

The Pennsylvania State University

The Graduate School

College of Education

AMERICAN INDIAN SPECIAL EDUCATORS
AND DISTANCE EDUCATION

A Thesis in

Special Education

by

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Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

May 2008

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ABSTRACT

In this study the factors promoting and issues inhibiting participation in distance education (DE) courses for American Indian (AI) special education teachers were investigated. Information from this study can be used to develop and enhance distance education and thus aid in the retention and recruitment of highly qualified American Indian special education teachers. One hundred and ten AI special educators who had and had not experienced distance education completed a survey.

Two questionnaires were developed based on review of the literature and a prior pilot study. One questionnaire (A) was administered to American Indian special educators who had taken a DE course. The second questionnaire (B) was administered to American Indian special educators who had not taken a DE course.

The questionnaire contained seven demographic questions. Based on their previous experience with distance education, respondents were directed to complete either survey A or B. Survey A consisted of 42 statements categorized into eight sections: access, technical skills (e.g., reading, writing, downloading), social, motivation, support services, family/time, instruction, pretraining workshops (e.g., formats, navigation). Survey B consisted of 25 statements categorized into seven sections: access, technical skills (e.g., navigation, delivery formats), social, motivation, support services, family/time, and prerequisite skills. Results of the study suggested that distance education, when implemented effectively, was perceived positively.

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ACKNOWLEDGEMENTS

Ya'at'eeh shi ei Rosemarie S. Dugi yinishye,

To'ahedliinii dine'e ei nishli. Totsohnii dine'e ei bashishchiin. Ashiihi dine'e ei dashicheii. Tachiinii dine'e ei dashinali. Shima doo shizhe'e ei Mary Ann doo Larry Smith wolye. Pennsylvania State University di olt'a hasaadi ei Special Education baa iinishta.

Alchini yazhi nishliidaa' ei shimasani, Jean Pauline Redhouse, atah shiyaa hoola'. Si'ah Naaghái Bik'eh Hózhóón bik'ehgo na'ada wolyehigii ei nitsaago yee nashineeztaa'. Nitsáhákees (Thinking), Nahatá (Planning), Iiná (Living), aadoo iinida, Sih Hasin (Assurance) nizhonigo yee nashineeztaa'. Dinekehji na'nitxin doo Dine be'i'ooliil yee shiyaa hoola'igii bee diijiigoo nizhonigo asdzani baa aah hasinigii shishli. Dii bee ama nishli, aadoo bee iina bil ashinigii shee holo, doo bee olta'i baa hozhonigii nishli.

Kwe'e hoolzhishgi ei ahxehee' naa dideeshniil. Bil iina ashinigii (Vance) doo shiyaazh (Morgan) nitsaago ahxehee shil honiloogo doo shika ana hi'nolcheehgo nihil hoolzhish. Shi'ma doo shizhe'e aldo ahxehee' naa bidideeshniil. Shadike (Lorri & Tweet) doo shitsili (Sonny) aldo ahxehee' naa bidideeshniil. Ee'deetxiid doo ihoo'aah tsida nitsaago sha bida noohdliigo doo shika'anahjahgo shil hoolzhish. Tse Nikani hoolyeedi keyah si'aadi shik'ei holonigii doo alaa hodeesaago shik'ei da holoogoo aldo' ahxehee' naa nihi dideeshniil. Nihisodizin, nihinahat'a', doo yeego anit'i saad danilinigii bee shiighah woozi'igii yeego baa ahxee nisin doo shil nili. T'aa anoltsoh nitsaago shika oojee'go at'e.

Ahxehee'!

My name is Rosemarie S. Dugi and I'm from the Water Flows Together People born for the Big Water Clan. My maternal grandparents are the Salt Clan and my paternal grandparents are the Red Running into the Water Clan. Growing up in Arizona and spending my summers with my grandmother, Jean Pauline Redhouse on the Navajo Reservation I learned many things about living and walking in beauty. Si'ah Naaghái Bik'eh Hózhóón was taught to me daily, cutting wood, bringing in water, taking care of the livestock all things that made me the mother, wife, daughter, sister, auntie I am today. The teachings of Nitsáhákees (Thinking), Nahatá (Planning), Iiná (Living), aadoo iinida, Sih Hasin (Assurance) has carried me through the turbulence, triumphs, and life victories during my educational journey at Penn State.

I would like to express sincere thanks to my teachers and advisors who have skillfully guided me through my personal and professional journey. To my chairperson,

Dr. Pamela Wolfe who so patiently supported my decisions, mistakes, and triumphs, I'm forever thankful. In addition, I would like to thank the other members of my dissertation committee: Dr. James McAfee, Dr. Richard Kubina, and Dr. Susan Faircloth. You all offered more than just your expertise, you offered your friendship. This would not have been possible without the support of Dr. Kathy Ruhl and PHDSS grant. You have all given me the opportunity and tools to become a better teacher, writer, and researcher.

Secondly, I would like to acknowledge my Pennsylvania support system; Stouts, Junior Icer Hockey, RGals, NEVC, Westgate, Barns Lane, Benner Elementary, and the crew at OPP. We have been blessed to have found you!

Finally, I would like to acknowledge my family. Arizona is a far, far away place that I often visited in my mind, heart, and prayers. The Toaheedliinii and Tlizilani families that encouraged, guided, and supported us with phone calls, visits, packages, emails, and pictures were well received and needed. I would like to thank my parents, Larry and MaryAnn Smith. You have raised me to be the best I can be, offer the best that I have, and never settle for less, I have continue to carry these values with me and during the hardest times in my life I often echo your words of encouragement.

Most importantly, I would like to send my love and thanks to my husband Vance and our son Morgan. We began this journey together not knowing what was ahead. Through perseverance, understanding, and support we were able to open new doors. Wherever our next journey may take us, YOU ARE *The Wind Beneath My Wings*.

CHAPTER ONE

Introduction

The history of American Indian (AI) people in the United States reflects great diversity in the distinctiveness of each tribe originating from the geographic location, native language, the spiritual practice of religion and culture, and socioeconomic status. From the arrival of Columbus in 1492, there is evidence that natives startled explorers who quickly referred to them as “Indios.” Having mistaken the origin of the natives, Columbus soon realized that such individuals were spread across the continent (National Indian Education Association, NIEA, 2003).

In several attempts to colonize or seize the Indians, the United States government relocated several tribes. In 1830, Congress passed the “Indian Removal Act,” in which many individuals were taken away from their homelands. American Indians were forced to march under harsh conditions to makeshift forts (Bureau of Indian Affairs (BIA), 2007). Notably two marches contributed to American Indian history: the “Trail of Tears,” which marked the removal of the Cherokee Indians to Oklahoma in 1839 and “The Long Walk,” which notes the emigration of the Navajos to Fort Sumner in 1864 (BIA, 2007). Many lives were lost due to starvation, illness, and fatigue, yet the relocation continued. The resistance to removal resulted in many tribes signing treaties with the U.S. government. The lands known today as “tribal lands” are allocated pieces of land given to the American Indians under certain conditions. The BIA’s responsibility is the administration and management of 55.7 million acres of land held in trust by the United States for American Indians, Indian tribes, and Alaska Natives.

American Indian Culture

Although each American Indian tribe is unique, there are similarities in certain aspects of tradition and language among the tribes. However, certain characteristics distinguish them from other populations. These unique characteristics may include (a) native language, (b) tribal customs/traditions, (c) tribal religious/ceremonial/social activities, (d) strong spirituality, (e) strong emotional connection to tribe(s), (f) residence in Indian communities (reservations), and (g) strong connection to immediate and extended family (BIA, 2007).

Likewise, American Indian students may differ from non-American Indian students in areas such as values, ethics, and life. McCarthy and Benally (2003) found that many AI children take a holistic approach to life-taking care of the people versus taking care of only themselves. AI children generally are taught to respect and value age as bringing knowledge and wisdom. Further, AI children are trained by their elders to cooperate, be patient, and to listen while some non-native children often are trained to be aggressive and to speak up. AI children are expected to live in harmony (i.e. balance with all things), versus to conquer nature. AI students tend to have an emphasis on using visual strategies and mental representation for processing information (Hilberg & Tharp, 2002).

American Indian Demographics

The U.S. Census Bureau (2003) estimates there are 4.3 million American Indians/Alaskan Natives (AI/AN) in the United States (1.5% of total U.S. population). One third of the AI population lives in three states: California, Arizona, and Oklahoma.

There are 563 federally recognized tribes. Some of the largest tribes include: Navajo, Cherokee, Choctaw, Sioux, Chippewa, Apache, Lumbee, Blackfeet, and Pueblo. Some 4.4 million American Indians claim membership in one or more of the federally recognized tribes. (U.S. Census, 2003).

In comparison to the overall U.S. population, Native Americans are more likely to live in the western United States (48%); less likely to live in urban areas (56%); more likely to have lower family incomes (\$21,750 median family income); more likely to live in poverty (17%); and more likely to have lower levels of educational attainment (U.S. Census, 2004). Twenty-eight percent of American Indians do not graduate from high school, compared to the national average of 15%. Only 42% pursue any form of higher education, compared to 53% nationally (American Indian College Fund, 2006).

American Indian Education

The Indian Citizenship Act of 1924 gave United States citizenship to American Indians, in part because of an interest by many to see them merged with the American mainstream, as well as the heroic service of many Native American veterans in World War I (Nebraska Studies, 2007). As a result, there are currently nearly 624,000 American Indian and Alaska Native students attending schools in the United States (Freeman & Fox, 2005). Approximately 91% of the 624,000 AI/AN students attend public schools. Twenty-one percent attend schools with an Indian student enrollment of at least 90% while 42.5% attend schools where the AI/AN enrollment is less than 10% (U.S. Census, 2004).

According to Swisher and Tippeconnic (1999), AI students often have difficulty in the educational system. For example, AI students have the highest dropout rate (approximately 43%) of any racial or ethnic group. Further, AI students are less likely to attend college and their SAT and ACT scores are lower compared to national norms.

Adult American Indian Education

As noted previously, American Indians have the lowest graduation rate of any ethnic group and represent the smallest percentage of any ethnic group attending professional programs in higher education. In 2003, 75% of AI/AN students completed high school, 14% earned a bachelor's degree or higher and 125,000 held a graduate or professional degree (Pavel, Skinner, Farris, Cahalan, Tippeconnic, & Stein, 2004).

Research has shown that AI students often do not have high school preparation adequate for higher education studies and may need tutorial and remedial education services.

American Indian students tend to enroll in college at an age older than most students, and usually have the added responsibility of family and financial pressures (Tate & Schwartz, 1993). Further, in order for AI students to attend college most require some form of financial aid. The average family income of an AI student is \$13,998, in comparison to the federal poverty threshold for a family of four, which is \$19,157 (American Indian College Fund, 2006).

Statement of the Problem

American Indians in Special Education

More than 18% of students enrolled in Bureau of Indian Affairs (BIA) and tribal schools are eligible for and/or are placed in special education (Faircloth & Tippeconnic,

2000). Native Americans are overrepresented in special education services (Faircloth & Tippeconnic, 2000; Gritzmacher & Gritzmacher, 1995), and underrepresented in gifted and talented education programs (Romero, 1994).

The reasons for the overrepresentation of AI students in special education are debated. Gritzmacher and Gritzmacher (1995) found that Native American students often are referred for special education assessment because culture combined with language and background contribute to a lower academic achievement of AI students. Further, once AI students are referred for special education, they are labeled as having a disability throughout their school careers. Several researchers have examined issues related to special education and AI students. They cite the critical need for appropriate assessment procedures as well as teacher training and curriculum development for this population (Johnson, 1992; Wells, 1991).

Need for AI Special Educators Trained to Serve AI Students

American Indian students have the highest overall disability rate compared to all racial/ethnic groups in the country, and it is estimated that there are over 44,000 American Indian school-aged students with disabilities (Wald, 1998). There is a need for special education teachers nationwide (Billingsley & McLeskey, 2004); however, considering an AI student's culture and background, many teachers who work with this population are not fully equipped to serve these students effectively (Littlebear, 1993; Mahan, 1997; Wells, 1991).

One way to serve AI students who have unique cultures and special education needs is the development of special education programs to train AI teachers to teach AI

students. It is well documented that AI students can best be educated by AI teachers for several evidence-based reasons. For instance, McCarthy and Watahomogie (1999) and Erickson and Mohatt (1977) state that learning is enhanced when the teacher and student share the same language and culture. AI teachers are likely to be aware of native language and culture and utilize this information to modify teaching styles (Philips, 1995; Swisher & Tippeconnic, 1999). Further, AI teachers can provide “connectivity” to AI students’ communities (Clear & Peacock, 1998; Deyhle, 1989; Swisher & Tippeconnic, 1999), and serve as an important role model for AI youth (Clear & Peacock, 1998; Kawagley & Barnhardt, 1999). As a role model, an AI teacher can enhance a teacher-student relationship by encouraging AI students to remain in school (Bowker, 1993; Kawagley & Barnhardt, 1999; Swisher & Tippeconnic, 1999).

