

SUCCESS FACTORS FOR AMERICAN INDIAN  
STUDENTS AT A SUB-BACCALAUREATE  
TECHNICAL COLLEGE

By

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By

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May 2008

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## CHAPTER I

### INTRODUCTION AND STATEMENT OF THE PROBLEM

“Education Is Survival.” This blunt title of an essay by Tlingit educator William Demmert, Jr., (1997) is a call to action based on the author’s dire assessment that the ongoing lack of academic achievement among young American Indians puts the survival of American Indian nations at risk. Such concerns are well founded. Research studies over the past two decades have confirmed repeatedly that American Indian students had the least likelihood of all ethnic groups to enter and complete college (Tierney, 1995). Despite significant gains, only 17.7% of American Indians age 18-24 are enrolled in post-secondary education as opposed to 41.6% of European-Americans in the same age bracket. In fact, American Indians have the lowest college participation rate of all major ethnic groups (Freeman & Fox, 2005).

In addition, statistical analyses from various studies indicated that only between 4% and 36% of those American Indians who did enroll in college eventually completed their degrees (Brown & Robinson-Kurpius, 1997; Carnegie Foundation, 1989; Huffman, 1991; Jackson & Smith, 2001; Pavel, Skinner, Cahalan, Tippeconnic, & Stein, 1998; Pottinger, 1990; Tierney, 1993, 1995; Wilson, 1998). Specifically for two-year colleges, Bailey, Jenkins, and Leinbach (2005) reported that of those American Indian students enrolling in occupational programs (numbers for academic programs were not available), 5.5% finished with an occupational certificate and 6.2% with an Associate’s degree.

Low graduation rates are part of a dilemma faced by many tribes. Leaders with college educations and advanced training are needed to help preserve tribal languages, cultures, and identities; manage tribal resources; support tribal political and economic development; and work with institutions of the mainstream society (Benally, 2004; Demmert, 1997). However, the needed education is most likely going to take place at an institution that operates on white middle-class values and has little understanding of the cultural differences and the needs of American Indian students (Cajete, 1994; Huffman, 2003). This situation is surprising because scholars have argued for many years that American Indian students have unique needs and perspectives that teachers and administrators at the high school and the college level must take into account if they want their students to be successful (Gilliland & Reyhner, 1988; O'Brien, 1990). However, too few educational personnel have understood, respected, and acted upon these needs through culturally appropriate policies and practices, and their failure to do so, Pewewardy and Frey (2004) believed, has made American Indian students feel marginalized and has contributed to high non-completion rates at both the secondary and the post-secondary levels

A significant number of studies on the comparatively low graduation rate of American Indian students are available to administrators and faculty members at post-secondary institutions. The most frequently mentioned factors tied to retention are these:

- academic preparation and college readiness,
- student support services,
- relationships with professors,
- financial and economic circumstances,

- family background, and
- the ability to deal with cultural differences and feelings of alienation, isolation, and hostility (Benjamin, Chambers, & Reiterman, 1993; Dodd, Garcia, Meccage, & Nelson, 1995; Gilbert, 2000; Jackson & Smith, 2001; James, 1992; Lin, LaCounte, & Eder, 1988; O'Brien, 1990; Pottinger, 1990; Scott, 1986; West, 1988; Wilson, 1998).

Some researchers have chastised institutions for failing to use this information to implement programs aimed at increasing American Indian student success (Guillory, 2002; Hornett, 1989; Huffmann, 1991; Tate & Schwartz, 1993), but the state of affairs is not quite as straightforward as it might appear. A gap remains between what researchers know about success factors and what the implementation of programs supporting American Indian students involves. The disagreement on which factors are most dominant and how institutions should respond led James (2001) to conclude that despite many years of research, knowledge on which programs or initiatives are most appropriate for American Indian students and what exactly these programs need to do is, in fact, quite limited.

### Problem Statement

The persistently low college graduation rate of American Indian students as the result of a lack of knowledge about which factors help retain students constitutes an ineffective investment of student, family, tribal, college, and taxpayer resources.

First, students who do not finish college will still draw upon available personal, familial, and public financial resources but will have a lower earning potential, a diminished ability to repay student loans, and a higher likelihood to be dependent on

public assistance in the future. Second, many people have made a considerable investment of their time. Apart from the students themselves, professors, counselors and other campus staff members, tutors, tribal counselors, and family members may all have spent time and effort to help the student succeed. Third, an individual's potential may not be realized, and the needs of the tribe or the community for someone with appropriate leadership, technical, or administrative skills will go unmet.

### Purpose Statement

The purpose of this study was to describe and analyze the campus and classroom experiences of American Indian students who are in the second half of their final semester of a degree program at the South Central Institute of Technology (SCIT) as they relate to retention. Will themes emerge from students' interpretations of their experiences in class and on campus that may lead to changes in recruitment, administrative and student services, and instructional methods and design? Are there factors that are unique to American Indian students or to technical education and that could have major implications for policies, practices, and the use of resources at SCIT and possibly elsewhere? As such, this research is basic and explanatory (Patton, 2002) because it tries to fill a knowledge gap in the research and go beyond current findings to look for new evidence in the study of success factors for American Indian students that can lead to better student retention.

### Setting

The South Central Institute of Technology is a sub-baccalaureate, public technical institution in eastern Oklahoma with an enrollment of 2,800 students that offers mainly Associate of Applied Science degrees in areas such as automotive technology,

construction technology, heavy equipment technology, engineering technologies, air conditioning, information technologies, graphic design, photography, precision agriculture, culinary arts, and allied health as well as Associate of Science degrees in business and pre-education. In 2004 SCIT received approval from the Oklahoma State Regents for Higher Education to offer three Bachelor of Technology programs in civil engineering technology, information assurance and forensics, and instrumentation engineering technology. These Bachelor programs enrolled 2.52 % of all SCIT students for the Spring 2007 semester.

The focus on SCIT was chosen for several reasons:

1. The South Central Institute of Technology has an overall graduation rate for American Indian students that stands at a 33.8% average for the 1996 to 2003 student cohorts with rates as high as 38.46% for the 2002-2003 cohort. This means that American Indian students earn Associate's degrees at over five times the rate of 6.2% reported as the national average (Bailey, Jenkins, & Leinbach, 2005).
2. Post-secondary technical education for American Indian students at sub-baccalaureate mainstream (i.e. non-tribal) institutions has received little to no attention from researchers. The research focus has instead been on public school programs and baccalaureate, graduate, or professional education even though Kenneth Gray (1997) had predicted that technical careers requiring Associate's degrees would see the largest job and wage growth in the early twenty-first century. In fact, the most recent article in the *Journal of American Indian Education* devoted entirely to career and technical education dates back over 35

years (Edington & Willey, 1971), and of the twenty papers commissioned for the Indian Nations at Risk Task Force established by the United States Secretary of Education in 1990, only one addressed vocational and technical education (Hatch, 1992). Literature exists on career counseling and development for American Indians, but the focus is largely on factors influencing career selection for high school students and on counselor training and professional development (Herring, 1990; Martin, 1991, 1995; McCormick & Amundson, 1997; Peavy, 1998).

At the same time, a number of monographs and collections of essays have been devoted to American Indian students in public schools (Gilliland & Reyhner, 1988; Reyhner, 1992; Swisher & Tippeconnic, 1999) and to higher education issues (Swisher & Tippeconnic, 1999; Tierney, 1992), and the *Journal of American Indian Education* dedicated an entire issue to higher education in 2002. Part of this research has been about the role tribal colleges play in community building and economical development (Benham & Stein, 2003), and once again, the *Journal of American Indian Education* offered special issues on the topic in 2003 and 2004.

3. Tippeconnic (2000), echoing progressivist ideas about the ability of career and technical education to create a more democratic and equal society, stated that technology will play an important role in empowering tribes and tribal communities to achieve greater self-determination and sovereignty, and Tierney (1995) concurred that technical education for tribal members will make it possible to harness the full potential of new technology for the benefit of tribal development.

4. West (1988) suggested that post-secondary career education might be the answer to low college retention rates for American Indian students.

