

A SENSE OF COMMUNITY IN DISTANCE EDUCATION:

A TRIBAL COLLEGE STUDENTS' PERSPECTIVE

BY

Valerie K. Todacheene

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Las Cruces, New Mexico

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“A Sense of Community in Distance Education: A Tribal College Students’ Perspective,” a dissertation prepared by Valerie K. Todacheene in partial fulfillment of the requirements for the degree, Doctor of Education, has been approved and accepted by the following:

---

Linda Lacey  
Dean of the Graduate School

---

Dr. Eduardo Arellano  
Chair of the Examining Committee

---

Date

Committee in charge:

Dr. Eduardo Arellano, Chair

Dr. Ramon Dominguez, Committee Member

Dr. Mary Prentice, Committee Member

Dr. Bernadette Montoya, Committee Member

## DEDICATION

This dissertation is dedicated to my family whose unfailing faith, encouragement, and support have seen me through in achieving this part of my educational journey. To my grandparents Lela and Jack Todacheene, Bertha and Edward Benally who taught me the importance of education and appreciating my Navajo culture. To my parents, Phillip and Eve Todacheene, who stood beside me and provided love and support so that I can fulfill my educational endeavors and inspired me to be a better person. To my brothers, Sean and Valden, who gave me strength and encouragement. To my sister and brother-in-law, Vivie and Felipe, for caring for my children when I had to work and their love and support. To mom Andrea Jaramillo for being a role model for me, and giving me strength and perseverance. To my sister, Rita Jaramillo, who has been a mother to my children when I had to study and being there for me when I needed someone to lean on. To my beautiful sons, Joshua, Robert, and Patrick, you are my life, inspiration, and motivation. Thank you for your patience and enduring me through this journey. All the things that I accomplish are for you and I hope I have created a path for you to achieve your dreams.

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## VITA

May 11, 1971      Born in Shiprock, New Mexico

### EDUCATION

1989      Graduated from Kirtland Central High School, Kirtland, NM

1993      B.A. New Mexico State University, Las Cruces, NM

2003      M.P.A., University of New Mexico, Albuquerque, NM

### WORK EXPERIENCE

2003-2008      Academic Counselor, Distance Education Program,  
Southwestern Indian Polytechnic Institute, Albuquerque, NM

### FIELD OF STUDY

Major field:    Educational Administration

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## ABSTRACT

### A SENSE OF COMMUNITY IN DISTANCE EDUCATION: A TRIBAL COLLEGE STUDENTS' PERSPECTIVE

BY

VALERIE K. TODACHEENE, B.A., M.P.A.

Doctor of Education

New Mexico State University

Las Cruces, New Mexico, 2008

Dr. Eduardo Arellano, Chair

A sense of community, connectedness, and positive learning experiences are important to promoting student success in distance education. Therefore this study sought to understand tribal college students' perceptions of sense of community, connectedness, and learning experiences in tribal college distance education courses. The study's literature review provides insights on tribal colleges, distance education, sense of community, connectedness and learning experiences. The current study utilized the survey research method through a directly administered structured questionnaire developed by Rovai. Descriptive and inferential statistical analyses were utilized to analyze the data collected from the survey responses. Participants in this study included American Indian tribal college students that were 18 years and older and enrolled in distance education courses at a tribal college. The study tested fifteen research hypotheses which analyzed the perceptions of sense of community,

connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities. ANOVAs and *t*-tests were used to test the hypotheses.

The statistical analyses found no significance for all research hypotheses except two hypotheses. The two research hypotheses with statistical significance were the hypotheses that examined the on and off campus tribal college students' perceptions of sense of community and learning experiences. The on-campus tribal college students perceived a greater sense of community and learning experiences compared to off-campus tribal college students enrolled in distance education courses. The greater perceptions of sense of community and learning experiences of on-campus tribal college students compared to off-campus tribal college students enrolled in distance education courses may be the result of face-to-face interaction, access to resources, and geographic location. This dissertation study discusses its findings and the way these results may assist tribal college administrators, faculty, and staff in developing distance education courses and providing support to American Indians enrolled in distance education at tribal colleges.

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## GLOSSARY

1. American Indian: “[A] person who: 1) is a member of a tribe, band, or other organized group of Indians, including those tribes, bands, or groups terminated since 1940 and those recognized now or in the future by the state in which they reside, or who is a descendent, in the first or second degree, of any such member, or 2) is considered by the Secretary of the Interior to be an Indian for any purpose, or 3) is an Eskimo or Aleut or other Alaska Native, or 4) is recognized as an Indian by his/her community.” (National Indian Education Association, n.d.).
2. American Indian Value System: the American Indian value system according to Machey (1975) consists of relationships with immediate and extended family members, religious beliefs, concern and balance with nature, concern and relationship with others, wisdom and fortitude.
3. Asynchronous: “Communication in which interaction between parties does not take place simultaneously” (University of Idaho, n.d.).
4. Bureau of Indian Affairs (BIA) Tribal College: A Tribal College “owned and operated by the Bureau of Indian Affairs (BIA)” (O’Laughlin, 2002, p. 630).
5. Congressionally Chartered Tribal College: A Tribal College that “is Congressionally chartered and governed by a board of trustees appointed by the President” (O’Laughlin, 2002, p. 631).
6. Connectedness: “represents the feelings of the community of students regarding their connectedness, cohesion, spirit, trust, and interdependence” (Rovai, 2002b , p. 206).

7. Distance education: “the process of extending learning, or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site, to another classroom, building or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods.” (Instructional Technology Council [ITC], n.d.).
8. Learning Experiences: “represents the feelings of community members regarding interaction with each other as they pursue the construction of understanding and the degree to which members share values and beliefs concerning the extent to which their educational goals and expectations are being satisfied”(Rovai, 2002b, p. 206).
9. Nontraditional student: college students who are 23 years and older (Southerland, 2006).
10. Satellite: “Courses are uplinked...by satellite from the originating university and then redistributed by satellite” (Moore & Kearsley, 2005, p. 39).
11. Sense of community: “[M]utual interdependence among members, connectedness, interactivity, overlapping histories among members, spirit, trust, common expectations, and shared values and beliefs” (Rovai, 2001, p. 107).
12. Synchronous: “Communication in which interaction between participants is simultaneous” (University of Idaho, n.d.).
13. Traditional student: college students between the age of 18 and 22 years (Southerland, 2006).

14. Tribal college: “[I]nstitutions of higher learning founded by tribes and governed by Indians” (Boyer, 1997, p. 1) which include federally and tribally chartered.
15. Tribally Controlled Community College: “is created and chartered by a federally recognized Indian tribe. These institutions are located on Indian reservations” (O’Laughlin, 2002, p. 630).
16. Tribally Controlled Vocational Technical Institutions: “These institutions must be chartered by one or more federally recognized Indian tribes and they are funded under the Carl D. Perkins Vocational Applied Technology Act” (O’Laughlin, 2002, p. 630).
17. Trimester: is “an academic year consisting of 3 terms of about 15 weeks each” (National Center for Education Statistics, n.d.)
18. Video conferencing: “a video conference is a live connection between people in separate locations for the purpose of communication, usually involving audio and...video” (*Videoconferencing*, 2007, May 8).
19. Web Course Tools (WebCT): Integrated learning system software that provides computer based instruction and “provide capabilities not only for asynchronous and synchronous communications but also include student management resources and testing function” (Moore & Kearsley, 2005, p. 88).

## OPERATIONAL TERMS

1. Tribal college student: student who is enrolled in a tribal college
2. Tribal community site: Tribal community that receives instruction from the institution through distance education modality where the study is being conducted for their community members and this tribal community agreed to participate in the study. This site is located out-of-state from the institution.
3. Tribal community site coordinator: The tribal community site coordinator is the tribal contact person who is the liaison between tribal community students and the institution.

## CHAPTER 1

### THE PROBLEM

#### Introduction

Distance education provides access to higher education for adult students who are not able or choose to physically attend a college/university campus due to family, financial, and employment obligations (Moore & Kearsley, 2005). These programs at higher education institutions provide instruction to students who are not physically at the place where the instruction occurs (Moore & Kearsley). However, students who are enrolled in distance education courses can be enrolled on or off campus. On campus students may be considered commuter and residential students, while off campus refers to students who are at a distance which does not allow them to commute to the campus. While distance education has provided access to many students who might otherwise not enroll in higher education, some studies suggest that for American Indian students the benefits of distance education may include both educational access and cultural connectedness. Furthermore, according to Sanchez, Stuckey, and Morris (1998), distance education promotes cultural connectedness and educational opportunities for American Indian students:

For those people who have been cut off from access to their cultures as well as to mainstream education by geographic inaccessibility or other means, distance learning can be a powerful way of reconnecting them to their own cultures while providing them with skills and information that will improve their educational and vocational status. (Sanchez et al., Conclusion section, ¶ 2)

Therefore, at its best, distance education programs offered by tribal colleges provide educational access to tribal community members, who reside in isolated tribal communities, and members who have community and cultural obligations that do not allow them to leave their communities (Ambler, 1999; Holdsworth & Dahlquist, 2004; Sanchez et al., 1998; United States General Accounting Office [GAO], 2002).

Less than half of the tribal colleges that presently exist provide distance education courses (American Indian Higher Education Consortium [AIHEC], 2006). Tribal colleges' distance education programs provide a viable means for American Indian students who are "reservation bound" to achieve higher education. Equally, not all tribes have a tribal college, so distance education is a way for tribal colleges to provide higher education to students at reservations without one (Ambler, 1999). In addition, according to Ambler, tribal college distance education programs can provide cultural awareness and connection to tribal members who reside in urban communities. As a result, distance education at tribal colleges has been found to be effective when it connects its students to their culture and provides higher educational opportunities to students reside in isolated tribal communities. Although distance education at tribal colleges has been effective in certain areas, distance education for American Indians is not without problems.

#### Statement of the Problem

Tribal colleges were created to meet the social, educational, and economic needs of American Indian communities. The majority of students who attend tribal colleges come from the approximately 500 federally recognized tribes throughout the United States. The types of tribal colleges that currently exist according to

O’Laughlin (2002) are: “Tribally Controlled Community College,” “Tribally Controlled Vocational Institutions,” Bureau of Indian Affairs (BIA) Tribal College, and “Congressionally Chartered” Tribal College (p. 631). The majority of the tribal colleges that presently exist are tribally controlled community colleges. Of the tribally controlled community colleges, American Indian students make up the majority student population, some of which have a small percentage of students that are not American Indian. In contrast, Bureau of Indian Affairs (BIA) tribal colleges have one hundred percent American Indian student enrollment. The tribal college for this study is a Bureau of Indian Affairs tribal college. According to the American Indian Higher Education Consortium (2006) the retention rate is 46% for students pursuing Associate Degrees at the 23 tribal colleges within the United States. According to AIHEC (2006) family obligations is the most common influence on student retention at the majority of tribal colleges. According to AIHEC (2006), there were a larger percentage of female students attending tribal colleges in comparison to male tribal college students in the Fall 2005. Also, 63% of first time entering students ages range from 16-24 years and 37% are 25 years and older according to data compiled by AIHEC (2006).

According to Sanchez et al. (1998), American Indian students who participate in distance education programs are faced with challenges similar to students in a traditional college setting. However, according to Sanchez et. al., in ideal circumstances distance education can lessen the challenges these students face. Some of these obstacles include inadequate academic preparation as well as financial, family, and community obligations (Holdsworth & Dahlquist, 2004; Sanchez et al.,

1998). According to Wetsit (1999b), addressing these obstacles, specifically the cultural influences which may include family and community obligations, is important in building distance education courses at tribal colleges. Wetsit identifies these cultural influences as:

- strong extended family and community ties as compared to a nuclear family system
- a sense of tribal identity as compared to a more national mainstream identity
- an emphasis on relationships as compared to an emphasis on task orientation
- an emphasis on sharing and cooperating as compared to the more individualistic values of mainstream culture
- a strong sense of humor
- culturally specific communication styles (p. 16)

Wetsit further emphasizes that distance education courses created at tribal colleges which do not address the above influences run the risk of “dehumanizing” distance education courses.

There are an increasing number of females who are participating in distance education programs (Kramarae, 2001; Latanich, Nonis, & Hudson, 2001; United States General Accounting Office [GAO], 2002) and as a result, higher education institutions providing distance education to this population must understand gender differences to promote retention and academic success for this student population.

Tinto (1993) asserts that there is a difference of experience between males and females, and more specifically that there is a difference why females leave college in comparison to men. Tinto further suggests that women leave colleges for social related reasons, and that the understanding of this difference is important in understanding higher education retention and persistence. Strengthening and incorporating a sense of community among distance education students is related to increased academic success in this type of learning (Rovai, 2001, 2002a, 2002c, 2002d), and according to Rovai (2001, 2002a, 2002c, 2002d) the perceptions of sense of community includes perceptions of connectedness and learning experiences. Rovai (2002c, 2002d) analyzed the differences between females and males in their perceptions of sense of community, connectedness, and learning experiences in various studies. The findings in these studies have illustrated differences in their perceptions of sense of community, connectedness, and learning experiences. Therefore, understanding gender differences in their perceptions of sense of community, connectedness, and learning experiences will assist higher education institutions, particularly tribal colleges in providing support services to address these differences.

For this study, traditional and non-traditional students are determined by their age where traditional students include 18 through 22 years and the non-traditional student includes 23 and older. The majority of the students who are enrolled in distance education courses are older students (Bunn, 2004; Jorgensen, 2002; Latanich, Nonis, & Hudson, 2001; McGivney, 2004; Moore & Kearsley, 2005). These older students or non-traditional students, are married, employed, and have

family obligations (Bunn, 2004; Latanich, Nonis, & Hudson, 2001). As a result of these influences, these students face additional barriers than the younger or traditional students that influence retention and academic success (Tinto, 1993). Non-traditional distance education students have difficulty perceiving a sense of belonging or connecting with the institution and often feel isolated (McGivney, 2004). However, non-traditional students can increase their sense of belonging perceptions through engagement with course materials, which is important in persisting in distance education environments (McGivney, 2004). Therefore, understanding the differences in perceptions of sense of community, connectedness and learning experiences regarding this population will assist higher education institutions and tribal colleges to promote academic success in distance education courses.

There are various types of distance education modalities used to deliver distance education courses. However, there is little research done on various distance education modalities used to deliver distance education courses and their ability to promote a higher level of sense of community, connectedness, and learning experiences. There is some research that does suggest that video conferencing promotes an increased interaction among students and instructors (Martin, 2005a; Smyth, 2005), and also research that suggests that web based courses are equally interactive and provide more opportunity for interaction (Kuo, 2005). Additionally, web based courses poses a challenge for learners to interact with other students and the instructor (Beard, Harper, & Riley, 2004). As a result, further understanding in the difference in perceptions of the various distance education modalities in sense of

community, connectedness, and learning experiences may assist tribal colleges in their enhancement of distance education courses.

Although distance education provides access to higher educational opportunities, tribal college distance education students are challenged with feeling disconnected from the tribal college (Wetsit, 1999b). Distance education involves individualized learning which takes place outside the traditional classroom setting. Yet, American Indians tend to value the face-to-face interaction which makes distance education a challenge to the American Indian student (Sanchez et al., 1998). As a result, distance education could result in a disconnection between the student and the tribal college. Students who experience this disconnection may feel that they are pursuing their education in isolation.

According to Cajete (2005), the American Indian culture and education is based on community, family, and the clan system.

The life of the community, as well as the individuals of that community, is the primary focus of tribal education. The community is also the primary context-through the family, clan, or other tribal social structures-in which the first dimensions of education unfold for all human beings. All humans after all are social animals who depend on each other directly not only for their mutual survival but their identity. (p. 75)

Therefore, understanding the American Indian students' perceptions of sense of community within the distance education environment is important to establishing effective distance programs for tribal colleges and its American Indian students. Also,

this understanding may contribute to the academic success and retention of tribal college students enrolled in distance education courses at the single institution.

### Purpose of the Study

This current single institution study provides an understanding of the tribal college students' perceptions concerning sense of community, connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities which includes satellite, video conferencing, and Web Course Tools (WebCT). Moreover, this study adds to the body of knowledge in the area of tribal college distance education. Obtaining these perceptions may assist tribal college administrators, faculty and staff with enhancing distance education courses and promoting retention for American Indians who participate in distance education programs and courses at tribal colleges. This study analyzed the perceptions of tribal college students enrolled in distance education courses on their sense of community, connectedness, and learning experiences. Data was collected using a questionnaire developed by Rovai (2002c) which is known as the Classroom Community Scale, however the study conducted by Rovai using the Classroom Community Scale was conducted with students enrolled in on line courses.

### Research Questions

The research questions for the current study are:

1. To what extent do tribal college students perceive a sense of community in distance education courses?
2. To what extent do tribal college students perceive connectedness in distance education courses?

3. To what extent do tribal college students perceive learning experiences in distance education courses?
4. What are the perceptions of female tribal college students on sense of community compared to male tribal college students in distance education courses?
5. What are the perceptions of female tribal college students on connectedness compared to male tribal college students in distance education courses?
6. What are the perceptions of female tribal college students on learning experiences compared to male tribal college students in distance education courses?
7. What are the perceptions of traditional tribal college students on sense of community compared to nontraditional tribal college students in distance education courses?
8. What are the perceptions of traditional tribal college students on connectedness compared to nontraditional tribal college students in distance education courses?
9. What are the perceptions of traditional tribal college students on learning experiences compared to nontraditional tribal college students in distance education courses?
10. What are the perceptions of on campus tribal college students on sense of community compared to off campus tribal college students in distance education courses?
11. What are the perceptions of on campus tribal college students on connectedness compared to off campus tribal college students in distance education courses?

12. What are the perceptions of on campus tribal college students on learning experiences compared to off campus tribal college students in distance education courses?
13. What are the perceptions of tribal college students in distance education courses on sense of community by the various distance education delivery modalities?
14. What are the perceptions of tribal college students in distance education courses on connectedness by the various distance education delivery modalities?
15. What are the perceptions of tribal college students in distance education courses on learning experiences by the various distance education delivery modalities?

#### Research Hypotheses

The research hypotheses for the current study are:

1. Tribal college students perceive a low sense of community in distance education courses.
2. Tribal college students perceive low connectedness in distance education courses.
3. Tribal college students perceive low learning experiences in distance education courses.
4. Female tribal college students perceive a greater sense of community compared to male tribal college students in distance education courses.
5. Female tribal college students perceive a greater connectedness compared to male tribal college students in distance education courses.
6. Female tribal college students perceive greater learning experiences compared to male tribal college students in distance education courses.

7. Traditional tribal college students perceive a greater sense of community compared to nontraditional tribal college students in distance education courses.
8. Traditional tribal college students perceive a greater connectedness compared to nontraditional tribal college students in distance education courses.
9. Traditional tribal college students perceive greater learning experiences compared to nontraditional tribal college students in distance education courses.
10. On campus tribal college students perceive a greater sense of community compared to off campus tribal college students in distance education courses.
11. On campus tribal college students perceive a greater connectedness compared to off campus tribal college students in distance education courses.
12. On-campus tribal college students perceive greater learning experiences compared to off-campus tribal college students taking distance education courses.
13. The perceptions of tribal college students in distance education courses on sense of community differ across the various distance education delivery modalities.
14. The perceptions of tribal college students in distance education courses on connectedness differ across the various distance education delivery modalities
15. The perceptions of tribal college students in distance education courses on learning experiences differ across the various distance education delivery modalities.