Although special education programs offer great promise for meeting the needs of AI students with disabilities, there is difficulty in recruiting and retaining qualified AI teachers. Efforts to develop AI special education teacher training programs face a variety of difficulties. Baca and Miramontes (1985) state that traditional training programs on university campuses have not been a solution for American Indians for two specific reasons: (1) University-based programs are not designed to meet the needs of the reservation; and (2) When AI students leave the reservation to attend the university there is a possibility that some may not return to the reservation. Due to difficulties related to AI higher education, one solution may be distance education courses to bring instruction to the reservations.

Distance Education

Online learning represents the fastest growing delivery system in all areas of education (Ludlow, 2006). Distance education (DE) is a technology format to deliver information that allow educational opportunities for teachers, administrators, and others. Several formats of distance education delivery exist such as the Internet or satellite, interactive TV or audio, prerecorded TV or audio, CD-ROM and VHS tapes, or a computer-based system such as the Internet, e-mail, or chat rooms.

According to the National Center for Education Statistics (NCES) (2003), during the years 1997-1998, only one-third of the nation's universities offered distance education courses. In the year 2000, over one-half of universities reported offering distance education courses. The latest report from the NCES (2003) indicates that 56% (2,320) of all two-and four-year degree granting institutions offered distance learning courses in 2000-2001. Some DE courses offer only online instruction while others offer "hybrid" or a mix of online and traditional face-to-face instruction. Of institutions offering distance online courses, 43% used an Internet based system design, 51% used live two-way audio and video, and 41% used prerecorded video to deliver instruction (NCES, 2003). Table 1.1 illustrates the models of distance education.

Table 1.1

| Delivery Models | | |
|--|-----------------|---|
| Proportion of Content Delivered Online | Type of Course | Typical Description |
| 0% | Traditional | Course with no online technology; content is delivered in writing or orally. |
| 1-29% | Web Facilitated | Course that uses web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or web pages to post the syllabus and assignments. |
| 30-79% | Blended/Hybrid | Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online; typically uses online discussions and face-to-face meetings. |
| 80+% | Online | A course where most or all of the content is delivered online. Typically has no face-to-face meeting. |

Summary

Although little is known about the use of DE as a possible venue for training AI special education teachers, the factors that may promote or inhibit participation may be

helpful in determining its effectiveness. With information about the effectiveness, teacher preparation programs may benefit in recruiting and retaining AI teachers to service AI students with disabilities. There is a specific need for AI teachers to service AI students with disabilities because these teachers can practice, understand, and model cultural differences. Recruiting and retaining teachers for AI students has been a reoccurring task for school districts across the nation. Distance education presents the opportunity to link potential AI teachers to the education necessary for teacher certification. Inevitably, unique issues arise with the implementation of DE for the AI population.

Purpose of the Study

In this study, the author addressed the following questions:

1. What are the demographic characteristics of the American Indian special education respondents?
2. What are the factors that promote participation in distance education for American Indian special educators?
3. What are the factors that inhibit participation in distance education for American Indian special educators?

Definitions

1. *Distance education* (DE) occurs when an instructor and student(s) are separated by physical distance and/or different location, but with the use of technology (i.e., voice, video, data, and print) information is transmitted to students (McIsacc & Gunawardena, 1996).

2. *American Indian* (AI) persons (based on self-identification) who indicated their race as American Indian, having origin in any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition (Office of Affirmative Action, Equal Opportunity, and Diversity, 2007).

CHAPTER TWO

Review of Literature

This chapter presents a comprehensive review of the current research related to distance education and special education teachers, with particular emphasis on the American Indian population. Areas of research relevant to this topic include the following (a) shortages of rural special education teachers, (b) shortages of American Indian special education teachers, (c) impact of distance education on rural special educators, and (d) issues influencing participation in distance education.

Shortages of Rural Special Education Teachers

There is a serious and continuous shortage of special education teachers for public school classrooms in the United States (Billingsley & McLeskey, 2004; Boe, Cook, Bobbitt, & Terhanian, 1998; Bornfield, Hall, Hall, & Hoover, 1997; Ingersoll, 2001; Westling & Whitten, 1996). Critical shortages of special education teachers represent one of the more serious issues related to the ability to offer a free and appropriate public education to students with a disability (Billingsley, 2004; Carlson, 2001). The Bureau of Labor Statistics (1999) projects that between 1998 and 2008 the number of special education teaching positions in public and private schools in the United States will grow by 33.7%. This is especially significant because the number of students with disabilities has increased while the number of teachers available to teach these students has decreased each year (Brownell, Bishop, & Sindelar, 2005; McLeskey, Tyler, & Flippin, 2004). It is evident that the need for additional qualified special educators is significant.

Shortages of certified special educators are even more acute in remote and rural communities (56.9% in rural districts as opposed to 45.8% in urban districts) (Boe et al., 1998; Ludlow & Brannon, 1999; Menlove & Lignugaris-Kraft, 2004). Rural classrooms constitute a large portion of public schools within the United States. The American Council on Rural Special Education (ACRES, 2004) reports that 22% of all U.S. schools are rural and 21% are small schools. Thirty-one percent of all K-12 students attend rural or small schools. In the South, Appalachia, and the upper Midwest, over 30% of students attend rural schools (ACRES, 2004); however, according to a Study of Personnel Needs in Special Education (SPeNSE) (2002) only 26% of all beginning teachers serve rural districts.

Given that approximately one-third of all K-12 students attend rural or small schools and the ongoing shortage of special education teachers, rural and remote districts must find new strategies to recruit and retain special education teachers. The recruitment and retention of special education teachers in rural areas is challenging for a number of reasons. First, the vast majority (80%) of beginning special educators do not relocate to accept teaching positions, but rather, choose to accept positions within 50 miles of where they live (SPeNSE, 2002). Second, many teachers who choose to relocate to remote and rural areas do not stay in the community for any significant length of time. Izzo (1997) indicated that one-fifth of all rural special education teachers leave their jobs annually to pursue employment in larger districts and communities. Westling and Whitten (1996) found that of the 158 rural teachers they surveyed, only 57% felt they were likely to be in their current position for five years or more. Teachers cited various reasons for leaving

rural communities including (a) large caseloads, (b) feelings of isolation, (c) lack of social opportunities, (d) lack of academic advancement, (d) low salaries, and (e) lack of administrative support and job requirements (Billingsley & McLeskey, 2004; Keiper & Busselle, 1996; McLeskey et al., 2004; Westling & Whitten, 1996). Finally, teachers who plan to stay in rural communities typically have personal or family connections to the community such as having been raised in or attended the school district in which they currently serve (Bornfield et al., 1997).

Due to the severity of teacher shortages, many rural district personnel are realizing that they must train and recruit teachers from their own communities. For example, some rural school districts provide stipends for teacher training and recruit paraprofessionals, bus drivers, and even cafeteria workers to work as special educators (Passaro, Pickett, Latham & HongBo, 1994). District administrators are looking to teacher preparation programs for assistance in the provision of highly qualified special education teachers in rural areas (Helge, 1984, 1991).

Shortages of American Indian Special Education Teachers

Not only does a need exist for special education teachers in rural areas, but the need for rural teachers from under-represented ethnic groups is also a concern. It has been estimated that in the year 2000, only 5% of U.S. teachers were persons of color, yet students of color made up 33% of the school-age population (Baca & Cervantes, 1998). The U.S. Department of Education (2000) estimated that there are approximately 9.2 million school-age students in the United States whose primary language is not English. If we estimate that 10% to 15% of these students may have disabilities, then 984,400 to

1,380,000 students with disabilities also are linguistically diverse (Baca & Cervantes, 1998). Clearly there is a discrepancy between the number of minority teachers and students from racially and linguistically diverse backgrounds (Baca & Cervantes, 1998). According to the National Association of State Directors of Special Education (1994):

In recent years, the changing demographics of American schools are forcing educators to recognize the need to recruit, prepare, and retain culturally and linguistically diverse special education professionals (p.1)

A 1991 national study of AI tribal leaders found a severe shortage of AI teachers (Wells, 1991). Responses from this study indicated that 48% of schools who served AI students did not have any AI teachers, and 66% had 10 or fewer. According to the U.S. Census (2004), about 5.6% of the nation's population is American Indian. Of this nationwide statistic, 48% of AI students do not graduate from high school. More than 10% of AI students in public schools and 18% in BIA schools are eligible for and/or placed in special education (Faircloth & Tippeconnic, 2000; Gritzmacher & Gritzmacher, 1995).

The quality of a student's educational experience is determined in part by the learning environment teachers create. The need for AI special educators who can serve as positive role models and catalysts for improvement in AI education is ongoing. It is vital that schools serving a higher percentage of AI students increase the number of AI

educators (Fuller, 1992; Hawley, 1989; Quezada, Galbo, Russ, & Vang, 1996).

Understanding of racial and learning barriers unique to the AI population is important for AI students. Learning is enhanced when students and teachers share the same background (Erickson & Mohatt, 1977; McCarthy & Watahomogie, 1999). Culture, language, and background similarities provide continuity for students (Clear & Peacock, 1998; Deyhle, 1989; Pavel et al., 1999; Swisher & Tippeconnic, 1999). Further, AI teachers in the school system can offer training in how to design programs for the AI student population. (McGee & Cody, 1995; Solomon, 1987; Sorensen, 1992). Philips (1995) and Swisher and Tippeconnic (1999) agree that AI teachers are likely to be aware of cultural factors that influence learning.

AI special education teachers play an important part in the academic growth of AI students with disabilities either as mentors or as role models. Unfortunately, the number of AI teachers who service AI students is limited. One promising strategy suggested for the recruitment and retention of special educators in remote areas is distance education (Collins, 1997; Menlove & Lignugaris-Kraft, 2004).

Delivery Models of Distance Education

Three primary models of DE have been implemented to deliver courses and programs in rural communities. These models include a combination hybrid class (King, 2002), instructional television (Hackman & Walker, 1990; McHenry & Bozik, 1995) and Web CT/Blackboard (Beard & Harper, 2002; Bernard, Brauer, Abrami, & Surkes, 2004; Shin & Chan, 2004; Yip, 2004).

King (2002) describes the hybrid model as 40-60% of a course taught in person and the remainder at a distance. King (2002) added that web-based course technologies may include threaded discussion, websites, file sharing, and distribution list e-mail. Supporting technologies for trouble shooting are comprised of web-based information, e-mail, toll-free telephone technical support, as well as in-person consultations with the instructor during class sessions. True hybrid classes build the distance technologies integrally into course delivery and reduce the number of face-to-face sessions (King, 2002).

A World-Wide-Web Course Tool (Web CT) permits educators, with or without technical experience, to create web-based courses. Course authors need no technical expertise; all that is required is that instructors are capable of using a web browser (Beard & Harper, 2002; Bernard et al., 2004; Shin & Chan, 2004; Yip, 2004). Researchers note that Web CT enables the author to create a course and then add a wide variety of tools and features to the course. Examples of tools include those for presentation (e.g., organizing by content, creating learning modules, generating resource pages); communication (e.g., engaging students in discussion, sending announcements, monitoring “who’s” online); and assessment (e.g., permitting projects to be posted, taking a quiz, getting immediate feedback) (Bernard et al., 2004; Shin & Chan, 2004).

Two studies (Hackman & Walker, 1990; McHenry & Bozik, 1995) describe how the Instructional Television (ITV) model operates. The instructor is required to teach from an originated site where three cameras are used. The first camera is aimed at the instructor. The second camera is directed at the students, and the final one is stationed at

a teacher console. The third camera locale permits papers, overheads, and other teaching materials to be displayed. The instructor controls the monitors and can display the learning site of his or her choice on all monitors. The students share a microphone and can only be heard if they push a button. Only one microphone can be activated at a time; the instructor wears a microphone that can be turned off and on.

The three different formats of delivery hybrid, WebCT, and ITV are being utilized in rural communities. Researchers have documented that regardless of the system being implemented DE is attempting to reach rural and remote areas (Beard & Harper, 2002; Bernard, Brauer, Abrami, Hackman & Walker, 1990; King, 2002; McHenry & Bozik, 1995; Surkes, 2004; Shin & Chan, 2004; Yip, 2004).

Advantages of Distance Education Formats

Researchers have found that the advantages of distance education in rural and remote locations over traditional on-site courses include flexibility in time, self-paced learning, and accessibility (Beard & Harper, 2002; Bernard et al., 2004; Hackman & Walker, 1990; King, 2002; McHenry & Bozik, 1995; Shin & Chen, 2004; Yip, 2004). For example, students participating in the hybrid model, WebCT courses, and ITV indicated that advancing their education while staying at home was an opportunity convenient for family (Beard & Harper, 2002; Bernard et al., 2004; Hackman & Walker, 1990; King, 2002; McHenry & Bozik, 1995). Researchers also have discovered that students were able to complete a course or degree without the loss of salary due to relocation or sacrificing family responsibilities (Beard & Harper, 2002; Bernard et al., 2004; Hackman & Walker, 1990; King, 2002; McHenry & Bozik, 1995). Furthermore, researchers (e.g.,

Beard & Harper, 2002; Bernard et al., 2004; Hackman & Walker, 1990; King, 2002; McHenry & Bozik, 1995; Shin & Chan, 2004; Yip, 2004) commented that flexible time commitments allowed students to study and complete assignments at their own pace. Not surprisingly, researchers found that students preferred distance education because they could work with a relaxed schedule, thus reducing the anxiety and pressures of learning.