#### Main Research Question

What are the perceptions that some American Indian students enrolled in sub-baccalaureate programs at a mainstream technical college have of their experiences on campus and in class that encourage them to stay in college, persist in their studies, and complete their degrees?

#### *Additional Research Questions*

1. Which factors that contribute to the retention of American Indian students as stated in previous studies are present at the South Central Institute of Technology?
2. To which degree can students' perceptions of the presence of these factors be linked to technical education?
3. Which success factors exist at the South Central Institute of Technology that have received little or no mention in the literature?

As this study attempted to tap into student experiences and learn about each participant's personal perceptions of what contributed to his or her success, these questions were addressed through qualitative interviews because, as Rubin and Rubin (1995) stated, interviews allow researchers access to participants' true thoughts in the participants' own words.

#### Theoretical Basis

Researchers have at times lamented that educational research often is not grounded in a solid philosophical and theoretical basis but is instead an unfocused foray

into the process of suggesting specific solutions for specific problems (Camp, 2001). In addition to the fact that this study researches a segment of the educational system about which little information exists, it also wants to draw upon epistemological and theoretical perspectives to gain an understanding of how students persist. It is hoped that the analysis of student responses through the lens of a given epistemological framework may in the long run be helpful in moving toward a solid future retention model on which policymakers, administrators, and faculty members can rely for their decision making.

### *Social Constructionism*

As a result of its purpose, this study is influenced by a symbolic interactionist theoretical perspective, which falls within a constructionist epistemology. According to Crotty (1998), constructionists find no inherent and independent meaning in objects; the only meaning that can exist is constructed when people actively engage and interpret objects with their consciousness. Reality to constructionists exists in experience, and since each person's experience is different, the meaning of objects is different for everyone, which means that there are multiple realities, not one true or permanent one. Constructionists do not reject the idea of reality, but they admit that people generally see as real what is useful for them. If a perception or interpretation of an object is no longer useful, it is changed.

Social constructionism then tries to explore how and why people develop this view of knowledge as being transitory and grounded in usefulness. The first clear articulation of a theory of social constructionism is often attributed to Peter L. Berger and Thomas Luckmann (1966) and their book *The social construction of reality: A treatise in the sociology of knowledge*. Berger and Luckmann (1966) argued that for most people

reality consists of objects and experiences that are meaningful to them in a specific context, which is their interaction with others. However, because of different sets of experiences, objects have different meanings for different people, and this realization means that all people establish patterns of interaction with other people through which they exchange their subjective meanings. These patterns are social structures and serve to distribute individual knowledge. Hence, two rules apply: what is known and what is real always depends on a specific social context, and any difference in knowledge or views of reality is to be found in the social distribution of such knowledge or viewpoints. If the network is different, so is the knowledge, which accounts for different views of reality among cultures and societies.

Crotty (1998) expanded on this conclusion by arguing that people's ways of making meaning and seeing things as real are guided if not determined by the lenses provided by their culture, which makes us see some objects and realities and ignore others. Reality is culturally and historically constructed, and different people with different needs, social networks, and cultures will have different realities. This view accomplishes three things: It recognizes the existence of reality, it recognizes the existence of multiple realities, and it acknowledges that as needs and networks change, so does everyone's sense of what is real and worth knowing.

### *Symbolic Interactionism*

This discussion of multiple realities is the foundation of the symbolic interactionist perspective, a connection Reynolds (1993) made as follows: "All meaningful human behavior consists of selves addressing action toward objects, including the self as that which can be an object to itself" (p. 127). Symbolic

interactionism, a theory within the social constructionist perspective, lends itself well to the main question of what meaning students make of their experiences because of its focus on how interactions between students and their professors or peers play out in the classroom and on campus and ultimately help them make decisions on whether to persist in their studies. Interactionist assumptions are as follows:

- Humans act toward people, objects, places, or events based on the meaning these have for them;
- the meaning is formed through interaction with others; and
- the meaning is arrived at through an interpretive process.

Interaction with people on campus thus determines part of the meaning students make of their experiences in a program of study, and their decision to act on the program (i.e. to persist or to drop out) is based largely on their interpretation of the actions of others (Charon, 2004; Wallace & Wolf, 2006).

For minority students, agency is an important concept in their interaction with others. Regnier (1995) clarified that understanding the assumptions of their own culture and history and making connections to their communities are important factors if American Indian students are to realize their full potential and persist in their education. This researcher is curious to find out whether students see themselves as passive recipients of faculty, staff, and peer actions to which they respond or if there is indeed anything institutions can do to involve students in constructing a campus and classroom environment where learning is a mutual, two-way undertaking and students are able to see the connections between their learning and the economic and social development of their tribes and communities. Such interactional dynamics dovetail nicely with the idea of

“co-intentional education” proposed by Freire (1993). Is there a propensity in technical education that allows students and instructors to learn from each other and shows students ways to empower themselves and their communities to accomplish social equality? Which role if any can and should institutions play to support their students’ social and political needs and develop a sense of agency in them? How are such attitudes related to retention?

### *Pragmatism*

The most directly related philosophical foundation of this theoretical perspective is pragmatism. Reynolds (1993) stated the link between pragmatism and social interactionism as follows: “If forced to single out the one philosophical school of thought that most influenced symbolic interactionism, one would be on safe ground in concluding that pragmatism provides its primary intellectual underpinnings” (p. 13). Pragmatism’s major contribution to symbolic interactionism according to Reynolds is its focus on utilitarian matters and on the consequences of one’s actions. For a pragmatist, truth is what works for each person in any given situation, and knowledge is based on how useful it is to help people achieve their goals. Pragmatists do not want to accept ideas at face value or manipulate behavior. Instead, ideas are used to create practical results, particularly solutions to problems (Scott & Sarkees-Wircenski, 2004).

Pragmatism’s alignment with social constructionism and symbolic interactionism in an educational context is that students’ experiences and their relationships with others inside and outside of class are considered important, and pragmatism also shares the desire to empower students to strive for social and economic equity. At the same time, pragmatism retains its focus on practical, useful knowledge and skills as defined by the

individual learner. It tries to help facilitate an understanding of the dynamics between education for work and education for justice or education for individual growth and education for the benefit of the community, precisely what this study wishes to explore in greater depth.

### *Theoretical Influences on This Study*

The pragmatic, constructionist orientation is reflected in this study in a number of respects, beginning with the overall research design. Based on statements in the literature that learning about the experiences of American Indian students may lead to new findings on success factors and retention strategies (Deloria & Wildcat, 2001; Huffmann, 2001, 2003; Jackson & Smith, 2001), this researcher set out to inquire about student perceptions, and such information is best collected through qualitative interviews as described by Rubin and Rubin (1995): “We are trying to find in detail how the conversational partners understand what they have seen, heard, or experienced” (p. 40). Therefore, the decision to conduct a qualitative study in the first place and to learn about participants’ experiences through personal interviews is a result of the theory base.

Furthermore, the questionnaire for the interviews shows a clear influence of constructionist thinking. Questions asked for personal perceptions, not for what participants consider to be true, and the focus of several questions was the relationship of participants with other people in their lives, both on and off campus. The importance of such relationships for American Indian students has been stressed repeatedly in the literature (see Chapter 2 for a detailed discussion). Considering the fact that participants were members of a minority culture and that Indians in Oklahoma have been described as unique among American Indian cultures, it appeared prudent to conduct this study by first

developing insight into how participants understood their experiences on campus and their interactions with others as they related to retention before moving on the interpretation stage.

### Population Description

The following section will provide some information about contemporary issues affecting American Indians, be they cultural, social, political, economic, or medical. Both the challenges and the successes will be discussed. A discussion of how Oklahoma Indians differ from those elsewhere in the United States as some scholars say has been included.

