

# **Retaining American Indian/Alaskan Native Students in Higher Education: A Case Study of One Partnership between the Tohono O'odham Nation and Pima Community College, Tucson, AZ**

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Curriculum developers and faculty working with American Indian students in traditional Eurocentric higher education institutional settings face many challenges. These include the development of culturally responsive, community-based programs that meet students' needs, encourage and support student persistence and retention, and integrate culturally relevant materials into required coursework. Licensing programs must also meet institutional, state and federal professional certification requirements. The purpose of this paper is to examine the complex contextual factors that influenced the development of one educational partnership with a student completion rate of just over 40%. The functional/collaborative model used to plan, design and implement the program is discussed. Variables are examined that influenced the development of a culturally responsive English and writing curriculum. Factors are identified and discussed that resulted in a successful partnership in which all stakeholders participated. Implications of those factors for curriculum planning, implementation, and evaluation of programs serving American Indian students are discussed.

## **Introduction**

**A**merican Indian/Alaskan Native students comprise one of the most marginalized groups in the United States with respect to education (Gordon, Piana, & Keleher, 2000; Perry, 2002). Since the 1960s, researchers have worked to identify and understand the complex reasons for their high dropout rates and understand why those high rates persist. In the 1980s and

1990s, better data management systems enabled scholars to more accurately document the magnitude of the problem. Bowker (1993), for example, estimated that 50% of the American Indian/Alaskan Native children entering kindergarten were not expected to graduate from high school. Wright and Tierney (1991) found that for every 100 ninth graders, 60 graduated, 20 continued to college, and three graduated with a four-year degree. In their comprehensive review of dropout related research, Swisher and Hoisch (1992) noted that dropout rates vary by nation and location. Nationally, estimates ranged from 30% (Deyhle, 1992; Swisher, Hoisch, & Pavel, 1991) to as high as 90% for some. Although the dropout rate has improved slightly, American Indian/Alaskan Native students still drop out at a higher rate, with an estimated national average of 29% as compared with approximately 16% for their white counterparts (Bauman & Graf, 2003). The exact numbers are not known since “the federal government agencies discontinued reporting specific data on American Indians after survey year 1994” (Jefferies, Nix, & Singer, 2002, p. 38).

From the 1960s to the present, researchers also conducted studies to provide greater insight and understanding of the factors related to American Indian/Alaskan Native students’ reasons for leaving school. A primary factor was the lack of American Indian/Alaskan Native teachers. In 1990, fewer than 13% of the teachers of American Indian students were American Indian and that number was reduced to just over 3% at the high school level (Bowker, 1993). On reservation schools, the statistics were similar. Pavel, Curtin, and Whitener (1998) estimated that 90% of the teachers on reservations were non-Indian. In 2002, Perry (2002) found that “even in reservation primary and secondary schools, the majority of teachers and administrators are White rather than American Indian/Alaskan Native” (p. 38).

Other factors that affect American Indian/Alaskan Native students’ decision to remain in school or leave include the high degree of cultural insensitivity by teachers (Bower, 1993; Doyle, 1992), poor student-teacher relationships (Bower, 1993; Coladarci, 1993), teachers’ lack of respect for American Indian students or their cultures and traditions (Bower, 1993; Mender, 1991), and the disconnect between school culture and the students (Perry, 2002; Platter, Brandt, Witherspoon, & Wong, 1986). The result as Bowker, (1993), Deyhle (1992), and Wax (1967) found is that students often leave because they feel “pushed out” and that they do not belong.

Today, the high dropout rate for American Indian/Alaskan Native students and the conditions that have traditionally influenced their leaving school still persist (Delisio, 2001). Jefferies, Nix, and Singer (2002) argue that they are “among the most ignored group of students in American education” (p. 38). Despite 40 years of extensive research (Demmert & Towner, 2003), traditional public high schools, rural and urban, are still failing American Indian/Alaskan Native youth. A recent 2005 complaint filed with the Office of Civil Rights by the ACLU on behalf of the Rosebud Sioux Tribe illustrates this failure (ACLU 2005a, 2005b).

At the post-secondary level, additional challenges face American Indian/Alaska Native students. These challenges were identified by Barnhardt (1992) and have been documented by other researchers (Weaver, 2000). They include the lack of role models and mentors on campus, a campus culture that often does not value and does not accommodate cultural differences (Tierney, 1992), low expectations by professors, stereotyping, and institutionalized racism (Hornett, 1989; Perry 2002). Tribal colleges have ameliorated the dropout rate for some students by providing educational programs that include “preservation of tribal history, culture, and traditions with academic preparation, vocational training, and basic adult education” (Brown, 2003, p. 36). The lack of access to higher education and “the low rate of success American Indians [experience] in mainstream institutions” (Brown, 2003, p. 36), however, is still a concern. According to data from the National Center for Educational Statistics (2005), American Indian/Alaskan Natives comprise 1% of students enrolled in postsecondary institutions and .8% of all postsecondary degrees conferred 2002-2003.

