and math
   2. English Oral Language Assessment Scores (district tests or other assessment) used to Limited English Proficient (LEP) students
   3. Additional student information on attendance, retention and placement of students

B. Classroom Implementation Data to include:
   1. Teacher and Staff Questionnaires
   2. Classroom Observations

**Year II**

A. Collect individual student data on participating students to include:
   1. Achievement Test Data (district used tests), subtests of reading, language and math
   2. English Oral Language Assessment Scores (district tests or other assessment) used to determine Limited English Proficient (LEP) Students
   3. Additional student information on attendance, retention and placement of students

B. Classroom Implementation Data to include:
   1. Teacher and Staff Questionnaires
   2. Classroom Observations

**Year III**

A. Collect individual student data on participating students to include:
   1. Achievement Test Data (district used tests), subtests of reading, language and math
   2. English Oral Language Assessment Scores (district tests or other assessment) used to determine Limited English Proficient (LEP) students
   3. Additional student information on attendance, retention and placement of students

B. Classroom Implementation Data to include:
   1. Teacher and Staff Questionnaires
   2. Classroom Observations

Peach Springs School District #8 and Said Adoption Site hereby enter into a cooperative agreement to provide services and replicate the Hualapai Academic Excellence Program: Tradition and Technology.
ADOPTION SITES

In 1987, there were ten schools who indicated that they wanted to replicate Project TNT. All of the schools visited Peach Springs School for the initial site visitation. Three of the schools signed an agreement to replicate in 1988. In 1989, Kayenta Boarding School signed an agreement to replicate the Project TNT.

SANTA ROSA RANCH SCHOOL
Santa Rosa Ranch School is located 25 miles east of Sells, Arizona. Santa Rosa Ranch School is a Bureau of Indian Affairs school. The total number of faculty is fifteen. The student enrollment is 125. The students are 80% Limited English Proficient and are fluent Tohono O’odham speakers.

INDIAN OASIS SCHOOL
Indian Oasis Public School is located in Sells, Arizona on Highway 86 on the Tohono O’odham Reservation. It is 50 miles west of Tucson, Arizona. The K-3 school has an enrollment of 523 students and a staff of fifty nine faculty members. Sixty percent (60%) of the students are Limited English Proficient.

SAN SIMON SCHOOL
San Simon School has a faculty of fifty three and a student enrollment of 318 students in grades K-8. The students are dominate Tohono O’odham speakers and are 90% Limited English Proficient. San Simon School is a Bureau of Indian Affairs School and is located 35 miles east of Ajo on Highway 86 or 85 miles west of Tucson.

KAYENTA BOARDING SCHOOL
Kayenta Boarding School is a Bureau of Indian Affairs school which has an enrollment of 355 K-8 students. The school has a staff of ninety five. Forty are faculty members. Kayenta is located in the four corners area of northeastern Arizona.