Web-based training for Native American tribes

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The authors describe a project undertaken at the School of Hotel and Restaurant Management at Northern Arizona University in which the Internet is used to present Native American tribes in Arizona with customer service training. It discusses why the project was instigated, looks at its development and funding, and highlights the educational and technological challenges that had to be overcome. This is the second in a series of articles on the uses of the Internet in educating non-university student constituencies interested in hospitality management.[1]

The unique culture, history, and social contexts of Native Americans strongly influence how they learn. Learning for Native Americans tends to be experiential, and is influenced by the socio-economic context in which it occurs. Research on Native American learning styles has described them as having four major characteristics:

- **Experiential learning:** Following the Kolb model, observation and practice are valued over questioning, oral argumentation or rote learning.[2]
- **Practical learning:** Learning should have relevance to one's everyday life. Native Americans prefer an activity-based curriculum to traditional textbook-oriented styles, and research on how Native Americans acquire mathematical skills confirms a need to expand the use of technology, modeling, games, and other forms of active learning.[3]
- **Group learning:** A supportive and cooperative group setting is critical to learning success. Native American culture stresses that the goal of individual effort is to benefit the group, unlike European traditions in which the goal of individual effort is to benefit the individual. Native Americans prefer to be trained among their own people, and learning

is seen as a holistic process that occurs best in the cultural and social context of the tribal setting.[4]

- **Mentoring:** Support and guidance from family, peers, elders, and community leaders is critical to learning success and well-suited to Native American pedagogy.

Technology ranks high

Research has also shown, perhaps contrary to conventional stereotypes, that Native Americans respond well to technology-based and distance education,[5] and many tribal colleges are now making significant strides in this direction. This program addresses all four of these learning styles:

- Technology allows for experiential learning to take place, and technology will allow individual students their own best way to learn.
- Hospitality distance education is practical, and directly addresses the job training needs of reservation enterprises.
- Technology-based programs can be structured to contain group learning components.
- Technology-based education can support mentoring, and personal contact can be reinforced through the use of e-mail. Two-way interactive television allows for personal contact between teachers and students.

Native American educators have emphasized that their young people need access to technology to bridge the growing digital divide,[6] and studies of Native American learning styles have found that technology is a good fit for Native American learners. They have recommended the expanded use of technology, cooperative learning, active learning, student – centered learning, modeling, games, and other forms of experiential and active learning.[7]

Likewise, numerous studies have demonstrated that high school and post-secondary students perform equally well in traditional and distance education classes at remote sites.[8]

Studies of community college students using instructional television found that the offering of distance courses not only made attendance easier, but that a location that was close to home reinforced students in taking and attending classes.[9] Many tribal colleges in the U.S. have used learning technology to build bridges between Indians and non-Indians, and Native American people have been ready to adopt technology when it meets their needs.[10]

Finally, a recent invitational workshop sponsored by the Alfred P. Sloan Foundation in late September 2002 established five "pillars" for quality online education: learning effectiveness, student satisfaction, faculty satisfaction, cost effectiveness, and access. These are the values, principles, and goals that Sloan-C identified

for asynchronous learning networks.[11] The Internet-based customer training program that was developed and offered to the Fort Mohave and Colorado River Indian Tribes also offers all five "pillars."

Tribal needs drive training

Two Indian reservations straddle the Arizona-California border along the Colorado River. The northern reservation belongs to the Fort Mojave Tribe (FMIT) and is located near Needles, California. The Mojave represent one of the largest groups of Yuman speaking people along the Colorado River. They have occupied lands surrounding the river for thousands of years, and the traditional southern boundary of their reservation is near the present town of Blythe, California.

The southern reservation is inhabited by a collection of four tribes: Mohave (these are different from the Mojave in the northern reservation), Chemehuevi, Hopi, and Navajo. These tribes are jointly known as the Colorado River Indian Tribes (CRIT).

Tourism, recreation, and hospitality have become major economic drivers for these tribes in recent years. They live in an area that has near-perfect weather conditions year-round, which, combined with the beauty of the Colorado River and its surroundings, attracts many tourists. The many miles of Colorado riverfront, the extensive hunting and recreation areas, and the three casinos on the reservation (Blue Water Resort & Casino on the Colorado River Indian Reservation, and the Avi Resort & Casino and Spirit Mountain Casino on the Fort Mojave Indian Reservation) attract thousands of vacationers and their dollars to these reservations annually.