Researchers have identified critical factors related to cultural issues and deep patterns of institutionalized racism (Gordon, Piana, & Keleher, 2000) that affect American Indian/Alaska Native students’ school experiences and dropout rates. Mander (1991) found that the majority of people educated in U. S. public schools have “never been offered one course, or even an extended segment of a course, about the Indian nations of this continent, about Indian-Anglo interactions (except for references to the Pilgrims and the Indian wars), or about contemporary Indian problems in the U.S. or elsewhere” (p. 197). Most Anglo-Americans are completely unaware of the ways in which “their own culture has conditioned their ways of thinking, [feeling, perceiving, and behaving] and planted within them the values and assumptions that govern their behavior” (Stewart & Bennett, 1991, p. x). Nel (1992) documented that approximately 90% of the teachers in this country are Anglo-Americans raised in predominantly Eurocentric communities who had little or no knowledge of contemporary American Indian/Alaska Native communities, languages or traditions. In 2002, the lack of knowledge still persists; “American Indian history, culture, and language courses are few and far between, as if their experiences were irrelevant to ‘American’ education” (Perry, 2000, p. 38). As Weaver (2000) noted, many European-American professionals approach their work from a color-blind perspective because they have not been trained to do otherwise.

The lack of preparation to work with American Indian/Alaska Native students extends to the postsecondary level where the majority of faculty and administrators at colleges and universities is Non-Indian. Thus, a major challenge facing curriculum developers and teachers working with American Indian/Alaska Native students attending traditionally Eurocentric institutional settings is the development of culturally responsive, community-based programs (Campbell, 1991; Locust, 1988). Such programs serve the following functions: meet the needs of the students and encourage persistence and retention, integrate culturally relevant materials into required coursework, meet institutional requirements, and

“take into account the aspirations of stakeholders in order that [schooling] might be meaningful to their lives and to their own developmental needs” (Carney, 2003, p. 97). At the post-secondary level, program developers and faculty may also need to consider state and federal academic and professional graduation and certification requirements.

### **Purpose**

The purpose of this paper is to examine the complex contextual factors that influenced the curriculum development and delivery processes for one educational partnership between the Tohono O’odham Nation and the Pima Community College School of Nursing in Tucson, AZ. The partnership was initiated in 1995 to address a critical need on the reservation for qualified health care personnel to staff the nursing home that was to be built by the tribe. The program was designed for non-traditional students living on the reservation to complete general College and Nursing program requirements for admissions, meet degree requirements for an Associate of Arts degree (AA) and/or obtain certification in a health related profession. By spring 2001, six of the 24 students who participated in the program had received AA degrees and licensure as Licensed Practical Nurses (LPN), two were Practical Nurses (PN), and two had completed the requirements for their Certified Nursing Assistant (CNA) certification for a completion rate of just over 40%. By 2003, one of the LPNs had completed her Registered Nurse (RN) degree through the University of Arizona.

In the rest of the paper I discuss the social context within which this program was developed. I identify and discuss curricular concerns-such as, knowledge, curriculum realities, and valued activity within the institutional structure of Pima Community College (PCC)-that related to the development of a culturally responsive and needs-based reading and writing program. These concerns affect the development of partnerships with American Indian/Alaskan Native Tribes and traditional (Eurocentric) institutions of higher education, as well as the persistence and retention of American Indian/Alaskan Native students. Finally, I discuss the functional-collaborative approach (Hallman, Campbell, & Ernst, 1992; Ventriglia, 1983) that was used to develop the overall program and the developmental reading and writing curriculum that was taught the first year.

A functional-collaborative approach is different from the traditional top-down approach in which experts design and deliver a program to a client. Instead, all stakeholders are seen as equal partners, each with knowledge and expertise. The approach is based on shared responsibility and involves all stakeholders as participants in decision-making during the planning, design and implementation of a program (Carney, 2003; Hallman, Campbell, & Ernst, 1992). All contribute according to their expertise and role within the program structure. Theoretical and cultural understandings, procedural knowledge and experience produce not only an innovative program, but, more importantly, curricula with practical classroom relevance. Ideally, such a program renders “the performance of the educational function more enlightened, more humane, more truly educational than

it was before” (Dewey, 1929, p. 76). Ultimately, the functional-collaborative approach acknowledges “the teachers [and students in the classrooms] are the implementers of any programs and models” (Hallman, et al., 1992, p. 248).

### **Overview and Context: Pima Community College**

Pima Community College (PCC) is located in Tucson, AZ approximately 65 miles east of the Tohono O’odham reservation. PCC is comprised of five separate campuses that serve Pima County and has open enrollment. There are no entrance requirements in the traditional sense, but students have to take college assessments in reading, writing, and mathematics to demonstrate that they can benefit from college level courses. If they place into developmental courses, they still have the right to decide not to take those classes. PCC serves more than 69,000 students of which 28% are full-time students pursuing an AA degree and an additional 14,000 students take non-credit classes. Seventy-five percent of the students are high school graduates and 25% have completed their Graduation Equivalency Diploma (GED) or have demonstrated on assessment examinations their ability to benefit from college classes. Approximately 41% are minority students, and of those 4% are American Indian/Alaskan Natives representing a variety of tribes and nations. The average age for students is 28 years. Before enrolling in PCC, all students seeking college degrees or certificates are required to take college assessments. Of the 30,000 students taking the examinations in 1996 when this study was conducted, 48% needed developmental reading classes (REA 071, 081, 091), 22% needed College Level Reading (REA 112), 62% needed developmental Math (MA 082, 086, 092), and 73% needed developmental writing (WRT 070, 100). The College has a variety of health related professional programs. The passing rate for licensing and state exams for health related professions ranges from 84% to 100%. Admissions requirements for these programs usually exceed the general College requirements.