#### *Who Is an American Indian?*

There is no nationally accepted definition of “American Indian” in the United States, nor is there agreement on which criteria should be applied to arrive at such a definition. Federal, state, and tribal entities as well as individuals seem to use definitions that best serve their purpose at a particular time. According to Pevar (2002), the definition of “Indian” can be expressed in terms of ethnic or legal criteria although legal criteria tend to predominate. Considering that determining who may be part of one’s group is one of the criteria of sovereignty, tribes should have the right to establish the criteria that define who they consider to be “Indian,” even if such criteria may differ among tribes (Wilson, 1998). However, the reality often is that federal legal definitions determine whether or not someone may be eligible for federal programs and de facto supersede any tribal standards (Pevar, 2002; Wilkins, 2002). It is thus possible that someone is legally Indian but not recognized by any tribe or community, or that someone

is recognized by a community as an Indian member but still not eligible for federal programs.

According to Wilkins (2002), over 30 legal definitions of “Indian” have been proposed and used by federal government entities over the years and can be grouped into six broad categories: blood quantum level, member of federally recognized community, living on or near a reservation, biological origin, self-identification, and other. Pevar (2002) added that the most frequently applied standard, especially in legal proceedings, is the one proposed by Felix Cohen in 1943. Following Cohen’s criteria, an “Indian” must (1) be descended from people who lived in North America before the arrival of Europeans and (2) be recognized as Indian by the community he or she lives in (Wilkins, 2002).

Examples of competing definitions are the ones used by the National Center for Education Statistics (NCES) and by the Indian Arts and Crafts Act of 1990. The NCES defines “Indian” as “any person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition” (Pavel, Skinner, Cahalan, Tippeconnic, & Stein, 1998). Using Wilkins (2002) as a guide, this definition is based on the two criteria laid down by Cohen in 1943. The Indian Arts and Crafts Act of 1990, on the other hand, states the following: “[T]he term ‘Indian’ means any individual who is a member of an Indian tribe, or for the purposes of this section is certified as an Indian artisan by an Indian tribe.” Here, the emphasis is on legal membership in a federally recognized tribe, not on origin or recognition. Wilkins (2002) did not offer any solution to the issue of how to define “Indian”; he simply called the current situation “cumbersome” (p. 23) and suggested that

it would probably not change in the foreseeable future.

The matter of terminology is no less complicated, and books on American Indians now often begin with an introduction addressing the issue of which terms ought to be used. Wilkins (2002), for example, wrote a special preface about terminology and discussed the pros and cons of terms such as tribal nations, Alaskan Natives, indigenous nations, indigenous peoples, Indian, American Indian, Native American, Native peoples, Native nations, First Nations, and tribal communities. Such attempts to cover all bases, as it were, are understandable because the debate on terminology can become quite heated. American Indian writer Gerald Vizenor (1981), for example, was unequivocal about his feelings toward one term in particular: “The word *Indian*, of course, is an invention which has rendered extinct thousands of individual and distinct tribal cultures. ... [T]he author uses *indian* ... to illustrate racial and cultural invalidations” (pp. xxi).

D. Mihesuah (2005) referred to terminology as an issue fraught with politics and emotions. She stated that she uses “American Indian” because of its familiarity but prefers the terms “Native” and “indigenous” precisely because of their political and religious implication that American Indians have always lived on this continent and did not migrate here from Asia. Both examples show the different layers of meaning and the complexities of finding a widely acceptable term for a group of people.

#### *American Indian Images*

Over thirty-five years ago, American Indian activist and scholar Vine Deloria, Jr., assailed the prevailing stereotypical images of American Indians and the unwillingness of the white majority to look at American Indians realistically. When confronted with economic and social realities, Deloria (1970) argued, whites had a tendency to retreat to

two major categories of images instead of dealing with the problem at hand. On the one hand, Indians were seen as savages with limited mental abilities who were incapable of rising above their station and were thus responsible for their own predicaments such as unemployment, poverty, disease, substance abuse, violence, or the disappearance of their cultures. On the other hand, Indians were also seen as noble forest dwellers, quaint throwbacks to a distant past who were no longer relevant in contemporary life. Either way, Deloria claimed, by continuing to stereotype and to create a simplified, generalized image, whites were trying to absolve themselves of the responsibility for playing a major role in the struggles many American Indians had and still have to face.

Philip Deloria (1998) attributed such juxtaposed images to a paradox in the American psyche: in order to create a new “American” identity, everything that existed prior to it had to be eradicated (e.g., European and American Indian cultural identities). At the same time, to find something that was different from the settlers’ European backgrounds, the Indian was needed as a model. The problem then became that acknowledging the perseverance of Indian cultures and the flaws in the white image of these cultures would signal a failure to have created an “American” identity. To avoid such an embarrassment, anything positive about Indians and anything negative about one’s own European culture had to be rejected. Marshall (1995) confirmed the continued existence of the split image of the noble and the brutal savage and agreed with both V. Deloria (1970) and P. Deloria (1998) that continued stereotyping and generalizing had allowed whites to turn a blind eye to the fact that American Indians still existed, that their contemporary situation was strongly linked to mainstream attitudes toward them, and that

the issues affecting them were highly complex and needed more than a one-size-fits-all solution.

Stereotypical images have faced increasing criticism because of two negative effects they have on contemporary American Indians: (1) With ubiquitous artifacts such as feather bonnets, buckskin dress, tomahawks, moccasins, totem poles, and others, the impression is created that all Indians and by extension their cultures are alike and that no distinction needs to be made in how different tribes are treated; and (2) Indians may have to act according to the white stereotype and imperil their cultural survival against their better judgment just so that white society is willing to accept and deal with them. As a result, a number of groups, both American Indian and non-Indian, have been fighting stereotypes for decades now. They want to help the American public understand that although many problems exist in American Indian communities, making it sound as if all American Indian tribes and cultures are just variations of a common theme and that Indians no longer play a role in American society could not be further from the truth (Marshall, 1995).

### *Tribes and Cultures*

According to the Bureau of Indian Affairs, there were 562 federally recognized tribes and Alaska Native Villages in 2002 plus over 100 more groups that did not have federal but in some cases state recognition and lived all over the United States (Oswalt, 2006). These tribes show significant differences in traditional tribal economies, material culture, spirituality, social organization, political systems, language, and other areas. Tribal members may traditionally have been hunters and gatherers, trappers, fishermen, farmers and gardeners, traders, or any combination of the above. They may have lived in

tipis, log cabins, wikiups, hogans, earth lodges, longhouses, plank houses, or wigwams. Tribes may have been matrilineal or patrilineal with hereditary or elected, secular or religious leadership. Languages may be as different from each other as English and Turkish. Any suggestion that all American Indian cultures were and are alike is indeed a misconception.

Despite such cultural differences, tribal members today should not be defined through their traditions alone. Just like people in other ethnic groups, they are doctors, lawyers, teachers, business owners, truck drivers, mechanics, police officers, and other occupations. They live in houses, condominiums, or apartments and drive cars, trucks, and SUVs. They are part of the political life of their tribes but also vote in local, state, and federal elections. Despite their unique cultural backgrounds, it is another misconception to see Native people as something of the past instead of active participants in contemporary life.-

#### *American Indian Demographics*

According to the U.S. Census Bureau (2007), in 2005 there were almost 4.5 million American Indian and Alaska Natives in the United States. The largest tribes in membership were the Navajo with 298,215 and the Cherokee Nation of Oklahoma with 228,307. The state with the largest American Indian population was California with 627,562, followed by Oklahoma with 391,562, Arizona with 292,552, and Texas with 215,599. As for cities, New York City had the largest population with 87,241, followed by Los Angeles with 53,092, Phoenix with 35,093, and Tulsa with 30,227 (Oswalt, 2006). The states with the highest percentage of American Indians as part of the total population were Alaska with 16%, New Mexico with 10.2%, South Dakota with 8.8%,

and Oklahoma with 8.1%. The American Indian population is young. 34.28% of the total population is under 17 years old; the median age was 27.2 for males (36.5 for whites) and 28.9 for females (38.9 for whites) (U.S. Census Bureau, 2002).