Challenges are created

However, this influx of visitors and revenues has also created some new challenges for the tribes. Tribal hospitality enterprises, such as casinos, hotels, restaurants, RV parks, and golf courses must find skilled employees to staff both entry-level and management positions, and skilled employees are hard to find in these very scarcely populated areas. Additionally, the remote locations of these rural tribes make access to job training or college programs very difficult.

The Fort Mojave Tribe's AVI Resort & Casino opened in 1994, and caters to many of the visitors to the reservation. The tribe is small, as compared to, for instance, the Hopi and Navajo tribes, and it has not been able to staff this operation by itself, simply because there are not enough tribal members available and capable of working in the casino. Only 20 percent of the roughly 900 employees in the casino are tribal members.

All 900 employees in the casino need to be trained, and job training needs therefore exist at two levels: training for tribal employees, which not only addresses job specific but also tribe and Native American

issues and learning styles, and training for non-tribal employees.

Grant supports efforts

To address the tribe's need for hospitality training, Northern Arizona University's (NAU) School of Hotel and Restaurant Management (SHRM) submitted a proposal to the United States Department of Labor, Employment, and Training Agency (DOL-ETA) with a twofold intent: to assess employee skills and industry needs on the reservation and to close the gap that existed between the needs of the casinos and resorts and the skills of the tribal members.

With an 18-month funding grant of $750,000 awarded in March 2000, SHRM first conducted a training needs assessment of tribal hospitality enterprises. Managers of hospitality enterprises completed a survey that prioritized their training needs. Hands down, customer service training emerged as the number one training priority. With this new information the goal then became to develop and design the first on-line customer service training program in the nation for front-line tribal hospitality employees.

Because of the tribe's remote location and, therefore, the need for convenient and accessible training, it was decided to offer the customer service training on line. Sending tribal members off reservation for training had not been successful in the past. They tended not to do well without family and cultural support, yet they did adapt well to technology-based training.

Internet access needed

Before the actual training program was developed and presented, the tribes first needed access to the Internet. So in the first year of the grant, the first step was to equip the Colorado River and Fort Mojave Indian Tribes' Workforce Investment Area offices with 10 computers, a server, and state-of-the-art satellite two-way high speed data and Internet connectivity.

The Starband system which was selected proved to be an efficient and cost effective way to provide Internet and distance learning services. It had the capacity to deliver satellite television as well as provide a two-way computer data connection to the Internet. Starband was more cost effective than T-1 lines in rural locations and more efficient than a modem connection with the marginal quality of phone service on the reservations. As part of the Starband system, each tribal computer lab was connected to the DishNetwork and the University House Satellite Channel. This meant that each tribe obtained access to a variety of learning alternatives, from certificate programs to the distance delivery programming that was offered by the university and other educational institutions on the University House Channel,

all of this in an effort to enable tribal members to receive an education in their own communities.

With the technology and equipment in place, the design and development of the on-line program was initiated in the twelfth month of the grant period. At this stage, a graphic designer and an instructional designer were added to the original grant team of a program director and research assistant. After months of writing and re-writing the curriculum, of testing and re-testing content and technology with focus groups of Native Americans, and of meetings with hospitality managers, supervisors, tribal leaders, and cultural experts, 11 hospitality customer service lessons were created. The resulting self-teaching, self-paced program was written specifically for a Native American audience. The training incorporates interactive audios and visuals, cultural graphics and cultural content – music, art, and symbols – plus quizzes and exams and an accompanying workbook to reinforce learning.

Lessons deal with issues

Offered in two sections, Basic and Advanced, the 11 lessons deal with the following issues:

- **Mastering the Basics:** Being professional in appearance and work habits, communicating a positive attitude, greeting guests in person and on the telephone, listening with a service attitude, handling customer questions and requests, and giving helpful directions.
- **Advanced Customer Service:** Taking responsibility, saying "no" nicely, responding to complaints, using stress relief techniques, and exceeding expectations.

Depending on the student, each lesson, along with the accompanying workbook activities, takes approximately one hour to complete. As a matter of internal policy, the tribes set an 80 percent passing grade for both the Basic and Advanced sections. Upon successful completion, Certificates of Completion are awarded by the NAU School of Hotel and Restaurant Management.

Tribal case managers and supervisors were trained by SHRM on how to assist their customers and thus are actively involved in the training process. In the nine months since the tribes officially began offering the on-line customer service training, almost 200 Native American adults and youths have successfully completed the training.

Technology is challenging

This training program is not offered as a typical web class. Whereas synchronous and asynchronous two-way communication between student and instructor exists in regular on-line delivery,

this course is completely learner driven. It is not restricted to a college semester schedule, but allows for open entry and exit at any time. Each lesson of the course has an on-line quiz that is self-graded. Students can retake the exam until they pass it.