To be admitted to PCC, as a degree seeking student, applicants had to meet the following entrance requirements: a) pass the reading assessment at the 12th grade reading level as measured by the Nelson Denny (college-placement test) and the Degrees of Reading Power (Pre/post-test reading program assessment); b) pass the writing assessment as measured by a writing sample scored using the same rubric required for freshman composition (WRT 101); and c) pass the mathematics assessment as measured by the COMPASS (adaptive computer test). Entrance requirements for the Certification Programs and the School of Nursing included the following: a) for the CNA I, an 8th grade reading level, Basic Math (082), and Pre-Algebra (086); and b) for the LPN, a 12th grade reading level, Freshman Composition (101), Intermediate Algebra (122) and College Algebra (151). Students who did not pass the assessment requirements had to meet course requirements for the Reading and Writing Programs and pass the classes with a grade of C or better.

### **Program Development Process**

The program discussed in this paper was initiated by the Tohono O'odham Nation Legislative Council to meet several goals identified by the Nation. First, the Nation had decided to build a nursing home for elders on the reservation. Tribal members wanted to staff the facility with Tohono O'odham health care personnel who could speak Tohono O'odham and who would be culturally sensitive to the needs of the elders. They also wanted to create jobs on the reservation that would attract and keep college graduates in the community. Because of the state recognized programs offered through the PCC Division of Health Related Professions, the Legislative Council was interested in a partnership with PCC that would enable them to address the lack of state-qualified Tohono O'odham personnel in health-related professions. In spring 1995, representatives from the Legislative Council met with the Chair of the Nursing Department to discuss the possible development of a program specifically designed to support students living on the reservation. Before the program was initiated, program approval had to be given by the Nation. Tribal members discussed what kinds of scholarships would be given, what additional support would be provided, and what Tribal commitments would be required for students receiving financial support once they completed their degrees or certification programs. Meetings were held to discuss these issues. Negotiations and presentations to the Legislative Council and PCC administration were made, and a final vote established the program a year later. The program provided full tuition, books and supplies, and a partial living stipend. If needed, students could work half time to supplement their income and support their families.

Once the financial support was established and voted on, a group of tribal members worked with faculty from the Nursing Department to develop a timeline for the program and a formal application process. Thirty-three people completed applications indicating interest in the program. All were interviewed on the reservation in Sells, and 27 were selected. All 27 began the program, but three dropped out the first semester due to health or family reasons.

Six certification options were offered through the program: 1) CNA I - License through State; 2) Nursing Assistant - National Exam; 3) Patient Care Technician - State Exam; 4) Practical Nurse - National Exam; 5) LPN also requiring and AA degree from the PCC School of Nursing; and 6) an RN from the University of Arizona - National Exam.

### **Program Development and Student Assessment**

All of the students selected for the program lived on the reservation in or near Sells. Once the program was approved, one of the first discussions was to decide on the location for course delivery. Tribal representatives and the PCC faculty discussed the benefits of having courses in Tucson or in Sells. Given the needs of the students with respect to family and work, as well as the fact that Tucson was 65 miles from Sells, the decision was made to offer the courses in Sells the

first year and to transition the students to Tucson the following year. Several locations were explored, and Baboquivari High School in Sells was chosen. Classes were scheduled four nights a week from 4:30 to 8:30 p.m. Reading and writing classes were on Monday and Wednesday and mathematics and study skills were on Tuesday and Thursday. Three PCC faculty drove to Sells to teach the classes. The mathematics instructor taught at the high school and lived in Sells. One faculty member had a master's degree, and three had doctorates.

In fall 1995, faculty from the PCC Counseling and Testing Centers went to Sells and administered the Reading, Mathematics, and Writing assessments. All students tested into mathematics 082 *Basic Math* or 086 *Pre-Algebra*. Both courses were offered the first semester and 086 and 092 *Elementary Algebra* were offered the second semester. Five students needed WRT 70 *Developmental Writing*, and twenty-two needed WRT 100 *Writing Fundamentals*. At the first class meeting in Sells, the instructors administered and holistically scored informal and formal writing samples and gave students the Degrees of Reading Power Test, a PCC Reading Department assessment designed to measure the students' ability to understand increasingly harder levels of complex text. Using these scores, the instructors decided to combine the WRT 70 and WRT 100 students, provide extra support to the WRT 70 students and teach only WRT 100.

The widest variety among the students was in reading. Two students did not need reading courses, 13 tested into REA 081, five into 091 and three into 112. If the students had attended PCC, they could have gone into the different reading classes. After several discussions and review of assessment results, tribal members and PCC faculty decided to offer two reading courses the first semester (REA 081 and REA 091) and two the second semester (REA 091 and REA 112). The Nursing faculty in charge of the program along with Tribal members decided to require all students to take the reading classes. The decision was based on two reasons. First, were the non-traditional characteristics of the students. Most were in their late 20s or early 30s, were married or living with and caring for family members, and had a variety of obligations to the Tribe or community. Second, was the rigorous academic curriculum of the Nursing programs. Faculty felt that because many of the students had been out of school for five or more years that the reading curriculum would provide them with critical study and reading strategies they would need to be successful in their professional Nursing coursework.

The first night of class, the reading instructor told the students into which classes they had assessed and then provided them with an overview of the work in each class. Students also examined the reading textbooks for the classes and were then given the choice of which class they wanted to take. Several students requested to be moved from REA 081 to REA 091, and one student with a strong tenth grade reading level, who had been out of school for more than ten years, choose to take REA 081 instead of REA 091. He was a good reader, provided leadership and worked with the students who were struggling readers.