#### Delimitations of the Study

The participants were students enrolled in a tribal college and enrolled in distance education courses. All of the participants in the study were registered members of a federally recognized tribe because the tribal college where the study

was conducted only admits students who are enrolled members of federally recognized tribes. This study is delimited to this population because tribal colleges were created to meet the needs of tribal communities and these students are members of these communities. Participants in the study were eighteen years and older. The distance education course modalities for this study are delimited to satellite, video conferencing, and WebCT. This study was a single institution study. The single institution study approach was selected for this study because of the diverse student population at the tribal college where the study will be conducted. The student population is representative of various tribes throughout the United States. This population comes from rural and urban communities, and there also is a mixture of traditional and non-traditional students. The tribal college where the study was conducted provides on-campus housing; there are also a number of students who commute to the campus. Participants in this single-institution study included students enrolled in distance education courses at a tribal college. The single institution where the study was conducted was at a tribal college located in the southwestern part of the United States. The students who attended this single institution are American Indians who represent approximately 120 different federally recognized tribes within the United States (American Indian Higher Education Consortium [AIHEC], 2006). The institution is governed by a Board of Regents whose members are tribally appointed (AIHEC, 2006). This institution provides associate degrees and certificate programs and is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (AIHEC, 2006). The average enrollment at the institution where this study was conducted is 800 students which includes residential,

commuter, and distance education students (AIHEC, 2006). This institution is dedicated to providing instruction in areas that are critical to tribal communities (AIHEC, 2006).

### Summary

As tribal colleges begin to provide distance education to American Indian communities they must consider integrating American Indian values into the development of instruction and support for American Indian students enrolled in distance education courses. Important American Indian values are the concepts of sense of community and connectedness and its importance to tribal college student success and their learning experience particularly those enrolled in distance education courses. American Indian distance education students face similar challenges as those attending courses in a traditional college setting. In addition, these students pursue their education in isolation and may not feel a sense of community, disconnected from the institution, and may not perceive a positive learning experience. The researcher investigated tribal college students' perceptions of sense of community, connectedness, and learning experiences in tribal college distance education courses by utilizing a questionnaire. The research questions presented in this chapter will assist with the understanding of sense of community, connectedness, and learning experiences among tribal college students enrolled in distance education courses. The research findings from this study may assist tribal college administrators, faculty, and staff in their development of distance education courses and student support for distance education students.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Introduction

The following literature review will discuss and provide insight on tribal colleges, distance education and, sense of community, and research on student perceptions and characteristics in the afore mentioned areas. Further the historical, present, and future status for tribal colleges and distance education will also be discussed in this chapter.

#### Tribal Colleges

Tribal colleges are important higher educational institutions to American Indian communities in the United States. According to Boyer (1997), tribal colleges contribute to tribal communities through promoting supportive learning environments for students, supporting tribal culture and traditions, providing critical services to tribal communities, and providing for research and study regarding American Indian issues. Essentially, Barden (2003) describes tribal colleges as “community builders” which are defined by the communities they serve. According to Ambler (2005), another important role of tribal colleges is to provide cultural awareness to its students: “tribal colleges want their graduates to be culturally competent, well versed in the cultural values of their tribe” (p. 9). More important, “tribal colleges...are exemplary in developing recruitment, retention, and campus environments that facilitate American Indian student achievement” (Pavel, 1999, p. 249). According to Martin (2005b), tribal colleges provide American Indian students the educational experience that incorporate American Indian culture, language, and history into the

students' academic and support services which promote student achievement. This section will discuss tribal colleges' history, present state, and future initiatives.

### *History of Tribal Colleges*

Historically, the American Indian educational system in the United States has had a devastating effect on the American Indian population (Boyer, 1997; Reyner & Eder, 1989; Tippeconnic, 1999). The educational system was used to assimilate the American Indian population by removing children from their families and placing them in educational facilities outside their communities (Reyner & Eder 1989; Tippeconnic, 1999). At these facilities, American Indian children were forced “to embrace European life and renounce their own culture” (Boyer, 1997, p. 13). The United States published a report known as the *Merriam Report* through the *Institute for Government Research* which exposed the mistreatment of American Indians and disapproved of the boarding schools' handling of American Indian children (Boyer, 1997; Reyner & Eder). This report was the catalyst to change the treatment of American Indians at that time and led to the Indian Reorganization Act which was enacted in 1934 (Boyer, 1997; Tippeconnic, 1999). This act, according to Boyer (1997), was “designed to reverse the devastation of long-standing policy, the new legislation focused on safeguarding Native American sovereignty” (p. 16) and began the reorganization of the American Indian educational system.

Immediately following World War II, two important events occurred which began the establishment of tribal colleges within the United States. The first was the change in American Indian policies from Termination to Self-Determination (Reyner & Eder, 1989). The Termination policy was a government policy “that would

eliminate reservations, by parceling out the land to individual tribal members and shift many Indian programs to the states” (Boyer, 1997, p. 21). This initiative to remove American Indian land from government trust responsibility gave tribes the ability to sell their land. However, the Termination policy proved to do more harm than good and therefore the Termination policy was short-lived (Boyer, 1997). The devastating effects of the Termination policy catalyzed an awakening for tribes to move towards self-determination where tribes began to take control of critical programs affecting their communities, such as education (Boyer, 1997).

Implementation of the Self-Determination policy provided the means for American Indian communities to establish tribal colleges to meet the needs of their communities and promote cultural preservation (Boyer, 1997; Tippeconnic, 1999; Stein, 2003).

American Indian communities sought to establish their own higher education as a result of the challenges American Indian students encountered with gaining admissions into college and the difficulty in completing a degree program (Boyer, 1997; Brown, 2003). As a result, the first tribal college, Dine College (formerly known as Navajo Community College), was established on the Navajo reservation in 1968. As tribal colleges began emerging, there was a growing need to fund these institutions and as a result the Tribally Controlled Community College Assistance Act was enacted in 1978 (Tippeconnic, 1999).

Presently, there are thirty-four tribal colleges in the United States and Canada (American Indian Higher Education Consortium [AIHEC], n.d.). According to the 2000-2001 Integrated Postsecondary Education Data System Report (IPEDS), tribal colleges enrolled approximately “8 percent of American Indians/Alaska Native

students in the United States serving 11,262 students” (United States General Accounting Office, 2003, p. 50). A tribal college must be chartered either federally or tribally to be recognized as a tribal college. According to HeavyRunner, Murray, and Shanley (n.d.): “The tribally controlled institutions, chartered by one or more tribes, are locally managed, while the federally chartered institutions are governed by national boards” (p. 6). According to Ambler (2005), thirty one tribal colleges are tribally chartered and located on American Indian land. The mission of these colleges is primarily to serve the needs of the American Indian communities and promote cultural preservation (Stein, 1992; AIHEC, 1999). A majority of the tribal colleges offer adult basic education, vocational training, certificate and associate degrees. A few provide degrees at the bachelor’s and master’s level (AIHEC, 1999; AIHEC 2006). According to Boyer (1997), many of the tribal colleges’ core curricula are focused on “job training.” However, courses are also offered in liberal arts and Native American studies. Currently, tribal colleges face challenges within the areas of financial support, accreditation, maintaining cultural relevancy in curriculum, academic preparation of students, inadequate and out-of-date facilities, tribal community involvement, and American Indian representation in professional, faculty, and leadership positions (Benham & Stein, 2003; Tippeconnic, 1999).

The future initiatives of tribal colleges are to promote access, addressing administrative challenges, and developing a higher education institution that is representative of the tribal communities. Tribal colleges are continuing to explore and experiment with alternative course offerings such as evening and distance education courses to meet the needs of non-traditional students who represent the majority of

students attending tribal colleges (Ness, 2002). Most important, tribal colleges were expected to face financial, facilities, and accreditation challenges in the future (McClellan, Tippeconnic-Fox, & Lowe, 2005) Tribal colleges want to move away from the traditional mainstream course delivery and provide a learning environment that is representative of the communities which tribal colleges serve (Boyer, 2005). Boyer (2005) further described their goals “to become a new kind of college, one that looks and acts less like the mainstream colleges upon which the tribal colleges were initially modeled and more like the community they hope to serve” (p. 11). Boyer (2005) also suggested that the future for tribal colleges involves creating college curricula that truly represents tribal communities and moves away from mainstream methods by developing a true “indigenous institution.”

#### Retention and Academic Success of American Indian Students

There are several factors that affect American Indian retention and academic success within colleges and universities. Larimore and McClellan (2005) suggested that the support American Indians receive from their family and the institution and their ties to their tribal community and culture affects retention. They further suggested challenges these students face that impacted academic achievement include academic under preparedness, financial concerns, social adjustment and isolation. More important, additional factors that have impacted retention and academic achievement are the students’ involvement with traditional and cultural activities and the struggle between their traditional beliefs with mainstream concepts taught in these institutions (Larimore & McClellan, 2005). According to Pavel (1999), higher education institutions can increase retention and academic success for American

Indians by providing transitioning programs and support services. The transitioning programs include activities such as orientation and college preparation programs. Additionally, he further suggested that institutions should provide academic and student support programs that exclusively serve this population, so that students feel more connected and do not feel so isolated. In addition, he suggested that tribal colleges should provide additional financial assistance and resources for this population. Also, Pavel (1999) recommended that the institution should make an effort to understand their American Indian student and the culture to promote interaction and establish relationships with faculty and staff.

#### American Indian Women and Higher Education

The number of American Indian women participating in college has increased in comparison to men (Harvey & Anderson, 2005). Also, according to Harvey & Anderson, “American Indian women widened the enrollment gap with their male counterparts, increasing their enrollment by 25,000 students compared to an increase of nearly 14,000 American Indian men” (p. 12). In addition, American Indian women are earning degrees at a higher rate than American Indian men (Harvey & Anderson). The majority of the student population in tribal colleges is women in comparison to men (Harvey & Anderson, 2005; Hernandez, 2006). According to Ortiz and HeavyRunner (2003), American Indian women tend to be low income, single parents and attend higher education institutions so that they can earn more income and provide for their families. Due to the increased presence of American Indian Women in higher education, it was important to compare their perceptions in the current study to their male counterparts.

## Tribal College Students

The majority of the tribal college student population consists of American Indian students who are enrolled members of federally recognized tribes within the United States (American Indian Higher Education Consortium [AIHEC], (2006). According to McClellan et al. (2005) “tribally controlled institutions are typically located on a reservation and serve students who live on or near that reservation” (p. 12). Students who attend tribal colleges are typically nontraditional students and majority of students are female (Boyer, 1997; Brown, 2003, HeavyRunner, Murray, et al., n.d.; Martin, 2005b; Ness, 2002; Ortiz & HeavyRunner, 2003; Stein, 2003) However, there is an increasing number of younger students who are enrolling in tribal colleges (AIHEC, 2006). Tribal college students have been typically first-generation college students (Stein, 2003). Some reasons why tribal college students choose to attend tribal colleges include obtaining and securing employment, geographic location, cost, academic preparation, support and cultural awareness, sensitivity, and promotion of tribal colleges.

According to Stein (2003), tribal college students “hope to improve their chances of securing satisfying and financially rewarding employment, that they seek the skills to manage their own futures, and that they want an opportunity to provide a better life for their families” (p. 50). Also, students attend tribal colleges because of their location which is near or on their tribal communities and family (Brown, 2003; Martin, 2005b; Ness, 2002). Typically, mainstream institutions are located miles away from the tribal community, and therefore tribal members choose not to attend because of their inability to leave their communities (Brown, 2003). Most important,

the costs to attend tribal colleges are significantly lower than mainstream institutions (Brown, 2003). American Indian students often contend with financial challenges that prevent them from attending or completing college (HeavyRunner & Decelles, 2002; Martin, 2005b). Many tribal college students and their families are below the poverty level (Boyer, 1997; HeavyRunner, Murray, & Shanley, n.d.). Cost is an important factor in the successful completion of tribal college students (Ness, 2002). The majority of students enrolled in tribal colleges require financial aid and according to Stein (2003) it is a “necessity for more than 90% of indigenous students (p. 52).”

According to Brown (2003), students attend tribal colleges because it provides them the academic preparation and support to transition into a four-year institution if they choose to pursue a four-year degree. Of students who choose to attend tribal colleges, “86 percent persist to complete a degree” (Martin, 2005b, p. 81). However, many students who attend tribal colleges enter academically under-prepared (Boyer, 1997).

The American Indian tribal college student typically has a strong cultural connection to their tribal community (Stein, 2003). It is difficult to measure the level of cultural connectedness a tribal college student has because of each student’s unique background. McGeshick-Garcia (2000) describes the diversity of the American Indian and tribes more specifically as:

Different tribes live different cultures. Some Native Americans speak their own language, but many do not. Some are full-bloods; most are mixed bloods. Some live on the reservation; about half live in urban areas. Some are enrolled in a tribe and own land; some do not own land. Some live mainstream

lifestyles; others practice and live traditional ways or parts of their tradition and culture. (p. 47)

However, tribal college students who do complete their degrees successfully have shown to be a result of the cultural awareness promoted by the institution and the adequate support the institution provides to address these needs (Ness, 2002). Therefore, tribal college students attend tribal colleges because of the cultural connectedness they feel with the institution. Tribal colleges encourage American Indian students to exercise cultural and traditional values (Ness). According to Wetsit (1999a): “the sense of cultural and tribal belonging experienced by American Indians is an extremely important aspect of their identity” (p. 183). Therefore, because tribal college students value their identity, the promotion of American Indian culture, and traditions, they feel supported by tribal colleges.

Tribal college students value family and family influence has an effect on their academic success (HeavyRunner & DeCelles, 2002; Martin, 2005b; Ness, 2002; Ortiz & HeavyRunner, 2003). According to Wetsit (1999a), the students’ families typically take precedence over “other values such as recreation, school, or even employment, depending on the situation” (p. 187). Although family can be a positive support in the tribal college students’ academic success, they also can prevent students from succeeding as a result of their family responsibilities (Ortiz & HeavyRunner, 2003).

#### Distance Education

Higher education institutions throughout the United States and the world are incorporating distance education programs into their institutions. As distance

education is increasingly growing it is important to understand the trend of distance education in higher education. This section will discuss the history, current state, and the future of distance education.

Moore and Kearsley (2005) categorize the development of distance education through using a historical context of five generations. These are: a) correspondence b) broadcast radio and television c) open universities d) teleconferencing and e) Internet/web. Distance education, in its first generation, began through the utilization of correspondence and began in the late 1800s at the Chautauqua Correspondence College which was located in New York (Moore & Kearsley). Distance education through correspondence was achieved by utilizing the mail system (Moore & Kearsley). As a result, other institutions began providing educational services to students through correspondence in the United States and internationally (Moore & Kearsley). According to Moore & Kearsley, women played a critical role in the development of distance education because, during this time, women were not given adequate access to educational opportunities.

Following the correspondence generation, the television and radio broadcasting of distance education emerged in the early to mid 1900s (Moore & Kearsley, 2005). The organizations that experimented with delivering education courses through radio were the Latter Day Saints University located in Salt Lake City and State University of Iowa (Moore & Kearsley).

Distance education delivered by television occurred during the same time period as radio broadcasting (Moore & Kearsley, 2005). State University of Iowa was one of the first to deliver courses through the television medium (Moore & Kearsley).

Television was more successful than radio broadcasting in terms of delivering distance education courses (Moore & Kearsley). In the mid 1960s, according to Moore and Kearsley, federal acts were enacted to expand and fund educational broadcasting which promoted television broadcasting for educational purposes. Courses delivered by television or also known as “telecourses” flourished in the 1980s and “[b]y the mid 1980s there were around 200 college level telecourses produced by universities, community colleges, private producers and public and commercial broadcasting stations, distributed either by the producers themselves or by the Corporation for Public Broadcasting (CPB)” (Moore & Kearsley, p. 32).

The third generation which was open universities was also known as the systems approach generation. This was a time when new ideas and theories emerged regarding the delivery of education (Moore & Kearsley, 2005). This generation began in the 1960s and 1970s (Moore & Kearsley). The institutions that played a critical role during this time “were the University of Wisconsin’s AIM Project and Great Britain’s Open University” (Moore & Kearsley, p. 33). It was during this generation when the development and recognition of “distance education as a total system” (Moore & Kearsley, p. 33) began. University of Wisconsin’s AIM project focused on understanding learning styles and creating courses to meet the students’ needs (Moore & Kearsley). This project created a “course design team” which consisted of “instructional designers, technology specialists, and content experts” (p. 33). This project was the turning point in how distance education was being delivered where instruction, distance education medium, student’s learning styles, and support were integrated into a system perspective (Moore & Kearsley).

Great Britain established its Open University in the late 1960s which delivered higher education through radio and television broadcasting. According to Moore and Kearsley (2005):

British policy makers made the courageous decision to establish a fully autonomous institution, empowered to give its own degrees, with control of its own funds and its own faculty. The UK Open University has justified the decision, emerging as a world class university by any criterion, as well as a model of a total systems approach to distance education. (p. 35)

Following the third, open universities generation, according to Moore and Kearsley (2005) the teleconferencing fourth generation emerged in the United States. The initial form of teleconferencing, audio conferencing began in the 1970s through the 1980s (Moore & Kearsley). Audio conferencing allowed distance education students to interact with the instructor from various distant site locations (Moore & Kearsley). The equipment required for audio conferencing was handsets, microphones, and speakers (Moore & Kearsley).

In addition, another major distance education delivery system introduced during this generation was the use of satellite and interactive video broadcasting (Moore & Kearsley, 2005). According to Moore and Kearsley, satellite “communications began on April 6<sup>th</sup>, 1965 with the launching of the Early Bird satellite” (p.38). This allowed courses to be delivered to students at home or at instruction sites. However, the interaction between students and instructors through satellite communications was assisted by telephone communications (Moore & Kearsley).

As the technology evolved in the 1980s and early 1990s video conferencing was delivered through satellite technology (Moore & Kearsley, 2005). This technology was utilized initially by business corporations and eventually moved into the educational systems (Moore & Kearsley). However, participants in this type of distance education instruction used “one-way video/two-way audio communications” which meant that “participants at all sites could see and hear the presenters from the originating site, but could only respond by audio. Participants could not see other participants, only hear them” (Moore & Kearsley, p. 41).

The two-way video-conferencing emerged in the 1990s, which allowed participants to hear and see participants at other sites (Moore & Kearsley, 2005). This form of distance learning allowed interaction between diverse groups of students to interact with each other and the instructor through the utilization of computers and the “development of fiber-optic telephone lines that permitted transmission of higher data rates” (Moore & Kearsley, p. 42).

Moore and Kearsley (2005) describe the fifth generation as the introduction of computer, Internet, and web-based instruction. Universities and colleges adopted Internet technology as an educational tool during the 1990s and began experimenting with providing instruction utilizing the World Wide Web to deliver online courses (Moore & Kearsley). As a result, universities and colleges today provide courses totally online or blend courses with online and face-to-face interaction. Universities and colleges have accepted this new way of learning which continues to grow at an exponential rate.