Challenges of Distance Education Formats

Distance education presents several challenges. Primarily centered on interaction between instructor-student and student-student (Beard, et al., 2002; Hackman & Walker, 1990; King, 2002; McHenry & Bozik, 1995; Shin & Chan, 2004). For example, Hackman and Walker (1990) and McHenry and Bozik (1995) found problematic interactions among students surfacing during an ITV classroom when the instructor did not initiate effective verbal communication. Students stated that they did not feel connected with other peers or the teacher. According to McHenry and Bozik (1995) and Hackman and Walker (1990) the lack of connectivity was due to the teacher's inability to appropriately control the cameras and actively include all students. Students rarely saw or spoke with students in other geographic areas.

Beard and Harper (2002) and Shin and Chan (2004) found that students believed their learning was limited by the impersonal interaction received during their distance education course. Although the variety of tools offered in a WebCT course were meant to support interaction, students lamented that hardware, software and computer assistance were limited and caused frustration (Beard & Harper, 2002; Bernard et al., 2004). To

establish a user-friendly interaction base, Yip (2004) suggested that using the various methods of communication offered in WebCT may increase classroom interaction.

According to King (2002), building communication through interaction is achievable in a hybrid course; expectations, ideas, and dialogue can be exchanged in the traditional face-to-face segment of a hybrid class but must be enhanced and supported during the distance education portion. King (2002) stated that there are many expressions of interaction in a hybrid course including (a) face-to-face discussion, (b) class presentations, (c) electronic journals, and (d) threaded discussion, e-mail, and small group presentation done both in the classroom and virtually. In a study by King (2002) he pointed out that due to the face-to-face interaction of the faculty, students indicated that interaction enhanced the online learning experience. Students who shared ideas and related personal and professional experiences to other students created an atmosphere of interaction and success for the online experience (King, 2002).

Factors Influencing Participation in Distance Education

Given the variety of formats, distance education offers a way to address the shortage of teachers in rural districts in both initial or ongoing teacher training (Collins, 1997; Howard, Ault, Knowlton, & Swall, 1992; Menlove & Lignugaris-Kraft, 2004). Despite research identifying advantages and disadvantages, little is known about specific factors that influence attitudes toward, and success in, distance education. The limited available research indicated that there are number of issues related to participation in DE including technical expertise, expected time/interruptions, availability of support services, prerequisite skills, social, and motivation.

Technical. Schnorr (1999) argued that technical skills are critical to the success of online learners. According to Ludlow (2006) technical skills required to efficiently navigate an online course include use of mail systems (i.e. composing, posting messages), bulletin boards (i.e. posting, replying, quoting, and attachments), and printing and composing documents. Meyen and Lian (1997) reiterate the importance of minimizing technical complications so that students can focus on the material and content being taught.

Time/Interruption. Distance education attracts a variety of learners; however, interruptions to family time are a concern as more students with family demands use distance education as a means to complete degree and certification requirements (Ludlow, 2006). According to the U.S. Department of Education (2000) there are two types of learners: traditional and non-traditional. Some authors have concluded that younger traditional learners are drawn to online learning because of the advancement in technology, whereas non-traditional students may enroll due to convenience and flexibility (Collins & Galyon-Keramidas, 2006; Day & Sebastian, 2002).

Support service. Support services often become the lifeline for distance learners. Menlove and Lignugaris-Kraft (2004) suggest several means to support and prepare distance learners to succeed a given delivery format including (a) a pre-course technology workshop, (b) help files and links on a course website, and (c) access to a technical assistant. One venue to assist in support service issues is a pretraining workshop. Menlove and Lignugaris-Kraft (2004) recommends that a one-day “learning at a distance” workshop be held where students are introduced to the minimum skills needed

to set up home computer access and manage the delivery system. These authors suggest that such a workshop could also information related to the ability to download, e-mail, install a browser, and access grades. Because students lack these critical skills when entering an online course, services (i.e. technician assistants, self-help links, and tutorials) may need to be available for the development of skills so that participants can take full advantage of online courses (Collins, Schuster, Ludlow, & Duff, 2002; Mitchem, 2004).

Prerequisite skills. Prerequisite reading, writing, and typing skills are important in any higher education class; however, in an online course these skills become the lifeline for distance education learners. With the absence of physical cues and face-to-face interaction of the instructor and other peers, online learners heavily depend on the messages conveyed through text (Meyen & Lian, 1997). Having to rely on the ability to read, write, and type, students often find themselves with feelings of inadequacy, isolation, and/or separation.

Social. One common issue related to DE is social isolation (Collins et al., 2002). In order to reduce the feeling of isolation, an understanding of effective strategies in building collaboration and interaction among other students may be necessary. Collins et al, (2002) suggests social “netiquette” training (i.e. dos and don’ts for participation in an online course) for distance education learners to alleviate isolation and social issues.

Motivation. Another issue related to DE is time management and motivation. For example, Mitchem (2004) found that online learners must be self-motivated if they are to finish assignments, read necessary articles, and move through modules at an appropriate pace. Without the physical presence of the instructor to prompt procrastinators or offer

constant reminders of deadlines, the responsibility of learning lies heavily on the student. Independent learners who are self-directed are more likely to be successful in the online environment as opposed to students who prefer taking notes and answering questions in classroom with an instructor and peers (Ko & Rossen, 2004).

Potential Use of DE to Alleviate Shortages of AI Special Education Teachers

Disproportionately large numbers of AI children have been placed in special education programs. Further, data have provided additional evidence that shortages of certified and highly qualified special education teachers are prevalent in American Indian populated areas (Tate & Schwartz, 1993). As the number of AI students eligible and placed in special education increases so should the numbers of qualified AI special educators. By recognizing their unique culture and language, AI special educators can better understand AI students with disabilities (Tate & Schwartz, 1993).

One promising strategy suggested for the recruitment of AI special educators in remote areas is distance education (Collins, 1997; Menlove & Lignugaris-Kraft, 2004). Despite inhibiting issues that affect participation, data indicate that online distance education has become a tool for delivering pre-service and in-service training for rural special educators (Ludlow & Duff, 1998). Because of the potential and increasing popularity of distance education, some researchers have noted that distance education could assist in the alleviating critical shortage of AI special educators in rural communities (Howard et al., 1992), as well as enhance programs for professional development to individuals living and working in rural areas (Ludlow & Duff, 1998).

This increased use of DE may serve as a useful tool to train AI educators in remote areas in special education.

Summary

Research indicates a shortage of special education teachers; however, the rapid growth of DE has provided educators with an excellent opportunity for certification and/or advancement. By examining the issues related to DE for AI special educators (e.g., attitudes, participation barriers), participation in DE may be expanded. To date, there is little research related to factors influencing or inhibiting the participation of American Indian special educators in distance education. This information may be useful to determine how to progress in special education using DE. In turn, this may increase the number of qualified AI special education teachers.

Because of the emerging nature of DE for AI special educators, the author investigated the following research questions:

1. What are the demographics of American Indian Special Educators respondents in this study?
2. What are the factors that will promote participation in distance education for American Indian special educators?
3. What are the factors that inhibit participation in distance education for American Indian special educators

CHAPTER THREE

Method

In this chapter, the method is described in four parts (a) participants, (b) instrumentation, (c) procedures, and (d) data analysis.

Participants

Participants were recruited from three organizations serving AI educators including the American Indian Higher Education Consortium (AIHEC), American Indian/Alaska Native Professors listserv, and the Native American Innovative Leadership (NAIL) program.

The first organization servicing AI education was AIHEC, which represents 34 tribal colleges in the United States. AIHEC functions collaboratively under four program objectives: (1) Maintain commonly held standards of quality in American Indian education, (2) Support the development of new tribally controlled colleges, (3) Promote and assist in the development of legislation to support American Indian higher education, and (4) Encourage greater participation by American Indians in the development of higher education policy (AIHEC, 2006). In this study, AIHEC was used to obtain the names, addresses, and degree programs of each of the 34 tribal colleges. An e-mail was sent to each tribal college and/or department to confirm that they offered a special education degree or certificate programs. This process resulted in the identification of 25 tribal colleges that offered a degree or certificate in education. The steps in identifying potential participants were (a) verifying special education program or certification, (b) identifying the professor-in-charge or department head, and (c) sending an informal e-

mail requesting access to individual American Indian students/teachers for voluntarily participation.

The second organization identified as serving AI individuals was the American Indian/Alaska Native Professors listserv. An e-mail was sent to contact American Indian professors who may have contact with other AI educators. Representation of six universities responded and verified access to individual participants in their spring 2007 courses. These professors asked students if they would participate in a survey. If they agreed, the professor forwarded the students' e-mail addresses to the investigator.

Third, the Native American Innovative Leadership (NAIL) program based out of Northern Colorado University was used to recruit participants. A program in partnership with surrounding universities around the Navajo reservation, NAIL provided several individual students working in schools funded by the Bureau of Indian Education.^a

Instrumentation

A 50-item questionnaire was developed based upon results of the pilot study (see Appendix A for complete pilot summary and Appendix B for pilot survey). Two categories were added that were not in the original pilot study, making a total of eight categories in the revised instrument. To clarify the questionnaire (i.e. categories, questions, and wording), the entire questionnaire was sent via e-mail to 10 higher education professionals prior to releasing to participants. These professionals had experience working with the AI population and/or distance education in teacher preparation programs. Suggestions and changes from the reviewers included using a

^a Formerly known as the Bureau of Indian Affairs.

Likert scale (i.e. six to four responses), assessing double-loaded questions, rephrasing terminology (i.e. accessibility to access), and building a user friendly online format.

The revised instrument was posted on *SurveyMonkey* via the web. The online questionnaire has two sections (a) demographic information related to the participants, and (b) factors promoting and inhibiting participation in DE. Two surveys were administered; Survey A was given to individuals with experience in a DE course, and Survey B was given to individuals with no experience in DE.

In section one, participants were asked to respond to six questions that best illustrated their current situation. Demographic information on the survey included employment, personal, and educational information. Further, participants were asked about their experience in distance education. AI students who indicated that they had taken or currently were taking a DE course were directed to Survey A; students who specified no experience in DE were directed to Survey B.

In section two of the online questionnaire, participants who indicated experience with DE were asked to respond to 42 statements. Participants who indicated no experience with DE were asked to respond to 25 statements; both surveys consisted of categories related to American Indian special education and distance education (a) access, (b) technical skills, (c) social, (d) motivation, (e) support services, and (f) family/time. Participants who had experience were asked to respond to additional categories (a) online instruction, and (b) pretraining. Participants with no experience were asked an additional category (a) prerequisite skills. Table 3.1 lists and defines the categories related to American Indian DE factors included in the Survey A and B instrument.

Table 3.1

Definition of Categories

| Categories | Definition |
|----------------------------------|---|
| Access | Availability of equipment and computer knowledge needed for online learning |
| Technical | Student's ability to navigate the online system and the software/hardware being used in online learning |
| Social | Student's perception of the environment, interaction, and collaboration of online learning |
| Motivation | Student's perspective on the psychological process needed to complete an online course |
| Support services | Support and tutorial assistance needed for online learning |
| Family and time | Student's personal time and allotment in online learning |
| Instruction ^a | Student's preference for instruction of methods and presentation of online materials |
| Pretraining ^a | Pretraining areas needed for online learning |
| Prerequisite skills ^b | Student's ability to read, write, type, and communicate during an online course |

Note: ^a Additional categories in Survey A. ^b Additional category in Survey B.

AI participants were asked to rate their opinions on factors concerning distance education on a Likert scale ranging from 4 (*Strongly Agree*) to 1 (*Strongly Disagree*) (see Appendix C for surveys).

Procedure

The online survey was posted on *SurveyMonkey*, a survey package that allows individuals or organizations to post surveys via the web. In addition to hosting the online survey, *SurveyMonkey* permits researchers to customize surveys such as the selection mode of questions (i.e. single choice, multiple choice, rating scales and drop down menus). The survey host was designed so that when each respondent completed and submitted the survey, the responses were captured into an output file and imported into Statistical Package for Social Sciences (SPSS 14) for analysis.

Using the e-mail addresses obtained, contact with participants was made in three stages. First, a pre-notice letter (see Appendix D) was sent via e-mail to students in participating classes informing them of an upcoming survey and objectives of the study. Second, one week after the initial contact, an invitation letter (see Appendix D) was sent via e-mail to the same participants. The invitation letter included a web link address that directly connected participants to the online survey. Finally, a reminder letter (see Appendix D) was sent via e-mail to participants encouraging them to complete the online survey. Data were collected between March 2007 and May 2007.

Once participants accessed the survey, they were linked to an informed consent page (see Appendix E). Participants were instructed to click either the “I Agree” or “I Disagree” button. If the participant clicked on the “I Agree” button, he/she was taken to

the first page of the survey. If the participant clicked on the “I Disagree” button, he/she was taken to a page thanking them for his/her time. After completing the survey, respondents were prevented from completing the survey again per design of the online host. Participants who did not complete a survey in one session were able to re-enter the webpage at the point in which they left.