### Curriculum Development: A Socially Constructed Process

The traditional concept of curriculum as text was very relevant to this project. The PCC Developmental Reading and Writing Program courses had fairly set objectives and standards on the kinds of reading and writing students were to engage in and the goals and objectives toward which they were to work. PCC courses were aligned with the University of Arizona and were loosely monitored by an articulation board whose job was to insure that PCC students met the University of Arizona requirements for freshman English (WRT 101 and 102). In Reading 081, recommended student reading levels were 6th through 8th grade. Students developed vocabulary, read a wide variety of fiction and expository texts, and learned a variety of reading strategies to enable them to more effectively interact with written text. In REA 091, recommended reading levels were 9th and 10th grade. Vocabulary was again emphasized, outlining and summary writing were developed. *TIME* magazine was added to support vocabulary development and practice the reading strategies learned in REA 081. The objective was to develop a broad base of general knowledge about contemporary issues. Additionally, critical thinking was explicitly developed through large group readings and discussion, small group reading circles, and debates.

REA 112 was *College Reading*. In this class, students had 11th grade or higher reading scores. Students gained practice reading excerpts from college-level textbooks on a variety of academic subjects in the PCC General Education Curriculum. Students learned and practiced study strategies, test preparation skills, text annotation, critical thinking and writing, research skills using the library and Internet, and the study of the English language (roots and word families) to develop their professional vocabulary. Most of the REA 112 activities were individually contracted and were developed based on individual interest. Pima students who had been out of high school for a long time voluntarily took REA 112 to develop critical reading skills needed for their college coursework.

The writing courses paralleled the reading courses in terms of their developmental sequence. WRT 100 included a variety of writing styles, descriptive, narrative, cause and effect, and other traditional forms. Writing 101 was freshman English, and in that class students learned to write persuasive arguments and completed a library research project. Reading was an integral part of all the writing classes. WRT 100 included a text and additional readings chosen by the instructor. Many instructors used Newsweek and a variety of novels and essays. WRT101 had a traditional freshman composition text chosen from a list of texts used at the University of Arizona. *TIME* and other readings chosen by the instructor were also included.

The planned curriculum in the Reading and Writing Departments was a blend of what Giroux, Penna, & Pinar (1981) termed traditional and conceptual-empiricist approaches. The PCC program was traditional because the instructors had primary responsibility for student learning. It was conceptual-empiricist because the curriculum was grounded in current theory and research that

articulated “the relationship between thinking and learning” (p. 148). Courses had required textbooks, specified learning objectives and class packets with a variety of learning activities designed to develop very specific reading and writing behaviors and abilities. Because the curriculum had been planned and developed by the PCC faculty in both departments, the reading and writing instructors in this project understood the purpose of the courses and their role within the larger department instructional sequence. The goal was the preparation of developmental readers and writers to successfully complete college coursework, persist, complete their certification program, and for the LPNs, to graduate from PCC.

A third curriculum development approach articulated by Giroux, Penna, & Pinar (1981) tended to be evident among the permanent PCC faculty. Reconceptualists “examine what is taught to students via the political messages and assumptions that are often tacitly conveyed through the messages embodied in the curriculum, the mode of pedagogy, and the form of evaluation” used at the classroom level (p. 148). In such classes, students are meaningfully involved in curricular decisions. Thinking critically is emphasized. Students learn to deconstruct the text and to critically evaluate the tacit messages and underlying assumptions inherent in the curriculum.

PCC through its open enrollment and low tuition rates served the poorest and least educated in Pima County. Many developmental students who had graduated from high school in Tucson had never read a book in high school and were reading at an upper elementary or middle school level. The PCC population, especially those in the developmental reading and writing classes were those who had been marginalized in the formal public school system. Reading and writing faculty who took a reconceptualist approach to teaching were very aware of the links “between the form and function of classroom instruction to the political and economic values that underlie power relationships in the larger society” (Giroux, Penna, & Pinar, 1981, p. 148). Their goals were to deconstruct the processes of reading and writing that had been mystified for the students, enable them to understand the Western cultural assumptions about thinking and the presentation of thought in written form, and to provide them with opportunities to develop their ability to use those forms for the purpose of success in college. The goals of the developmental reading and writing faculties were to provide students with understandings, skills and strategies that would gain them entry to an educational system that had traditionally locked them out in part because they did not, for whatever reason, adhere to the cultural or linguistic norms of academia.

For the Tohono O’odham students for whom this project was designed, these issues were very relevant. Culturally, geographically, and politically, they were not part of the mainstream educational, political and economic power structure. The program had to be designed to facilitate their entry into the health related professions and achieve the goal of the Tribe to have state and federally licensed Tohono O’odham health care professionals staffing the new nursing home. To achieve these goals, the curriculum had to blend the following: a) the institutional and state requirements of PCC programs and courses, b) the

professional licensing board standards, c) the social context of Sells, and d) the very real needs of the Tribe and students.

### **Culturally Responsive Curriculum Development**

The developmental reading and writing curriculum at PCC was fairly structured with respect to course textbooks and course assignments. The reading courses incorporated many writing assignments in which students responded to the readings. Similarly, writing courses incorporated a variety of readings that were analyzed and discussed. Substantial curriculum development and revision had been done in the early 1990s in an effort to update the courses and ground them in the latest developmental reading research. Beginning in 1993, several faculty members developed blocked reading and writing courses. Blocked classes were courses that were paired together. Students had to take both classes in the pair and could not sign up for just one of them. The blocked classes were team-taught. Instructors planned together with the goal of integrating readings and assignments. Texts used in the reading courses were the foundation for assignments in the paired writing class. Although these courses were successful academically, students had trouble scheduling the blocked classes, so the classes were discontinued.