## Distance Education Students

Students who participate in distance education courses are typically older, employed full-time (Bunn, 2004), have family responsibilities (Bunn), and are part-time students (Moore & Kearsley, 2005; United States General Accounting Office [GAO], 2002). A majority of undergraduate students who are enrolled in distance education programs are female (GAO). Additionally, distance education students have a higher income in comparison to those not enrolled in distance education courses (GAO). Students who are enrolled in distance education programs typically choose the following academic interests: business, humanities, and education (GAO). The motivation for most students to participate in distance education programs is “to develop or upgrade the skills and knowledge needed in employment” (Moore & Kearsley, 2005, p. 162). A majority of students enrolled in distance education courses are enrolled at public and two year institutions (GAO). Most students who are enrolled in distance education courses receive federal financial aid to support their education (GAO).

## Distance Education Students’ Challenges

Students who participate in distance education programs have unique perspectives and experiences different from students who are enrolled in traditional courses. The following will discuss the barriers distance education students face and the motivation to complete distance education courses.

Distance education students face unique challenges compared to students in a traditional classroom. Some of the challenges include the following: isolation, technological support or skills, personal obligations, and access to resources (Bunn,

2004; Perreault, Waldman, Alexander, & Zhao, 2002). Distance education students often feel isolated, unsupported and miss the face-to-face interaction with classmates and the instructor (Bunn, 2004; Ku, 2003; Perreault, et al., 2002). Students in a face-to-face classroom are able to interact with the instructor before, during, and after class to discuss course concerns, unlike the distance education student whose communication with the instructor is limited to communication media such as telephone, email, and mail (Perrault, et al.). This can be frustrating to distance education students because they do not receive an immediate response from the instructor (Perrault, et al.). In addition, in a study conducted by Ku (2003), distance education students described some of the challenges of their online learning course experience. Some of these challenges were the limited interaction between the instructor and students, limited feedback from the instructor, and their difficulty in working alone (Ku).

Technological support or skills required is perceived as a barrier by many distance education learners (Bunn, 2004; Perrault et al., 2002). Oftentimes, students who enroll in distance education courses are unaware of the technological skill level most distance education courses require until they “encounter several technological related difficulties” (Perrault et al., p. 313) finding the course difficult as a result. Therefore, according to Moore and Kearsley (2005), those students who enroll in distance education and are satisfied with this type of learning are those who have technical experience. Also, according to Bunn, technically skilled distance education students also face technological challenges because of their difficulty accessing or locating adequate technical support to assist with concerns. Moore and Kearsley

further suggest that unresolved and continuous technological problems in distance education courses results in student “frustration and resistance” (p.178).

Distance education students are typically employed and have family obligations, and are supported by members in both these areas, according to Moore and Kearsley (2005). In addition, the success of distance education students rely on support from members of their family and employment, and without this support these students may not succeed (Moore & Kearley). Bunn (2004) further suggests that the distance education students are challenged with balancing their personal life (family and employment) with their distance learning course commitments.

Another barrier identified by distance education students is the lack of access to resources (Bunn, 2004; Perreault et al., 2002). Resources are identified as libraries, e-resources, or any materials that support the learning of distance education students. The challenge for distance education students in retrieving resources is the difficulty accessing information online due to technology problems, lack of technological skills, or inadequate course planning by the instructor (Bunn, 2004; Perrault et al., 2002). Also, according to Bunn’s findings, distance education students also had difficulty retrieving or accessing the “hard copy” (p. 263) resources.

An important factor that contributes to distance education students’ motivation is the support they receive from their personal, educational, and employment relationships. Bunn’s (2004) study discusses the support personal relationships of students at work, home, and school contribute to motivation that participants expressed in focus group discussions: “participants valued the support of their fellow students, friends, and family, and co-workers” (p. 264). Bunn further

suggests that the experience with students provided a sense of community for distance education students, with those lacking a sense of community having difficulty with motivation. However, the relationships outside the classroom (family, friends, and employment), according to Bunn, contributed to the distance education's student motivation but "received less attention in the literature, perhaps because it is beyond the control of learning institutions to do anything about" (p. 265).

Students valued relationships that were established during the class which provided the support for students to continue with the course. Bunn (2004) also suggested that understanding the course requirements also motivated distance education students. Distance education students who had an understanding of their course load in advance were able to plan and prepare ahead. As a result, they were prepared for the course demands. Another motivation factor, described by Bunn, was the students' "own drive and determination" (p. 261).

#### Tribal Colleges and Distance Education

Currently, tribal colleges are exploring and providing distance education to students who reside in tribal communities. According to reports prepared by the distance education programs at tribal colleges, these programs extended courses to students who reside in geographically isolated areas (Ambler, 1999; GAO, 2002; 2003; Holdsworth & Dahlquist, 2004; O'Donnell, Mitchell, Anderson, Lambert, Burland, & Barber, 2003; Sanchez et al., 1998; Stein & Jetty, 2002; Wetsit, 1999b). Additionally, distance education provides educational opportunity for students who are not able to leave their tribal communities because of family and tribal responsibilities (Ambler, 1999; Holdsworth & Dahlquist; Sanchez et al.; GAO, 2003).

The 2003 United States General Accounting Office report describes challenges faced by tribal colleges to delivering distance education from their institutions in the following:

Technological limitations for Tribal colleges involve a lack of resources to purchase needed technologies and difficulties in accessing technology, such as high-speed Internet, due to the rural and remote location of many reservations.

(p. 5)

Limited access to technology in tribal communities is a major challenge to tribal colleges who choose to pursue distance education initiatives (GAO, 2003; Holdsworth & Dahlquist; O'Donnell et al.; Sanchez et al.). Yet, tribal college administrators consider distance education a priority. However, they understand the technological and financial challenges to establish a viable distance education program. This is the predominant reason why many tribal colleges do not provide distance education courses (Ambler, 1999; Holdsworth & Dahlquist; O'Donnell et al.; Sanchez et al.; Stein & Jetty, 2002; GAO, 2003). A majority of tribal college distance education programs rely on federal and private grants to sustain their distance education programs (Stein & Jetty; GAO, 2003). Tribal colleges that offer distance education courses are not only faced with financial and technological challenges but securing qualified staff to manage and sustain an operational distance education program (O'Donnell et al.; GAO, 2003). Distance education is an innovative educational tool that promotes American Indian culture, the main mission of tribal colleges. However, tribal communities, leaders, and spiritual leaders are concerned about the kinds of cultural information that is distributed through distance education

courses (Ambler, 1999; Davis, 1999; Holdsworth & Dahlquist; Sanchez et al.; Stein & Jetty) According to Sanchez et al., tribal colleges are not only challenged with cost and connectivity but also protecting “the sanctity of tribal cultural information, and with ensuring that the technologies are used to promote rather than to undermine tribal goals” (Tribal Uses of Distance Education Technology section, ¶27). Most important, distance education promotes economic development within tribal communities by educating community members who may not otherwise achieve higher learning (Holdsworth & Dahlquist; Stein & Jetty). However, tribal colleges are still challenged with addressing the feelings of isolation among distance education students. According to Wetsit (1999b), tribal college “faculty must address the needs of various, specific cultural groups despite the physical distance between students and instructors that can foster a sense of disengagement or isolation” (p. 16).

#### Sense of Community

According to Hill (1996), Sarason introduced the concept of psychological sense of community in 1974 to assist with the understanding of the value of community from a community psychologist perspective. Also, a sense of community is important to understanding community and the important role community plays in a person’s life (Sarason, 1974). The concept of the psychological sense of community is based upon the idea that:

Our lives are circumscribed spatially and psychologically, and it all seems so natural except for those poignant moments, quite frequent for many people, when we yearn to be part of a larger network of relationships that would give

greater expression to our needs for intimacy, diversity, usefulness, and belongingness. (Sarason, p. 3)

McMillan and Chavis (1986) developed the definition for sense of community which is referenced in much of the literature. They define sense of community through the following four areas: “membership”; “influence”; “integration and fulfillment of needs”; and “shared emotional connection” (McMillan & Chavis). McMillan and Chavis define sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (p. 9). As a result, much of the research on community and sense of community has been developed through these concepts.

#### Sense of Community and American Indian Values

American Indian values are based on the concept of sense of community. The American Indian perception of community is connected to feelings of belonging and relationships to the community, tribe, clan and family members (Cajete, 2005; Deloria, Jr., & Wildcat, 2001). Relationships in American Indian communities are important because of American Indians’ beliefs that all things are related (Cajete, 2001; 2005; Deloria, Jr., & Wildcat). Relationships promote interdependence and cooperation between tribal community members.

American Indian students attending higher education institutions seek relationships and a sense of belonging with their new community and their success is based on their experiences and ability to establish relationships and feel a sense of belonging. Research also shows that the support American Indian students have from

their community and family encourages academic success and persistence in higher education institutions (HeavyRunner & Decelles, 2002; HeavyRunner, Murray, & Shanley, n.d.; Martin, 2005b; Ortiz & HeavyRunner, 2003). Also, higher education institutions must be aware of American Indians' values, particularly of relationships and sense of belonging, and create programs that support these values while creating a community environment to promote academic success and retention (Martin, 2005b; Ortiz & HeavyRunner).

According to HeavyRunner and DeCelles (2002), family plays an important role in the academic success and retention of American Indian students. The *Family Education Model* was developed through a collaboration of tribal colleges and universities which incorporated family into the student support system at participating tribal colleges (HeavyRunner & DeCelles). This initiative was an effort to create a sense of belonging between students and their families with the institution. Additionally, HeavyRunner and Decelles further assert that tribal colleges “act more like extended family [which] provides Indian students with the type of support system that effectively prepares them for and indoctrinates them into the college culture” (p.35).

Saggio and Dempsey (2003) discuss the initiatives at the American Indian College in Phoenix, Arizona to promote academic success and retention of American Indians by incorporating programs that are designed to meet the students' cultural needs. Such programs include the students' family in the school's social, admissions and academic initiatives, understanding of students' need to return home for critical events in the family, incorporating face-to-face interaction with students in the

recruitment process, and the school's personnel provide a "culturally friendly institutional climate" (Saggio & Dempsey, p. 120). According to Saggio and Dempsey, the institution's commitment to address cultural needs of students, particularly family concerns, has enhanced the retention and academic success of American Indians within their institution.

An additional study by Willetto (1999) analyzed the influence of Navajo culture and family values on the academic success of Navajo students attending schools on the Navajo reservation. Also, the family in general, according to Willetto, had some influence on the academic success of the Navajo student. Clearly, understanding the value of community in American Indian communities assists higher education institutions to provide relevant support to American Indian students and promote academic success and retention.

#### Sense of Community and Higher Education

Students who are in the classroom and on-campus perceive a sense of community differently than those students in distance education courses. The perception of sense of community is closely linked to the concept of community. It is human nature to be inclined to establish relationships among our peers while desiring to be a part of a community. The community concept has been studied by various researchers within higher education among on-campus students. Tinto's (1993) book *Leaving College: Rethinking the Causes and Cures of Student Attrition* synthesizes the understanding and theory of student departure and how establishing a community promotes persistence within the higher education system. Tinto's analysis of community provides the foundation for understanding the critical role community

plays in the academic experience of most students who attend institutions of higher learning.

According to Tinto, students who have difficulty adjusting academically and socially to college life leave the institution. Tinto outlines key reasons why students leave college which he suggests are due to personal, institutional, and external influences. The institutional influences include the students' experiences with the higher education institution. These influences are categorized as adjustment, difficulty, incongruence, and isolation. Tinto suggests that students who have a greater chance of persistence must become a part of or "congruent" with the campus community. Tinto defines congruency as finding "some compatible academic and/or social group with whom to establish membership and make those contacts" (p. 59). Consequently, membership in academic and social communities must be established to achieve student persistence and success.

Tinto further discusses the issue of "social isolation" with students who feel socially isolated often withdrawing from the institution. He describes isolation as the student's inability to connect academically and socially with the institution, and therefore they are disconnected and isolated to the institution. As a result, interactions at a social or academic level within the institution largely affect student persistence. Tinto further explains that gaining membership is an interactive process and suggests that students must connect to a community on-campus to persist and be successful. Therefore, on campus students who feel a sense of community with the institution persist socially and academically.

A study conducted by Skahill (2002-2003) analyzed the role of social support networks and the persistence of on-campus freshmen students and those who commuted to campus. The purpose of this study was to:

“Describe and compare the social networks and social support systems of students who geographically relocated to attend college with those who attended college in close proximity to home...and to understand how those networks contribute to social support and academic success.” (p. 40)

A majority of the students evaluated were residential students. Students who lived on campus felt that they were able to reach their academic and social goals. Furthermore, the on-campus students established a greater number of relationships with other students in a college environment than the commuter students. Those individuals who reported college-connected friendships also reported feelings of academic success (Skahill). This study illustrates that establishing relationships promotes academic achievement and success.

Coffman and Gilligan (2002-2003) also focused on effects of social support attributed to satisfaction of first-year college students. This study evaluated 94 first-year college students who were recruited from a psychology course. The average age of the participants was 17 years, 73% were female, and 82% were Caucasian. The purpose of the study was to examine “how perceived social support, perceived stress and self-efficacy predict life satisfaction” (p. 54). The participants filled out questionnaires that incorporated measures to evaluate social support, stress, and self-efficacy. The results of the study found that those students who reported higher amounts of stress did not perceive their life satisfactorily while those with less stress

viewed their lives satisfactorily. Additionally, those individuals who experienced a high level of social support felt more satisfied with their life than those who had little social support. Also, students who reported high levels of self-efficacy felt satisfaction with their life. The researchers further suggested that their findings are important to student affairs personnel and administrators because they can “focus efforts on preventative interventions to facilitate the establishment of social support networks, and thus, enhance life satisfaction of students” (p. 62). This research also supports Tinto’s (1993) observation that social integration is necessary to achieve college persistence, and this can be accomplished through creating support systems to reduce stress and promote self-efficacy.

Another study discussed the importance of social support that significant others provide to student persistence. Nora (2001-2002) illustrates the important link of significant others that Tinto (1993) failed to address when explaining his observation on student departure. Nora suggested that family and friends have a significant impact on college success. In addition, Nora also added that these significant others have an impact throughout the stages of separation, transition, and incorporation described by Tinto. Nora further suggested that if “the separation from family or other past relationships (communities) is drastic, early departure is certainly a possibility” (p. 45) at any stage of Tinto’s illustration.

In another study, DeNeui (2003) conducted longitudinal research on first-year college students’ perception of the psychological sense of community on campus. The goal of the study was to evaluate whether the psychological sense of community increased as new students became more involved in university or college activities.

Among those students who considered themselves extroverts, the sense of community increased more throughout the year than the introverts. There were 364 students who participated in the first part of the study; however, only 120 completed the follow-up survey. The survey included questions that measured feelings about the students' sense of community and personality. Interestingly, the research found that the psychological sense of community among the highly extroverted participants decreased at the end of the school year, but they still had a higher psychological sense of community than the introverts. However, the research suggested that "the development of PSC [psychological sense of community] in college settings is related to both extroversion and participation" (p. 232). To further evaluate the psychological sense of community over a longer period of time because, according to DeNeui, "PSC may take longer to develop. Tracking students over a longer period of time may reveal significant changes in PSC" (p. 232).

#### Sense of Community and Distance Education

Higher education institutions are expanding the learning community concept to distance education programs to promote student retention and academic success. Students in distance education courses contend with feelings of isolation (Anderson & Misanchuk, 2001; Moore & Kearsley, 2005). Establishing a learning community in distance education courses reduces feelings of isolation by providing a support system for participants (Anderson & Misanchuk). This effort to create a learning community among distance education students promotes a sense of belonging and establishes a connection between the student and the higher education institution (Moore & Kearsley). Also, establishing a learning community promotes peer support,

strengthens team and group work, and enhances the social connections among participants.

Rovai conducted several studies and literature reviews on understanding the sense of community in distance education and its importance to the retention of distance education students (2001, 2002a, 2002c, 2002d). Higher education institutions should provide support to distance education students in transitioning into a distance education learning environment. This support will increase student retention and persistence among students participating in distance education programs. Assisting the transition of distance education students increases their “satisfaction and commitment” (Rovai, 2002d, p. 320). This transition can be accomplished through the creation of a sense of community within the distance education courses (Rovai, 2002c, 2002d). Students who participate in distance education courses do not attend a traditional classroom environment. As a result, students enrolled in distance education courses drop out because of feelings of isolation. Providing a sense of community in distance education courses, according to Rovai, “attracts and retains learners” (2002c, p. 199). Rovai suggests that establishing a classroom community in distance education courses creates a sense of community between students enrolled in the course. Rovai (2002a) discusses the classroom community by integrating the factors defined by McMillan and Chavis (1986). These are: a) spirit, b) trust, c) interaction, d) shared goals and expectations. According to Rovai (2002a), interaction between students in distance education courses is important to establishing a sense of community. In addition, Rovai (2001) suggests that the sense of community factors of “spirit and trust are the most important

contributors to increasing overall sense of community when learners are exposed to more diverse opportunities for interaction” (p. 114). As a result, sense of community promotes learning, retention, and academic achievement for students enrolled in distance education courses (Rovai, 2002d). In addition, the sense of community in distance education includes the concepts of connectedness and learning experiences.

#### Connectedness and Distance Education

The concept of connectedness is intertwined with the concept of sense of community. Dr. Rovai (2002c) describes connectedness as “the feelings of the community of students regarding their connectedness, cohesion, spirit, trust, and interdependence” (p. 206). Connectedness in distance education refers to the student’s interaction with classroom peers, instructors, course materials and other institution staff members or programs. According to Rovai (2002d) connectedness “is the feeling of belonging and acceptance and the creation of bonding relationships” (p. 322). Moore and Kearsley (2005) assert that connectedness or social interaction promotes academic and emotional support for distance learners. As previously discussed, Tinto (1993) suggest that social integration is critical in the retention of students in higher education institutions. Therefore, social integration in a distance education environment is also important in retaining and engaging students in a distance education classroom environment (Rovai, 2002a).

#### Learning Experiences and Distance Education

Learning experiences like connectedness is associated with the concept of sense of community. Learning experiences is defined by Dr. Rovai (2002c) as “feelings of community members regarding interaction with each other as they pursue

the construction of understanding and the degree to which members share values and beliefs concerning the extent to which their educational goals and expectations are being satisfied” (p. 206). Therefore, the interaction between students and the instructor in distance education courses enhances the learning or the quality of learning of students who are enrolled in distance education courses (Brook & Oliver, 2002; Jorgensen, 2002; Rovai, 2001, 2002a, 2002c, 2002d). Tinto (1993) discusses the importance of students learning experiences and its affect on retention and persistence within a higher education setting. Tinto (1993) further asserts that learning experiences are increased through the interaction with other students in the classroom and the instructor. Therefore, an effective way to increase interaction between students and faculty in distance education courses is to develop a community environment within the classroom (Brooke & Oliver, 2002; Hill, Raven, & Han, 2002; Rovai, 2001, 2002a, 2002c, 2002d). As a result, students enrolled in distance education courses who perceive high learning experiences increases student satisfaction, engagement and academic success (Rovai, 2002c, 2002d).