Data Analysis

Descriptive statistics were used to report demographic characteristics of American Indian special educators. Descriptive statistics also were used to determine the frequencies and percentages for the eight categories (i.e. access, technical skills, social, motivation, support services, family/time, online instruction, and pretraining) for participants who completed Survey A and indicated experience with distance education. The same analysis was applied to Survey B and the seven categories (i.e. access, technical skills, social, motivation, support services, family/time, and prerequisite skills) for participants who had no experience in DE. Finally, group category means were analyzed from most to least, providing a ranking of categories for American Indians participating in distance education.

Summary

This study was conducted with an online survey hosted by SurveyMonkey. Three organizations were used to contact 110 American Indian Special Educators; American Indian Higher Education Consortium (AIHEC), American Indian/Alaska Native Professors listserv, and the Native American Innovative Leadership (NAIL) program. Participants were asked to respond to various DE categories that might have inhibited or

enhance their online experience. Results may assist teacher education programs in recruiting and retaining AI special education teachers.

CHAPTER FOUR

Results

In this chapter, results are presented in five sections (a) demographics of respondents, (b) response analysis for participants in DE, (c) response analysis for non-participants in DE, (d) means of each category in Survey A and B, and (e) a table displaying open-ended responses from AI special educators. Each of the findings is described in detail in the following sections of this chapter.

Demographics of Respondents

A total of 128 formal invitations were sent via e-mail to various school settings of which 110 American Indian Special Educators completed the survey resulting in a response rate of 85.9%. Table 4.1 lists the self-identified tribal affiliations.

Table 4.1

Self-identified Tribal Affiliation

| Tribe | Participants |
|----------------------------------|--------------|
| Navajo | 71 |
| Hopi | 11 |
| Santo Domingo Pueblo Native | 7 |
| Grand Traverse Band Odawa | 6 |
| Tohono O'odham | 5 |
| Turtle Mountain Band of Chippewa | 5 |
| White Earth Nation Ojibwe | 2 |

Self-identified Tribal Affiliations
(continued)

| Tribe | Participants |
|-------------------------------|--------------|
| Saginaw Chippewa Indian Tribe | 2 |
| Crow Agency | 1 |

Table 4.2 lists the characteristics of the respondents regarding to educational teaching setting, gender, and years of teaching experience.

Table 4.2

| Setting, Gender, and Years of Experience | | | | | | |
|--|------------------|--------------------------|--------------|----------------|---------------|-------|
| Gender | Years Experience | Setting | | | | Total |
| | | Bureau of Indian Affairs | Grant School | Private School | Public School | |
| Female | 1-3 yrs | 8 | 0 | 0 | 15 | 23 |
| | 4-7 yrs | 6 | 0 | 0 | 11 | 17 |
| | 8-10 yrs | 4 | 0 | 0 | 13 | 17 |
| | 11< years | 14 | 1 | 1 | 18 | 34 |
| Male | 1-3 yrs | 1 | 0 | 0 | 1 | 2 |
| | 4-7 yrs | 2 | 0 | 0 | 1 | 3 |
| | 8-10 yrs | 5 | 0 | 0 | 1 | 6 |
| | 11< years | 3 | 0 | 0 | 5 | 8 |

Of the 110 AI special educators, 53 were identified as having previous experience with distance education and were directed to Survey A. When asked the location in which they participated or were participating in the DE course; 26 indicated at home, 12 at a public terminal, 10 from work, and five from school. The reasons for taking a DE course included working towards a degree/teaching certificate (n = 21); professional development (n =14); obtaining continuing education units (n =11); and personal growth (n =3). The other 57 participants who specified that they had no experience in distance education were asked to complete Survey B. In addition, they were asked if they planned to take a distance education course in the future. Thirty-one participants indicated “no” and 26 indicated “yes.” Table 4.3 lists the reasons given in an open-ended segment of the survey regarding why or why not respondents planned on taking a future DE course.

Table 4.3

 Open Ended Responses of Respondents on Taking a Future DE Course

| Response | Reason |
|----------|--|
| Yes | Interested in innovative teaching methods |
| | Because there are no nearby universities or colleges |
| | Don't want to travel or move |
| No | I don't like the impersonality of them |
| | I am a visual learner and learn better hands on |

 Open Ended Responses of Respondents on Taking a Future DE Course

| Response | Reason |
|----------|--|
| No | I like to interact with the teacher and peers/colleagues I would rather take classes near my home |

Response Analysis for Participants in DE

When respondents indicated having taken or currently taking a distance course, they were directed to complete Survey A. The four point Likert scale (e.g., *Strongly Agree, Agree, Disagree, and Strongly Disagree*) was collapsed into two categories (e.g., *Agree and Disagree*) and reported using frequencies and percentages. Fifty-three participants were asked to respond to 43 statements grouped into eight categories (a) access, (b) technical skills, (c) social, (d) motivation, (e) support services (f) family/time, (g) instruction, and (h) pretraining.

Access. When asked to respond on issues relating to accessibility to technology, participants indicated concern; however, the overall knowledge relating to technical programs, application, navigation systems, disk drives, storage and keyboard posed a minimal concern. Access to technology permitting participation in a DE course was high among the majority of respondents. Table 4.4 displays responses to access factors.

Table 4.4

| Access Factors Promoting Distance Education | | |
|---|----------------|-------------------|
| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
| I have reliable Internet to participate. | 40 (75.5) | 13 (24.5) |
| I am able to access the website. | 41 (77.4) | 12 (22.6) |
| I have daily access to a computer. | 43 (81.1) | 10 (18.1) |
| I have knowledge of the hardware. | 48 (90.6) | 5 (9.4) |
| I have knowledge of the software. | 41 (77.4) | 12 (22.6) |
| I have knowledge of the delivery format. | 43 (81.1) | 10 (18.9) |

Technical. A majority of respondents agreed that technical factors such as word processing, e-mail, downloading and reading (i.e. formal and informal) were not a concern in taking a DE course. Nevertheless, 27.7% (n = 20) indicated concerns regarding installing software and plug-ins. Table 4.5 represents the responses concerning technical factors

Table 4.5

| Technical Factors Promoting Distance Education | | |
|--|----------------|-------------------|
| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
| I use a word processor. | 53 (100) | (--) |
| I use e-mail regularly. | 49 (92.5) | 4 (7.5) |
| I am able to install software and plug-ins. | 33 (62.3) | 20 (37.7) |
| I am able to download from the Internet. | 47 (88.7) | 6 (11.3) |

Technical Factors Promoting Distance Education
(continued)

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|----------------------------------|----------------|-------------------|
| I am able to read formal text. | 48 (90.6) | 5 (9.4) |
| I am able to read informal text. | 49 (92.5) | 4 (7.5) |

Note. (--) No respondents.

Social skills. The lack of opportunities to interact between student to student and student to instructor posed a concern. However, respondents disclosed that the lack of social cues (i.e. body language) did not create a problem during their experience in DE. Table 4.6 illustrates the results of social factors in DE.

Table 4.6

Social Factors Promoting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|--|----------------|-------------------|
| I find a lack of social cues in DE. | 44 (83) | 9 (17) |
| I have greater opportunities for peer/peer interaction. | 20 (37.7) | 33 (62.3) |
| I have greater opportunities for student/instructor interaction. | 20 (37.7) | 33 (62.3) |

Motivation. The recognition of having to take on more responsibility in their learning (86.8%) and the need for a structured timeline (81.1%) was indicated by a

majority of respondents. However, procrastination in a DE course was found to be a common experience between participants. Table 4.7 indicates the motivation factor in DE.

Table 4.7

Motivation Factors Promoting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Take more responsibility for my own learning. | 46 (86.8) | 7 (13.2) |
| I procrastinate more in an online course. | 24 (45.3) | 29 (54.7) |
| I need a structured timeline to meet deadlines. | 43 (81.1) | 10 (18.9) |

Support Services. The response rate for support technical services was satisfactory for 39 AI educators. In addition, 32 individuals responded as having access to resources during a DE course. Table 4.8 displays information regarding support services factors.

Table 4.8

Support Services Factors Promoting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Technical support is provided in a timely manner. | 39 (73.6) | 14 (26.4) |
| I have access to resources (library) | 32 (60.4) | 21 (39.6) |

Family/Time. A majority of respondents indicated that DE was a better fit (time) and more flexible (pace of learning) than a face-to-face course. Support from family and employer was deemed as high; assistance regarding tribal support was low. Seventy-four percent of the participants indicated needing more time reading and studying during a DE course. Table 4.9 reflects the opinions concerning family/time factors.

Table 4.9

Family/Time Factors Promoting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|--|----------------|-------------------|
| DE is a better fit (time). | 45 (84.9) | 8 (15.1) |
| DE is a better fit (financially). | 27 (50.9) | 26 (49.1) |
| DE is more flexible (pace of learning). | 35 (66) | 18 (34) |
| DE requires more of my time (reading, studying). | 39 (73.6) | 14 (26.4) |
| I have support (encouragement) of my family. | 45 (84.9) | 8 (15.1) |
| I have support (approval) of my employer. | 42 (79.2) | 11 (20.8) |
| I have support (assistance) of my tribe. | 22 (41.5) | 31 (58.5) |

Instruction. The need for the opportunity to review and clarify alternate forms of material in a DE course was agreed upon by more than half of the participants. On the other hand, quick response, thorough answers, and evaluation systems in DE course raised a concern for a majority of respondents. Table 4.10 notes the responses concerning instruction factors in a DE course.

Table 4.10

| Instruction Factors Promoting Distance Education | | |
|--|----------------|-------------------|
| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
| Better able to review material in alternative formats. | 30 (56.6) | 23 (43.4) |
| Able to clarify and review prior to submitting. | 32 (60.4) | 21 (39.6) |
| Less opportunity for communication w/other students. | 29 (54.7) | 24 (45.3) |
| Questions and comments responded to faster. | 19 (35.8) | 34 (64.2) |
| Questions can be answered more thoroughly. | 18 (34) | 35(66) |
| Evaluation of my knowledge of content is effective. | 19(32.1) | 36(67.9) |

Pretraining. AI special educators indicated that a workshop regarding the delivery format, navigation system, submitting information, communication/interaction, and time management was desired prior to enrollment in DE course. Table 4.11 displays the results regarding pretraining factors in DE.

Table 4.11

| Pretraining Factors Promoting Distance Education | | |
|--|----------------|-------------------|
| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
| Sufficient training in the delivery system. | 28 (52.8) | 25 (47.2) |
| Want a workshop on DE delivery format. | 40 (75.5) | 13 (24.5) |
| Want a workshop on navigation system. | 36 (67.9) | 17 (32.1) |
| Want a workshop on submitting information. | 41 (77.4) | 12 (22.6) |

Pretraining Factors Promoting Distance Education
(continued)

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Want a workshop on communication/interaction. | 43 (81.1) | 10 (18.9) |
| Want a workshop on time management. | 39 (73.6) | 14 (26.4) |

Response Analysis for Non-participants in DE

When participants indicated having no experience in a distance course, they were directed to complete Survey B. The four point Likert scale (e.g., *Strongly Agree, Agree, Disagree, and Strongly Disagree*) was collapsed into two categories (e.g., *Agree and Disagree*) and reported using frequencies and percentages. Fifty-seven participants responded to 27 statements grouped into seven categories (a) access, (b) technical skills, (c) social, (d) motivation, (e) support services, (f) family/time, and (g) prerequisite skills.

Access. A lack of sufficient Internet service and accessing the necessary technical tool to take a DE course were concerns. The need for navigation skills was agreed upon by the majority. Table 4.12 lists factors in accessing a DE course.

Table 4.12

Access Factors Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Accessing technology (hardware/software). | 33 (57.9) | 24 (42.1) |
| Lack of reliable Internet service provider. | 40 (70.2) | 17 (29.8) |
| Navigation skills are necessary. | 54 (94.7) | 3 (5.3) |

Technical skills. A majority of respondents indicated that the lack of technical knowledge inhibited their participation in a DE course. Factors included computers, management systems (e.g., Blackboard, WebCT, ITV) and technical tools (e.g. downloading, submitting, navigating). Table 4.13 illustrates respondent concerns for technical factors.

Table 4.13

Technical Factors Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Unfamiliarity with technical tools. | 48 (84.2) | 9 (15.8) |
| Lack of knowledge with computers. | 45 (78.9) | 12 (21.1) |
| Learning different course management systems. | 45 (78.9) | 12 (21.12) |
| Learning how to use new technical tools. | 38 (66.7) | 19 (33.3) |

Social. The social environment posed several concerns from respondents who had no experience in DE. For example, lack of social cues (body language) was a concern (77.2%). Impersonal environment, feelings of isolation, and interaction with other students and the instructor were all noted as possible concerns. Table 4.14 displays the responses regarding social factors.