When the Sells program was initiated, the Chair of the Reading and Writing Department suggested that the courses be taught using an integrated reading and writing curriculum. To do so, the following factors were considered. First, course requirements for the Reading and Writing Programs were identified then compared to those of the Nursing program. Then, activities were then planned that integrated the professional reading students would need to do in their nursing courses with the skills they needed to develop in their development coursework. Finally, instructors did a literature search and selected books, research studies, and articles that enabled them to integrate the Tohono O'odham culture and students' professional needs and interests into the course readings and assignments. During the first two weeks of the fall semester, students identified themes and selected some textbooks. Additional themes were incorporated based on students' interests as the courses developed. Readings during the fall semester centered on the elderly and American Indian/Alaskan Native Elders; general concepts of culture, American Indian/Alaskan Native and the Papago/Tohono O'odham culture; education; language; and science. The tribe purchased textbooks and other required reading materials. A complete list of readings is provided in Appendix B. Additionally, although course assessments placed students by levels, the instructors developed large group reading and writing activities that included everyone. In doing so, the stronger readers and writers acted as role models and tutors for the other students.

In spring 1996, students developed and conducted inquiry projects based on the themes discussed in class. The projects were field-based, most of which included interviewing elders and other members of the Tribe. In the fall semester, students continued their inquiry projects and conducted a research project that

was grounded in research studies and readings on health issues the students had identified as important for the Tribe. The projects centered around four main themes: Culture, Elders' Families, Elder Care at Home, and Elders' Social Needs. Additionally, Traditional diet and diabetes were also studied. Each theme included several topics and students chose what they wanted to study. Cultural issues projects included traditional medicine and its role in treating the elderly, intergenerational grief, the role of the community and family in caring for the elderly, the changing values of the community and the effect on elder care, and understanding the elderly, how they lived and how we live today, and the difference and similarities in our experiences. The last topic was generated after reading *Papago Woman* (Underhill, 1936/1971). Projects that focused on the elderly included loss of independence, maintaining contact with family, feasibility of group homes, and home care for those living in isolated areas of the reservation who did not want to live in a nursing home.

For both projects, students came to the computer lab on the PCC West Campus in Tucson. Spring semester, they got their student IDs, had a tour of the library, and learned how to use the computers for research purposes. Fall semester, they met with advisors for the Nursing program and completed their applications for admission to that program. The research activities helped to integrate the students into the larger PCC community. When they started classes on campus during the 1997 spring semester, they already knew where resources were located. They also knew several faculty and people who they could come to for advice. They had already developed a support network at the College and had developed important strategies to be successful in college.

### **Culturally Responsive Program Development**

The students faced unanticipated challenges as traditional Tohono O'odham adults working to balance family, work, Tribal obligations, and academic coursework. During the first semester of the program, several issues emerged that required an expansion of the initial support services for the program. Additionally, the program curriculum had to change to meet the cultural needs of the students. One important issue related to increased support services was the fact that most of the students were married and/or living with family members in Sells. They had extensive family and community obligations. All students expressed a need for a designated study area where they could go to get away from family and friends to complete their homework assignments. A second unanticipated issue was the higher than anticipated level of paperwork generated by the scholarship status of the students. Completion of forms and follow-up on paperwork needed to be coordinated if the students were to be registered on time, get their tuition paid, receive their stipends, and meet other bureaucratic obligations and deadlines. Finally, the students needed a spokesperson with whom they could discuss concerns and needs and who would help them with course scheduling, personal issues and program completion once they were admitted to the Nursing program.

To address these issues, the Tribe voted to create a position and hire a liaison from the Tribe who would work with the students and PCC faculty. The woman who was hired was an enrolled member of the Tribe and a retired RN. She coordinated the establishment of a study room in the Tribal complex and handled all the required paperwork for PCC and the Tribe. Because of her professional background she was able to act as an advisor and tutor for the students and work with PCC faculty to select and plan student schedules. Additionally, since she had successfully completed college and was a retired nurse, she was a role model who understood the challenges that the students faced. One of the things that she developed was a "Student Academic Progress Report" form that was completed each semester by the PCC faculty. Although several faculty members did not want to fill out the forms, the Tribe used the form to ensure that students received help. Finally, the liaison acted as a social service provider in that she worked with students on personal issues, such as balancing family and school obligations and finding daycare for children and elder care for students' parents. She also provided counseling about the issue of stress related to the conflicting demands of work, family, community, and school. The Legislative Council's willingness to provide additional support services, resources and a liaison were important factors in the success of the program. These factors gave students the essential personal connection that Pavel, Banks, and Pavel (2002) have identified as critical to support students as they deal with social factors that work against American Indian youth in the completion of their education. They also helped to create what Tyler, Cantou-Clarke, Easterling, and Klepper (2003) have referred to as a "safety net" that enabled students to meet the challenges they faced.

In addition to the need for increased program support services, the social and cultural context in which the program was implemented created a need for program change with respect to the readings that the instructors had chosen. As a result of the changes, the instructors gained invaluable culture-related understanding that positively impacted future course development. The first change was in the primary text for WRT 100. The instructors had chosen *Hour of the Hunter* by J. A. Jance (1991), a mystery set on the Tohono O'odham reservation. It was selected because the author had incorporated some of the Tohono O'odham creation stories into the text as a rhetorical device to develop the mystery. What the instructors did not know was that the stories were winter tales and could only be told or talked about during the winter season. Since the book was being read in the summer and fall, the students did not feel comfortable discussing the stories in class. Several did not want to read them at all. One of the students was elected to speak to the instructors. As a result, the students and instructors chose a new book for the class. The instructors' willingness to address student concerns about culturally inappropriate readings showed respect for the culture and helped to build trust with the students.