### Summary

Tribal colleges are unique institutions of higher learning because they serve the American Indian population and their communities. Since the establishment of tribal colleges, the services the institutions provide to American Indian students and the communities have also evolved. As tribal colleges continue, they face new challenges, such as meeting their students’ needs through distance education. In addition to tribal colleges, distance education programs have also made advancements in how education is provided. Higher education institutions nationwide increasingly

incorporate distance education into their educational delivery system. However, they also face new challenges in the areas of retention and academic success. Most important, higher education systems have incorporated the sense of community concept into classroom delivery and support programs to promote retention and academic success. Additionally, understanding tribal college and distance education students and their experiences with distance education and their feelings of community will provide insight to challenges these students face. Initiatives need to be taken to address these challenges by providing academic programs that promote a sense of community.

## CHAPTER 3

### PROCEDURES

#### Introduction

This chapter will review the study's research design, instrument, participants of the study, and description of data collection and analysis. The purpose of the study was to understand tribal college students' perceptions of sense of community, connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities.

#### Research Design

This quantitative study utilized the survey research method. According to Gall, Gall, and Borg (2005), "survey research is a form of descriptive research that involves collecting information about research participants' beliefs, attitudes, interests, or behavior through questionnaires" (p. 180). The survey research method was selected for this study because it allowed the researcher to distribute and collect data from a large population of participants. The researcher utilized a structured questionnaire with the intent of gaining information about the tribal college students' perceptions of sense of community, connectedness, and learning in distance education courses. The researcher selected a quantitative research method for this study because of the "probability that what [was] discover[ed] in a research sample would occur in the larger world from which that sample was presumably drawn" (Gall et al., p. 14). In the case of the current study, the "larger world" was tribal college students in distance education programs.

## Instrument

The Classroom Community Scale is a twenty question Likert scale questionnaire that measures a participant's overall perception of sense of community. The total scores that measure sense of community is a combination of questions addressing connectedness which are the odd numbered questions and learning experiences which are the even numbered questions. As a result, the measurement of sense of community encompasses connectedness and learning experiences. The researcher utilized the questionnaire from Rovai's (2002c) study because it addressed the central topics of interest.

The questionnaire used for this study was tested for validity and reliability by Rovai through quantitative measures (2002c). To establish validity, the questions were developed based on the literature about classroom community in an educational environment (Rovai, 2002c). Rovai (2002c) developed 40 items initially in the Classroom Community Scale which was reviewed by university faculty with expertise in the area of educational psychology. They reviewed each item using a Likert scale which rated whether the items were "totally not relevant," "barely relevant," "reasonably relevant," and "totally relevant." As a result of their review, the classroom community scale was narrowed down to 20 items and included the items this panel designated as "totally relevant." Reliability of the Classroom Community Scale was tested using "Cronbach's coefficient alpha and the split-half coefficient corrected by the Spearman-Brown prophecy formula" (Rovai, 2002c, p. 206). The questionnaire consists of a five-point Likert scale designated by the following levels: "strongly agree," "agree," "neutral," "disagree," and "strongly

disagree.” According to Rovai, the questionnaire has been tested for its reading level which was rated a 6.6 grade reading level according to the Flesch-Kincaid scale. The questionnaire is included in Appendix B.

The researcher obtained Dr. Rovai’s permission to utilize the questionnaire for the current study (Appendix E). Additionally, the researcher requested that participants provide additional demographic and course information. This information provided additional data that were analyzed in this study. Prior to the distribution of the questionnaire, the researcher requested permission from the tribal community that receives distance education courses from the tribal college chosen for this study. As an incentive, these participants had an opportunity to be included in a gift certificate drawing. Participants who submitted a completed demographic sheet and questionnaire were included in a drawing for a \$100.00 and \$50.00 gift certificate. The winners for the gift certificates were randomly selected using an online randomizer (see website <http://www.randomizer.org/>).

### Participants

Participants in the study were tribal college students who were enrolled in distance education courses Fall 2006 and Spring 2007 trimesters at the tribal college which are the trimesters the survey was administered. These students were administered the survey beginning March 2007 through May 2007. In the Fall 2006 trimester nine distance education courses were offered, and during the Spring 2007 five distance education courses were offered. There was an average of 22 students enrolled in distance education courses for the Fall 2006 trimester and an average of 16 students for the Spring 2007 trimester. The Fall 2006 offered five satellite courses,

two video conferencing courses, and two WebCT courses. The Spring 2007 offered two video conferencing and satellite courses, two satellite only courses, and one WebCT course. Participants included the following students:

- Employed full and part time
- Enrolled in distance education courses on and off campus
- Traditional and non-traditional
- Enrolled for the first time at the institution and continuing students

Questionnaires were only distributed to participants who were eighteen years of age and older and this requirement was emphasized prior to the distribution of the research packets by a research assistant and tribal community site coordinator.

Assisting with the study was a research assistant who was employed at the tribal college. The reason the researcher requested that the research assistant be employed with the institution was so that the institution, where the study was being conducted, could trust that the students' information was handled in a confidential manner. The tribal community site coordinator is the tribal contact person who is the liaison between tribal community students and the institution. Also, the age of participants was screened in their responses to the demographic question of whether they were a traditional or non-traditional student which is determined by age.

The researcher assumed that participants responded truthfully to the questionnaires and demographic sheet. A consent form was included with the research packet which was distributed to participants and collected by the research assistant and the tribal community site coordinator at the data collection events and

classes. The study was administered and the research packets were distributed and collected at various scheduled data collection events and classes. These events included workshops and activities that were sponsored by the tribal college's distance education program for all distance education students, and Spring 2007 distance education courses. Survey distribution and data collection activities were coordinated with events sponsored by the institution's distance education program between March 2007 and May 2007.

A cover letter was included with the research packet which provided a brief explanation and instructions about the questionnaire with a description of the drawing for gift certificates (see Appendix K). The research assistant distributed and collected research packets at data collection events on campus. At the participating tribal community site, the research packets and consent forms were submitted to the research assistant by the tribal community site coordinator. Participants were identified for the research study through their enrollment in distance education courses in the Fall 2006 and Spring 2007 trimesters from the institution's student information system which was accessible to the researcher. The tribal college that participated in this study operates on a trimester academic calendar. A trimester is "an academic year consisting of 3 terms of about 15 weeks each" (National Center for Education Statistics, n.d.).

The researcher contacted potential student participants inviting them to participate in the research study through letters of invitation. Letters to participate in the study were mailed to participants who were enrolled in distance education courses in the Fall 2006 and Spring 2007 trimesters. These letters provided information about

the study, age requirement, instructions to participate, and information regarding the gift certificate drawings. Mailed letters of invitation to participate in the study were sent to students off campus, enrolled in WebCT courses, and to students who were enrolled in distance education courses in the Fall 2006 trimester. Also, letters were mailed and distributed to on campus student participants during their Spring 2007 distance education courses on the tribal college campus.

Participants who volunteered to participate in the study completed and submitted a research packet (demographic sheet, questionnaire, and consent form) during a scheduled data collection event or a class which is discussed further in this study. The research packet was submitted to the research assistant, who assigned a research number to the information enclosed in the research packet. This research number was attached to the signed consent forms in case any participant decided to withdraw from the study before the data were analyzed. If a participant decided to withdraw from the study, they were directed to contact the research assistant, who would retrieve the participants' information and withdraw them from the study. The research assistant was the only individual who had access to the consent forms to ensure the confidentiality and anonymity of the participants.

The research packets were delivered and administered to participants enrolled in distance education courses in the Fall 2006 and Spring 2007 trimesters. Research packets at the tribal community site were administered to students who were enrolled in distance education courses during the Spring 2007 trimester during their distance education course at a specific date and time. The research assistant was responsible for mailing the research packets to the tribal community site coordinator who

distributed and collected the research packets at a specific scheduled data collection event or class. The students who were enrolled in distance education courses for the Fall 2006 and not the Spring 2007 trimester, scheduled an appointment to meet with the tribal community site coordinator who administered and collected the research packets and returned them to the research assistant.

### Data Collection

This single institution study collected surveys from 44 tribal college students enrolled in distance education courses. The population identified for this study was 188 students and the response rate was 23.4%. The researcher had already obtained permission from the president of the tribal college to identify courses, students, and to conduct the study (see Appendix G).

For this study, the researcher chose to have the demographic information sheets, questionnaires and consent forms, which were identified as the research packet, directly administered to participants. The return rate for the direct administration of questionnaires is rated higher than phone and mail distribution (Newman & McNeil, 1998). The cover letter described the study and the gift certificate drawing. The research assistant played a critical role in all aspects of the survey distribution and collection. Training was provided to the research assistant regarding her role in the study. This training included a detailed description of the study, an explanation of how to protect the confidentiality of participants, and reviewing the study script (see Appendix L). In addition, the training included reviewing the research packets' content which included the cover letter, questionnaires, demographic sheets, and consent forms. Also, the training provided

detailed instructions on the collection of data and the assignment of research numbers to the demographic sheets, the questionnaires, and the consent forms enclosed in the research packet. The researcher decided to include a research assistant for this study because of the college's small student population, the researcher's familiarity with participants, and the researcher's authority position at the college over the students. Therefore, the research assistant's role in the study ensured participants that their identities were confidential and anonymous, and promoted their willingness to respond truthfully and comfortably as a result. This training provided instructions on securing completed research packets and consent forms in a locked file cabinet which the assistant only had access to. At the training, the assistant was provided the following materials: 1) research packets (cover letter, survey, demographic sheet, and consent form) 2) Data Collection Schedule 3) tribal community site data collection schedule for Spring 2007 tribal community site distance education students 4) Participant Tracking Sheet 5) Study Script 6) list of targeted study participants and 7) Dissertation Study Checklist.

The research assistant collected the research packets, separated the demographic information sheets and questionnaires from the consent forms. Following, the research assistant delivered the demographic information sheets and questionnaires to the researcher for analysis and kept the consent forms in a secure location. The research assistant provided her contact information in case participants had additional questions or if they decided to withdraw from the study.

The research was conducted at the tribal college site and the research packets were directly administered to participants who were attending distance education

courses at the tribal college site. Students who are enrolled in distance education courses off-campus or taking courses online were requested to attend a workshop, training, or orientation at the tribal college campus. The institution for the Fall 2006 and Spring 2007 trimesters limited on-line courses to students on campus and not to off campus students because the institution wanted to make sure that these courses were further developed before they were offered to students off campus. Additionally, those students who are enrolled in distance education courses at the tribal community site completed their research packet through the tribal community's site coordinator.

#### *On-Campus Participants*

On-campus students who were enrolled in distance education courses Spring 2007 trimester were directly administered the research packet during their classes. Research packets were distributed and administered in four scheduled distance education courses in the Spring 2007 trimester. Participants were notified one week prior to the administration of the research packet. An email was sent requesting permission to the Department Chair and instructors two weeks prior to the event to conduct the study during the distance education course. The research assistant made arrangements with the instructor regarding the day and time the study was administered to course participants. These courses included video conferencing and satellite courses. The research assistant administered the research packet during the time the instructor recommended.

This section discusses what occurred during the data collection portion of the events scheduled. During the scheduled time the event took place; participants were given a brief description of the study with instructions on how to participate by

the research assistant which was included in the study script. At this time, the research assistant gave the participants the research packet and when the items (questionnaire, demographic sheet, and consent form) were completed and returned to the research assistant they were assigned a research number by the research assistant. Those that participated in the study and completed the questionnaire, demographic sheet, and consent forms were included in the gift certificate drawing. Specific details regarding the raffle were included with the research packet in the participants' cover letter (See Appendix K).

#### *Off-Campus Participants*

All off-campus distance education students were invited to attend and participate in a workshop, training or registration/orientation event sponsored by the college's distance education program. In addition, the off-campus participants who were identified by the researcher were invited to participate in the study which was conducted at the workshop, training and orientation/registration events for distance education students. These events were targeted for off-campus participants however on-campus participants were also invited to attend. The workshop, training or registration/orientation activities sponsored by the college's distance education program were open to participants in the study if they chose to attend these events. Particularly, those who were enrolled in the on-line courses Fall 2006 and Spring 2007 trimesters were invited to attend the events and activities scheduled for off-campus study participants. The majority of the events occurred during the weekend because many of the distance education students were employed during weekdays; however one event did occur during the weekday. At these events, food was provided

to everyone who attended the events. The one event that attracted most of the off-campus students was the orientation/registration event. This event was mandatory for all off-campus distance education students, with the exception for the tribal community site students, so that they were able to register for courses and receive advisement for the following trimester. This institution does not provide registration or allow for fees to be paid online, and therefore, those who plan to enroll at the institution must physically attend the campus to register and pay for students' fees. The orientation/registration activity was held on a Saturday where all important institution's admissions, financial aid, and student accounting representatives were present to provide services to these distance education students.

The research assistant attended these events and identified study participants by reviewing the events' sign in sheets. Individuals who were identified as study participants were given specific instructions of where and when the survey distribution and data collection would take place by the research assistant. During the data collection, the research assistant provided a brief description of the study with instructions on how to participate through the study script. The research assistant distributed the research packets to the participants and when the items (questionnaire, demographic sheet, and consent form) were completed and returned to the research assistant they were assigned a research number by the research assistant.

#### *Tribal Community Site Participants*

The researcher obtained permission from the tribal community site to conduct the study with students enrolled in distance education courses at the tribal community site (Appendix I). A packet was sent to the tribal community site coordinator

containing instructions (See Appendix N) on the distribution of the research packets to tribal community site participants. The students at the tribal community site were administered the research packet through: 1) video conferencing and 2) scheduling an appointment with the tribal community site coordinator. A package was sent by an overnight delivery service to the tribal community site coordinator that included a letter (See Appendix N) describing the study and how the study will be administered, list of potential participants, sample of letter that was mailed to potential participants, DVD recording of researcher describing the study and the research assistant who gave instructions on how to complete the research packet, and research packets for participants. The DVD recording was played for participants who were enrolled in Distance Education courses in the Fall 2006 trimester and were not enrolled in distance education courses in the Spring 2007 trimester.

Tribal community site students who were enrolled in distance education video conferencing courses in the Spring 2007 trimester were mailed letters inviting them to participate in the study and when and where they can participate. Tribal community site participants were able to see and hear the research study instructions given by the research assistant and submitted their research packet to the tribal community site coordinator who returned the research packets through an overnight delivery service which was addressed to the research assistant.

Tribal community site participants who were not enrolled in the Spring 2007 but were enrolled in distance education courses in the Fall 2006 were mailed letters inviting them to participate in the study. These letters provided a description of the study and instructions to participate in the study. Participants were to contact the

tribal community site coordinator to schedule an appointment to view the description of the study and the instructions to participate by viewing the DVD. After participants completed their research packet they submitted it to the tribal community site coordinator who returned the packets to the research assistant through an overnight delivery service. The research assistant collected the research packets from these sites, assigned them research numbers and included completed packets in the gift certificate drawing.

#### *Gift Certificate Drawing*

The drawing for the one-hundred dollar gift certificate and the fifty dollar gift certificate was done at the end of May 2007 using an online randomizer found at [www.randomizer.org](http://www.randomizer.org). The research numbers were entered and the tool randomly selected two numbers. The research assistant matched the numbers to the participants' names and contacted them by telephone and mailed the winners their gift certificates. The researcher was not involved in this process.

#### *Data Analysis*

The following discusses the analysis of the participants' responses from the demographic information form and questionnaire. Rovai's (2002b, 2002c) Classroom Community Scale utilizes a Likert scale that is scored from 0 to 4 and the following describes how the questions were scored:

1. Questions 1, 2, 3, 6, 7, 11, 13, 15, 16, and 19 utilized the following scoring scale: strongly agree=4, agree=3, neutral=2, disagree=1, strongly disagree = 0.

2. Questions 4, 5, 8, 9, 10, 12, 14, 17, 18, and 20 utilized the following scoring scale: strongly agree = 0, agree=1, neutral=2, disagree=3, and strongly agree=4.

According to Rovai (2002c) the items above are “reverse scored” “to ensure that the most favorable choice is always assigned a value of four and the least favorable choice is assigned a value of 0” (p. 201). Also, the overall sense of community was measured by adding all 20 questions’ scores and the range of these scores were from 0 to 80 (Rovai, 2002c). As a result, the greater the score indicates a greater sense of community (Rovai 2002c).

The Classroom Community Scale, according to Rovai (2002c), measured connectedness by adding the scores of the odd-numbered questions, learning experiences was measured by adding the even-numbered questions. The scores for connectedness and learning experiences had a score range from 0 to 40. Therefore, a higher score indicated a greater sense of connectedness and learning experiences.

The demographic information form provided data that allowed the researcher to identify and separate participants into groups for analysis. The key information being analyzed for this study which was provided for in the demographic sheet of the tribal college students who were enrolled in distance education courses was female, male, traditional, non-traditional, on-campus, and off-campus student participants. Also, the types of distance education courses students were enrolled in utilized the following distance education delivery modalities: 1) video-conferencing, 2) Web Course Tools (WebCT), and 3) satellite.

## Statistical Treatment

The descriptive analysis for this study included frequency distributions to summarize the data and present a profile of the participants. ANOVA and *t*-test statistical analyses were applied to the data for this research study. The *t*-test was applied to research hypotheses 1 through 12 with an alpha level of .05 to determine statistical significance. The researcher selected the alpha level at a .05 because it is typically selected for research done in education (Newman & Newman, 1994).

Research hypotheses 1, 2, and 3 were analyzed by comparing the total participant scores to the maximum total scale scores of sense of community, connectedness, and learning experiences provided by the Classroom Community Scale. A *t*-test was applied to research hypotheses 1, 2, and 3 that compared the actual mean to the expected mean. Therefore, the researcher determined that a low sense of community ranged from 0 to 39, with a high sense of community from 40 to 80. Also, low connectedness and learning experiences scores ranged from 0 to 19, with high connectedness and learning experiences scores ranged from 20 to 40. The determinations of high and low scores were determined by taking half of the maximum scores which was determined by the researcher.

A *t*-test statistical analysis was applied to research hypotheses 4, 7, and 10 to compare two groups' average total sense of community scale scores (survey questions 1 through 20). A *t*-test statistical analysis was also applied to research hypotheses 5, 8, and 11 to compare two groups' average total connectedness scale scores (odd numbered survey questions). In addition, a *t*-test statistical analysis was applied to

research hypotheses 6, 9, and 12 to compare two groups' average total learning experiences scale scores (even numbered survey questions).

The ANOVA was used to test research hypotheses 13 through 15. The researcher selected to use ANOVA because of its ability to measure a significant difference between the three distance education delivery modalities (satellite, video conferencing, and WebCT). Research hypotheses 13, 14, and 15 used an analysis of variance (ANOVA) to determine whether significant statistical difference existed between tribal college students enrolled satellite, video conferencing, and WebCT distance education courses. ANOVA, according to Gall, Gall, and Borg (2005), "determines the likelihood that the differences between three mean scores occurred by chance" (p. 167). Therefore, the three groups' average total scale scores in sense of community, connectedness, and learning experiences was analyzed to illustrate whether a significant difference existed with an alpha level set at .05.

### Summary

The study was survey research utilizing a structured questionnaire developed by Rovai (2002b). Research participants were students 18 years-old and over who were enrolled in distance education courses at a tribal college in the United States. Students volunteered to participate in this study and those who volunteered were given instructions on where the study was going to be administered. The research assistant distributed and collected completed research packets. The data were analyzed using descriptive statistics, *t*-tests, and ANOVAs. The questionnaire developed by Rovai measures sense of community, connectedness, and learning experiences. The sense of community was determined by the total scoring of all

twenty questions in the questionnaire which was 80. Also, the perceptions of connectedness are determined by the scoring of the odd number questions, and the perceptions of learning experiences are determined from the scoring of the even numbered questions. The total scores for connectedness and learning experiences was 40. The statistical treatment of the research hypotheses assisted in the understanding of whether sense of community, connectedness, and learning experiences was significant to the population being analyzed. Chapter 4 will further discuss the statistical and descriptive results of this study.