Table 4.14

Social Factors Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|-------------------------|----------------|-------------------|
| Impersonal environment. | 27 (47.7) | 30 (52.6) |

Social Factors Inhibiting Distance Education
(continued)

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|--|----------------|-------------------|
| Isolation is a barrier. | 26 (45.6) | 31 (54.4) |
| Lack of interaction and communication. | 33 (57.9) | 24 (42.1) |
| Lack of social cues. | 44 (77.2) | 13 (22.8) |

Motivation. Respondents agreed that lack of self-motivation and procrastination may inhibit participation in a DE course. The need for a structured timeline for meeting educational needs was essential, but recognizing the responsibility for one's own learning was not regarded as a factor for participation in DE. Table 4.15 lists the factors associated with motivation.

Table 4.15

Motivation Factors Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Being responsible for one's own learning. | 25 (43.9) | 32 (56.1) |
| Lack of self-motivation. | 40 (70.2) | 17 (29.8) |
| Procrastination. | 44 (77.2) | 13 (22.8) |
| Need for a structured timeline. | 36 (63.2) | 21 (36.8) |

Support Services. Respondents agreed that access to tutors, the instructor, and timely feedback were important. Table 4.16 exhibits the results of support service factors.

Table 4.16.

Support Factors Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|-----------------------------------|----------------|-------------------|
| Lack of support services/tutors. | 46 (80.7) | 11 (19.3) |
| Lack of access to instructor. | 40 (70.2) | 17 (29.8) |
| Lack of timely feedback/response. | 44 (77.2) | 13 (22.8) |

Family/Time. Disruption of family and personal/leisure time did not inhibit the participation of respondents in DE course, however; disruption in work schedule and time needed to complete the course were considered time factors for AI respondents. Table 4.17 displays participants' responses to factors in family/time.

Table 4.17

Family/Time Factors Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|---|----------------|-------------------|
| Disruption to family life. | 25 (43.9) | 32 (56.1) |
| Disruption to personal/leisure time. | 22 (38.6) | 35 (61.4) |
| Disruption to work schedule. | 33 (57.9) | 24 (42.1) |
| Sufficient time to complete an online course. | 41 (71.9) | 16 (28.1) |

Prerequisite skills. Skills necessary to participate in a DE course were agreed upon as important to the majority of respondents. Writing, typing, reading, and communication skills were considered essential in a DE course. Table 4.18 lists the skills needed for participation in a DE course.

Table 4.18

Prerequisite Skills Inhibiting Distance Education

| Questions (abbreviated) | Agree N (%) | Disagree N (%) |
|-------------------------------|----------------|-------------------|
| Lack of writing skills. | 35 (61.4) | 22 (38.6) |
| Lack of typing skills. | 31 (54.4) | 26 (45.6) |
| Lack of reading skills. | 33 (57.9) | 24 (42.1) |
| Lack of communication skills. | 31 (54.4) | 26 (45.6) |

Means of Each Category in Survey A & B Ranked by Importance

Mean scores (*M*) were calculated for each of the factors in Survey A and B. The scale used in calculating means were: *Strongly Agree* = 4, *Agree* = 3, *Disagree* = 2, and *Strongly Disagree* = 1. The *M* for the factors that promote participation (eight categories) and the factors that inhibit participation (seven categories) were used to rank order. The ranking indicates which category carries a higher rate of concern for participants in a distance education course. Table 4.19 ranks categories for respondents to Survey A and B.

Table 4.19

Means of Each Category for Distance Education

| Survey A: DE Experience (<i>n</i> =53) | <i>M</i> | Survey B: No DE experience (<i>n</i> =57) | <i>M</i> |
|--|----------|---|----------|
| Technical Skills | 3.38 | Access | 2.96 |
| Access | 3.16 | Support Service | 2.91 |

Means of Each Category for Distance Education
(continued)

| Survey A: DE Experience (n=53) | <i>M</i> | Survey B: No DE experience (n=57) | <i>M</i> |
|-----------------------------------|----------|--------------------------------------|----------|
| Motivation | 2.95 | Technical Skills | 2.90 |
| Pretraining ^a | 2.88 | Motivation | 2.73 |
| Family/Time | 2.87 | Social | 2.69 |
| Support Services | 2.72 | Pre-Skills ^b | 2.62 |
| Social | 2.68 | Family/Time | 2.55 |
| Instruction ^a | 2.50 | | |

Note. The *M* was based on a scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree).

^aSpecific to Survey A. ^b Specific to Survey B.

Open-Ended Responses

At the conclusion of both surveys, respondents were given the opportunity to comment on factors regarding DE. Table 4.20 displays all comments directly made by respondents.

Table 4.20

Open-ended Responses

| Category | Participant Responses |
|---------------------------------|--|
| Factors Promoting Participation | |
| Access | There are limited numbers of computers and time to get on. |

Open-ended Responses
(continued)

| Category | Participant Responses |
|------------|--|
| Technical | <p>I dislike online activities because (where I am located) the Internet service is unpredictable. Even while I was taking this survey the screen would freeze.</p> <p>We have slow Internet service that at times our materials in its entirety does not get downloaded; Internet systems are not available at all locations.</p> <p>There are few classes offered with limited space.</p> <p>It takes me longer to read so my limited time on the computer becomes a problem.</p> <p>I do not know how to take a course online that much so I forget and relearn each time.</p> <p>Whatever we know about the computer is mostly learned on trial and error.</p> |
| Motivation | <p>I have taken classes online before however, some of my classmates could not stay up with the assignments and the readings.</p> |

Open-ended Responses
(continued)

| Category | Participant Responses |
|----------------------------------|--|
| Instruction | <p>You have to be committed to taking online classes and to be willing to learn on your own.</p> <p>Quality of the course is dependent on the instructor than on the way it is presented (face-to-face, WebCT, ITV).</p> |
| Factors Inhibiting Participation | |
| Access | <p>Having to rely on a public terminal is difficult, therefore I have not enrolled. I'm waiting to have access to my own service at home so that I may work on my schedule and not open hours.</p> <p>Teaching and living on the reservation it's difficult to access Internet due to dial up and slow modem.</p> <p>My problem for taking courses online is not good because I don't have access to computer and Internet at home; I only have access to a computer at work which is limited.</p> |

Open-ended Responses
(continued)

| Category | Participant Responses |
|---------------------|---|
| Technical | <p>I don't have electricity at home, we use a generator and this is very limited due to the increase of gas prices.</p> <p>Our service area is on the reservation and Internet connections if available/affordable can be very slow.</p> <p>Due to age and lack of experience with computer, I am not computer literate.</p> <p>Difficult to concentrate on content with limited knowledge of the system.</p> <p>Some teachers in our area still reluctant to use computers for keeping progress records of students.</p> |
| Social | <p>I feel that being on campus is important in the entire learning process, I would rather be somewhere with other students.</p> |
| Prerequisite Skills | <p>DE is great for a few students, because we as Native Americans have a unique learning style.</p> <p>I taught myself the skills I needed.</p> |

Summary

Results show respondents who have had experience with DE (survey A) view technical skills, access, and motivation as a concern when taking a DE course.

Respondents who have had no experience with DE (survey B) consider access, support services, and technical skills as obstacles in participation of DE. Overall results indicate although DE may be flexible, accessible, and motivating, American Indian special educators find it difficult to access computers and the internet, lack of technical support in rural areas, and perceived lack of technical skills to successfully participate in a DE course.

In order to address the shortages of American Indian special educators these results can assist in designing and implementing DE programs in rural areas. Recognizing and addressing the needs that inhibits or promotes participation in a DE course for AI special education teachers can only enhance the instruction of AI students with disabilities.

CHAPTER FIVE

Discussion

The purpose of the study was to identify demographic characteristics of AI special educators and factors that promoted and/or inhibited participation of AI special educators in a distance education course. This information can be used to develop successful programs for AI special educators and subsequently decrease shortages of AI special educators in remote areas. For the purposes of analysis and discussion, respondents were grouped into individuals who already had experience in a DE course and individuals who had no experience with DE. The discussion of this study includes five sections (a) demographics related to American Indian special education participants, (b) common factors in DE for AI special educators, (c) specific factors associated with Survey A, (d) specific factors associated with Survey B, and (e) category rankings for AI special education teachers in DE. These five sections are followed by limitations of the current study, future research, and recommendations for teacher preparation programs serving American Indians special educators.

Demographics Related to American Indian Special Education Respondents

The results of the study indicated that the majority of respondents were female (n=91) and had 8 years or more working with students having a disability. All of these respondents had full-time jobs as special education teachers in their respective districts. This finding is consistent with other research that indicates that the majority of students enrolling in DE courses are female and older (Galusha, 2006; Harroff & Valentine, 2006). Given the years of previous teaching experience, it is likely that many participants

were “non-traditional” students. According to the U.S. Department of Education (2002), a non-traditional student is identified by a variety of characteristics such as: (a) delaying enrollment after high school; (b) attending part-time; (c) working full-time; (d) having dependents other than a spouse; (e) being a single parent; or (f) lacking a high school diploma. Other researchers have indicated that successful students in DE usually are not of traditional college age, have other life responsibilities, and view DE as an opportunity to earn additional education experiences (Berge & Mrozowski, 2001; Hensrud, 2001; Holmber, 1986; Moore, 1996; Reed & Sork, 1990).

Further, in the present study, more than half of participants who had taken a DE course accessed the courses from home; the majority of respondents used a computer from a public terminal, work, or school. Although the majority of participants without prior DE experience did not plan to take a DE course in the future, the reasons for non-participation may be surmountable. For example, Westling and Whitten (1996) have suggested that institutions of higher education extend teacher programs to reach rural teachers who cannot leave family for various reasons and /or current paying position to attend classes. Individuals seeking credentials to teach often are unable to travel but are the very people who understand the culture, language, and students in rural areas (Pemberton, Cereijo, Tyler-Wood, & Rademacher, 2004). The potential of DE may be significant in overcoming many of the factors that inhibit participation of rural American Indians (Sanchez, Stuckey, & Morris, 1999). As suggested, background of participants and access to technology, flexible class schedules and better access to computers could

help alleviate some factors that inhibit participation that AI non-traditional students encounter in enrolling in a DE course (Tate & Schwartz, 1999).

Factors in DE for AI Special Educators

Access. Many students who enroll in DE do so for convenience; they are either time-bound due to work or travel schedules, or location-bound due to geographic or family responsibilities (Galusha, 2007). In the present study, the majority of AI special educators who had taken a DE course, as well as those who had not, were equally concerned with access of local Internet services in their area. Unfortunately, access to basic technology and advanced networks is still an issue for some rural and poor areas (Tyro, 2004). Due to the geographic location of most American Indian reservations, these communities lag far behind their non-Indian counter parts in access to basic needs such as roads, utilities, housing, and telecommunications (Brown & Swanson, 2003).

The U.S. Department of Commerce (1999) found that, of American Indians living on or near reservations, only 39% of households had telephones compared to the 97 % for their non-Native counterparts, 12% were without electricity, and another 23% without natural gas. Only 9% of AI households had personal computers, and less than 1% had Internet access (Brown & Swanson, 2003). The open-ended responses of AI participants in this study concur with these findings. Comments related to lack of access included: “We have slow Internet service that at times our materials in its entirety do not get downloaded; Internet systems are not available at all locations.” “My problem for not taking courses online is not good because I don’t have access to computer and Internet at home; I only have access to a computer at work which is limited.” and “I don’t have

electricity at home, we use a generator and this is very limited due to the increase of gas prices. Our service area on the reservation and Internet connections if available/affordable can be very slow.” Providing laptops and/or offering some financial assistance in purchasing Internet access may provide additional access to AI participants.

Technical. AI participants who previously had not taken a DE course reported having difficulty with technical skills related to DE. Other researchers have found similar student frustration with technology in DE courses (Hora & Kling, 2001; Owsten, 1997; Partee, 1996; Whitworth, 1999; Wulf, 1996). Palloff and Prate (2003) have stated that the virtual student needs the same services as on-site students but have additional needs in the area of technical support. For example, overall knowledge of the computer (e.g., downloading, submitting, navigating) and course management systems (e.g., WebCT, ITV, Blackboard) created a concern for most participants. In some instances, asking an instructor a question using technology is dependent on the technical skills of the student. This dependency may lead to students dropping courses or performing poorly on activities or assignments due to technical based communication (Hora & Kling, 2001).

On-site technical tutors and incorporating navigation, submission, and downloading skill in early assignments may alleviate some obstacles participants may experience. For example, in open-ended responses participants indicated that “Due to age and lack of experience with computers, I am not computer literate” and “I do not know how to take a course online that much so I forget and relearn each time.” Ironically, use of electronic media, inadvertently excludes some adult learners because of lack of knowledge related to use of computers and the Internet (Galusha, 2007).

Although experienced DE participants in the present survey indicated sufficient technical skills, Meyen and Lian (1999) reiterate the importance of minimizing technical complications so that students can focus on the material and content. In fact, Schnorr (1999) argued that technical skills are the most critical aspect in the success of online learners. Further, even if participants felt competent in navigating an online distance education course, self-perceptions related to their technical skills may not be consistent with their actual performance.

According to Ludlow (2006) technical skills required to efficiently navigate an online course include use of mail systems (i.e. composing, posting messages), bulletin boards (i.e. posting, replying, quoting, and attachments), and printing and composing documents. In the present study, familiarity with computers related to installing hardware and software also was a concern for AI special educators in a DE course. Due to limited human resources, DE programs often lack the support staff needed to assist with technical development and training issues (Muilenburg & Berg, 2001). In the present study, an AI participant stated, “Whatever I know about the computer is mostly learned on trial and error.”