A second change was in the reading classes. The instructors had chosen a novel that had been recommended by a Tohono O'odham student attending the University of Arizona. The book was a fictional account of reservation member

the students agreed to use their writing class to write a strong critique of the book and the ways in which the author had accurately or inaccurately portrayed the Tohono O'odham characters.

With respect to the selection of "culturally sensitive" instructional materials, the instructors learned a valuable lesson. The presence of place and the use of cultural artifacts, such as creation stories, or members of a Tribe or Nation as characters in a book do not mean that the author is knowledgeable about the cultural beliefs of a group of people or that the people have been represented in a culturally appropriate and authentic way. Selection of culturally accurate material needs to be done in partnership with members of the cultural group represented in the literature. It is important to feature writers who are American Indian, or to select non-Native authors who are respected and recommended by members of the Tribe or Nation represented in the material.

The second semester, the instructors researched books on the Tribe and provided students with a selection to choose from. Students selected *The Desert Smells Like Rain* by Gary Nabhan (1995), a respected naturalist who had worked on the reservation, *Papago Woman* by Ruth Underhill (1936/1971), and Patricia Riley's (1993) anthology *Growing up Native American: Stories of Oppression and Survival* that included the life stories of a variety of American Indians. The students participated in literature circles that were organized by book, rather than reading class, and the books were also used for several writing class assignments.

## Results

The results for the project are summarized below in Tables 1 and Table 2. Table 1 includes students who had REA 091 & REA 112, and Table 2 includes students who had REA 081 & REA 091. All students were at approximately the same writing level when they started the program and all completed WRT 100 and WRT 101. The column "Fall '95 Nelson Denny Grade Level" reports students' grade-level reading scores when they entered the program. The column "Credits" includes total credit hours taken by each student with overall grade-point average (GPA). The final column lists indicates the year and degree or certificate that the students earned. If a student withdrew, there is a 'W' and year listed.

Students who took REA 091 & REA 112 had a 46% completion rate and those who took REA 081 & REA 091 had a 30% completion rate. Further research would be needed to determine if it were the lower entry level of the students or the fact that REA 112 specifically prepares students for college-level reading were factors that influenced program completion. In either case, participation in the combined reading and writing courses did improve reading comprehension for most students in the program.

|    |      |        |      |                       |
|----|------|--------|------|-----------------------|
| 1  | 8.2  | 58 hrs | 3.0  | W98                   |
| 2  | 13.5 | 36 hrs | 2.91 | W97                   |
| 3  | 8.6  | 75 hrs | 3.05 | LPN 2000              |
| 4  | 10.1 | 16 hrs | 1.80 | W96                   |
| 5  | 10.3 | 42 hrs | 2.97 | W99                   |
| 6  | 3.9  | 18 hrs | 1.77 | W96                   |
| 7  | 10.2 | 77 hrs | 3.23 | AA 2001               |
| 8  | 11.1 | W      | W    | W Spring 96           |
| 9  | 13.3 | 92 hrs | 2.73 | LPN 2000<br>RN 2003   |
| 10 | 9.7  | 89 hrs | 3.38 | Practical<br>Nurse 99 |
| 11 | 11.5 | 92 hrs | 3.18 | LPN 99                |
| 12 | 9.8  | 54 hrs | 3.21 | W98                   |
| 13 | 11.0 | 97 hrs | 3.17 | LPN 2000              |
| 14 | 9.7  | 35 hrs | 2.05 | W97                   |
| 15 | 10.7 | 96 hrs | 3.54 | AA 2000<br>Science    |

*Note.* W under *Degree year* indicates that the student withdrew from the program.

Table 2  
Student Assessments Group #2: Reading 081 & 091 and Writing 100 & 101

| Fall 95   |                             |         |      |                      |
|-----------|-----------------------------|---------|------|----------------------|
| Student # | Nelson Denny<br>Grade level | Credits | GPA  | Degree<br>year _____ |
| 1         | 7.6                         | 34 hrs  | 2.58 | W                    |
| 2         | 8.7                         | 80 hrs  | 2.81 | PN 99                |
| 3         | 5.2                         | 13 hrs  | 2.76 | W                    |
| 4         | 10.1                        | 48 hrs  | 2.66 | W                    |
| 5         | 7.5                         | 10 hrs  | 2.90 | W                    |
| 6         | 7.2                         | 66 hrs  | 3.10 | CNA 99               |
| 7         | 7.8                         | 55 hrs  | 2.29 | W                    |
| 8         | -3.7                        | 13 hrs  | 1.69 | W                    |
| 9         | 9.9                         | 61 hrs  | 3.37 | CNA 98               |

*Note.* W under *Degree year* indicates that the student withdrew from the program.

students in their decision to withdraw from the program. Only three students had a GPA less than 2.00. This fact supports earlier data by Bowker (1993) and Platero, et al. (1986), that students often drop out for other than academic reasons. The reading and writing instructors conducted informal interviews with six of the students who left the program. Two key factors in their decision to leave school included extensive family and community obligations that took precedence over school and the distance from Sells to Tucson (65 miles) to attend school at night. A review of transcripts also showed that several courses were related to non-completion of the program. For the 081 & 091 group, Medical Terminology I, which focused on professional vocabulary development and reading medical texts, was a difficult course. For students who completed REA 091 & 112, Drug Calculations I & II, courses that required higher-level mathematics, were difficult. Informal discussions with students indicated that low skills in reading or mathematics greatly increased the time required to study and learn the materials required to pass these courses. With family and other obligations they did not have the time that they needed to devote to the courses. Students recommended that REA 112 include vocabulary development related to medical terminology and that the mathematics courses be based in medical mathematics when possible to enable students to make the connections between their mathematics classes and the work that they would need to do as nurses.