## CHAPTER 4

### RESULTS OF THE STUDY

#### Introduction

The purpose of the study was to understand tribal college students' perceptions of sense of community, connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities. Additionally, this study added to the body of knowledge in the area of tribal college distance education. Understanding these perceptions may promote retention of American Indians in distance education courses at tribal colleges. Data for this study were collected through questionnaire results of tribal college students enrolled in distance education courses at a tribal college located in the United States. This chapter will present the results of the study using the descriptive and inferential statistics discussed in Chapter 3.

#### Data Collection Results

##### *Descriptive Statistics*

##### Demographics

The research population that was targeted for this study was the 188 students who participated in distance education courses during the Fall 2006 and Spring 2007 trimesters. Forty-four participated in the study for a response rate of 23.4%. Participants for this study were invited to participate in the study through invitations to various events which were discussed in Chapter 3. Demographic information was gathered from the demographic sheet that was included in the research packet

provided to the study participants. The demographic sheet included questions regarding age, employment and marital status, dependent information, student status, and status of enrollment in distance education courses. Below is a summary of the demographics of the 44 participants who agreed to participate in this study.

Eighty-six percent of the participants in the study were female and the remaining 14% were male. In addition, 59% of the participants were single, 32% were married, 9% were divorced, and none were separated. The majority of participants (61%) indicated they had dependents, while 39% indicated they had no dependents. The majority of the participants were employed (77%), 18% were unemployed, and 5% did not respond to the question of employment. The 44 participants indicated the hours employed on a weekly basis. The majority of participants (54%) indicated that they were employed 40 or more hours and 24% responded that they were employed 31-39 hours per week. Eleven percent indicated that they were employed 21-30 hours per week and 1-20 hours per week. It should be noted that two participants responded that they were not employed but responded to the weekly hours they were employed.

The demographic sheet requested that participants respond to questions regarding their student and distance education course status at the institution. Thirty-two percent of the participants were full-time, 66% were part-time, and 2% did not respond. In the Spring 2007 trimester there were five distance education courses offered through satellite, WebCT, and video conferencing distance education technologies. The following were the participants' responses to their Spring 2007 trimester distance education course enrollment: 16% indicated they were not enrolled,

62% were enrolled in one to three courses, 13% were enrolled in four to nine courses, and 9% did not respond.

The demographics also showed that of the 44 participants, 43% were enrolled in distance education courses on campus, 30% were enrolled in distance education courses off campus, 20% indicated that they were enrolled both on and off campus, and 7% did not respond. In addition, participants' responded to the type of distance education courses they were enrolled in the Fall 2006 and Spring 2007 trimesters. It is important to be aware that "classroom" refers to students who attended courses on campus but utilized distance education technologies together with off campus students. These included: 5% enrolled in WebCT, 18% enrolled in video conferencing, 23% enrolled in satellite, 45% enrolled in classroom, 5% enrolled in both satellite and classroom, 2% enrolled in satellite and WebCT, and 2% enrolled in satellite and video conferencing.

Seventy-five percent (75%) of the participants were non-traditional students (23 years and older) and 25% were traditional students (between 18 and 22 years). In addition, participants were enrolled in distance education courses for the following trimesters: 14% enrolled in the Fall 2006 trimester only, 34% enrolled in the Spring 2007 trimester only and 50% enrolled Fall 2006 and Spring 2007 trimesters, and 2% did not respond. Lastly, the following were the participants' responses to the number of trimesters they were enrolled at the institution: nine percent indicated this was their first trimester and 91% indicated they have attended two or more trimesters at the institution.

## Questionnaire Frequency Responses

The questionnaire was developed by Rovai (2002b, 2002c) to capture sense of community, connectedness, and learning. All twenty of the questions measure sense of community, however the odd numbered questions measure connectedness, and the even numbered questions measure learning. Table 4.1 presents the responses in a way that dichotomizes the Likert scale responses “agree” and “strongly agree” into “agree” and “disagree” and “strongly disagree” into “disagree” to consolidate responses.

Table 4.1

### Participants’ Responses to Questionnaire

Questionnaire	Agree	Neutral	Disagree	Did not Answer
1. I feel that students in this course care about each other	66%	20%	9%	0%
2. I feel that I am encouraged to ask questions	82%	18%	0%	0%
3. I feel connected to others in this course	70%	25%	5%	0%
4. I feel that it is hard to get help when I have a question	16%	20%	64%	0%
5. I do not feel a spirit of community	7%	34%	57%	2%
6. I feel that I receive timely feedback	57%	20%	21%	2%
7. I feel like this course is like a family	52.3%	34.1%	11.4%	2.3%
8. I feel uneasy exposing gaps in my understanding	25%	20%	55%	0%
9. I feel isolated in this course	6.8%	22.7%	70.5%	0%
10. I feel reluctant to speak openly	18.2%	20.5%	61.2%	0%

11. I trust others in this course	72.7%	15.9%	11.4%	0%
12. I feel that this course results in only modest learning	38.6%	22.7%	36.4%	2.3%
13. I feel that I can rely on others in this course	70.5%	20.5%	6.8%	2.3%
14. I feel that other students do not help me learn	6.8%	13.6%	79.5%	0%
15. I feel that members of this course depend on me	31.8%	34.1%	34.1%	0%
16. I feel that I am given ample opportunities to learn	81.8%	15.9%	2.3%	0%
17. I feel uncertain about others in this course	15.9%	34.1%	50%	0%
18. I feel that my educational needs are not being met	15.9%	15.9%	68.2%	0%
19. I feel confident that others will support me	75%	20.5%	4.6%	0%
20. I feel that this course does not promote a desire to learn	4.6%	20.5%	75%	0%

Score ranges are defined differently for sense of community, connectedness, and learning experiences. The score range for sense of community is 0 through 80, according to the score assignment provided by Rovai's (2002b, 2002c) Classroom Community Scale. The score range for connectedness and learning experiences each is 0 through 40. The higher the scores on each of these scales determined a higher sense of community, connectedness, and learning experiences. The mean scores for sense of community, connected and learning experiences were 53.1 for sense of community, 26.1 for connectedness, and 26.9 for learning experiences.

### *Results of Testing the Research Hypotheses*

#### Research Questions, Research Hypotheses, and Statistical Analysis

For this study, the researcher utilized *t*-tests and ANOVA statistical analyses to test the research hypotheses. A *t*-test statistical analysis at an alpha level of .05 was applied to research hypotheses 1 through 12. The ANOVA statistical analysis was used to test research hypotheses 13 through 15 because of its ability to measure a significant difference between three or more means, which in this case were the distance education delivery modalities observed in this study that included satellite, video conferencing, and WebCT. An alpha level of .05 was also set as the measure of significance for the ANOVA.

A *t*-test was used to test research hypotheses 1 through 3 which compared the actual mean to the expected mean. The actual mean was derived from the tribal college student's total mean scores on sense of community, connectedness, and learning experiences, and the expected mean scores for sense of community was 40, for connectedness it was 20, and for learning experiences it was 20. The high and low scores were determined by taking half of the maximum scores for sense of community, learning, and connectedness. Therefore, the researcher determined that a low sense of community ranged from 0 to 39, and a high sense of community ranged 40 to 80. Furthermore, the scores for low connectedness and learning experiences ranged from 0 to 19, and the high connectedness and learning experiences scores ranged from 20 to 40.

A *t*-test statistical analysis was used to test research hypotheses 4 through 12 which compared the mean scores of different groups (females and males, traditional

and non-traditional, on-campus and off-campus) on sense of community, learning, and connectedness. Hypotheses 4, 7, and 10 tested comparisons on sense of community (all questions). Hypotheses 5, 8, and 11 tested comparisons on connectedness (odd numbered questions). Hypotheses 6, 9, and 12 tested comparisons on learning experiences (even numbered questions).

Analysis of variance (ANOVA) was used to test research hypotheses 13 through 15 to discover whether a significant statistical difference existed between tribal college students enrolled in satellite, video conferencing, and WebCT distance education courses.

Normally a *t*-test will be performed assuming equal variances in both populations; in order to strengthen the *t*-tests, an *F*-test was performed to determine if the *t*-test should be conducted assuming equal or unequal variances for the research hypotheses 4 through 12. The *p* value of the *F*-test determined whether to use unequal or equal variances. If the *p* value was less than .05 then one could assume unequal variance, and if the *p* value was greater than .05 then one could assume equal variance. Equal variances were assumed for research hypotheses: 6 through 9, 11, and 12. Unequal variances were assumed for research hypotheses: 4, 5, and 10.

The following presents the research questions, then the corresponding hypotheses, followed by the results in both table and narrative format:

#### Research Question 1

To what extent do tribal college students perceive a sense of community in distance education courses?

### Research Hypothesis 1

Tribal college students perceive a low sense of community in distance education courses.

Table 4.2

#### Sense of Community Perceptions

<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>Df</i>	<i>p</i>	Outcome
44	53.05	9.49	9.12	43	.99	Hypothesis rejected

Table 4.2 illustrates that the actual mean (53.05) of tribal college students' sense of community scores who were enrolled in distance education courses was greater than the expected mean of 40 or less. The standard deviation was 9.49 and the *t*-statistic was 9.12. The probability between the expected and actual mean was 0.99 which was greater than the set .05 alpha level. Therefore, this research hypothesis was rejected.

### Research Question 2

To what extent do tribal college students perceive connectedness in distance education courses?

### Research Hypothesis 2

Tribal college students perceive low connectedness in distance education courses.

Table 4.3

Connectedness Perceptions

<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
44	26.14	5.14	7.92	43	.99	Hypothesis rejected

Table 4.3 illustrates the actual mean (26.14) of tribal college students' connectedness scores who were enrolled in distance education courses was greater than the expected mean of 20. The standard deviation was 5.14 and the *t*-statistic was 7.92. The probability between the expected and actual mean was 0.99 which was greater than the set alpha level .05. Therefore, this research hypothesis was rejected.

Research Question 3

To what extent do tribal college students perceive learning experiences in distance education courses?

Research Hypothesis 3

Tribal college students perceive low learning experiences in distance education courses.

Table 4.4

Learning Experiences Perceptions

<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
44	26.91	5.71	8.03	43	.99	Hypothesis rejected

Table 4.4 illustrates the actual mean (26.91) of tribal college students' learning experiences scores who were enrolled in distance education courses was

greater than the expected mean of 20. The standard deviation was 5.71 and the *t*-statistic was 8.03. The probability between the expected and actual mean was 0.99 which was greater than the set alpha level of .05. Therefore, this research hypothesis was rejected.

Research Question 4

What are the perceptions of female tribal college students on sense of community compared to male tribal college students in distance education courses?

Research Hypothesis 4

Female tribal college students perceive a greater sense of community compared to male tribal college students in distance education courses.

Table 4.5

Comparison of Sense of Community Perceptions across Gender

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
Female	38	53.45	8.67	.48	6	.32	Hypothesis rejected
Male	6	50.50	4.50				

Table 4.5 illustrates the mean (53.45) of female tribal college students' sense of community scores who were enrolled in distance education courses was greater than the mean (50.50) of male students. However, because the probability between the means of sense of community scores of female and male students was 0.32 was greater than the set alpha level of .05, the hypothesis was rejected.

Research Question 5

What are the perceptions of female tribal college students on connectedness compared to male tribal college students in distance education courses?

Research Hypothesis 5

Female tribal college students perceive a greater connectedness compared to male tribal college students in distance education courses.

Table 4.6

Comparison of Perceptions of Connectedness across Gender

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
Female	38	26.55	4.68	.97	6	.18	Hypothesis rejected
Male	6	23.50	7.45				

Table 4.6 illustrates the mean (26.55) of female tribal college students' connectedness scores who were enrolled in distance education courses was greater than the mean (23.50) of male students. However, because the probability between the means of connectedness scores between female and male tribal college students enrolled in distance education courses was 0.18 was greater than the set alpha level of .05, the research hypothesis was rejected.

Research Question 6

What are the perceptions of female tribal college students on learning experiences compared to male tribal college students in distance education courses?

### Research Hypothesis 6

Female tribal college students perceive greater learning experiences compared to male tribal college students in distance education courses.

Table 4.7

Comparison of Perceptions of Learning Experiences across Gender

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
Female	38	26.89	5.53	-.04	42	.48	Hypothesis rejected
Male	6	27.00	7.32				

Table 4.7 illustrates the mean (26.89) of female tribal college students' learning experiences scores who were enrolled in distance education courses was less than the mean (27.00) of male students. The probability between the means of learning experiences scores between female and male tribal college students enrolled in distance education courses was 0.48 which was greater than the set alpha level of .05. As a result, the research hypothesis was rejected.

### Research Question 7

What are the perceptions of traditional tribal college students on sense of community compared to nontraditional tribal college students in distance education courses?

### Research Hypothesis 7

Traditional tribal college students perceive a greater sense of community compared to nontraditional tribal college students in distance education courses.

Table 4.8

Comparison of Perceptions on Sense of Community between Traditional and Non-Traditional Students

Traditional or Non-Traditional	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
Traditional	11	53.27	11.43	.09	42	.46	Hypothesis rejected
Non-traditional	33	52.97	8.96				

Table 4.8 illustrates the mean (53.27) of traditional tribal college students' sense of community scores who were enrolled in distance education courses was greater than the mean (52.97) of non-traditional students. However, because the probability between the means of traditional and non-traditional tribal college students enrolled in distance education courses was 0.46 was greater than the set alpha level of .05, the research hypothesis was rejected.

Research Question 8

What are the perceptions of traditional tribal college students on connectedness compared to nontraditional tribal college students in distance education courses?

Research Hypothesis 8

Traditional tribal college students perceive a greater connectedness compared to nontraditional tribal college students in distance education courses.

Table 4.9

Comparison of Perceptions of Connectedness between Traditional and Non-Traditional Students

Traditional or Non-Traditional	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
Traditional	11	26.45	6.19	.23	42	.41	Hypothesis rejected
Non-traditional	33	26.03	4.84				

Table 4.9 illustrates the mean (26.45) of traditional tribal college students' connectedness scores who were enrolled in distance education courses was greater than the mean (26.03) of male students. However, because the probability between the means of connectedness scores between traditional and non-traditional tribal college students enrolled in distance education courses was 0.41 which was greater than the set alpha level of .05, the research hypothesis was rejected.

Research Question 9

What are the perceptions of traditional tribal college students on learning experiences compared to nontraditional tribal college students in distance education courses?

Research Hypothesis 9

Traditional tribal college students perceive greater learning experiences compared to nontraditional tribal college students in distance education courses.

Table 4.10

Comparison of Perceptions of Learning Experiences between Traditional and Non-Traditional Students

Traditional or Non-Traditional	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
Traditional	11	26.82	6.63	-.06	42	.48	Hypothesis rejected
Non-traditional	33	26.94	5.48				

Table 4.10 illustrates the mean (26.82) of traditional tribal college students' learning experiences scores who were enrolled in distance education courses was less than the mean (26.94) of non-traditional. The probability between the means of learning experiences scores between traditional and non-traditional tribal college students enrolled in distance education courses was 0.48 which was greater than the set alpha level of .05. As a result, the research hypothesis was rejected.

Research Question 10

What are the perceptions of on campus tribal college students on sense of community compared to off campus tribal college students in distance education courses?

Research Hypothesis 10

On campus tribal college students perceive a greater sense of community compared to off campus tribal college students in distance education courses.

Table 4.11

Comparison of Perceptions of Sense of Community between On-campus and Off-campus students

Location Enrolled	<i>n</i>	<i>M</i>	SD	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
On-campus	19	56.00	9.87	2.21	28	.02	Hypothesis accepted
Off-campus	13	50.15	4.86				

Table 4.11 illustrates the mean (56.00) of on-campus tribal college students' sense of community scores who were enrolled in distance education courses was greater than the mean (50.15) of off campus students. The probability between the means of on campus and off campus tribal college students enrolled in distance education courses was 0.02 which was less than the set alpha level of .05. As a result, the research hypothesis was accepted.

Research Question 11

What are the perceptions of on campus tribal college students on connectedness compared to off campus tribal college students in distance education courses?

Research Hypothesis 11

On campus tribal college students perceive a greater connectedness compared to off campus tribal college students in distance education courses.

Table 4.12

Comparison of Perceptions of Connectedness between On-campus and Off-campus Students

Location Enrolled	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
On-campus	19	27.16	5.18	1.39	30	.09	Hypothesis rejected
Off-campus	13	24.77	4.11				

Table 4.12 illustrates the mean (27.16) of on-campus tribal college students' connectedness scores who were enrolled in distance education courses was greater than the mean (24.77) of off-campus students. However, because the probability between the means of connectedness scores between on-campus and off-campus tribal college students enrolled in distance education courses was 0.09 was greater than the set alpha level of .05, the research hypothesis was rejected.

Research Question 12

What are the perceptions of on-campus tribal college students on learning experiences compared to off-campus tribal college students in distance education courses?

Research Hypothesis 12

On-campus tribal college students perceive greater learning experiences compared to off-campus tribal college students taking distance education courses.

Table 4.13

Comparison of Perceptions of Learning Experiences between On-campus and Off-campus Students

Location Enrolled	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	Outcome
On-campus	19	28.84	5.63	1.84	30	.04	Hypothesis accepted
Off-campus	13	25.38	4.56				

Table 4.13 illustrates the mean (28.84) of on-campus tribal college students' learning experiences scores who were enrolled in distance education courses was greater than the mean (25.38) of off-campus students. The probability between the means of on-campus and off-campus tribal college students enrolled in distance education courses was 0.04 which was less than the set alpha level of .05. As a result, the research hypothesis was accepted.

Research Question 13

What are the perceptions of tribal college students in distance education courses on sense of community by the various distance education delivery modalities?

Research Hypothesis 13

The perceptions of tribal college students in distance education courses on sense of community differ across the various distance education delivery modalities.

Table 4.14

Comparison of Perceptions of Sense of Community by Delivery Modalities

Source of Variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P</i>	<i>F-Crit</i>	Outcome
Between Groups	230.60	2	115.30	2.31	.13	3.59	Hypothesis rejected
Within Groups	849.60	17	49.98				
Total	1080.2	19					

Table 4.14 compares the means of tribal college students' sense of community scores by satellite, video conferencing, and WebCT distance education modalities. To analyze this comparison an ANOVA was conducted. The probability value was calculated at 0.13 which was greater than the set alpha level of .05. As a result, the research hypothesis was rejected.

Research Question 14

What are the perceptions of tribal college students in distance education courses on connectedness by the various distance education delivery modalities?

Research Hypothesis 14

The perceptions of tribal college students in distance education courses on connectedness differ across the various distance education delivery modalities

Table 4.15

Comparison of Perceptions of Connectedness across Delivery Modalities

Source of Variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>	Outcome
Between Groups	15.68	2	7.84	0.33	0.73	3.59	Hypothesis rejected
Within Groups	408.88	17	24.05				
Total	424.55	19					

Table 4.15 compares the means tribal college students' connectedness scores of satellite, video conferencing, and WebCT distance education modalities. To analyze this comparison an ANOVA test was conducted. The probability value was calculated at 0.73 which was greater than the set alpha level of .05. As a result, the research hypothesis was rejected.