Social. Not surprisingly, AI participants characterized the social environment in a distance education course as somewhat isolated due to lack of face-to-face contact. Geographical isolation has been noted as one of the major problems noted by DE students (Beard & Harper, 2002; Charp, 2002; Lynch, 2002; Meacham & Evans, 1989). In order to reduce feelings of isolation, an understanding of effective strategies in building collaboration and interaction among other students may be necessary. Collins et al (2002)

suggests social “netiquette” training (i.e. dos and don’ts for participation in an online course) for distance education learners to alleviate isolation and social issues. Individuals socially negotiate meaning by interaction with others in various situations (Jamimillo, 1996).

In the present study, interaction between student/student and student/instructor appeared to present a barrier for inexperienced AI special educators. Haythornthwaite, Kazmer, Robins, and Shoemaker (2000) report that the most effective DE model is to move the student from an isolated learner, as is typical of independent study coursework, into a “community of learners,” where student interaction is required and facilitated. Success in DE courses may be strengthened using electronic e-mails for daily interaction and communication of activities, electronic journals, and announcements (Wood, 1996).

Motivation. Data from the survey indicated that both inexperienced and experienced learners reported they were expected to take on more responsibility for their learning in an online course. Without the physical presence of the instructor to prompt procrastinators or offer constant reminders of deadlines, the responsibility of learning lies heavily on the student. Independent learners (i.e. those with self-direction and self-discipline) seemed to be more successful in the online environment as opposed to students who prefer taking notes and answering questions in a classroom setting with an instructor and peers present (Ko & Rossen, 2004). One experienced AI special educator in the present study added, “I have taken classes online before, however, some of my classmates could not stay up with the assignments and the readings. You have to be committed to taking online classes and to be willing to learn on your own.”

Researchers, Harroff and Valentine (2006) state that students who are successful in the DE environment have the ability to be self-directed and have a high level of motivation. Although, Ramirez and Castenda (1974) argue that AI students in traditional classrooms responded to personalized encouragement that included guidance and demonstration from instructors. These authors also felt that AI students base a great deal of their motivation on the affective relationship with the instructor. The need for personalized encouragement may need to be programmed in DE programs if AI students are to participate.

Support services. In the present study technical support, access to the instructor, and prompt feedback were areas of concern for AI participants. Because there is no daily face-to-face contact with an instructor, DE students may need to seek communication and feedback. Keegan (1986) and Sheets (1992) found that DE students who did not receive adequate support through electronic communication were more likely to drop out. DE students may be at a disadvantage in accessing support services including contacting academic and administrative staff, obtaining study materials and borrowing library books. These disadvantages may lead to feelings of inadequacy and insecurity, and a lack of confidence among students (Wood, 1996).

Family/Time. Although distance education offers a flexible schedule, interruptions to family time are still a concern as more students with families use distance education as a means to complete a degree and certification requirements (Ludlow, 2006). In the present study, a majority of respondents indicated having families and household responsibilities. These responsibilities may result in time constraints that

impede learning. Some researchers have concluded that younger, traditional learners are drawn to online learning because of the advancement in technology, whereas the non-traditional students may enroll due to convenience and flexibility (Collins & Galyon-Keramidas, 2006; Day & Sebastian, 2002). Given these findings, instructors of distance education courses may need to incorporate strategies for DE students to help them manage their time such as daily planners, assignment and exam calendars.

Instruction. Respondents in the survey who previously had experience with DE were concerned about interaction, feedback, and student questions. For AI students, learning how to learn may be a key element in DE. Skills such as listening, observing, experiencing, and intuition are traditions of learning and form the basis for skills used in every process of learning and teaching (Cajete, 1994). One participant said, “DE is great for a few students because we as Native Americans have a unique learning style.” Research supports that many AI students tend to have a global cognitive style of organizing information and used visual strategies and mental representation for processing information (Hilberg & Tharp, 2002; Swisher & Deyhle, 1989; Vasquez, 1990). American Indian students may benefit from the visual models of someone demonstrating a skill and then engaging in private practice until mastery is obtained (Longstreet, 1978; McCarthy & Benally, 2003).

Data from the present study revealed that experienced AI students were concerned about instructor feedback and response time. Similarly, Spangle, Hodne, and Schierling (2002) found that carefully designed activities that promote discussion, and timely feedback were essential in successful online courses. In a traditional classroom,

instructors have the flexibility to build or pace their instruction according to the reaction of students in the classroom. However, in a DE course, instructors must design courses in advance including modules, assignments, chat rooms, and even discussion topics. In order for an online course to be successful the instructor must remain visibly and actively involved in the learning and give timely feedback, perhaps even to a greater degree than in the traditional classroom (Young, 2006).

Pretraining. Respondents with prior experience in a DE course indicated that insufficient training may account for their lack of confidence in achieving success in online courses. Existing literature (e.g., Menlove & Lignugaris-Kraft, 2004) suggests several means to support and prepare distance learners to succeed with the delivery format including (a) a pre-course technology workshop, (b) help files and links on a course website, and (c) access to a technical assistant. For example, a one-day “learning at a distance” workshop could be held where students are introduced to the minimum skills needed to set up home computer access and manage the delivery system. Such a workshop might include instructions on how to download, e-mail, install a browser, and access grades. Because many students may lack these critical skills when entering an online course, services (i.e. technician assistants, self-help links, and tutorials) need to be available for the development of skills so that participants can take full advantage of online courses (Collins et al., 2002; Mitchem, 2006). In some cases, faculty may need to embed technology skills into a course if students lack the necessary skills or equipment to access critical information (Schnorr, 1999; Stith, 2000). Given findings of present study, DE participants may benefit from training.

Prerequisite skills. With the absence of physical cues and face-to-face interaction, DE learners heavily depend on messages conveyed through text (Meyen & Lian, 1997). Reading, writing, and typing skills are important in any higher education class; however, in an online course these skills become the lifeline for distance education learners. In the present study, a majority of participants agreed that these skills were essential; unfortunately, literature on the level of student pre-skills needed to succeed in distance education is limited even more limited for AI (Collins, Shuster, & Grisham-Brown, 1999; Menlove & Lignugaris-Kraft, 2004). Dependence on oral history and stories of many AI cultures may cause difficulties if text-based communication is the only method by which AI students are taught and assessed (Tyro, 2004). It may be helpful for instructors to determine the requisite skills needed to access the program, consider how the target skills will be taught and mastered before the program begins, and provide support throughout the course (Menlove & Lignugaris-Kraft, 2004).

Category Rankings for AI Special Education Teachers in DE

Results of this study ranked access, technical skills, and support services categories as unique concerns for AI special educators regarding DE. Respondents in the study indicated having difficulty obtaining access to the Internet or access to a computer. Although there are numerous methods of accessing the Internet (e.g., dial-up, Wi-Fi, satellite, and cell phones) and public terminals (e.g., libraries, schools), AI special educators are experiencing difficulties in rural and remote areas. The distance between AI homes and businesses in rural communities limits the availability of technology. Rising costs of Internet providers and equipment may be unaffordable to some AI families.

These families prioritize their basic needs (e.g., shelter, food) and Internet services or equipment is not one (McCarthy & Benally, 2003).

The skill level of using a computer to communicate and navigating the Internet may possibly jeopardize the ability to participate in the course successfully. Therefore, an AI special educator perceived technical skill level may inhibit participation to a level of success (Sanchez et al., 1999).

In the current study, AI special educators have indicated a concern for the perceived lack of support services during a DE course. As a result of having no experience with technology, AI students fear isolation and frustration may inhibit participation in a DE course. AI students may require services ranging from online directories, handbooks of services for self-assessment, and online orientation of other services.

Limitations

The current study was conducted using a survey, a collection of information based on the respondent's opinions. Opinions that are inconclusive of the absolute proof or identification of factors that promote or inhibit participation in DE. As a result, the current study is able to provide a basis for collecting demographic information and general but limited factors that may inhibit or promote DE for the AI population. However, the discoveries of alternative and supportive explanations regarding factors are possible in surveys.

In addition, the current study was based on a sample of American Indian special educators who accessed a web-based instrument; the survey may have attracted a more skilled population of American Indian special educators versus a broader sample.

Future Research

This study adds to the limited but growing body of research regarding distance education in higher education as well as information related to AI special education. There are a limited number of studies concerning the experiences of American Indian students in distance education courses. Future research should include case studies that directly observe and interview AI students about their personal experiences in DE. In this open-ended format AI students would be able to elaborate or explain their situation in more detail.

Future research should also examine ways to reduce the factors that inhibit participation in DE for AI students in isolated geographical locations. For example, if a specific factor (e.g., access, support services, technical skills) was a concern create models, program, or strategies to overcome these barriers.

Finally, future research could also include a comparison of different technologies (i.e. instructional television, teleconferencing, Web/CT) in distance education for American Indians.

Recommendations for DE Programs Serving AI Special Educators

Findings indicate AI special educators face unique challenges. Faculty or staff of institutions of higher education who are considering a DE program for AI participants should address DE issues unique to AI students. Based on the findings of the current

study, Table 5.1 lists recommendations for individuals developing and implementing DE for AI students.

Table 5.1

Recommendations for Developing/Implementing DE for AI Students

| Category | Recommendations |
|------------|---|
| Access | <p>Provide personal laptops (Brown et al, 2003).</p> <p>Offer assistance in the delivery format (i.e. workshops, user-friendly website) (Brown, et al, 2003; Menlove & Lingnugaris-Kraft, 2004).</p> |
| Technical | <p>Offer technical tutorials on course website (Muilenburg & Berg, 2001).</p> <p>Provide technical personnel at each location (Palloff & Pratt, 2003).</p> <p>Incorporate navigation, submitting, and downloading skills in early assignments (Meyen & Lian, 1997).</p> |
| Social | <p>Incorporate activities that include interactive activities using small groups or chat rooms (Wood, 1996).</p> <p>Organize a buddy system or teams so that daily contact is made between peers (Haythornthwaite et al., 2000).</p> |
| Motivation | <p>List structured timelines on course websites (Mitchem, 2004).</p> <p>Send automatic e-mail reminders to students (Ramirez & Costenda, 1974).</p> |

Recommendations for Developing/Implementing DE for AI Students
(*continued*)

| Category | Recommendations |
|------------------|---|
| Support services | <p>Provide a user-friendly tutorial on the course website for trouble shooting (Keegan, 1986; Sheets, 1992).</p> <p>Invite or organize a trip to campus so that students may familiarize themselves with campus or other resources (i.e. library, research, workshops) (Wood, 1996).</p> |
| Family/Time | <p>Offer a structured timeline (Collins et al., 2006)</p> |
| Instruction | <p>Utilize a variety of delivery modems (hybrid, blackboard) (Hilberg & Tharp, 2002).</p> <p>Provide immediate feedback through chat rooms, e-mails (Spangle et al., 2002).</p> <p>Use all modes (e.g., visual, auditory, tactile, and kinesthetic) when teaching concepts and skills. Use visual aids, drawings, illustrations or demonstrations, and do not limit activities to worksheets and lectures (McCarthy & Benally, 2003; Lonestreet, 1978).</p> |
| Pretraining | <p>Present workshops and general information sessions (Menlove & Lingnugaris-Kraft, 2004).</p> |

Recommendations for Developing/Implementing DE for AI Students
(*continued*)

| Category | Recommendations |
|---------------------|---|
| Prerequisite Skills | <p>Establish a required set of skills (reading, typing, and writing) needed to participate in a DE course (Menlove et al., 2004). (Schnorr, 1999; Stith, 2000).</p> <p>Offer specific workshops relating to distance education (e.g., downloading, submitting, communication, time management) (Collins et al., 2002; Mitchem, 2006).</p> |

Conclusions

There is a serious shortage of special education teachers for public school classrooms in the United States (Billingsley & McLeskey, 2004; Boe et al., 1998; Bornfield et al., 1997; Ingersoll, 2001; Westling & Whitten, 1996). The shortages of teachers is even more apparent in rural and remote areas specifically the American Indian population (Billingsley & McLeskey, 2004). Combined with the overrepresentation of AI students in special education the need to educate and train AI special education teachers is obvious (Faircloth & Tippeconnic, 2000; Gritzmacher & Gritzmacher, 1995).

With the increasing number of AI students represented in special education, the demands for AI special education teachers have also increased. McCarthy and Benally (2003) found that the benefits of AI teachers supporting and educating AI students with disabilities are abundant. For instance, sharing and understanding the same culture and

language assists in developing a level of understanding and respect between student and teacher. It is important for AI children to experience schools that employ AI adults who understand and respect their unique culture. McCarthy and Benally (2001) also suggest that AI students perform better in school and are better prepared for college when their teachers are American Indians. American Indian special education teachers who serve AI students with disabilities provide enrichment and a level of understanding when it comes to the demands and priorities of the AI families. When an AI teacher shares the same native experiences, they not only support the student, but also the parents, and possibly the community. With the demands and responsibilities of family and work in the AI culture, educators and students find it difficult to leave home to attend school. Finally, distance education has provided an opportunity for many AI individuals to obtain further training in education without leaving the area. In turn, this may assist in reducing the number of critically needed, highly qualified special education teachers in rural and remote areas (Menlove & Lignugaris-Kraft, 2004).