The first year of the program, all courses were held in Sells. PCC faculty traveled to Sells or instructors were hired who lived in the community. This was an important factor in student persistence and retention. Although the Tribe did support the students with living arrangements and apartments in Tucson the next year, living away from families, or the 65-mile commute to Tucson for classes was a problem for some students. Students recommended that some of the Nursing classes be taught in Sells the second year to enable more students to complete the program.

When program completion rates are compared with the overall graduation and dropout rates for PCC, the program was successful in retaining and graduating American Indian students. The overall completion rate for PCC is 23% and for American Indian students who comprise 4% of the total enrollments, the rate is 22%. The completion rate for the Tohono O'odham and PCC Nursing program partnership was 43% with 30% completing their AA degrees and 13% completing their goal of certification as a Certified Nurses Assistant or Practical Nurse. Of those who left the program, three did so for academic reasons. The remaining 10 left due to family or personal reasons or the inability to continue the commute 130 miles round-trip for classes.

was initiated by the tribe with the goal of meeting several important needs on the reservation. One was to provide long-term health care for the elderly on the reservation by building and staffing a nursing home in Sells. The second was to provide employment for tribal members. And the third was to provide scholarships to tribal members to complete nursing and health related certification programs so that the nursing home and community would have health care workers from the Tribe who were knowledgeable about and sensitive to the traditional cultural practices in the community. Additionally, the Tribe retained leadership status throughout the program and the Tribal Council and tribal members were routinely consulted on a variety of program issues.

A second factor was that representatives from both partners were designated early in the development of the program. They became the liaisons between the Tribe and PCC and were responsible for communication and attended meetings related to the program. The Director of Nursing, who represented PCC, routinely met with PCC faculty who taught in the program. She was responsible for sharing student concerns with the tribe and was instrumental in getting a liaison from the Tribe hired to work with the program and provide administrative and academic support for the students.

Offering the courses in Sells was an additional factor that was important in student's persistence the first year. At the end of the second semester, 23 of 23 students were still in the program. By the end of the third semester that number dropped to 13. Reasons were family obligations and the distance commuting to classes. To alleviate this factor, the Tribe provided a stipend for students to rent apartments in Tucson where they could stay during the week and not need to commute to classes.

The Tribe supported the students in other ways. One was the hiring of the liaison for the program. A second was to provide space for a study area in the Tribal offices building. At the end of the first year, a dinner was held to recognize the students and their families for their sacrifices and accomplishments. Thus, the Tribe's participation and support throughout the program was a key factor in the success of the program.

Several factors were an important part of PCC's role in the partnership and success of the program. One was an administration that understood the importance of the program and that was willing to be flexible and work with the demands of the Legislative Council schedule and procedures. Negotiations to establish the program took over a year and required extensive discussion and deliberation within the Tohono O'odham community. For some PCC administrators who were used to making a decision and moving on it with little discussion or deliberation, or for those who were used to following a fairly rigid

academic calendar, this was a challenge requiring cultural sensitivity and flexibility.

A second factor was the teaching faculty who were committed to the success of the program and who were willing to drive 65 miles two nights a week for two semesters to teach the required courses. The addition of qualified adjunct faculty who lived in Sells and taught at the high school was another important aspect of the program. Students had instructors they knew and to whom they could go during the week for help in their studies. If they had been attending classes in Tucson on the PCC campus, they would have had to wait until the night of class to get the help that they needed.

A third factor was the collaboration that existed between the reading and writing departments and the ability of the instructors to work together to develop a truly integrated curriculum that addressed cultural issues and met students' professional needs. By working with students as partners in the program, instructors were able to tailor the coursework to students' interests while aligning them with PCC general standards and requirements, as well as those of the Nursing programs. Additionally, the instructors and program administrators worked to develop activities at the PCC campus that would serve as a bridge and prepare students to better make the transition to campus and meet the challenges of college once their classes were only offered at PCC. Through open discussions and input from all stakeholders in the program, support was provided that met the needs of most students.

Through collaborative partnerships that give equal status to stakeholders, needs-based, culturally responsive, relevant, and quality academic programs can be developed by traditionally Eurocentric colleges that serve American Indian/Alaskan Native students. Such programs will enable greater numbers of those students to persist and graduate. Stakeholders can work together to identify critical factors in the social context that will affect program implementation and success. They can design programs that meet the needs of American Indian/Alaskan Native communities and students while achieving the standards and requirements of the institution, as well as state and national professional licensing boards, as in the case of the program reported in this article.

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## APPENDIX A

### Functional/Collaborative Process Model: Essential Elements as Applied to the PCC and Tohono O'odham Nursing Project

- Step I:* Needs Assessment (Tohono O'odham Nation)
- Step II:* Initial Proposal Meeting (Initiated by the Tribe)
- Step III:* Proposal Specific Analysis of Needs (Discussion and Meetings)
- Identification of Tribe's needs and goals, i.e. kind of health care workers needed
  - Identification of Pima Community College's enrollment requirements
  - Analysis of Nursing Program Requirements
  - Analysis of State Certification Standards
- Step IV:* Review of Literature, Research and Materials Related to Proposed Program
- Step V:* Recruitment and Selection of Participants
- Program Announcement and Students' Formal Application Process to Tribe
  - Selection of potential participants (PCC Faculty and Tribe review of applications)
  - Academic testing of applicants in Sells, AZ
  - Initial placement of participants in courses
- Step VI:* Program Design, Review and Revision
- Topic identification (Faculty and students)
  - Curriculum and program design (Faculty)
  - Materials identification, evaluation and selection (Faculty and students)
  - Materials development (Faculty)
- Step VII:* Program Implementation
- Site selection (Baboquivari High School in Sells)
  - Approval from Tribal Council and arrangements for use of facilities
  - Selection of additional faculty to teach mathematics and science classes
  - Teach classes