American Indian families are more likely than others to have incomes below the national average. In 2005, average nationwide family incomes were \$33,627 for American Indians and \$50,677 for European-Americans. American Indians also live in poverty and have children living in poverty at a much greater rate than European-Americans. In 2005, the overall American Indian poverty rate stood at 26.1%, the rate for whites at 10.7%. For children, the respective rates were 29.6% for American Indians and 14.3% for whites in 2001. Furthermore, 40% of American Indians lived in substandard housing with 12% living without a kitchen and 11% living without a bathroom (U.S. Census Bureau, 2005). Much of this situation can be attributed to high unemployment rates. Unemployment rates in 2005 were 5% for whites but 15% for gaming tribes (i.e. tribes that own and operate gambling facilities) and 22% for non-gaming tribes. In some areas such as the Rosebud Reservation in South Dakota, unemployment rates were as high as 80% (DeNavas-Walt, Proctor, & Lee, 2006).

As for crime, the Office of Justice Programs within the United States Department of Justice compiled extensive data on crime and American Indians in 1999. According to the findings, from 1992 to 1996, American Indians 12 years and older were more than twice as likely as white people to be crime victims, one and one-half times as likely to be arrested, and two and one-half times as likely to be incarcerated (U.S. Department of Justice, 1999). In matters of health care, the Centers for Disease Control (CDC) reported that American Indians are twice as likely as white people to be uninsured (15.9% vs.

32.2%) and have higher rates of smoking, alcohol consumption, and infant mortality. Diabetes occurs twice as often in American Indians as it does in the general U.S. population (National Center for Health Statistics, 2007). According to the American Psychological Association (1999), suicide was the leading cause of death in 1999 for American Indians 15-24 years old with a rate more than twice that of all other races. In 2004, new figures provided by the CDC called suicide the second leading cause of death for American Indians aged 15-34 between 1995 and 1997 (National Center for Injury Prevention and Control, n.d.).

Statistics such as these have compelled Pevar (2002) to call American Indians the most oppressed minority of all in the United States.

#### *Changes for the Better*

Despite all these challenges, many improvements have occurred over the past decades. Legislation such as the Indian Civil Rights Act (1968), the Alaska Native Claims Settlement Act (1971), the Indian Self-Determination and Education Assistance Act (1975), the Indian Child Welfare Act (1978), the Indian Gaming Regulatory Act (1988), the Native American Grave and Repatriation Act (1990), the Indian Arts and Crafts Act (1990), and many others may not be perfect, but they have contributed to more legal security for Indian plaintiffs and have served as empowerment tools for tribes and communities by increasing the sovereignty of tribes and curtailing the reach of federal and local officials. As a result, many tribes have now established effective, working tribal governments with executive, legislative, and judicial branches and have asserted sovereignty in matters such as law enforcement, education, and economic development (Pevar, 2002).

One example of improvement is the amount of language preservation work that has taken place. According to Goddard (1997), in 1995 there were 45 languages still spoken and learned by children, 90 languages still spoken by adults, and 70 languages spoken by only a few elderly people. Of the languages still actively spoken, the largest ones were Navajo with over 100,000 speakers, Cree with 80,000 speakers, and Inuit-Inupiaq with 70,000 speakers (Silver & Miller, 1997). American Indian languages are now taught at all levels of the educational system, from kindergarten to college. Many tribes such as the Mohawk (Burns, 2006) or the Blackfeet (Selden, 2000) support and finance early childhood language immersion programs. At the other end of the spectrum, many universities offer courses in tribal languages. The University of Oklahoma, for example, offers Cherokee, Choctaw, Creek, and Kiowa (University of Oklahoma, 2006), and the University of Minnesota offers Ojibwe and Dakota (University of Minnesota, 2006). Tribes such as the Oneida (Gorelick, 2006) or the Coeur d'Alene (Coeur d'Alene Tribe, 2006) offer adult language programs. Many tribes operate radio stations that have at least some of their shows in the tribal language. For example, KINI-FM radio on the Rosebud Reservation in South Dakota offers shows entirely in Lakota (KINI FM Radio, 2004), and the Aboriginal People's Television Network (APTN), a Canadian satellite channel, transmits and produces exclusively Native-themed programming, at least 25% of it in indigenous languages like Inuktitut, Ojibwe, and Cree (David, 2004).

To attract younger people, computer technology has also been used. Diné College on the Navajo Reservation in Arizona, for example, has used computer technology to create reading and listening materials for children as well as songs, music, and games (Center for Diné Teacher Education, n.d.), the Eastern Cherokee have developed an

electronic phrase translator (Burns, 2006), and the course catalogue for Nunavut Arctic College is written in English and Inuktitut (Nunavut Arctic College, 2005). In addition, as of February 2008 there are Wikipedia articles in languages such as Inuktitut (261 entries), Cherokee (201 entries), Navajo (137 entries), Cree (118 entries), and Inupiak (78 entries). Although these numbers pale in comparison to sites for other indigenous languages, they are nonetheless a promising sign that American Indian languages are still vibrant and useful.

Other changes have come in the ability of tribes to assume control over vital programs for tribal members. Health care is just one of these examples. Many tribes have established their own culturally based health care prevention and treatment programs. The Indian Health Care Resource Center of Tulsa, Oklahoma, for example, emphasizes culturally sensitive treatment based on the cultural needs of each tribe (Indian Health Care Resource Center, 2008).

Economic development has been another important activity. Although many people may think of casinos and smoke shops when considering American Indian businesses, tribes and their members have considerable economic impact. The Seminole Nation of Florida recently purchased the bankrupt chain of Hard Rock Cafes (Toensing, 2007), and the Cherokee Nation of Oklahoma owns its own home health care and hospice service; an environmental engineering consulting firm; a manufacturing plant that makes network cables, air conditioning units, and other items; seven gaming facilities; a historical museum; and a boarding school for Grades 9-12. Cherokee Nation Businesses, for example, are the fourteenth-largest employer in Oklahoma (Cherokee Nation, 2008). According to the campaign website of current Principal Chief Chad Smith, the tribe

employed over 6,500 people in 2007 and claimed a 335% growth in profits (Smith/Grayson Campaign and Media Office, 2007). The American Indian Chamber of Commerce of Oklahoma reported that American Indian businesses in Oklahoma earned \$2.5 billion in revenue in 2005. Nationwide, American Indian private businesses earned \$26.9 billion and employed 191,270 workers. There were 3,631 companies owned by American Indians or Alaska Natives with revenue of more than \$1 million each (Price, 2006).

### *Oklahoma Indians*

Although Oklahoma tribes are subject to the same laws and have the same rights as tribes elsewhere, several authors suggested that their situation is in many ways unique among North American tribes. According to Strickland (1994), there are 38 federally recognized Indian nations in Oklahoma, of which only very few are indigenous to the area. Wright (1986) listed the Pawnee, Wichita, Caddo, Quapaw, Osage, and Comanche as being the original inhabitants. Strickland (1994) did not mention the Pawnee but included some Apache bands that used to hunt in what is now Oklahoma, and Pevar (2002) agreed with Strickland but mentioned the Kiowa instead of the Apache. Most of the tribes now residing in Oklahoma were forced to move there after the passage of the Indian Removal Act of 1830.

Oklahoma Indians do not live on federal reservations as do tribes in many other states (Wright, 1986). Indian land in Oklahoma is the land that was allotted to members of Oklahoma tribes as the result of the General Allotment Act of 1887. Although Oklahoma tribes have the same rights and obligations as tribes elsewhere, several federal laws have been written specifically for Oklahoma. One such example is the Curtis Act of

1898. The Five Civilized Tribes (Cherokee, Creek, Choctaw, Chickasaw, Seminole) had originally been exempt from the provisions of the General Allotment Act of 1887, but the Curtis Act dissolved their governments and courts and enforced allotment on Oklahoma tribal lands. The Five Tribes Act of 1906 later restored limited tribal governments. Another example was the Oklahoma Indian Welfare Act of 1936, which allowed Oklahoma tribes to organize politically under rules similar to those of the Indian Reorganization Act of 1934, from which they had initially been excluded (Pevar, 2002; Wright, 1986).