Distance online education is rapidly spreading into rural and remote communities bringing new opportunities in higher education. Given the increasing use of distance education and the need to alleviate the shortages of certified personnel including rural AI special educators, it is critical to recognize distance education issues from AI students' perspectives. Instructors are beginning to develop distance education courses for the first time and may need to provide supplements such as technical support, orientation on delivery format, and time management to enhance instruction. Factors that inhibit participation and promote participation are issues that must be addressed in order for

students to take advantage of the opportunity. Knowing this information helps drive the instruction and program planning, factors that are important to the participation and success of a DE course for AI students (Knowles, 1980).

The goals for this research were to yield information on American Indian special education teachers who have and have not had experience with distance education. Secondly, was to investigate the factors that promotes and inhibits participation in a DE course for American Indian special education teachers. The results recognize factors that may be useful when designing distance education courses for the American Indian population.

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Appendix A

Pilot Study

Issues Influencing Participation in a Distance Education

Program for Rural Special Educators

The purpose of this investigation was to identify factors and attitudes related to distance education in rural and remote communities. A detailed survey instrument was developed and e-mailed to the membership of a professional organization with strong connections to rural special education. Forty participants provided information that can be used to develop and enhance rural distance education. Results of the review suggest that distance education, when implemented effectively, is perceived positively.

The initial survey items were developed based upon a literature review pertaining to the advantages, disadvantages, and limitations of distance education (Beard & Harper, 2002; Benard, Brauer, Abrami, & Surkes, 2004; Hackman & Walker, 1990; King, 2002; McHenry & Boznik, 1995; Shin & Chan, 2004; Yip, 2004). Further, information from a survey developed by Berge (2004) on distance education and the barriers to online learning was also used to develop survey content.

Instrument. The pilot version of the survey, which contained 61 statements, was released on *SurveyMonkey*. The online questionnaire consisted of two sections: (a) demographic information related to the participants; and (b) specific foci of distance education research. In the second section of the online questionnaire participants were asked 42 questions that were grouped into five categories related to rural distance education: (a) technical, (b) time/interruptions, (c) support services, (d) social, (e) motivation.

Participants. The American Council on Rural Special Education (ACRES) board members were invited to voluntarily participate in the survey through an electronic mailing list. ACRES board members were selected to participate because of their interest related to rural special education issues. ACRES is a nationally recognized organization dedicated to rural special education issues that publishes a quarterly journal, *Rural Special Education Quarterly*, and holds an annual national conference. All participants in the pilot study were special educators in rural and remote areas who worked in higher education settings or currently have some level of experience in distance education. Additionally, three members of the ACRES board of directors offered to use their university online courses as a means to identify practicing rural special education teachers. Student participation was strictly voluntary; no extra credit or grade was given. A total of 40 participants took part in the survey.

Conclusions of the pilot study. From the analysis of the pilot data, modification and revision of the survey were made to modify the survey for use with other populations such as American Indians.

Appendix B
Pilot Study Survey

Section I. Employment Background

Directions: For each of the following items circle one response unless otherwise indicated.

1. Are you currently a special education teacher in grades K-12?
 - a. Yes
 - b. No

2. Which of the following categories best describes your current major responsibilities (50% or more of your time) as a school employee?
 - a. teaching,
 - b. consulting
 - c. substitute teaching
 - d. administrating
 - e. counseling

3. Your current employment setting (select up to two).
 - a. Public school
 - b. Private school
 - c. Grant school
 - d. Bureau of Indian Affairs school

4. Which of the following best describes the community in which this school/district is located?
 - a. Urban (within city limits)
 - b. Rural (outside city limits)

5. Population of students with whom you primarily work. (select up to two).
 - a. Learning Disabilities
 - b. Mental Retardation
 - c. Behavioral Disorders
 - d. Speech/language Disorders
 - e. Hearing loss or Deafness
 - f. Visual Impairments or Blindness
 - g. Orthopedic Disabilities
 - h. Multiple Disabilities
 - i. Severe or Profound Disabilities
 - j. Autism
 - k. Traumatic Brain Injury
 - l. Other (write in response)_____

6. Age level of students you currently and primarily serve (select up to two)
- Infants (birth through 2 years)
 - Early Childhood (3-5 years)
 - Elementary
 - Middle School or Junior High
 - Secondary
 - School Age (K-12)
 - Postsecondary
 - All age levels
 - Other (write in response)_____

Section II. Personal Background

7. My gender is:
- Female
 - Male
8. My cultural identity:
- Caucasian/European American
 - Asian American
 - American Indian, Alaskan Native
 - African American/Black
 - Hispanic/Latino
 - Pacific Islander
 - Other (write in response)_____
9. My current marital status?
- Married
 - Divorced/Widowed
 - Single/Never been married
10. How many children (under age 21) do you have who are dependent on you (and your spouse) for more than half of their financial support?
- _____child/children financially dependent.

Section III. Educational Background

1. Have you taken or enrolled in an online course?
- ____Yes
- ____No

2. Thinking about the time you enrolled in an online course, were you primarily interested in obtaining a degree or certificate, retaining your license, qualifying for a new position, increase salary, or learning a new skill? (select up to two)
- Obtaining a degree or certificate
 - Retaining license
 - Qualifying for new position
 - Increase salary
 - Learning a new skill
3. What factors if any determined your enrollment in a distance education program? (select up to two)
- Financial assistance
 - Class schedule
 - Time flexibility
 - Location
 - Program content
4. What factors if any will or could limit your participation in a distance education program? (select up to two)
- Employer support
 - Financial support
 - Admission requirements
 - Tuition costs
 - Distance from campus resources
 - Commuting distance to attend classes
 - Family/time constraints
 - Class scheduling
5. Do you own a computer?
- Yes
 - No
6. How many miles do live from the nearest college campus?
- Less than 20 miles
 - 21-40 miles
 - 41-60 miles
 - 61-80 miles
 - 81 or more miles

7. How often did you visit the nearest college campus during the past year?

- Never
- Rarely
- Occasionally
- Regularly

8. What is your purpose for visiting the nearest college campus?

- Taking a class: how often _____
- Library
- Use of campus resources (e.g. Internet)
- Business office (e.g. admissions, transcripts)
- Meetings
- Personal/family
- Other: Specify _____

9. Coming to campus on a regular schedule is:

- Extremely difficult for me (work, family, or personal conflicts)
- A little difficult for me (I can rearrange priorities)
- Easy for me

To what extent do you agree or disagree with the following statements:

Section IV. Technical

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree |
|---|----------------|----------------|-------------------|-------------------|
| 10. The needed technology (hardware or software) is not accessible to me. | | | | |
| 11. I am afraid of losing privacy, confidentiality, or intellectual property in the online environment. | | | | |
| 12. I am confident with the technical tools needed for online communication. | | | | |
| 13. I have reliable Internet connection. | | | | |
| 14. The hardware, software, repairs, or service provider costs too much. | | | | |
| 15. I am confident of computers and related technologies. | | | | |

Section V. Support Services

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree |
|---|----------------|----------------|-------------------|-------------------|
| 16. In a distance education course, access to the instructor or online expert is important. | | | | |
| 17. Timely feedback or response from the instructor is important in online learning. | | | | |
| 18. The quality of learning materials and instruction is lower in online courses. | | | | |
| 19. Instructors don't know what they are doing when they teach online. (i.e. organization, feedback, interaction) | | | | |

| | | | | |
|--|--|--|--|--|
| 20. There is insufficient training given in the use of the delivery system for students in online. | | | | |
| 21. There is a lack of support and services such as tutors for students in online instruction. | | | | |
| 22. Course materials are not always delivered on time. | | | | |
| 23. Ability to contact academic and administrative staff for online courses is important. | | | | |

Section VI. Social

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree |
|--|----------------|----------------|-------------------|-------------------|
| 24. The learning environment that is created for distance online should be friendly and social. | | | | |
| 25. Online learning seems to be impersonal. | | | | |
| 26. Face-to-face interaction with other students and the instructor is preferred. | | | | |
| 27. Lack of student interaction makes online course isolated. | | | | |
| 28. Lack of interaction and collaboration (e.g. group projects, chat rooms) among students in online courses is a concern. | | | | |
| 29. Lack of social cues (e.g. body language) makes online learning difficult. | | | | |
| 30. There is a need for communication (postings, announcements) with other students online. | | | | |

Section VII. Prerequisite Skills

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree |
|--|----------------|----------------|-------------------|-------------------|
| 31. Writing skills are needed in online courses. | | | | |
| 32. Typing skills are needed in online courses. | | | | |
| 33. Reading skills are needed in online courses. | | | | |
| 34. Communication skills are important for distance education. | | | | |

Section VIII. Motivation

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree |
|---|----------------|----------------|-------------------|-------------------|
| 35. I take more responsibility for my own learning in an online course. | | | | |
| 36. Self-motivation is the key to learning online. | | | | |
| 37. I procrastinate, or feel I cannot seem to “get started to learn” online. | | | | |
| 38. The distance education environment is not inherently motivating. | | | | |
| 39. In an online course I must have a structured timeline to meet my educational needs. | | | | |

Section IX. Time/Interruptions

| | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree |
|---|----------------|----------------|-------------------|-------------------|
| 40. Online learning is more flexible than campus classes. | | | | |
| 41. Online learning fits into my daily schedule. | | | | |
| 42. There are significant interruptions at work, home, or wherever I study. | | | | |

| | | | | |
|--|--|--|--|--|
| 43. There is the lack of support from family, friends, employers, or significant others. | | | | |
| 44. Online learning disrupts my family life. | | | | |
| 45. Distance education cuts into my personal time. | | | | |

Section X. Instrument Review

Directions: Please provide as much information possible in answering the following.

| | Yes | No | Comments |
|---|-----|----|----------|
| 1. Was the survey easy to follow? | | | |
| 2. Did the headings organize the information? | | | |
| 3. Does the survey cover all the necessary topics related to distance education and rural settings? | | | |
| 4. Can I eliminate some of the questions? If so, which ones? | | | |
| 5. Did I use categories that will allow me to compare responses to results of other surveys? | | | |
| 6. Are all of the words understood? | | | |

Additional comments, concerns, and questions would be greatly appreciated.

THANK YOU FOR COMPLETING THE FORM!!

Appendix C

Dissertation Survey: A & B

American Indian Special Educators and Distance Education

Directions: For each of the following items circle one response.

Section I. Background

1. Which best describes your current employment?
 - a. General education teacher
 - b. Special education teacher
 - c. Administrator
 - d. Paraprofessional
 - e. Other: (please specify)_____

2. How many years experience do you have working with students with disabilities?
 - a. None
 - b. 1-3
 - c. 4-7
 - d. 8-10
 - e. 11 or more

3. Which best describes the district you work in?
 - a. Urban
 - b. Rural

4. Which best describes your current employment setting?
 - a. Public school
 - b. Private school
 - c. Grant school
 - d. Bureau of Indian Affairs school
 - e. Other: (please specify)_____

5. Which best describes your cultural identity?
 - a. American Indian or Alaskan Native
Please indicate Tribal Affiliation_____
 - b. Asian
 - c. Black or African American
 - d. Hispanic or Latino
 - e. Native Hawaiian or Other Pacific Islander
 - f. White
 - g. Other: (please specify)_____

6. My gender is:
 - a. Female
 - b. Male

Section II. Educational Background

7. Have you taken or are you currently taking an online course?
 - a. Yes- go to Survey A
 - b. No-go to Survey B

Survey A (continue)

Select the option that best describes your experience.

8. If online distance education had not been available, you would have:
 - a. Enrolled in an on-campus course.
 - b. Not enrolled in any course.
 - c. Waited for online course.

9. What was your goal in enrolling in a distance education course?
 - a. Working towards a degree/teaching certificate.
 - b. Professional development
 - c. Obtaining continuing education units as required by profession
 - d. Personal growth
 - e. Other: specify _____

10. For a majority of time, where did you conduct online course activities in which you are currently enrolled and/or have completed?
 - a. From home
 - b. From work
 - c. From a public terminal (e.g. library, technology classroom)
 - d. On university campus
 - e. Other: specify _____

11. You have experience with:
 - a. WebCT (*Web Course with Technical Tools*)
 Yes No

 - b. Blackboard (*Course Management System*)
 Yes No

 - c. ITV (*Instructional Television*)
 Yes No

 - d. Other: specify _____

Using the 4-point scale, indicate a response that represents your extent of agreement or disagreement with that statement for items in sections III through IX.