*Step VIII:* Program Evaluation

- Formative evaluation
- Summative evaluation
- Longitudinal evaluation

*Step IX:* Course Adaptation and Program Redesign

- Formative Evaluation
  - o Student feedback on course readings and activities
  - o Redesign of Instructional activities
  - o Hiring of tribal member to act as liaison between tribe, PCC, and the students
  - o Allocation of additional resources (study lounge) to support students
- Summative
  - o Completion of final research projects
  - o Reading post-test scores
- Longitudinal
- Graduation rates

*Step X:* Dissemination of Process and Materials

- Presentation at NIEA
- Journal Article

## APPENDIX B

### Bibliography of Materials Read by Students in Reading/Writing Courses: Sells/Pima Community College Nursing Program

#### **READING 081: Textbooks (Spring 1996)**

Daniels, D., Goldstein, J., & Hayes, C. (1995). *A basic reader for college writers*. Marlton, NJ: Townsend Press.

Riley, P. (1993). *Growing up Native American: Stories of oppression and survival*. New York, NY: Avon Books.

#### **READING 091: Textbooks (Spring 1996)**

Fjeldstad, M. (1994). *The thoughtful reader: A whole language approach to college reading*. New York, NY: Harcourt Brace & Company.

#### **READING 112: Textbooks (Fall 1996)**

Lewis, N. (1984). *Word power made easy: The complete handbook for building a superior vocabulary*. New York, NY: Simon & Schuster: Pocket Books.

Maker, J., Lenier, M., & Maker-Immon, L. (1995). *Academic reading with active critical thinking* (Custom courseware). New York, NY: Wadsworth.

PCC Reading Department (1996). *Reading 112 packet*. Tucson, AZ: Pima Community College.

#### **READING 081 & 091 - Shared Textbooks (Spring 1996)**

Baylor, B. (1992). *Yes is better than no*. Tucson, AZ: Treasure Chest Publications.

Underhill, R. (1936/1979). *Papago woman*. Prospect Heights: Waveland Press.

#### **WRITING 100: Textbooks - All Students (Spring 1996)**

Howard, P. (1994). *The owner's manual for the brain: Everyday applications from mind-brain research*. Austin, TX: Leornian Press, BARD Productions.

Jance, J.A. (1991). *Hour of the hunter*. New York, NY: Avon Books.

Lowry, L. (1993). *The giver*. New York, NY: Houghton Mifflin Company.

Rasool, J., Banks, C., & McCarthy, M. (1996) *Critical thinking: Reading and writing in a diverse world*. New York, NY: Wadsworth.

#### **WRITING 101: Textbooks - All Students (Fall 1996)**

Williams, M. (1995). *The American Geriatrics Society's complete guide to aging and health*. New York, NY: Harmony Books, a division of Crown Publishers.

#### **READING & WRITING (Fall 1996) - Shared Resources for All Students**

TIME Magazine (1996, January 8-December 31). Various Articles. *TIME Magazine*. 147(2)-149(1).

Houghton Mifflin (1992). *The American heritage dictionary of the English language* (3rd ed). Boston, MA: Houghton Mifflin.

Nabhan, G. (1995). *The desert smells like rain: A naturalist in Papago Indian country*. New York, NY: North Point Press, Farrar, Straus and Giroux.

Katz, J. (1995). *Messengers of the wind: Native American women tell their life stories*. New York, NY: Ballantine Books/ Random House.

#### **RESEARCH TEXTS (Fall 1996) - Everyone**

Joe, J., & Young, R. (1993). *Proceedings: Second International Conference on Diabetes and Native Peoples: Socio-cultural approaches in diabetes care for native peoples*. Tucson, AZ: Native American Research and Training Center.

John, R. (1995). *American Indian and Alaska Native Elders: An assessment of their current status and provision of services*. Washington, DC: U.S. Government Printing Office. (U.S. Department of Health and Human Services, Public Health Services, Indian Health Services)

Pavel, M., Curtin, T., Thorne, J. Christenson, B., Rudes, B., & Whitener, S. (1995). *Characteristics of American Indian and Alaska Native Education*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement (NCES 95-735).

**Additional Materials: Cultural**

Ereira, A. (1993). *The elder brothers: A lost South American people and their wisdom*. New York, NY: Vintage Books.

Lake, R. (1990). An Indian father's plea. *Teacher Magazine*, 2(1), 48-53.

Trimble, S. (1993). The O'odham: The Sand Papago, Tohono O'odham, Ak-Chin, and Pima. In S. Trimble, *The People: Indians of the American Southwest* (pp. 354-384). Santa Fe, NM: School of American Research Press.

**MATHEMATICS**

Martin-Gay, K. (1993). *Basic college mathematics*. Upper Saddle River, NJ: Pearson Education.

Martin-Gay, K. (1995). *Prealgebra*. Upper Saddle River, NJ: Pearson Education.

**STUDY SKILLS**

Ellis, D. (1994). *Becoming a master student* (7th ed). Boston, MA: Houghton Mifflin.

Note: All the above texts and articles were purchased by the Tohono O'odham Nation as part of the scholarship/financial support provided for the students.