Furthermore, the idea of what constitutes an “Indian” has been described as somewhat different in Oklahoma than elsewhere in the United States. Wright (1986), using somewhat dated language, claimed that Indians were more “blended” (p. 3) with the general population than in other parts of the United States and that their relationship with other groups was one of “mutual tolerance, affection, and understanding” (p. 27). Strickland (1994) added that Oklahoma Indians lived all over the state and were not restricted to certain areas, and he referred to what he called “Oklahoma Indianness” as “hidden and confusing” (p. 255). Strickland identified part of the confusion in the fact that most Oklahoma Indians do not conform to the national stereotype and offered a list of unique features of Oklahoma Indianness:

- No large, unified body of tribal land
- No federal reservations
- People do not dress in stereotypical fashion
- No commercializing of American Indian culture

- Outward acculturation to American mainstream culture while retaining an American Indian cultural core that is often fiercely private. Indian culture and life are centered on the family, not the public sphere.
- No strong geographical ties to the land. Because of forced removal, Oklahoma Indians are skilled at adaptation to circumstances. Non-traditional economies and intermarriage outside the culture are common.
- State lawmakers of Indian descent tended to be mixed-bloods and shaped Indian politics through their unique perspective. American Indians had a significant influence on provisions in the state constitution.
- Civil and religious life are separate; religious leaders have limited or no influence on politics.
- The concept of what “being Indian” means is not rigidly determined but changes as circumstances require. Indian life in Oklahoma cannot be understood through stereotypical concepts.
- There is a large number of people who do not look Indian but are of Indian descent. (Strickland, 1994, pp. 256-260)

Hamill (2006) agreed with Strickland that American Indians in Oklahoma are different from those elsewhere, and the main difference is that in Oklahoma, an “Indian” ethnic identity has come into existence. Such a conclusion is by no means accepted as consensus in the field of American Indian studies. Gerald Vizenor (1981), one of the foremost writers on Native identity, defined the word “Indian” as “an invention which has rendered extinct thousands of individual and distinct cultures” (p. xxi). Although Hamill (2006) concurred that an “Indian” ethnicity was the response to white people’s

unwillingness to see Native Americans as members of distinct tribal cultures rather than a monolith, he argued that the rise of this identity is the result of attempts to form a new Native community. In fact, Hamill claimed that there are three pillars of support for an “Indian” identity in Oklahoma: (1) clothing and jewelry, (2) Indian professional organizations, and (3) a discussion of what it means to be “Indian” in response to claims by people like Vizenor that being “Indian” plays into the hands of white people and their attempt to sideline and ultimately assimilate all Native people.

Hamill (2006) thus took a social-constructionist stance: “Indian” identity is a social construction that arose from the interaction of various groups throughout history but is particularly based on the chasm between European-Americans or whites and Native Americans. First, after Congress stopped making treaties with individual tribes after 1871 (Pevar, 2002) and related to Native people in universal terms, a line was drawn that for better or for worse had to be addressed. Second, the emphasis of federal legislation on blood quantum as proof of “Indianness” compelled many Native people to add participation in community life as a determining factor in who was Native and who was not (Hamill, 2006).

In Oklahoma, however, ready-made communities no longer existed for many people who had been removed there, whose tribes had been decimated and dispersed, and who had no traditional land base where a community could grow. Therefore, institutions and organizations of professional or like-minded individuals became the only way for many people to express and live their Native identity, and since most of these organizations were by nature pan- or inter-tribal, they built themselves not around a tribal culture but in opposition to Euro-American society. Thus, an Indian identity was created,

which, Hamill (2006) believed, does not undermine tribal identity but can actually reinforce it by using the strengths of these institutions and of tribes to help preserve Native cultures.

This different understanding of what being “Indian” means and the different ways in which individuals may react toward other Native people or European-Americans is an important factor to keep in mind when looking at the educational achievement of American Indian people in Oklahoma.

### Definition of Key Terms

#### *American Indian*

For the purpose of this study, American Indian will be defined as proposed by the National Center for Education Statistics, i.e. “any person having origins in any of the original peoples of North America and maintaining cultural identification through tribal affiliation or community recognition” (Pavel, Skinner, Cahalan, Tippeconnic, & Stein, 1998). Instead of “American Indian,” writers may use terms such as “Native American,” “Indian,” “Native,” “tribal” or “indigenous” to refer to the same population. Canadian writers may also use “aboriginal” or “First Nations,” especially when referring to people residing inside Canada.

#### *Sub-Baccalaureate*

Referring to institutions of higher education conferring exclusively or almost exclusively Associate’s degrees.

#### *Persistence*

For the purpose of this study, “persistence” will be defined as proposed by the the National Center for Education Statistics (NCES), meaning that it refers to

those students who continue to make progress toward degree completion but not necessarily at the same institution or within a prescribed time period.

### *Retention*

For the purpose of this study, “retention” will be defined as proposed by the the National Center for Education Statistics (NCES), meaning that it refers to those students who begin their degree programs at one institution, return each semester, and complete their programs at the same institution. However, this term and its definition are not applied consistently in the literature. Researchers like Tinto (1975) and Astin (1977), for example, used the NCES definition of “retention” to refer to “persistence,” and Swail and Holmes (2000) further exemplified this inconsistency when they referred to their “persistence factors” as a “retention framework.” As the focus of this study is on students starting and finishing at the same institution, the term “retention” will be used.

### *Technical College*

Institution of higher education specializing in technology and technical education.

### *Technical Program of Study*

The South Central Institute of Technology describes its technical programs of study as Associate’s degree programs in advancing technologies that fulfill a critical workforce need for technicians and professionals.

### *Tribal College*

“Institution of higher education that has been formally sanctioned, or chartered, by the governing body of an Indian tribe or tribes” (25 USC 1801).

## Significance of the Study

The use of this study would be both enlightening and instrumental. Rossman and Rallis (2004) define “enlightenment use” as findings that add to the general knowledge base and help readers understand issues better, which corresponds with what Patton (2002) has called “basic research.” Enlightenment use is pertinent because success factors for American Indian college students still have not been determined to a degree that most researchers would agree on a given set of such factors. This study wants to contribute to the identification of additional factors or confirmation of previously identified factors. At the same time, the hope is that findings will be put to instrumental use. Rossman and Rallis (2004) see instrumental use as an application of knowledge gained to solve problems. This is, of course, the extended goal of this study. Data from interviewing students can be used to address the problem of persistently low retention and graduation rates among American Indian students, and the ultimate research goal is to find suggestions for better recruitment, better campus services, better relations with faculty and staff members, and better instructional design and methods that could possibly become a model for other colleges.

First of all, this research presents a picture of an aspect of the United States’ educational system that has received little attention from researchers. Although policy makers have addressed minority issues in vocational education in legislation such as the three Carl D. Perkins Career and Technical Education Acts of 1984, 1988, and 1998, the School-to-Work Opportunities Act of 1994, and the Workforce Investment Act of 1998, shedding additional light on the workforce aspect of minority education may help local, state, and federal policy makers draft more supportive laws and policies and allocate

resources more efficiently.

Another implication exists for tribes and tribal communities. Findings will potentially suggest some solutions to the challenges tribes face in educational policy making and community development. Results may present opportunities for tribal leaders to make more informed decisions and even to develop local approaches to learning and education that are different from the current model and play a role strengthening tribal cultures, languages, and identities.

Third, implications exist for post-secondary education institutions. First, the findings from this study could lead to the development of new or the modification of existing support programs for American Indian students. Are these programs successful? Is there a relationship between access to support programs and academic success? Do programs need to be created or restructured? The university curriculum may also be affected. Are changes needed in curriculum design or curriculum content? Should, for example, curricula in counseling or teacher education focus more on the needs of minority students and include issues such as career maturity and self-efficacy? Do faculty members need additional professional development in instructional design and methodology as well as assessment to change their course curricula? This study can help answer the question if and how universities need to change the way they operate to become more welcoming to American Indian students and create a supportive campus culture inside and outside the classroom.

## Innovative Aspects of the Study

Three aspects of this research stand out as innovative: the focus on sub-baccalaureate technical education, the focus on success factors, and the qualitative methodology. There has been no study in the past 30 years that has focused entirely on career and technical education for American Indians at mainstream, non-tribal technical colleges. All studies have researched four-year institutions, graduate or professional programs, or tribal colleges and universities. Sub-baccalaureate technical education is a field chosen by many American Indian students (SCIT's student body is 23.8% American Indian), and, as Gray (1997) stated, careers requiring Associate's degrees are predicted to experience the most significant job and salary growth. Furthermore, Billy (2002) and Tippeconnic (2000) asserted that tribes and tribal communities are now on the verge of closing the technology gap that has existed between them and the rest of the country, and they will need technologically savvy tribal members who can help with community development. This study will explore if such opportunities can encourage more American Indians to choose and persist in technical education.