Section III. Access

12. I have reliable Internet service to participate in an online course.
 Strongly Agree Agree Disagree Strongly Disagree
13. I am able to access the course web site whenever I need to.
 Strongly Agree Agree Disagree Strongly Disagree
14. I have daily access to a computer for a distance education class.
 Strongly Agree Agree Disagree Strongly Disagree
15. I have knowledge of the hardware (e.g., disk drive, keyboard, storage) needed for participation in an online course.
 Strongly Agree Agree Disagree Strongly Disagree
16. I have knowledge of the software (specific program or application) needed for participation in an online course.
 Strongly Agree Agree Disagree Strongly Disagree
17. I have knowledge of the delivery format (navigation) for participation in an online course.
 Strongly Agree Agree Disagree Strongly Disagree

Section IV. Technical Skills

18. I use a word processor (word document) program regularly to write documents.
 Strongly Agree Agree Disagree Strongly Disagree
19. I use e-mail regularly in conversational messaging.
 Strongly Agree Agree Disagree Strongly Disagree
20. I am able to download from the Internet (e.g., pictures, attachments, and links).
 Strongly Agree Agree Disagree Strongly Disagree
21. I am able to install software and plug-ins.
 Strongly Agree Agree Disagree Strongly Disagree
22. I am able to read and understand formal academic text (e.g., journal articles, texts).
 Strongly Agree Agree Disagree Strongly Disagree

23. I am able to read and understand informal conversational text (e.g., postings, chat room, instant messages).

Strongly Agree Agree Disagree Strongly Disagree

Section V. Social

24. I find there is a lack of social cues (e.g., body language) in an online versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

25. I have greater opportunities for peer interaction in an online versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

26. I have greater opportunities for student-instructor interaction in an online than a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

Section VI. Motivation

27. I have to take on more of the responsibility for my own learning in an online versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

28. I procrastinate more in an online versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

29. I need a more structured timeline to meet course deadlines during an online versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

Section VII. Support Services

30. Technical support is/was provided in a timely manner during my online course

Strongly Agree Agree Disagree Strongly Disagree

31. I have/had access to resources (library) for my class.

Strongly Agree Agree Disagree Strongly Disagree

Section VIII. Family/Time

32. Distance education is a better fit (time) for my family and me versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

33. Distance education is a better fit (financially) for me and my family versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

34. Online learning is more flexible (pace of learning) versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

35. Online learning requires more of my time (reading, studying) versus a face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

36. I have the support (encouragement) of my family during an online course.

Strongly Agree Agree Disagree Strongly Disagree

37. I have support (approval) of my employer during an online course.

Strongly Agree Agree Disagree Strongly Disagree

38. I have support (assistance) of my tribe during an online course.

Strongly Agree Agree Disagree Strongly Disagree

Section IX. Instruction

39. I am better able to review material in alternative formats (e.g., speech, print, and graphics) in an online versus face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

40. I am able to clarify and review materials prior to submitting assignments in an online versus face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

41. There is less opportunity for communication (e.g., postings, announcements) with other students in an online versus face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

42. Questions and comments can be responded to faster in an online versus face-to-face course.

Strongly Agree Agree Disagree Strongly Disagree

43. Questions can be answered more thoroughly in an online versus face-to-face course.
 Strongly Agree Agree Disagree Strongly Disagree

44. Evaluation of my knowledge of content is more effective in an online versus face-to-face course.
 Strongly Agree Agree Disagree Strongly Disagree

Section X. Pretraining

45. I received sufficient training in the use of the delivery system for my online course.
 Strongly Agree Agree Disagree Strongly Disagree

46. I would prefer a preregistration workshop on the distance education delivery format (e.g., WebCT, Blackboard) for my online course.
 Strongly Agree Agree Disagree Strongly Disagree

47. I would prefer a preregistration workshop on the navigation system (e.g., getting around the format: tabs, modules, links, chat rooms) for my online course.
 Strongly Agree Agree Disagree Strongly Disagree

48. I would prefer a preregistration workshop on submitting information (e.g., postings, instant message, and attachments) for my online course.
 Strongly Agree Agree Disagree Strongly Disagree

49. I would prefer a preregistration workshop in tools needed to communicate and interact for my online course.
 Strongly Agree Agree Disagree Strongly Disagree

50. I would prefer a preregistration workshop on time management for my online course.
 Strongly Agree Agree Disagree Strongly Disagree

Please use this space for comments, concerns, and questions you may have regarding this survey.

THANK YOU FOR COMPLETING THE SURVEY!!

Survey B (continue)

5. Do you plan to take a distance education course in the future?
 - a. Yes
 - b. No
 - c. Please explain why or why not:

Using the 4-point scale, indicate a response that represents the extent of your agreement or disagreement with each statement.

Section III. Access

6. Accessing technology (hardware or software) is a barrier in an online course.
 Strongly Agree Agree Disagree Strongly Disagree
7. Lack of a reliable Internet connection or an Internet service provider is a barrier in an online course.
 Strongly Agree Agree Disagree Strongly Disagree
8. Navigation skills are necessary to complete an online course.
 Strongly Agree Agree Disagree Strongly Disagree

Section IV. Technical Skills

9. Unfamiliarity with technical tools required for an online course is a barrier.
 Strongly Agree Agree Disagree Strongly Disagree
10. Lack of knowledge with computers and related technologies used in an online course is a barrier.
 Strongly Agree Agree Disagree Strongly Disagree
11. Having to learn different content management systems (e.g., Blackboard, WebCT, and ITV) used in an online course is a barrier.
 Strongly Agree Agree Disagree Strongly Disagree
12. Having to learn how to use new tools (e.g., downloading, submitting, navigating) to access an online course is a barrier.
 Strongly Agree Agree Disagree Strongly Disagree

Section V. Social

13. The impersonal environment is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

14. Isolation is a barrier to participation in an online course.

Strongly Agree Agree Disagree Strongly Disagree

15. Lack of interaction and communication among students is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

16. The lack of social cues (e.g. body language) is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

Section VI. Motivation

17. Being responsible for one's own learning is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

18. Lack of self-motivation is a barrier to learning online.

Strongly Agree Agree Disagree Strongly Disagree

19. Procrastination is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

20. Need for a structured timeline in meeting course deadlines is a barrier to learning online.

Strongly Agree Agree Disagree Strongly Disagree

Section VII. Support Service

21. Lack of support services such as tutors is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

22. Lack of access to the instructor is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

23. Lack of timely feedback or response from the instructor is a barrier in an online course.

Strongly Agree Agree Disagree Strongly Disagree

Section VIII. Family/Time

24. Disruption to family life is a barrier in taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree
25. Disruption to my personal/leisure time is a barrier to taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree
26. Disruption to my work schedule is a barrier to taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree
27. Sufficient time needed to complete an online course is a barrier.
 Strongly Agree Agree Disagree Strongly Disagree

Section IX. Prerequisite Skills

28. Lack of writing skills is a barrier to taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree
29. Lack of typing skills is a barrier to taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree
30. Lack of reading skills is a barrier in taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree
31. Lack of communication skills is a barrier in taking an online course.
 Strongly Agree Agree Disagree Strongly Disagree

Please use this space for comments, concerns, and questions you may have regarding this survey.

THANK YOU FOR COMPLETING THE SURVEY!!

Appendix D

Participant Letters:

Pre-notice, Invitation, and Reminder

PRE-NOTICE LETTER

March 13, 2007

Greetings,

I am a Navajo teacher completing my doctoral degree in special education at The Pennsylvania State University and I need your help. I have developed a questionnaire related to distance education in rural and remote areas. I would like American Indian special educators from various rural districts to answer this survey. Why should you invest your time in this study?

The research is extremely important because the role of special educators has changed over the past 10 years; certification requirements to meet the mandated act of NCLB have increased the need for further education. I hope that this research will contribute to better defining the role and providing a framework for distance education certification programs in rural and remote communities for American Indians. You must be at least 18 years of age to take part in this research study.

Within the next few days you will receive an e-mail from me that contains a link to an online survey. Please complete the survey; it should take 15-20 minutes to complete. I'm seeking your help in reaching a broad population for this survey, so if you know of any American Indian rural special educators please forward this e-mail. Your assistance would be greatly appreciated.

Thank you in advance for your help and your willingness to contribute to the profession of special education.

Regards,

Rosemarie S. Dugi
Special Education Doctoral Candidate
The Pennsylvania State University
122 CEDAR Bldg.
University Park, PA, 16802
Phone: 814-863-3116
E-mail: rxd231@psu.edu

INVITATION LETTER

March 15, 2006

Greetings once again from The Pennsylvania State University,

A few days ago, I sent you a letter explaining that I have developed a questionnaire related to distance education in rural and remote areas.

The research is extremely important because the role of special educators has changed over the past 10 years; certification requirements to meet the mandated act of NCLB have increased the need for further education. I hope that this research will contribute to better defining the role and providing a framework for distance education certification programs in rural and remote communities for American Indians.

You are being asked to complete a survey; it will take you 15-20 minutes to complete the survey.

Please click on this link to go directly to the survey:

If you have any question please contact me directly at 814-863-3116 or via e-mail at rx231@psu.edu. Thank you in advance for your help and your willingness to contribute to the profession of special education.

Regards,

Rosemarie S. Dugi
Special Education Doctoral Candidate
The Pennsylvania State University
122 CEDAR Bldg.
University Park, PA, 16802
Phone: 814-863-3116
E-mail: rx231@psu.edu

REMINDER LETTER

March 15, 2007

Dear American Indian Rural Special Educator,

A few days ago I sent you information about an online survey related to distance education in rural settings. If you have already completed the survey, thank you very much.

If you have not yet had time to complete the instrument, please do so at your earliest convenience. You may access the survey by clicking on this link:

Your expertise is invaluable in researching distance education. Your expertise will help provide a research-based foundation for developing special education, certification, and training programs for American Indians in rural and remote communities.

If you have any questions about the study or the instrument, please contact me at 814.863.3116 between 9:00 am – 5:00 pm (Monday-Friday) or via e-mail anytime at rx231@psu.edu. Again, thank you.

Best regards,

Rosemarie S. Dugi
Special Education Doctoral Candidate
The Pennsylvania State University
122 CEDAR Bldg
University Park, PA 16802
Phone: 814.863.3116
E-mail: rx231@psu.edu

Appendix E
Thesis Informed Consent

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH

The Pennsylvania State University

Title of Project: Distance Education for American Indian Rural Special Educators

Principal Investigator: Rosemarie S. Dugi
122 CEDAR Building
The Pennsylvania State University
University Park, PA 16802
814-863-3116
rxd231@psu.edu

Advisor: Dr. Pamela Wolfe
212 CEDAR Building
The Pennsylvania State University
University Park, PA 16802
814-863-8002
psw7@psu.edu

1. Purpose of the Study:

The purpose of this study is to determine feasibility and interest in distance education courses in rural and remote communities for American Indian special education teachers. This information will be used to develop and enhance rural distance education in the attempt to retain and recruit highly qualified American Indian rural special education teachers.

2. Procedures to be followed: You will be asked to provide some brief general background information and answer questions on a survey with regard to distance education.
3. Benefits: This research will provide a better understanding of how distance learning may influence rural communities and American Indians. This information will help to plan and construct distance education programs and enhance special education teacher preparation programs for American Indians in rural communities.
4. Duration/Time: It will take about 15-20 minutes to complete the questions on the survey.
5. Statement of Confidentiality: Your participation in this research is confidential. Your confidentiality will be kept to the degree permitted by the technology used. No

guarantees can be made regarding the interception of data sent via the Internet by any third parties. No personal identifiers will be collected or connected to the data. The data will be stored and secured at 122 CEDAR Bldg in a locked/password protected file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. The following may review and copy records related to this research: The Office of Human Research Protections in the U.S. Department of Health and Human Services, the Social Science Institutional Review Board and the PSU Office for Research Protections.

6. **Right to Ask Questions:** You can ask questions about this research. Contact Rosemarie S. Dugi at 814-863-3116 with questions, complaints or concerns about the research. You can also call this number if you feel this study has harmed you. If you have questions regarding your rights as a research participant, please contact Penn State's Office for Research Protections at 814-865-1775.
7. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise. Completion and submission of the survey implies your consent to participate in this research.

You must be 18 years of age or older to take part in this research study. If you agree to take part in this study and the information outlined above, please continue to the next section.

Please print off this form to keep for your records.

ROSEMARIE S. DUGI

Department of Educational and School Psychology and Special Education
The Pennsylvania State University
11310 Zady Lane
Flagstaff, Arizona 86004
rx231@psu.edu

Formal Education

| | | | |
|-----|------|-----------------------------------|--|
| PhD | 2008 | The Pennsylvania State University | Special Education (Cognate:Supervision) |
| MEd | 2002 | Northern Arizona University | Special Education |
| BA | 2000 | Northern Arizona University | Elementary/Special Education |
| BA | 1991 | Eastern Oregon University | Sports Medicine |

Experience

| | |
|-----------|--|
| 2002 | Northern Arizona University, <i>Graduate Assistant DREAMS/BRIDGE</i> |
| 2001 | Northern Arizona University, <i>Graduate Assistant Praxis Program</i> |
| 1998-2001 | Kayenta Unified School District, <i>PreK-12th grade Special Education Support Facilitator</i> |
| 1993-1997 | Kayenta Unified School District, <i>Special Education Physical Therapist Assistant</i> |
| 1993-1997 | Kayenta Unified School District, <i>High School Athletic Trainer</i> |
| 1990-2000 | Memphis, Tennessee, <i>Athletic Trainer/Camp Management, Universal Cheerleader Association</i> |