Research Questions 15

What are the perceptions of tribal college students in distance education courses on learning experiences by the various distance education delivery modalities?

Research Hypothesis 15

The perceptions of tribal college students in distance education courses on learning experiences differ across the various distance education delivery modalities.

Table 4.16

Comparison of Perceptions of Learning Experiences between Delivery Modalities

Source of Variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>	Ouctome
Between Groups	126.19	2	63.09	2.5779	0.1070	3.6337	Hypothesis rejected
Within Groups	391.60	16	24.48				
Total	517.79	18					

Table 4.16 compares the means tribal college students' learning experiences scores of satellite, video conferencing, and WebCT distance education modalities. To analyze this comparison an ANOVA test was conducted. The probability value was calculated at 0.11 which was greater than the set alpha level of .05. As a result, the research hypothesis was rejected.

#### Summary

The statistical results presented in Chapter 4 were derived from tribal college students who were enrolled in distance education courses the Fall 2006 and Spring 2007 trimesters who responded to a demographic sheet and questionnaire. The data were analyzed using descriptive and inferential statistics. The demographic data and questionnaire responses were presented using frequency distributions. The demographic data included age, employment, marital status, dependent information, student status, and status of enrollment in distance education courses. In addition, the *t*-test and ANOVA inferential statistics were used to test 15 research hypotheses. The alpha level to test for significance in each of the research hypotheses was set at a .05. Significance was found for research hypotheses 10 and 12, and there was no

significance for all other research hypotheses. A summary of the outcomes for each of the research hypotheses can be found in Appendix O. Chapter 5 will discuss some conclusions and recommendations based on the results of the study.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

This chapter will discuss the summary of the study, conclusions, implications, recommendations, and suggestions for future study.

#### Summary of the Study

The purpose of this single institution study was to provide an understanding of the tribal college students' perceptions concerning sense of community, connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities (satellite, video conferencing, and WebCourse Tools [WebCT]). The results of this study have contributed to the body of knowledge in the area of tribal college distance education. This single institution study collected data through survey results of tribal college students enrolled in distance education courses. Also, this study has added to understanding the perceptions of tribal college students enrolled in distance education courses which may assist tribal college administrators, faculty and staff in the development of more effective distance education courses. More important, this understanding may assist in the retention and academic success of American Indians who enroll in distance education courses at tribal colleges.

The literature review for this single institution study provided an understanding of tribal colleges, distance education and sense of community, connectedness and learning experiences. Also, the literature review provided an understanding of tribal colleges' distance education programs and tribal college students who enroll in distance education courses. For this study, fifteen research

hypotheses were tested to analyze the perceptions of sense of community, connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities. Some of the hypotheses also analyzed whether there were differences between different demographic groups. The hypotheses were analyzed using *t*-tests and ANOVA statistical analyses. The results of the statistical analyses found no significance for all research hypotheses except two hypotheses. The two research hypotheses that found statistical significance were the hypotheses that analyzed the on and off campus tribal college students perceptions of sense of community and learning experiences who were enrolled in distance education courses. These results are discussed later in the chapter.

## Conclusions

### *Perceptions of Sense of Community*

Research hypothesis 1 states: *Tribal college students perceive a low sense of community in distance education courses.* It was hypothesized that students would perceive a low sense of community because the literature suggests that distance education students tend to have a low sense of community in distance education courses. However, the statistical test results of this research hypothesis indicated that there was no significance, and therefore suggests that tribal college students perceive a high sense of community in distance education courses. These results could be due to the tribal colleges' value of sense of community, support received from distance education faculty, staff and administrators, and support received from tribal communities where distance education courses are delivered. Most important, the

value of sense of community in the American Indian culture may have resulted in a high perception of sense of community.

The tribal college where this study was conducted, like other tribal colleges, incorporates American Indian values into their mission and operation of their institution and one value is the concept of community (American Indian Higher Education Consortium [AIHEC], 1999; Boyer, 1997). Therefore, academic and support programs within the institution emphasize and incorporate a sense of community value in their interaction with their students. Tribal colleges are unique from other higher education institutions because of their connection to American Indian communities and their values. As a result, the concept of sense of community may be evident in the students' interactions with the institution and its programs.

Also, the institution's distance education faculty, staff, and administrators play a critical role in strengthening the perceptions of sense of community among students enrolled in distance education courses. Distance education faculty and staff provide academic and social support to students enrolled in distance education courses. This support is reflected in course activities, communication, and workshops that develop community among distance education students. More specifically, the distance education program provides orientations, tutoring, academic success workshops, advisement, site visits, which not only promote academic success but likely strengthen the perceptions of community among distance education students.

Additionally, key staff positions created to promote academic success among distance education students also may enhance their perceptions of sense of community. The Tutor/Mentor position was created in the Spring 2007 trimester to

provide academic support to students enrolled in distance education courses off-campus. This individual visits distance education sites at various tribal communities weekly to follow-up with students' progress, disseminate critical course information, and provide assistance with coursework. Also, the positions of Distance Education Coordinator, the Distance Education Academic Counselor, distance education faculty, and other program administrators contact and interact with tribal communities and their distance education students who are enrolled in the institution's distance education courses weekly through various forms of communication such as telephone, site visits, and electronic mail which promotes a sense of community. More important, the positions of Academic Counselor, Tutor/Mentor, and Distance Education Coordinator are filled by American Indians who understand the American Indian value of sense of community and as a result, their interaction and support provided to distance education students are centered around this concept.

The academic and social support tribal communities provide to distance education students taking distance education courses in their communities may strengthen these students' perceptions of sense of community. Distance education students who are enrolled in distance education courses at their tribal communities do not leave their communities to attend courses. Therefore, their perceptions of sense of community may not be affected when they enroll in distance education courses and as a result they may not feel a lack of sense of community.

More importantly, the students who participated in this study are American Indians and therefore, the sense of community is a way of life because of the value placed by the American Indian culture on sense of community. Many of these

students have been taught to respect family and community and to support one another (Lowe, 2005; Martin, 2005b). These students, because of their value of sense of community, seek and establish relationships with others because of their cultural beliefs. Therefore, because sense of community is a way of life for these students and they attend an institution that values sense of community, they do not perceive they lack a sense of community.

### *Perceptions of Connectedness*

Research hypothesis 2 states: *Tribal college students perceive low connectedness in distance education courses.* It was hypothesized that students would perceive low connectedness because the literature suggests that distance education students tend to have low connectedness in distance education courses. However, the statistical test results of this research hypothesis indicated that there was no significance, and therefore suggests that tribal college students perceive high connectedness in the distance education courses. These results could be due to the support received from other distance education students enrolled in the course, faculty, staff, program activities, and support received from tribal communities where distance education courses are delivered. Also, the perceptions of high connectedness may be attributed to students' similar cultural background, employment experiences, and academic interests as will be explained further.

In addition, the roles of the institution's distance education program's staff and faculty who provides and promotes academic and social support to distance education students enhances their perceptions of connectedness. The services provided by these individuals include regular contact and interaction with distance

education students through face to face site visits, telephone and electronic mail correspondence. These initiatives by distance education faculty and staff to interact with students enrolled in distance education courses on an individual and collective basis may strengthen their perceptions of connectedness. Also, the various events and activities provided to distance education students by the institution's distance education program such as orientations and student success workshops may have enhanced the students' perceptions of connectedness to the institution and the classroom.

Moreover, the collaboration between the institution and tribal communities where distance education courses were being offered may strengthen the students' perceptions of connectedness to the distance education courses and the institution. This collaboration is a trust relationship between the institution and the tribal community to provide quality education to tribal community members and work collectively to support these students who are enrolled in distance education courses at the institution. This relationship is supported by the mission and goals of the institution. Collaboration included meetings and regular contact between the institution's distance education program with tribal leaders, administrators, and key tribal personnel to address concerns, develop and participate in initiatives that promote academic success of distance education students enrolled in distance education courses. Also, these tribal communities provided program and staff support to assist their distance education students in achieving their academic goals. As a result, both the institution and tribal communities worked cooperatively to see that

students complete their distance education courses successfully. This collaboration may have led to the students' perceptions of connectedness.

More important, tribal college students who are enrolled in distance education courses at the institution where the study was conducted shared similar experiences, academic interests, beliefs, community life and cultural background. The majority of the students in the study were female, non-traditional students, and employed, as a result of these similarities, students may have perceived a high connectedness with each other. After collecting the results of the study, the researcher further investigated the students' enrollment in distance education courses for the Fall 2006 and Spring 2007 trimesters and explored their majors and employment field. The majority of the students who enrolled in distance education courses off-campus were employed and majoring in the same field, and as a result these students may have perceived high connectedness to the distance education courses. Also, the majority of the distance education courses offered by the institution for the 2006 and 2007 academic year were in the same field and the instructors who taught these courses were experienced practitioners in the field.

All the students in the study are American Indians who share similar cultural beliefs and values regarding connectedness and as a result, these students may have perceived a high connectedness to other students in the course because of their shared cultural beliefs. Connectedness in the American Indian culture is a way of life in that all things are related and connected as described by Deloria, (1999) below:

A living universe within which events and actions have moral content necessarily suggests that all things are related. Not only is everything related,

but it also participates in the moral content of events, so responsibility for maintaining harmony of life falls equally on all creatures. (p 52)

Therefore, because of the American Indian cultural belief that all things are related, it can be assumed that the students already felt a connection with others in the course or were motivated to establish a connection because of this belief. Also, tribal colleges were created by American Indian communities and institutional values emulate these communities. This value of connectedness is incorporated in courses and programs provided by the institution which may have lead to the heightened connectedness felt by students.

#### *Perceptions of Learning Experiences*

Research hypothesis 3 states: *Tribal college students perceive low learning experiences in distance education courses.* It was hypothesized that students would perceive low learning experiences because the literature suggests that distance education students tend to have low learning experiences in distance education courses. However, the statistical test results of this research hypothesis indicated that there was no significance, and therefore suggests that tribal college students perceive high learning experiences in distance education courses. These results could be due to the academic support received from distance education students, faculty, staff, program activities, and tribal communities where distance education courses are delivered. Also, high learning experiences may be a result of the students' similar academic interests, employment and cultural experiences. A high perception of learning experiences may also be the result of the value of education in the American Indian culture.

The students' learning experiences could be the result of the support and interaction with other students and the instructors in distance education courses. Learning experiences includes whether the course is meeting the students' academic goals and expectations. According to Rovai (2002c) learning experience perceptions are developed primarily through the interaction between students in distance education courses. Rovai (2002c) further suggests that this interaction develops their understanding of the course content. Increased interaction between students and others enrolled in distance education courses for this study may have been encouraged by the students' shared characteristics, experiences and cultural background. The majority of the students in the study were female, non-traditional, and employed students and all of them were American Indian. These similar characteristics and experiences may have allowed for increased interaction because the students felt comfortable and were able to connect easily with one another. Also, the majority of off-campus students' academic interests were in the same field and they were employed by the same type of organizations. Half of the courses offered were in the same field of the majority of off-campus students. Also, the majority of the faculty who taught these courses had 30 years experience in their field.

Consequently, students may have developed a connection with these instructors and engaged in their courses. In addition, it is the mission of tribal colleges in general to provide courses that are culturally relevant to American Indian communities and that address the needs of these communities. Therefore, it can be assumed that the students in this study were engaged in these courses because the

course interaction and materials were relevant to their communities which may have led to high perceptions of learning experiences.

The academic support provided by the institution's distance education program and the tribal communities where distance education courses were delivered promoted academic success through tutoring and mentoring programs. A Tutor/Mentor position was created in the Spring 2007 to assist students with course materials and content. This individual traveled to various tribal communities where students were enrolled to provide any assistance regarding their courses. Also, the tribal communities provided tutoring and other academic support to their students which may have impacted their learning experience perceptions.

Education and learning are held in high regard by American Indian communities. Learning is incorporated in all aspects of the American Indians' daily lives which includes their interaction with the community, family, environmental and spiritual worlds (Cajete, 2005). Cajete describes traditional American Indian education or learning as:

Individuals were enabled to reach completeness by being encouraged to learn how to trust their natural instincts, to listen, to look, to create, to reflect and see things deeply, to understand and apply their intuitive intelligence, and to recognize and honor the spirit within themselves and the natural world. This is the education legacy of indigenous peoples. (p. 77)

Education is viewed by American Indian communities as the resolution to their health, environmental, and social challenges (Austin, 2005). American Indians believe that through education they can provide for their families, preserve their

cultural way of life and traditions. American Indians value education and view education as a survival mechanism. Tribes support their community members attending higher education institutions because they hope that according to Austin:

They want American Indian students to soak up Western knowledge, place that knowledge within the context of their cultures and languages, and return home to better their communities. Tribal expectations cannot be fulfilled unless American Indians remain in college. (p. 43)

### *Gender Perceptions*

Research hypotheses 4, 5, and 6 tested the differences of perceptions between female and male tribal college students enrolled in distance education courses. It was hypothesized that there was a difference in the perceptions of sense of community, connectedness, and learning experiences between female and male distance education students specifically with women having greater scores. However, the statistical test results for these research hypotheses indicated that there was no statistical significance, and therefore suggests that there is no meaningful difference between female and male tribal college students' perceptions on sense of community, connectedness and learning experiences in distance education courses.

The conclusions for sense of community and connectedness of the female and male students' perceptions will be analyzed together because the explanations for both are closely related. The results suggest that both female and male students' perceptions on sense of community and connectedness are the same. The concept of sense of community and connectedness is the foundation of American Indian cultural beliefs and members of this culture are typically taught and incorporate this concept

in their daily life and interactions (Cajete, 2005). This culture's belief system emphasizes the relationships and connectedness among all living things from a metaphysical perspective. A metaphysical perspective is the understanding of concepts through a spiritual view which is closely connected to the cultural belief system. Also, the American Indian culture's perceptions regarding gender differences may have influenced the outcome of this study. Females and males within the American Indian culture share equal roles and one is not more important than the other and both genders balance the other (Mankiller, 2004; Mihesuah, 1998). Therefore, the roles of gender within the American Indian community are of equal importance and therefore distinguishing a difference in perceptions, particularly on sense of community and connectedness may be difficult.

The evidence of this study supports that there was not a difference of the perceptions of learning experiences between genders. As discussed previously, the American Indian culture perceives education and learning as part of their livelihood and survival and has a high value within the culture. Therefore, because of this value of learning and education, the perceptions of learning experiences of students are not different between genders. Both male and female students' perceptions of learning experiences may be related to their value of learning and education, and as a result, students did not express that they had negative learning experiences in distance education courses.

#### *Traditional and Non-Traditional Student Perceptions*

Research hypotheses 7, 8, and 9 tested the differences of perceptions between traditional and non-traditional tribal college students enrolled in distance education

courses on sense of community, connectedness and learning experiences. However, the statistical test results for these research hypotheses indicated that there was no significance, and therefore suggests that there is not a difference between traditional and non-traditional tribal college students' perceptions on sense of community, connectedness and learning experiences in distance education courses.

It is important to understand the American Indian culture's perceptions on age which may have impacted the students' perceptions on sense of community and connectedness. An individual's age does not affect their perceptions on sense of community and connectedness within the American Indian culture because American Indians of all ages place equal importance to the American Indian culture where the youth represents the future and the elders are the connection to past and the traditional way of life (Deloria & Wildcat, 2001). As a result, the sense of community and connectedness are concepts that are equally valued by all age groups in the American Indian culture.

In addition, the evidence for this study supports that there was not a difference of the perceptions of learning experiences between traditional and non-traditional students. As discussed previously, the American Indian culture places a high value on education or learning. Therefore, it can be concluded that the traditional and non-traditional students' perceptions of learning experiences are the same because of this value.

#### *On and Off Campus Perceptions*

Research hypotheses 10, 11, and 12 tested the differences of perceptions between on and off campus tribal college students enrolled in distance education

courses on sense of community, connectedness and learning experiences. Statistical significance was found for research hypotheses 10 and 12 which suggest that there is a statistical difference between on-campus and off-campus tribal college students' perceptions on sense of community and learning experiences enrolled in distance education courses. Statistical significance was not found for research hypothesis 11 which suggest that there is not significant difference between on-campus and off-campus tribal college students' perceptions on connectedness.

The evidence supports that on campus tribal college students enrolled in distance education courses perceived a greater sense of community than off campus tribal college students enrolled in distance education courses. Therefore, it can be assumed that those who are on campus perceive a higher sense of community because of the face to face interaction with the instructors and their classroom peers.

Additionally, these students have access to on campus support services, library resources, and student organizations while those who are off campus do not. Also, the evidence supports that on-campus tribal college students enrolled in distance education courses perceived greater learning experiences than off-campus tribal college students enrolled in distance education courses. On campus students likely perceived higher learning experiences because of the direct contact and the face to face interaction with the instructors and their classroom peers. Also, the on-campus students have direct access to resources such as the institution's support services, library resources, and student organizations which off campus students do not. More importantly, geographic location may have impacted the higher perceptions of sense of community and learning experiences between on and off campus students. Off-

campus students are not immersed in the campus life in comparison to on-campus students. Although outreach efforts are made by the institution through site visits, electronic mail, and telephone to address the students' sense of community and learning there seems to be an apparent difference between on-campus and off-campus students' experiences.

However, the evidence supports that there is no meaningful difference of perceptions on connectedness between on and off campus tribal college students enrolled in distance education courses. Therefore, one can conclude that the perceptions on connectedness between on-campus and off-campus students enrolled in distance education courses are equal. This conclusion could be the result of the value of connectedness in the American Indian culture as was explained in detail previously.

#### *Students' Perceptions Across Modalities*

Research hypotheses 13, 14, and 15 tested the differences of tribal college students enrolled in distance education courses perceptions' between various distance education delivery modalities on sense of community, connectedness and learning experiences. However, the statistical test results for these research hypotheses indicated that there was no statistical significance, and therefore suggests that there is not a meaningful difference between the tribal college students' perceptions across various distance education modalities on sense of community, connectedness and learning experiences in distance education courses.

The different distance education modalities utilized by the institution offering distance education courses were specific to WebCT, video conferencing, and satellite.

The distance education modalities utilized by the institution have different levels of interaction. According to the literature, interaction plays an important role in the perceptions of sense of community, connectedness, and learning experiences (Brook & Oliver, 2002; Rovai, 2001; 2002a; 2002c). The students who were enrolled in WebCT courses interacted with the course materials, instructors, and other students in an online environment and did not meet in a face-to-face traditional classroom setting. The students who were enrolled in the video conferencing courses were able to interact with the instructor and other students during the scheduled course time. Also, the students enrolled in video conferencing courses off campus could see and hear the instructor and students at the campus site, and were able to participate in class discussions. However, off campus students enrolled in the satellite courses had the lowest level of interaction with the instructor and students on campus. The off-campus students could see and hear the instructor and students on campus, but they were not able to interact with them through this technology.