The second innovative aspect is the focus on success factors. Some researchers have complained that there have been too many studies looking at reasons for dropping out when instead educational institutions need to know what makes students persist so that they can offer better support programs (Dodd, Garcia, Meccage, & Nelson, 1995). The high graduation rate for American Indian students at the South Central Institute of Technology as compared to the nationwide rate suggests that factors contributing to American Indian student retention may be present at SCIT, and identifying these success

factors could be useful for other institutions trying to increase academic success and retention among their American Indian students.

Third, most studies in the past have been quantitative, and although their results have led to recommendations as to which changes institutions can make in recruitment, financial aid services, student services, academic services, and curriculum and instruction to increase American Indian student retention, these recommendations were apparently not implemented or implemented but unsuccessful because American Indian post-secondary student retention has failed to improve. This study wants to go beyond the numbers and tap into the personal experiences of American Indian students in an educational environment that appears to support student retention. Obtaining rich descriptions from students about their success factors and their decision-making processes may help researchers identify where students find the perseverance to make it to graduation and which recommendations may have hitherto been overlooked.

#### Limitations of the Study

The first limitation of this study is geographic. Even the most ambitious researcher would be hard pressed to visit all technical colleges in the United States and interview students from all possible American Indian cultural backgrounds. Despite the statewide mission of South Central Institute of Technology and the presence of students from a variety of tribal cultural backgrounds, the majority of participants were members of the Cherokee Nation of Oklahoma and the Muscogee (Creek) Nation.

Second, the goal of the study limits the target population to graduating students at one sub-baccalaureate technical college. Therefore, it will have only limited transferability to higher education issues in general. The sampling procedure chose

participants based on their willingness to participate and did not attempt to control for a number of factors (gender, level of acculturation, tribal affiliation, and others) although such data were collected to examine the diversity of the participant group and to see if patterns emerged that may be tied to these factors. However, it is certainly possible that a student with unusual insight may have declined to participate.

Third, ethnic categorization of students at the South Central Institute of Technology is always based on self-identification alone. Pavel, Skinner, Cahalan, Tippeconnic, and Stein (1998) cautioned that the classification “American Indian” was particularly vulnerable to “instability” because of students who do not consistently identify themselves as American Indian (e.g., they might identify themselves on an application form but not on a graduation form) and individuals who falsely claim to be American Indian. To control for this limitation, they suggested that any data analysis be conducted very carefully and that any sudden or extreme changes between data sets be examined for a possible correlation with how students had self-identified. Therefore, any time responses contradicted otherwise consistent data segments, a cross check was performed to see if a correlation could be drawn between answers and the student’s self-concept of being American Indian.

Fourth, the statements made by students were taken in good faith. Researchers cannot read their participants’ minds to see if they are withholding information, if they say only what they think the researcher wants to hear, or if they engage in outright deception. Jackson and Smith (2001) even claimed that cultural mores prevent many American Indian students from ever telling outside researchers their true perceptions and compel them to either withhold information or say what they think the researchers want

to hear. However, Jackson and Smith's prediction may be less dire than it appears. First, no one else in the literature has made a similarly poignant statement. Second, interviewing several students with a carefully selected interview protocol helps minimize the possibility that students give responses they think they are supposed to give, and third, rigorous data analysis with a focus on indigenous codes and cross-category checking helps to have themes emerge from the data instead of being constructed by the researcher based on the literature review.

Fifth, researcher bias was present in several respects. First, this researcher is a full-time faculty member at the South Central Institute of Technology. Second, he has had numerous American Indian students in the courses he has taught at SCIT for thirteen years. Third, he has no American Indian ancestry or cultural affiliation with American Indian tribes. Fourth, some of the participants were former students of his. However, the clear articulation of the purpose, the theoretical framework, and the ongoing reflexivity on the part of this researcher led to a heightened awareness of how his professional background and personal relationship with students may result in his bringing preconceived notions into this research and caused him to be vigilant throughout to avoid such interference.

### Summary

This chapter provided an introduction into the topic and design of this study by providing readers with background information on the status of American Indian post-secondary students in general and at the South Central Institute of Technology in particular. Research questions and problem statements were drawn from this background information, and information was provided on how and why this study will contribute to

the scholarship on American Indian education and what its limitations are. To provide cultural context, a description of the status of American Indians in the United States and in Oklahoma was added. Chapter 2 will continue to provide background information by placing the current situation in its historical context and looking at previous scholarship on student retention in general and American Indian student retention in particular.

## CHAPTER II

### REVIEW OF THE LITERATURE

To obtain a better understanding of the context in which the issues surrounding American Indian student retention arise, it is important to discuss the history of American Indian education to understand how historical developments may still have an impact on students today. Further, the literature on student retention must be examined, both for all students in general and for American Indian students in particular, to be able to establish where answers from participants in this study point at success factors that may have been overlooked in the past.

The term “American Indian education” is somewhat of a misnomer because of the discrepancy between what it suggests and what it usually stands to represent. On the face of it, the term appears to cover all aspects of education relating to American Indian cultures, but the literature generally uses it to designate the education of American Indians by others, first the different groups of immigrants that came to America and later the United States federal government. According to Fuchs and Havighurst (1983), education and educational policy were part of the European desire to colonize North America, and efforts to educate American Indians were undertaken strictly for the benefit of the educators, not the educated.

Why European immigrants would spend so much time and effort on educating the Native population was the question asked in a 1969 report on Indian education by the

Special Subcommittee on Indian Education of the United States Senate Committee on Labor and Public Welfare titled *Indian Education: A National Tragedy—A National Challenge*, commonly known as the “Kennedy Report” after its chairman, Senator Edward Kennedy, D-Mass. Setting aside notions of racism, superiority, and cultural imperialism, the report concluded that the true goal of federal Indian education policy was not to improve the lives of American Indians but to find a way to take their land and give it to settlers without feeling guilty about such actions (Special Subcommittee on Indian Education, 1969). This aim could best be accomplished by preventing American Indians children from being raised in their cultural environment and instead assimilating them into European and later white American values, beliefs, and attitudes (Fuchs & Havighurst, 1983).

The result of these all too transparent intentions, Fuchs and Havighurst (1983) stated, was a failure of most educational programs. Students from primary to post-secondary education saw through the attempt to eradicate their cultures and resisted by being frequently absent and dropping out. This pattern has persisted into the present. American Indian students still finish educational programs at much lower rates than students from other ethnic and cultural groups, and the low retention rates and their consequences have been acknowledged for many years. Edington and Willey (1971) already recognized that American Indians had a much lower educational attainment than other groups and that the lack of education forced many into unskilled, low-wage jobs.

According to Pewewardy and Frey (2004), not much has changed since Edington and Willey’s (1971) assessment, and American Indians still have the lowest level of overall educational attainment of all minority groups (Lin, La Counte, & Eder, 1988;

Ortiz & HeavyRunner, 2003; Pewewardy & Frey, 2004). Only 35% of American Indians over 25 have finished high school (Freeman & Fox, 2005), and of those American Indian students finishing high school, between 33% and 64% enrolled in college (Hoover & Jacobs 1992; Kirkness & Barnhardt, 1991; Tierney, 1993, 1995). American Indians thus are the least likely of all minority groups to enroll in college (Tierney, 1995), and when they do, they are more likely than other ethnic groups to choose two-year colleges (Cole & Denzine, 2002; Tierney, 1993) and to have the highest dropout rates (James, 2001; Reddy, 1993).