The 24/7 availability of the training program presented some technological hurdles that needed to be overcome. Most of the challenges faced by the technical team started with the hardware and the resulting Starband installation. The Starband system is designed for one dish installed on one computer. The technical team was able to use the Internet connection to a Windows 2000 professional server and route Internet access to eight workstations on the local network, enabling eight people to complete the training at the same time.

After the Starband installation, several bugs had to be worked out. The most prevalent problem was losing access to the network printer. The printer had to be re-addressed several times. This procedure usually meant setting up the printer so that other computers in the lab could use it.

Professionals are lacking

Some issues still remain with the Starband system upgrades. These include problems with satellite modems and software settings using the new and improved satellite services. One of the problems faced by the tribes is the lack of on-site trained proficient IT professionals. This made it necessary for the grant team to send out a systems analyst to identify and correct hardware, software, and networking services in the labs on a regular basis. The systems analyst also had to travel to the reservations for several Starband upgrades and various server maintenance issues.

In hindsight, establishing remote control of the server and lab computers would have made it unnecessary to travel to the labs as frequently. The most significant server issue was the attack and infection of the systems with several viruses, even though new viral signature files were provided. The attacks were mostly from macro viruses such as Nimda.

The software installation of the Destinations package used by the tribes was the next hurdle. Destinations is a computer lab interactive assessment and training software package for workforce and individual development. This software includes over 12,000 different learning activities ranging from "Reading and Writing" to "Problem Solving and Employability Skills." It is delivered in instructional months, has an advanced management system, and is third party compatible, meaning that additional customized training material can be added and managed with the existing management and delivery system. Unfortunately, this program required

several administrative tweaks to the system, which slowed down the process considerably.

Finally, the design and implementation of the on-line customer service training had its own set of challenges. The initial stages of program development were focused on the high-speed aspect of the Internet service, and the interface for the training program was initially designed in the same fashion as a college level web course. This included several interface features that allowed the user to move in a random fashion to any section of the training, and a reading level of the materials set between the tenth and eleventh grade benchmark.

After the initial focus group tested the program, it was determined that the interface was acceptable and that the media worked well. This initial focus group consisted of Native American SHRM students on the school's local area network. Yet, this group provided a false sense of how the program would operate in the field, since the participating students were tuned in to an academic environment and were used to the reading level of the language used.

Second group differs

The second focus group that went through the program provided results that were dramatically different. Staff and clients of the tribal Workforce Investment Area offices (previously called JTPA – Joint Training Partnership Act) were involved, and provided a more realistic picture of the usability of the program and its delivery of media elements. Participants had considerable difficulty using an interface that had too many options, and they struggled with the reading level. It also became apparent that the media were much too large even for a high-speed connection, and the load of eight computers on one server using one satellite dish was substantial. The interface design had to be refitted, and the media had to be molded into a more efficient format.

With these new focus group results in hand, the interface was simplified to a menu button and a "forward" and "previous page" option. This made the program much more linear in its delivery. The video media and audios were changed to provide a much more hands off delivery of the media, reducing the challenges for the lab supervisors and program participants.

The final changes incorporated into the program were the addition of more instructions for beginning computer users and the lower level of language used. Components on how to use a mouse or scroll down a page were incorporated, and the language was re-fitted at the sixth grade level.

The resulting program was then tested over a 24-baud modem in Internet Explorer 5.5. The goal was to deliver each

media image in less than 30 seconds. The media file sizes were reduced up to 90 percent of their original size and the download time goal of 30 seconds or less was met.

Program meets needs

The current on-line program interface is simple and straight – forward. The background is white and the pages are designed to fit a monitor set at 800x600 resolution. There is an introduction to customer service, and an explanation of the benefits of learning the material. Next, animated instructions are provided for the beginning user explaining how to move through the materials. The first lesson starts with a Carlos Nakai flute music segment, a banner image describing the lesson, and an introduction to the lesson. Each page is customized with a variety of multi-culturally sensitive photos, animations, audios, and text. Most of the graphic elements are local and specific to the tribe using the program. The options for the user include going to a menu of all the lessons, going to the next page, or going to the previous page.

At the end of each lesson, a set of practice questions is presented, followed by a 10-question quiz, which is graded and returned to the student automatically. The student then prints the results of the quiz and moves to the workbook activities. The workbook includes a section of activities for each lesson and provides a resource for students to take with them.