Although the technology associated with delivering distance education courses is quite different particularly the level of interaction it provides, the evidence in this study suggests that the students' perceptions of sense of community, connectedness, and learning experiences was not affected by these differences. Therefore, it can be concluded that the students' utilization of the different distance education modalities did not impact their perceptions of sense of community, connectedness, and learning experiences because they may have felt there was a sufficient amount of interaction within their distance education courses. The interaction occurring outside the courses between the students, instructors, support

staff and the institution may have been another reason that there was not a difference in their perceptions of sense of community, connectedness, and learning experiences between the distance education modalities.

### Implications

The purpose of this study was to provide an understanding of the tribal college students' perceptions concerning sense of community, connectedness, and learning experiences in distance education courses and various types of distance education delivery modalities. The implications based upon the findings of this study are as follows:

1. The participants' high sense of community and positive learning experiences may be explained by the fact that the majority were on-campus students who had greater access to the college and its support services and resources.

2. The majority of the participants' responses to the questions regarding sense of community, connectedness, and learning experiences indicates that they perceived a high sense of community, connectedness and learning experiences. The result may be due to the participants' similar cultural backgrounds, beliefs, and community experiences. The participants for this study were American Indian and the majority of participants were female, employed and non-traditional students.

3. Given that the participants shared similar cultural backgrounds, demographics, and community experiences, it seems that the participants were a *de facto* cohort, which may have strengthened their sense of community, connectedness, and learning experiences.

4. The perceptions of sense of community, connectedness, and learning experiences may be influenced by the interactions and relationships of distance education students with other distance education students, with faculty, administrators, and tribal communities. It can be implied that these interactions and trusting relationships may promote a sense of community, connectedness, and learning experiences.

5. The academic and social support services provided by the institution and their distance education program appears to strengthen the distance education students' perceptions of sense of community, connectedness, and learning experience through orientation programs, tutoring, advisement, and academic success workshops.

#### Programmatic Recommendations

This section will present programmatic recommendations for tribal colleges who are providing distance education courses to American Indian tribal college students. These recommendations are based upon the findings of this study to enhance and improve distance education courses and programs at tribal colleges to promote academic success, retention, and learning for American Indians who are enrolled in these courses:

1. Increased interaction and fostering a sense of community between faculty and distance education students may provide an increased perception in sense of community, connectedness, and learning experiences. Therefore, training should be provided to distance education faculty that focuses on classroom community building and interaction through distance education. The goal of the training should be to

continue encouraging and developing a sense of community, connectedness and learning experiences with students enrolled in distance education courses.

2. Create a cohort program with students of the same major and work experiences which may increase the sense of community, connectedness, and learning experiences.

3. Off campus students perceived a lower sense of community and learning experience in comparison to on-campus students. Therefore, tribal colleges should consider providing workshops and programs directed towards off-campus distance education students that may increase their sense of community and learning experiences.

4. Provide training to tribal community sites in student issues related to distance education so that they can effectively support students at their sites and increase tribal support for distance education initiatives. Also, this may increase off-campus distance education students' at the tribal sites perceptions of sense of community and learning experiences.

5. Conducting yearly evaluations on the students' experiences and perceptions in distance education courses related to sense of community, connectedness and learning experiences to assess whether these perceptions positively impact the academic experience of distance education students in order to increase their perceptions of sense of community, connectedness, and learning experiences.

6. Implement an effective online student support services program where students, particularly off-campus students who may perceive a low sense of

community and learning experiences, can engage and interact with key staff and administrators at the institution.

### Suggested Future Research

Further study of tribal colleges and distance education is necessary as tribal colleges continue to provide courses utilizing distance education technologies. The American Indian population is a unique and severely underrepresented population within the higher education community (Pavel, 1999). As tribal colleges begin to advance into distance education, more research in this area is important so that tribal colleges and institutions serving American Indian students through distance education can better serve this population. More specifically, understanding the perceptions of sense of community, connectedness and learning experiences of American Indians enrolled in distance education courses will assist tribal college administrators, faculty and staff with enhancing distance education courses and promote retention for American Indians who participate in distance education programs and courses at tribal colleges. The following suggestions for future research are based on this study's findings:

1. This study included students who are enrolled in distance education courses on and off campus; however a study focused on off-campus students only may provide additional understanding of perceptions and barriers on sense of community, connectedness and learning experiences.

2. This study was a quantitative study based on a survey developed by Rovai (2002b, 2002c) that was not specifically geared towards an ethnic population.

Developing a questionnaire that is more specific to the American Indian population may produce results that can be generalized specifically to this population.

3. The questionnaire of this study included a “NEUTRAL” selection in the Likert scale. Perhaps a new questionnaire should be developed that excludes the “NEUTRAL” selection to compel students to select “DISAGREE” or “AGREE.” This may strengthen the results of the students’ perceptions of sense of community, connectedness, and learning experiences.

4. Expand the study to include a focus group component on the perceptions of sense of community, connectedness, and learning experiences for this population. Conducting a focus group may “provide a clear view of how others think and talk” (p. 16) as stated by Morgan and Krueger.

5. Conduct a comparative study between students enrolled in distance education courses at federally and tribally chartered tribal colleges on their perceptions sense of community, connectedness, and learning experiences. Conducting a comparative study between federally and tribally chartered tribal colleges may provide an understanding of the perceptions of sense of community, connectedness, and learning experiences and if there is a difference in perceptions. The uniqueness of this type of study is that the tribally chartered tribal college is controlled by a specific tribe, whereas a federally chartered tribal college is not associated with one tribe and is administered by the federal government.

6. Students who reside on the reservation may have different perspectives on sense of community, connectedness, and learning experiences than those who reside off the reservation. Conducting a comparative study between tribal college students

enrolled in distance education courses that live on reservations and tribal college students enrolled in distance education courses who live off-reservation on their perceptions of sense of community, connectedness, and learning experiences may provide further understanding of this difference.

7. Conduct a qualitative study on tribal colleges' distance education faculty and their perceptions on sense of community, connectedness, and learning experiences to further understand the importance of these concepts' impact on academic success and engagement of students enrolled in distance education courses.

8. Revise the demographic sheet to include the participants' major in order to provide understanding of the students' perceptions of sense of community, connectedness, and learning experience by major. This study will provide further understanding of whether the students' major impacts perceptions of sense of community, connectedness, and learning experiences.

9. Conduct a qualitative study that focuses on the learning styles of American Indians enrolled in distance education courses and how these influence their learning experiences in distance education courses.

10. The demographic sheet for this study did not allow for multiple selections of distance education modalities, therefore I recommend that the design for this type of study allow for multiple selections and that they be included in the statistical analysis.

11. Conduct a national study of all tribal colleges that provide distance education courses on their distance education students' perceptions on sense of community, connectedness, and learning experiences.

12. Conduct a study that includes the comparison of various types of courses offered through distance education such as social sciences versus hard sciences.

13. Although the response rate was adequate for this study, the number of participants was low; therefore it may be advisable to replicate the study in the future.

### Summary

Tribal colleges integrate American Indian values in their mission and these values must be incorporated into their distance education initiatives in their development of courses and the support provided to American Indian students enrolled in their distance education courses. The American Indian values of sense of community, connectedness and learning experiences plays a critical role in promoting student success in distance education. This study investigated tribal college students' perceptions of sense of community, connectedness, and learning experiences in tribal college distance education courses by utilizing a questionnaire developed by Rovai (2002b, 2002c). The research questions presented in this study were developed to further understand sense of community, connectedness, and learning experiences among tribal college students enrolled in distance education courses. The research findings from this study may assist tribal college leaders, administrators, faculty, and staff in their development of distance education courses and support for American Indian students enrolled in distance education courses.

This study utilized a survey research method through a structured questionnaire developed by Rovai (2002b, 2002c). The questionnaire developed by Rovai measured sense of community, connectedness, and learning experiences of students who are enrolled in distance education courses. The data were analyzed

utilizing descriptive and inferential statistical analysis which was collected from the survey responses. This study included American Indian tribal college students that were 18 years old and over and enrolled in distance education courses. The individuals who participated in the study volunteered to participate in the study. Research packets were directly distributed to each participant through an on campus event, in their classroom, or by a tribal community site coordinator.

Tribal colleges are higher education institutions that serve the American Indian population and their communities. Distance education presents new challenges to tribal colleges such as addressing these students' unique academic and support needs. Furthermore, not only do tribal colleges face new challenges, higher education institutions in general, face similar challenges in the areas of retention and academic success of students who are enrolled in distance education courses. As a result, higher education institutions have incorporated the concept of sense of community into course delivery and student support programs to promote retention and academic success for students in distance education courses. Therefore, the understanding of tribal colleges' distance education students and their experiences with distance education courses in relation to their feelings of community, connectedness, and learning may provide insight to the challenges they face. Tribal colleges must explore or change initiatives to address these challenges by implementing programs that promote a sense of community, connectedness, and learning experiences among students enrolled in distance education courses. Future research in the area of tribal colleges and distance education may also further improve tribal college distance education programs.

## APPENDICES

APPENDIX A

APPROVED INSTITUTIONAL REVIEW BOARD APPLICATION

**NM**  
**STATE**  
UNIVERSITY

**Office of the Vice President for Research**  
**INSTITUTIONAL REVIEW BOARD (IRB)**  
**Dr. John Irvine, Chair**

MSC 3RES  
New Mexico State University  
P. O. Box 30001  
Las Cruces, NM 88003-8001  
Phone: 505-646-7177 Fax: 505-646-2480  
E-mail: [ovpr@nmsu.edu](mailto:ovpr@nmsu.edu)

DATE: March 26, 2007  
TO: **Valerie Jojola**  
FROM: Nellie Quezada-Aragon *nqa*  
SUBJECT: Application for Permission to Use Human Subjects in Research  
IRB Application Number: 6446

The NMSU Institutional Review Board Chair, Dr. John Irvine, has reviewed your application for the conduct of research involving human subjects for the project: **“A Sense of Community in Distance Education Courses: A Tribal College Students’ Perspective.”**

The application was reviewed in accordance with the expedited review process outlined in 45 CFR 46.110(b)(1). Dr. Irvine approved the application on behalf of the IRB on March 15, 2007.

Your IRB approval is valid for the period: **March 15, 2007 - March 14, 2008.**

The research must be conducted according to the proposal/protocol that was approved by the IRB. Any changes in the research, instruments, or the consent document(s) must be submitted to the IRB prior to implementation. Additionally, any unexpected hazards or adverse events involving risk to the subjects or others must be reported immediately to the IRB.

Please note that the IRB approval is valid for only one (1) year. The IRB must review and approve all research protocols involving human subjects at intervals appropriate to the degree of risk, but not less than once per year. Therefore, in order to continue your project after the approved period, you must submit a progress report **30 days prior** to the end date of **March 14, 2008.**

If you should have any questions, please do not hesitate to contact me at 646-7177 or via e-mail at [<ovpr@nmsu.edu>](mailto:ovpr@nmsu.edu).

cc: John Irvine, IRB Chair

Quezada-aragon, Manu

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**From:** Dr John Irvine [jirvine@nmsu.edu]  
**Sent:** Thursday, March 15, 2007 5:05 PM  
**To:** vjojola@sipi.bia.edu  
**Cc:** Ms Manuela L. Quezada-Aragon  
**Subject:** Research

You research has been approved as of today and you may proceed. A letter will follow.

-----  
John S. Irvine  
Director, Counseling and Student  
Development  
NMSU IRB Chair

NEW MEXICO STATE UNIVERSITY
APPLICATION FOR PERMISSION TO USE HUMAN SUBJECTS IN RESEARCH
APPROVAL IS VALID FOR ONE YEAR FROM APPROVAL DATE

THIS FORM MUST BE TYPED FOR PROCESSING - DO NOT LEAVE ANY BLANKS.

Principal Investigator(s) Valerie Jojola Phone 505-833-1420 Date March 05, 2007

Department(s) Department of Education, Educational Management and Development (EMD) MSC:

Title of Research Project A Sense of Community in Distance Education Courses: A Tribal College Students' Perspective

If Principal Investigator is a student, check purpose of project: Master's Thesis X Doctoral Dissertation Class Assignment
Other (explain):

Name of faculty advisor: Dr. Eduardo Arellano

If Principal Investigator is neither a faculty member nor a student, please explain:

Where will work be done? Single Institution Study

When will the research begin? March 2007 When will the research end? May 2007

CHECKLIST FOR RESEARCHER

Please check appropriately. If explanation is needed, use the back of the form and additional sheets if necessary.

- GENERAL ISSUES
1. Are federal funds involved? If yes, sponsor's name: (please explain on back)
2. Other external funds? If yes, sponsor's name:
3. Is application a renewal application for same research done one or more years ago and previously approved by this committee?
4. Do you have any financial conflict of interest? (If yes, please explain on back)
5. Will this project require the supervision of a physician? (If yes, please explain on back)

- SUBJECT RELATED ISSUES
6. Has the selection of subjects been equitable, with particular recognition of the special problems of research involving vulnerable populations such as women, children, prisoners, mentally disabled persons or economically or educationally disadvantaged persons? (If no, please explain on back)
7. Are subjects minors or have diminished mental or physical capability? (If yes, please explain on back)
8. Subjects have been given a choice of the following: participate or do another assignment (i.e., book review, paper, etc.)
9. Subjects have been offered one or more of the following incentives to participate in the research: money, extra credit for the class (If yes, please explain on back). SEE ATTACHMENT
10. Subjects will be allowed to participate in the research during regularly scheduled class time.

- INFORMED CONSENT/ASSENT ISSUES
11. Will each subject be fully informed?
12. Will each subject be debriefed following completion of the research?
13. Will each subject's personal privacy be protected? (If no, please explain on back)
14. Will each subject, prior to the research, indicate informed consent/assent to participate by completing and signing a written form (If no, please explain on back) (copy of informed consent form must be attached to this application) which includes:
a. A description of the potential risks to the subjects including physical, psychological, emotional, social, or spiritual well-being,
b. A description of how the personal privacy of the subject will be protected,
c. A description of any incentives for the subjects and restrictions for receiving such incentives,
d. An indication that the subjects' participation is entirely voluntary and that they may withdraw at anytime, and
e. A description of any debriefing that will be made available to the subjects?

NEW MEXICO STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
APPROVED: 03/15/2007
EXPIRES: 03/14/2008

RECEIVED

MAR 8 2007

If items 1, 4, 5, 7, 9 are checked YES please explain on back; if items 6, 13, 14 are checked NO please explain on back.

V.P. FOR RESEARCH

PROTOCOL OF RESEARCH PROJECT

Provide the following information: brief description of research methods, time required for single session, number of sessions, psychological or medical methods to be used, research objectives or hypothesis(es); if a survey instrument or other interview protocol is to be used, please attach a copy. SEE ATTACHMENT

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SUBJECTS: Number of Subjects approx. 80 Age of Subjects Over 18 X Under 18 \_\_\_\_\_  
If under 18, please indicate ages  
Sex of Subjects Male Female X Both

SAFETY MEASURES: Outline specific safety controls. If applicable, indicate what OSHA requirements will be observed. If applicable, indicate what universal standards will be observed. If subjects are minors and/or have diminished mental capability and/or have diminished physical capability, indicate special precautions that will be observed. If physician's attendance is necessary, explain why.  
NA

PHYSICIAN'S NAME AND CONTACT INFORMATION (If Physician's attendance is necessary)

EXPLANATIONS FOR CHECKLIST RESPONSES (MANDATORY FOR #1, 4, 5, 7, 9 if checked YES; #6, 13, 14 if checked NO)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Faculty Advisor Approval Signature Edwards Swellman Date: 3-5-07 MSC: 3N

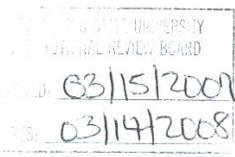
Dept. Head Approval Signature A. M. Jones Date: 5 March 7 MSC: 3N

I have read the NMSU Administrative Policies and Procedures Manual on "Human Subjects in Research" and I certify that my proposed research is in conformity with the University policy. I certify I have read the Belmont Report, the regulations for the protection of human subjects (45 CFR 46), the NIH Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research (Federal Register, March 29, 1994, pages 14508-14513), and the NIH Policy and Guidelines on the Inclusion of Children as Participants in Research Involving Human Subjects. Copies available in College Research Center and on the Office for Human Research Protections web page @ <http://ohrp.osophs.dhhs.gov/polasur.htm>.

SIGNATURE OF RESEARCHER(S) Ali Kala DATE 3-5-07

DISPOSITION BY: NMSU IRB  
 Approved  Disapproved J. M. Jones DATE 3-15-07

Forward to: NMSU Institutional Review Board (IRB), MSC 3RES



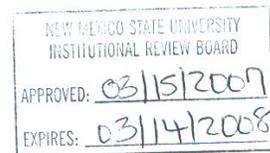
**EXPLANATION TO QUESTION #9 OF THE APPLICATION**

Participants in the study will be included in a drawing for two gift certificates. One gift certificate will be \$100.00 and the other \$50.00. To be included in the drawing participants must complete the questionnaire and demographic sheet.

**PROTOCOL OF RESEARCH PROJECT**

Provide the following information: brief description of research methods, time required for single session, number of sessions, psychological or medical methods to be used, research objectives or hypothesis(es); if a survey instrument or other interview protocol is to be used, please attach a copy.

This is a single institution quantitative study that will obtain and analyze the perceptions of tribal college students enrolled in distance education courses on sense of community, connectedness, and learning experiences. As the Distance Education Counselor for [REDACTED] have access to students' records, and therefore, I am able to identify and locate participants for this study. The participants for this study are students who were enrolled in Fall 2006 and are currently enrolled in Spring 2007 trimesters. There are three types of distance education students at [REDACTED] 1) attends distance education courses on-campus but are within driving distance 2) does not attend distance education courses on-campus but are within driving distance 3) attends distance education courses through the utilization of a distance education medium (ie. satellite television, video conferencing, WebCT) in [REDACTED] at the [REDACTED] Tribal facility. The surveys will be distributed to: 1) participants who attends distance education courses on-campus by direct administration of the surveys in their distance education classrooms 2) participants who does not attend courses on-campus but are within driving distance will be invited to attend SIPI events/workshops for distance education students where the surveys will be directly administered 3) participants who attends distance education courses from the [REDACTED] Tribal facility surveys will be directly administered surveys through the [REDACTED] site coordinator. Lastly, those students who are not currently enrolled in the Spring 2007 but were distance education students in the Fall 2006 trimester will be administered the survey at the events/workshops scheduled for the off-campus students or through the site coordinator at the [REDACTED] Tribal facility. A research assistant will directly administer the surveys to on-campus and off-campus students and coordinate with the [REDACTED] site coordinator in the distribution and the collection of surveys to ensure the confidentiality of the participants. The amount of time to complete the questionnaire is approx. 15-20 minutes.