Completion rates reported in various studies are difficult to compare because of the different variables measured in each study and the type of institution surveyed, but rates as high as 36% and as low as 1% have been reported (Brown & Robinson Kurpius, 1997; Gilbert, 2000; Hampton, 1993; Hoover & Jacobs, 1992; Huffman, 2001; Jackson & Smith, 2001; Kirkness & Barnhardt, 1991; Ortiz & HeavyRunner, 2003; Pewewardy & Frey, 2004; Pottinger, 1990; Scott, 1986; Tierney, 1993, 1995; Wilson, 1998). A much higher figure could be found in Hampton (1993), who reported that rates in large private colleges with special services had reached 56%. Despite a 54% gain in enrollment in the 1990s and promising numbers such as Hampton's, Cole and Denzine (2002) noted that American Indian graduation rates in 1995 were still 20 percentage points below those of all other students, and Hampton (1993) himself found the gap to be even larger at 29 percentage points. American Indians still account for only 1% of all college students, and their gain, in fact, was the smallest of all groups (Freeman & Fox, 2005; Pewewardy & Frey, 2004).

Several studies spoke to the need for better educational attainment. Dropping out of college limits the career opportunities of American Indians because they lack the necessary skills to compete for well-paying jobs (Brown & Robinson Kurpius, 1997; Edington & Willey, 1971). However, in order to build economically, politically, and culturally stable and sovereign societies, tribes need members with a variety of skills who can help develop their communities (James, 2001).

The question has been asked why students fail to complete their education when there are plenty of jobs and many tribes give ample financial aid to students. This situation puts tribes in the embarrassing position of having to hire non-Native employees while large numbers of their own young people are unemployed (Pottinger, 1990). Kirkness and Barnhardt (1991) saw the major reason for this ongoing disconnect in the way colleges operate. They asserted that colleges do not value and respect American Indian cultures and expect students to give up or suppress their culture to be academically successful. This sacrifice is too great for many students to make, who will then forego a college education. Kirkness and Barnhardt concluded that colleges use policies and practices that set students up for failure and must do a better job in recognizing and removing their own prejudices, and James (1992) even went so far as to call colleges “dysfunctional” in their treatment of American Indian students.

#### History of American Indian Vocational Education

Scott (1986) saw the reason for the way colleges operate today in the history of American Indian education, which tried to impose white values on everyone and still has an impact on students today. According to Hampton (1993), even contemporary American Indian education has not yet distanced itself from its longstanding

assimilationist purpose, and it continues to operate under an assumption that students must assimilate to be successful (Kirkness & Barnhardt, 1991; Tate & Schwartz, 1993). Pewewardy and Frey (2004) considered such assumptions to be oppressive and counterproductive to attempts at improving student achievement. The worst consequence, they claimed, is that many students acquiesce to the disrespect shown to their cultures, and through their attempts at success on the college's terms, they become agents of their own failure. Pewewardy and Frey (2004) agreed with Scott (1986) that these attitudes have their roots in the long history of Indian-white relations and are kept alive through the educational experiences of students' family members.

Therefore, to understand why this pattern of failure has been so persistent, a review of the history of American Indian vocational education, an overview of the student retention literature, and a synopsis of research that has been conducted on American Indian student retention and departure will place the findings and recommendations from this study in their proper context.

#### *Traditional Educational Beliefs and Practices*

According to Reagan (2005), formal schooling was almost entirely unknown in American Indian cultures before contact with Europeans. Education was part of daily life activities, and children learned by observing and imitating adults or by being taught directly. The entire community was involved in educating children and adolescents. Besides the parents, other members of the community functioned as teachers as needed and as indicated by their roles and skills. Play was part of education, and often, the lines between teaching and playing became blurred. Knowledge was not divided into subject

matter; social skills, cultural knowledge, religious and moral education, and vocational skills were taught in an integrated fashion.

Danziger's (1978) assessment of traditional education among the Ojibwe correlates with many of Reagan's (2005) characteristics of traditional American Indian education. Danziger asserted that the main function of education was to make young people competent in the religious, economic, moral, and political beliefs of the tribe; to enable them to fulfill their social obligations; and to prepare them for work, be that hunting for boys or domestic work for girls. However, knowledge was to be more than an accumulation of facts and trivia; the ultimate goal was wisdom, spiritual growth, and familiarity with the supernatural. Therefore, the Ojibwe wanted learners to develop a deep understanding of the material learned and to acquire not only a skill but also an insight into how and why certain skills contributed to community life. Every person was required to become a lifelong learner as well as a teacher to the younger members of the community by passing on his or her wisdom (Danziger, 1978; Grim, 1983; Johnston, 1976).

As for vocational skills, all young men learned hunting and fishing skills from their fathers and other adult males in the family. Included in the training were instruction about animal behavior; the characteristics of the natural environment; and the making and repairing of hunting equipment like bows, spears, traps, snares, tools, and snow shoes. In addition to teaching skills such as tracking, shooting, setting traps, etc., the adult men also made sure that their students developed patience and persistence, which were attitudes men needed if they were to be successful on long winter hunts (Danziger, 1978; Johnston, 1976).

Girls' and young women's vocational training was directed by their mothers and their elders, who instructed them in domestic life skills by having them observe how other women performed all necessary tasks. The work expected of girls included chopping wood; preparing the mats for building wigwams; weaving and sewing clothing items the family needed like moccasins, coats, leggings, or blankets; and, of course, child care. In addition to cooking the food, women contributed to feeding the family by gathering plants, especially wild rice and berries, and making maple syrup (Densmore, 1979).

Such an integrated approach to learning is reported for other American Indian cultures as well. In his autobiography *Indian Boyhood* (1902/1971), Charles A. Eastman (Dakota) confirmed that despite the absence of formal schooling, the education and training of children was far from chaotic and haphazard and integrated intellectual, spiritual, moral, and vocational training. For example, boys learned tribal legends not only to preserve their own culture but also to explore and consider different career options. Family members trained them in skills such as the identification of different animal species, the observation and interpretation of animal behavior, and hunting techniques as well as manners and morals such as the proper behavior toward elders (Eastman, 1902/1971).

A Lakota author, Luther Standing Bear, largely supported Eastman's description in his autobiography *My Indian Boyhood* (1931/1988). Boys learned about animal behavior, tracking, and trapping methods and also how to butcher and skin game and tan hides although the women appeared to do most of the tanning. Boys learned how to make bows and arrows and shoot them correctly. All boys had to become skilled riders and

learned how to break horses and train them properly for warfare. Girls, on the other hand, learned how to make clothing and footwear and were responsible for making paint to decorate tipis and hides. Standing Bear stated the reason for all this training as follows: “But when our training was completed, we were prepared to face life” (Standing Bear, 1931/1988, p. 46).

This kind of training was by no means exclusive to Plains tribes. In his biography of the Navajo medicine man Klah, Newcomb (1964) discussed aspects of vocational training as well. Navajo boys learned horticulture techniques, irrigation of fields, caring for and shearing sheep, and branding, castrating, and taming horses. Girls for their part learned basket weaving, pottery techniques, spinning wool and tanning hides, making clothes, and weaving rugs. Despite the significant cultural and geographic differences in what exactly is being taught, the different cultures mentioned here are united by a strong emphasis on vocational training.

#### *European Approaches to American Indian Vocational Education*

Once European immigrants had begun to settle in America, formal schooling was soon introduced. The first ones to do so were missionaries, and their objective was to Christianize the natives although for purposes of creating an indigenous workforce, vocational education was included as well. The French Jesuit priests around the Great Lakes and in the Mississippi Valley taught Christianity, French language and culture, and other academic subjects, but they added vocational skills such as agriculture, carpentry, and handicrafts. Spanish Franciscans in the Southwest focused on agriculture, carpentry, blacksmithing, masonry, spinning, and weaving. Protestant missionaries did all of the above and, in conjunction with their belief that God rewards hard work, wanted to instill

the right work ethic into their charges (Fuchs & Havighurst, 1983; Reyhner & Eder, 2004). Despite such vocational aspects of schooling, education was still mainly the vehicle to Christianize and assimilate American Indian students. This endeavor turned out to be rather unsuccessful as tribes preferred their traditional ways of life and approaches to education over European models (Fuchs & Havighurst, 1983).

American independence led to a belief that agricultural education would cause Indians to be “civilized” and join the new immigrants in farming instead of fighting them (Reyhner & Eder, 2004). However, as the Kennedy Report (1969) had pointed out, the true intention was to take large tracts of tribal land, and the education American Indians were to receive in return served the intruders more than them.