The caseworker or supervisor in charge reviews the quiz results and each lesson's workbook activities with the student, which reinforces learning. Then, the next lesson is undertaken and so on. At the end of both the basic and advanced sections of the material, a 25-question comprehensive test is presented and taken on line. The results are sent electronically to the School of Hotel and Restaurant Management for data monitoring and record keeping. The final step is generation of the Certificate of Completion by SHRM. The web site address for a demo version is http://www2.nau.edu/~hrm-demo.

Opinions provide feedback

Included in the on-line program are two evaluations, one for each of the sections. The resulting information from participants has been enlightening. An obvious difference exists in the opinions of the adult learners versus those of adolescent learners. One recurring theme with younger students is their dislike of the reading, while conversely they appreciate and benefit greatly from the stress reduction lesson. A number of younger learners also requested more media in the training. In general, both adults and younger participants have provided many positive comments, including the following:

- "The most helpful skill I learned was giving directions. Now I can give them with no hesitation." ..... Fort Mohave Indian Tribe WIA participant.
- "I liked the fact that the training program explained all the steps and provided audio instructions - very creative and useful." ..... Colorado River Indian Tribe WIA participant.
- "Good visual and audio examples to show tone in person's voice and body language."..... Colorado River Indian Tribe WIA participant.
- "I learned that it is very important to show a positive and helpful customer service attitude even if you are not feeling that way." ..... Fort Mohave Indian Tribe WIA participant .
- "Learning these skills ahead of time will help me be ready for any job that may come up."..... Youth Opportunities Program participant.

Unexpected outcomes generated

Since the program's inception, this On-Line Customer Service Training Program has had some unexpected outcomes, has generated inquiries from other constituencies, and has resulted in new partnerships.

Don Eddy, director of the Colorado River Indian Tribes Employment Development and Training Office, and a partner with SHRM in the original grant, had a unique idea. He made special arrangements with the tribe's BlueWater Casino and Resort to provide office space for one of his employees to recruit resort employees into the program. Transportation was provided for those who needed it, and now front-line casino and resort employees are able to learn new skills or improve existing skills by earning this certificate. The On-Line Customer Service Training Program is giving them a better chance for success and promotion on site in the casino.

Another unexpected partnership developed with the Fort Mojave Indian Tribe summer Youth Opportunities Program. Youth between the ages of 14 and 21 were given access to the training program, and more than 100 youth participated in the program this summer. Most have found the skills very beneficial and say they would recommend the training to their friends.

Word of the program's success has spread to the additional tribes that live along the Colorado River. The Hualapai Reservation, home to 1800 Native Americans, recently went on line with their own customized version, and negotiations are in progress with Cocopah, Quechan, and Chemehuevi, the remaining tribes on the Colorado River.

The Gila River Indian Community located in central Arizona with almost 12,000 tribal members has also purchased this training program. Their diverse hospitality enterprises that could benefit from the program include three casinos, two golf courses, an equestrian center, and a new resort and spa. Firebird Raceway and the Bondurant School of High Performance Driving are also located on reservation land.

Spanish version needed

While promoting the On-Line Customer Service Training Program to Arizona's Native American tribal enterprises, another underserved audience emerged. A large number of housekeeping, kitchen, and other staff in the tribal casinos and resorts in the state are Spanish speaking, and have an immediate need for a Spanish or bilingual version of the program.

At present, 13 percent of the total United States population is Hispanic, with a large portion finding employment with the hospitality and tourism industry. To make Spanish-speaking employees feel more confident in their abilities to communicate with English-speaking guests and co-workers, the NAU SHRM has begun to work with translators to customize the Native American version of the program for Spanish-speaking employees.

A feature of this Spanish-language version is the ability to choose Spanish or English – in essence English as a second language for training. The program provides a toggle that allows users to choose which language version they prefer for the training. This allows both student and teacher to understand the materials in both English and Spanish, and to go back and forth, reinforcing learning.

Program caters to needs

Unique educational needs exist among Native American learners; they learn better when they are close to their homes, and when they are surrounded by their peers and elders. They flourish when education is part of a group activity, and when it is practical and activity based. Moreover, they respond well to technology-based distance education that is relevant to their day-to-day living and working environment.

This program was developed with all these in mind. It is unique in that it is the first of its kind in the nation, and the initial responses have been very positive. Technology can be used in educating different constituencies successfully, even those that are geographically dispersed, and that have limited access to computers. Where there is a will, there is now a technology super highway.

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[11] Information regarding the five pillars of asynchronous distance education can be found at www.sloanconsortium.org.

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