APPENDIX B

ORIGINAL - CLASSROOM COMMUNITY SCALE

**ORIGINAL - CLASSROOM COMMUNITY SCALE**

(Developed by Dr. Alfred P. Rovai, School of Education, Regent University,  
1000 Regent University Drive, Virginia Beach, VA, 23464-9800, USA)

Directions: Below, you will see a series of statements concerning a specific course or program you are presently taking or have recently completed. Read each statement carefully and place an X in the parentheses to the right of the statement that comes closest to indicate how you feel about the course or program. You may use a pencil or pen. There are no correct or incorrect responses. If you neither agree nor disagree with a statement or are uncertain, place an X in the neutral (N) area. Do not spend too much time on any one statement, but give the response that seems to describe how you feel. *Please respond to all items.*

	Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly Disagree (SD)
21. I feel that students in this course care about each other	(SA)	(A)	(N)	(D)	(SD)
22. I feel that I am encouraged to ask questions	(SA)	(A)	(N)	(D)	(SD)
23. I feel connected to others in this course	(SA)	(A)	(N)	(D)	(SD)
24. I feel that it is hard to get help when I have a question	(SA)	(A)	(N)	(D)	(SD)
25. I do not feel a spirit of community	(SA)	(A)	(N)	(D)	(SD)
26. I feel that I receive timely feedback	(SA)	(A)	(N)	(D)	(SD)
27. I feel like this course is like a family	(SA)	(A)	(N)	(D)	(SD)
28. I feel uneasy exposing gaps in my understanding	(SA)	(A)	(N)	(D)	(SD)
29. I feel isolated in this course	(SA)	(A)	(N)	(D)	(SD)
30. I feel reluctant to speak openly	(SA)	(A)	(N)	(D)	(SD)

31. I trust others in this course	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
32. I feel that this course results in only modest learning	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
33. I feel that I can rely on others in this course	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
34. I feel that other students do not help me learn	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
35. I feel that members of this course depend on me	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
36. I feel that I am given ample opportunities to learn	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
37. I feel uncertain about others in this course	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
38. I feel that my educational needs are not being met	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
39. I feel confident that others will support me	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>
40. I feel that this course does not promote a desire to learn	<b>(SA)</b>	<b>(A)</b>	<b>(N)</b>	<b>(D)</b>	<b>(SD)</b>

RN#: \_\_\_\_\_

Consent Form:      Yes                      No

APPENDIX C

PARTICIPANTS' DEMOGRAPHIC INFORMATION

PARTICIPANTS' DEMOGRAPHIC INFORMATION

**DIRECTIONS:** Please review the following information carefully and select the appropriate response.

1. GENDER:        Female\_\_\_\_\_    Male\_\_\_\_\_
  
2. Are you currently working?    Yes        No  
If you answered yes please indicate the hours you work per week.  
1 – 20 hours\_\_\_ 21 – 30 hours\_\_\_        31 – 39 hours        \_\_\_  
40+\_\_\_\_\_
  
3. What is your marital status? (Please select ONE of the following)  
\_\_\_\_\_Single  
\_\_\_\_\_Married  
\_\_\_\_\_Divorced  
\_\_\_\_\_Separated
  
4. Do you have any dependents?        Yes        No
  
5. Are you a FULL-TIME or PART-TIME student?  
\_\_\_\_\_FULL-TIME – Enrolled in 12 or more credits  
\_\_\_\_\_PART-TIME – Enrolled in 11 or less credits
  
6. How many distance education courses are you presently enrolled in?  
\_\_\_\_\_
  
7. Are you taking distance education courses:  
      \_\_\_\_\_ON CAMPUS  
      \_\_\_\_\_OFF CAMPUS  
      \_\_\_\_\_Both (ON CAMPUS and OFF CAMPUS)

8. The course(s) you are presently enrolled in is/are primarily which one of the following: (please select **ONE** of the following)

\_\_\_\_\_ WebCT

\_\_\_\_\_ Interactive Video Conferencing

\_\_\_\_\_ Satellite

\_\_\_\_\_ Classroom

9. Are you a traditional student or nontraditional student? **Please check the definition that applies to you below**

\_\_\_\_\_ **NONTRADITIONAL** (23 years and older)

\_\_\_\_\_ **TRADITIONAL** (between 18 and 22 years)

10. Identify the semester(s) you have been or were enrolled in (Check all that apply):

\_\_\_\_\_ Fall 2006 Trimester

\_\_\_\_\_ Spring 2007 Trimester

11. Identify the number of semesters that you have been enrolled in this institution:

\_\_\_\_\_ First trimester

\_\_\_\_\_ 2 or more trimesters

APPENDIX D

LETTER REQUESTING PERMISSION TO USE QUESTIONNAIRE

November 21, 2006

Alfred P. Rovai, Ph.D.  
Regent University School of Education  
1000 Regent University Drive, ADM 254C  
Virginia Beach, VA 23464

Dear Dr. Rovai:

My name is Valerie Jojola and I am a doctoral student in the Department of Educational Management and Development at New Mexico State University, Las Cruces, New Mexico. I am currently in the dissertation proposal phase of my program and I anticipate defending my proposal by December 2006.

My dissertation study is on tribal colleges students' perceptions of sense of community, connectedness, and learning in distance education courses. During my literature review research on sense of community, I read your study "*Development of an instrument to measure classroom community*", where you developed a questionnaire, *Classroom Community Scale*, that measures a sense of community within distance education courses. I would like to use your questionnaire for my research study with your permission.

No modifications will be made to the questionnaire, however I will be attaching an additional sheet to the questionnaire that will request demographic information from the participants of my study.

As part of the New Mexico State University (NMSU) Institutional Review Board (IRB) process, I must include a written approval from you to utilize your survey questionnaire. In order for me to meet my NMSU-IRB deadline, I would like to request that this approval be submitted to me no later than December 08, 2006. An email approval from you is acceptable for the NMSU-IRB. I have attached a proposed letter for your reply.

Thank you for your assistance with my research study, and I will be more than happy to share the results of my study with you when I have completed my research. A hard copy of this request will be mailed to you for your records.

Please call if you have any questions or concerns.

Sincerely,

Valerie Jojola

6605 Koenig Ln, NW  
[Redacted]  
vjojola@comcast.net

APPENDIX E

E-MAIL APPROVAL TO USE QUESTIONNAIRE

» ¿ Valerie Jojola  
6605 Keswick Rd. NW  
Albuquerque, NM 87120

Dear Ms. Jojola:

I am writing in regard to your request for permission to use the 20-item Classroom Community Scale questionnaire that measures a sense of community within distance education courses. You have my permission to reproduce and use the questionnaire for your research. The only stipulation is that if you publish any results you cite the attached article as the source of the questionnaire:

Rovai, A. P. (2002). Development of an instrument to measure classroom community. *Internet and Higher Education*, 5(3), 197-211. (ERIC Document Reproduction Service No. EJ663068)

I've also attached a copy of this article to this e-mail. The article also provides evidence of instrument validity and reliability.

Sincerely,

---

Alfred P. (Fred) Rovai, PhD  
Professor, Regent University  
1000 Regent University Drive  
Virginia Beach, VA 23464-9800  
757.226.4861 (office)  
757.226.4857 (fax)  
<http://members.cox.net/aprovai>

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APPENDIX F

LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH

November 21, 2006

NAME TRIBAL COLLEGE PRESIDENT  
President  
TRIBAL COLLEGE  
ADDRESS

Dear:

My name is Valerie Jojola, a doctoral student in the Department of Educational Management and Development at New Mexico State University in Las Cruces, New Mexico. I am currently in the dissertation proposal phase of my program and I anticipate defending my proposal by December 2006.

My dissertation study is on tribal colleges students' perceptions of sense of community, connectedness, and learning experiences in distance education courses. I would like to conduct my study at your institution with distance education students who are enrolled in WebCT, satellite television, and video conferencing distance education courses. The students who participate will remain anonymous and their privacy will be protected. Additionally, your institution will **NOT** be identified in the study.

As an employee of the institution, I understand the value of my research to the American Indian and Tribal College communities. The results, analysis, and recommendations will be made available to you at the completion of the study and I hope that they will provide insight into improving distance education students services and course delivery at TRIBAL COLLEGE NAME.

Thank you for taking the time to review my request and I look forward to working with the institution. Please notify me of additional protocols and procedures in regards to this request. Attached is a brief description of my study for your review.

As part of the New Mexico State University Institutional Review Board (IRB) process, I must include a written approval from your office which will allow me to conduct the study at SIPI. In order for me to meet my NMSU-IRB deadline, I would like to request that this approval be submitted to me no later than December 08, 2006.

Thank you for taking the time to review my request and your support in my educational pursuit. Please do not hesitate to contact me if you have any questions or concerns.

Respectfully,

Valerie Jojola  
TITLE  
CONTACT INFORMATION

APPENDIX G

INSTITUTION APPROVAL TO CONDUCT STUDY



IN REPLY REFER TO:

President's Office

February 1, 2007

Valerie Jojola  
6605 Keswick Rd. NW  
Albuquerque, NM 87120

Dear Ms. Jojola:

This letter is providing approval to conduct your dissertation research study at [REDACTED] with students enrolled in distance education courses for the Fall 2006 and Spring 2007 trimesters. I request that the privacy of the students participating in the study be protected in accordance with the Family Educational Rights and Privacy Act (FERPA). Also, please keep me informed of progress on the research project and especially if you encounter any difficulties.

To facilitate the support and cooperation of [REDACTED] administration, faculty, and staff in your research, please communicate with me on the type of assistance you will need over the duration of your study. I will assist in making [REDACTED] cooperation possible.

I look forward to your dissertation study results and the benefits this study will provide to the SIPI community and the communities we serve.

Sincerely,

[REDACTED]

President

APPENDIX H  
LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH  
WITH TRIBAL COMMUNITY SITE STUDENTS

February 12, 2007

Dr. [REDACTED]  
Education Services Group Leader

[REDACTED]

Dear Dr. [REDACTED]:

My name is Valerie Jojola, a doctoral student in the Department of Educational Management and Development at New Mexico State University in Las Cruces, New Mexico. I am currently in the dissertation proposal phase of my program and I anticipate defending my proposal by March 2007.

My dissertation study is on tribal colleges students' perceptions of sense of community, connectedness, and learning experiences in distance education courses. I would like to request participation of distance education students who are enrolled in distance education courses at the TRIBAL COLLEGE. The students who participate will remain anonymous and their privacy will be protected.

As an employee of the institution and an enrolled tribal member with the Dine Nation, I understand the value of my research to the American Indian and Tribal College communities. The results, analysis, and recommendations will be made available to you at the completion of the study and I hope that they will provide insight into improving distance education students services and course delivery at TRIBAL COLLEGE.

Thank you for taking the time to review my request and I look forward to working with your students. Please notify me of additional protocols and procedures in regards to this request. Attached is a brief description of my study for your review.

As part of the New Mexico State University Institutional Review Board (IRB) process, I must include a written approval from your office which will allow me to conduct the study at TRIBAL COLLEGE. In order for me to meet my NMSU-IRB deadline, I would like to request that this approval be submitted to me no later than March 09, 2007. An email approval from you is acceptable for the NMSU-IRB.

Thank you for taking the time to review my request and your support in my educational pursuit. Please do not hesitate to contact me if you have any questions or concerns.

Respectfully,

Valerie Jojola

APPENDIX I  
PERMISSION TO CONDUCT RESEARCH  
WITH TRIBAL COMMUNITY SITE STUDENTS

**Valerie Todacheene**

**From:** N [REDACTED]  
**Sent:** Wednesday, March 07, 2007 1:19 PM  
**To:** vjojola@sipi.bia.edu  
**Subject:** Distance Education Research

This e-mail will serve as my approval for you to submit your research questionnaire to N [REDACTED] Manager of Education Services, for distribution to O [REDACTED] distance learning students. [REDACTED] will coordinate distribution of questionnaires and return of the completed questionnaires to you.

10/5/2007

APPENDIX J

STUDENT INVITATION TO PARTICIPATE IN STUDY

Dear Student:

I am currently conducting a study for my dissertation on tribal colleges' students' perceptions of sense of community, connectedness, and learning experiences in distance education courses. I would like to request your participation in this study. Your participation in the study will include completing a short questionnaire. Your participation will remain anonymous and your privacy will be protected. Please also be aware that you can choose not participate in the study at anytime.

To participate in the study you **MUST** be eighteen (18) years or older, fill out the attached consent form and attend the following event:

[INDICATE EVENT INFORMATION]

Participants in the study will be included in a raffle drawing for a \$100.00 and \$50.00 gift certificate to Wal-Mart. Participants who have completed the questionnaire **WILL BE** included in the drawing.

If you have any questions please contact me at the phone number and email listed below.

Thank you for your help.

Sincerely,

Valerie Jojola  
505-922-4097  
vjojola@sipi.bia.edu

APPENDIX K  
STUDENT COVER LETTER

Dear Student:

Thank you for your interest in participating in this research study.

I am currently conducting a study for my dissertation on tribal colleges' students' perceptions of sense of community, connectedness, and learning experiences in distance education courses. I would like to request your participation in this study. Your participation in the study will be to fill out the enclosed questionnaire, demographic sheet, and consent form. Your participation will remain anonymous and your privacy will be protected. Please also be aware that you can choose not participate in this study at anytime.

To participate in the study you **MUST** be eighteen (18) years or older, and fill out the attached consent form.

As a participant in this study you will be included in a gift certificate drawing for a \$100.00 and \$50.00 gift certificates to Wal-Mart. Only two participants will be drawn for the gift certificates. One for the \$100.00 certificate and one for the \$50.00 certificate. Participants who have completed the questionnaire, consent, and demographic form **WILL BE** included in the drawing, if you do not complete any of these items you **WILL NOT** be able to participate in the drawing. The gift certificate drawing will occur after all the research packets to participants have been collected. You do not need to be present at the drawing.

Please contact me if you have any questions, and you may contact me at the phone number and email listed below.

Thank you for your help.

Sincerely,

Valerie Jojola  
NMSU Doctoral Student  
505-922-4097  
vjojola@sipi.bia.edu

APPENDIX L  
STUDY SCRIPT

Good Morning/Afternoon.

My name is (SAY YOUR NAME), and I am assisting Valerie Jojola with her dissertation research study.

Valerie Jojola is a doctoral student in the Department of Educational Management and Development at New Mexico State University in Las Cruces, New Mexico. Her dissertation study is on tribal colleges students' perceptions of sense of community, connectedness, and learning experiences in distance education courses.

We are asking for your assistance by being part of this study on your perceptions of sense of community in TRIBAL COLLEGE distance education courses. You can participate in this study by completing our short questionnaire and demographic sheet.

I will distribute the research packets which will include a letter that describes our study, a consent form, a demographic sheet, and the questionnaire. You must be 18 years or older to participate in this study.

Please read the letter and the consent form. If you agree to participate in our study, please complete and sign the consent form.

Please do not write your name on the questionnaire & demographic sheet so you and your responses to the questionnaire & demographic sheet will remain anonymous.

Next, complete the questionnaire & demographic sheet. After you complete the questionnaire & demographic sheet, place the questionnaire, demographic sheet and the consent form in the envelope. Make sure that the consent form is signed before you place it in the envelope.

If you choose not to participate in the study, please submit your packet after everyone has finished completing the questionnaire, demographic sheet, and consent form.

Participants who submit a completed questionnaire, consent form, and demographic information sheet will be included in the drawing for one \$100 gift certificate and one \$50 gift certificate to Wal-Mart. Winners of the drawings will be randomly selected, and the drawings will be conducted in May 2007.

If you choose to participate in the study you will remain anonymous and your privacy will be protected.

Thank you for your assistance. Do you have any questions?

APPENDIX M  
CONSENT FORM

A Study on *A Sense of Community in Distance Education Courses: A Tribal  
College Students' Perspective*  
**CONSENT FORM**

**RESEARCHER:**

Valerie Jojola  
Doctoral Student  
New Mexico State University  
505-922-4097  
vjojola@sipi.bia.edu

**RESEARCH DESCRIPTION:**

My dissertation study is on tribal colleges students' perceptions of sense of community, connectedness, and learning experiences in distance education courses. To participate in my study all you need to do is complete a 20 question survey regarding your perceptions of sense of community, connectedness, and learning in your distance education course(s). Also, you will need to fill out a demographic sheet that will provide additional information. This will take approximately 15 to 20 minutes to complete. If you participate in this study you will qualify to enter a \$100 and a \$50 gift certificate drawing.

**CONFIDENTIALITY:**

I will keep any identifiers in a locked file cabinet. Any information from this study that I publish will not identify you.

**BENEFITS:**

I hope to give your tribal college information that will help create a better learning environment for you in your distance education courses. However, there will be no direct benefit to you from participating in this study.

**RISKS:**

There are no known risks to you for participating in this study.

**CONTACT PEOPLE:**

If you have any questions about this study, please contact me at the phone number listed above. If you have any questions about your rights as a study participant, please contact the Office of the Vice Provost for Research at New Mexico State University at (505) 646-2481.

**VOLUNTARY NATURE OF PARTICIPATION:**

Your participation in this study is voluntary. If you do not wish to participate, or would like to end your participation in this study, there will be no penalty or loss of benefits to you which you are otherwise entitled. In other words, you are free to make your own choice about being in this study or not, and may quit at any time without penalty.

**SIGNATURE:**

Your signature on this consent form indicates that you fully understand the above study, what I am asking of you in this study, and that you are signing this voluntarily. If you have any questions about this study, please feel free to ask them now or at any time throughout the study.

Signature \_\_\_\_\_ Date \_\_\_\_\_

A copy of this consent form can be made available for you to keep upon request.

APPENDIX N

COVER LETTER TO TRIBAL COMMUNITY SITE COORDINATOR

April 5, 2007

Dear:

Enclosed are the research packets for my dissertation study. There are 25 packets which includes: 1) cover letter 2) consent form 3) demographic form/questionnaire. Once the participant returns the packet to you seal the envelope and return the packets via Fed Ex to:

ADDRESS

Participants who are or were enrolled in Distance Education Courses Spring 2007 were mailed invitations to participate in the study. Next week the research assistant for the study will review the instructions to participate in the study during the following courses:

- BIOL 111, April 10, 2007, at the beginning of the class
- HIST 260, April 12, 2007, at the end of the class

Following the presentation of the Research Assistant, you can distribute the research packets to students who are in attendance, and after they complete the packet they will submit the packet to you.

Enclosed is also a DVD recording of my Research Assistant and myself which describes my study and the instructions to participate. The DVD is primarily for students who were enrolled in Distance Education Courses in the Fall 2006 trimester. These students will be mailed an invitation, and on the invitation they will be requested to contact you to schedule a time to fill out the research packet. The DVD will be played for these participants at their scheduled appointments. These participants should contact you by April 17, 2007.

Participants in this study will be included in a gift certificate drawing for a \$100.00 and \$50.00 gift certificates to Wal-Mart. Only two participants will be drawn for the gift certificates. One for the \$100.00 certificate and one for the \$50.00 certificate. Participants who have completed the questionnaire, consent, and demographic form will be included in the drawing, those who do not complete any of these items will not be able to participate in the drawing. The gift certificate drawing will occur in May 2007 after all the research packets to participants have been collected. Participants do not need to be present at the drawing.

Copies of letters of invitations sent to participants, Student List, Questionnaire, Demographic Sheet, Consent Form and the Research Packets are included in this mailing. Thank you for your assistance, and if you have any questions please call or email me.

Sincerely,

Valerie Jojola  
NMSU Doctoral Student

APPENDIX O

SUMMARY OF RESEARCH HYPOTHESES OUTCOMES

### Summary of Research Hypotheses Outcomes

Hypotheses	Outcome
1	Rejected
2	Rejected
3	Rejected
4	Rejected
5	Rejected
6	Rejected
7	Rejected
8	Rejected
9	Rejected
10	Accepted
11	Rejected
12	Accepted
13	Rejected
14	Rejected
15	Rejected

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