In the early 1800s, wholesale Christianization and assimilation of Indians became the major policy thrust. Part of an increased interest in religion referred to as the “Great Second Awakening,” the American Board of Commissioners for Foreign Missions (ABCFM) was founded in 1810 with the goal to christianize American Indian tribes. Congress passed the required legislation, made sure that treaties signed with tribes addressed the issue of education, and even appropriated some money. However, the government largely took a hands-off approach and allowed missionary groups to be in charge of most of the schools (Fuchs & Havighurst, 1983; Szasz, 1974).

The first such piece of legislation was the Indian Trade and Intercourse Act of 1802, which among other things provided \$15,000 for “civilization” purposes. After Thomas J. McKenny had become superintendent of Indian trade in 1816, he realized that although the trading posts on reservations were designed for the delivery of goods, they were well suited to propagate the government’s civilization agenda. He became

instrumental in passing the Indian Civilization Act of 1819, which contained language about civilizing Indians and training them in agriculture (Reyhner & Eder, 2004). The government gave \$10,000 to missionary groups to teach among Indians, and any additional funds needed were to come from Indian treaty funds, that is, money belonging to the tribes from the sale of their land and held in trust by the government for later tribal use (Senate Subcommittee on Indian Education, 1969). The act continued to fund programs until 1873 (Fuchs & Havighurst, 1983).

To maintain federal influence on Indian affairs, the United States Office of Indian Affairs was created as part of the War Department in 1824. The office developed a plan to establish manual labor schools, still under the auspices of missionary societies, that were to teach farming to boys and homemaking to girls as well as manual labor and basic industrial work skills. It was believed that training in industrial arts would have a trickle-down effect and make students more interested in civilized (i.e. white) life. The plan was reasonably successful, and by 1848, sixteen such schools with 2,873 students were in operation (Reyhner & Eder, 2004). The philosophy behind these schools was articulated by Indian Commissioner Orlando Brown in 1849:

The dark clouds of ignorance and superstition in which these people have so long been enveloped, seem to be breaking away, and the light of Christianity and general knowledge to be dawning upon their moral and intellectual darkness. ... [They must] resort to agriculture and other civilized pursuits; and the introduction of manual labor schools among them, for the education of their children in letters, agriculture, the

mechanic arts, and the domestic economy. (Senate Subcommittee on Indian Education, 1969, p. 145)

Such education and training was not to be voluntary. The assimilationist ideas expressed by Commissioner Brown were even more forcefully reiterated by his successor L. Lea in 1850:

It is indispensably necessary that they (the Indians) be placed in positions where they can be controlled, and finally compelled, by stern necessity, to result to agricultural labor or starve. (Senate Subcommittee on Indian Education, 1969, p. 145)

Despite such threats, some tribes had decided to cut ties with the ABCFM, told the missionaries to leave, and taken charge of their own educational affairs. The Cherokee Nation of Oklahoma had set up its own school system in 1841 and, to provide vocational training, tried to recruit skilled journeymen to move to eastern Oklahoma and train apprentices. The Choctaw Academy in Kentucky, although run by Baptists, received tribal funds and offered manual training as well as practical work in shops (Reyhner & Eder, 2004).

After the Civil War, second thoughts among politicians about whether the separation of church and state allowed leaving all Indian education to faith-based organizations, corruption within the Office of Indian Affairs, and the demand for more and more land by white settlers slowly led the federal government to be more actively involved in Indian education and set up its own school system alongside the mission schools (Szasz, 1974).

### *The Boarding School Movement*

Beginning in 1879 with Carlisle Indian Industrial School in Pennsylvania, the federal government within a decade endorsed the construction of 28 off-reservation boarding schools with the goal to dissolve American Indian cultures into the national mainstream (Lomawaima, 1994). Richard Henry Pratt, the founder of Carlisle Indian School and a firm believer in the creation and expansion of the industrial school system, very much wanted Indians to be fully assimilated into the dominant culture and believed that off-reservation boarding schools could accomplish this goal best. To facilitate assimilation, children were to be taught a trade that would help them find employment in white society and prevent them from returning to their families and reservations (Littlefield, 1993). Unfortunately, the racist motivations behind Indian education had not been overcome and were unabashedly uttered by Pratt in a 1909 speech:

The mass of children of primitive races are not well developed in power of abstract reason and personal initiative. Vocational training, therefore, rather than higher education is their need, allowing full scope for those of exceptional ability to pursue college, professional, or technical training. (Reyhner & Eder, 2004, p. 146).

In the second half of the nineteenth century, the federal government had come under increasing pressure to open up land for settlement for the growing numbers of immigrants looking to become farmers, and one of the results was the passage of the General Allotment Act (1887), under which individual American Indians were “allotted” parcels of reservation land for personal use, i.e. they were guaranteed a small section of their own land if they were willing to give up the rest; all non-allotted lands were opened

for settlement. This act resulted in taking over 90% of the land still in tribal possession and threatened the livelihood and cultures of those tribes that had until then hung on to their traditional ways. The goal to ensure that American Indians would no longer be an impediment to progress seemed to be best accomplished by sending the children to public schools, i.e. reservation boarding or day schools and industrial boarding schools away from home so that they were no longer exposed to their languages, religions, and cultural values. Compulsory school attendance for Indian students became the law, and vocational education, especially agriculture and homemaking, was to supersede literacy and academic training (Lomawaima, 1994; Riney, 1999; Trennert, 1988).

Education for assimilation hence was re-emphasized after 1889 under Indian Commissioner Thomas J. Morgan. Morgan believed that since immigrants had been successfully assimilated, the same should hold true for American Indians, and he wanted the off-reservation boarding schools to play a leading role in this endeavor. Morgan further believed that in the future, these schools would indeed reach their goal:

If the entire rising generation could be taken at once and placed in such institutions, kept there long enough to be well-educated, and then, if such as chose to do so were encouraged to seek homes among civilized people, there would be no Indian problem. (Trennert, 1988, p.11)

According to Trennert (1988), this quotation provides additional evidence of clear racist undercurrents. In addition to seeing an “Indian problem” and describing American Indians as not being among “civilized” people, Morgan also doubted that American Indian students were capable of academic accomplishments and forecast for them an existence as laborers for men and domestics for women.

In 1898, Estelle Reel was named superintendent of Indian schools and quickly tried to reform the Indian school system. During her first three years in office, she visited all 250 schools, sent reports on each one back to Washington, D.C., and developed her curriculum called the Uniform Course of Study. She proposed that while white students were given “practical” training in public schools, American Indian students and other minorities were to receive “intensely practical” training (Lomawaima, 1996).

Reel operated during the years when many people (including Pratt) had concluded that Indians would remain a permanent underclass and needed appropriate vocational training:

The overshadowing importance of industrial training in our work of Indian education becomes more and more clearly recognized as time passes. The theory of cramming the Indian child with book knowledge has been and for generations will be a failure (Reyhner & Eder, 2004, p. 100).

At the same time, Reel was a product of the later decades of the nineteenth century and those ethnographic and anthropological studies that described American Indians as an inferior race. Reel subscribed to such beliefs and indeed saw American Indians as less capable and as able to benefit only from limited vocational training. Lomawaima (1996) cited a passage from a newspaper interview in which Reel spoke to her beliefs:

Allowing for exceptional cases, the Indian child is of lower physical organization than the white child of corresponding age. His forearms are smaller and his fingers and hands less flexible; the very structure of his bones and muscles will not permit so wide a variety of manual movements

as are customary among Caucasian children, and his very instincts and modes of thought are adjusted to this imperfect manual development (para. 40).

The conclusion then was clear: American Indians were physically imperfect, and their physical limitations translated into intellectual limitations. As a result, they were destined for the lower rungs of American society, barely capable of performing simple manual labor and domestic work. Reel made no secret of her intention that vocational education for American Indian children was not to exceed that of white children, and her Uniform Course of Study bore this out (Lomawaima, 1996). Academic instruction for American Indians was restricted and included much less knowledge acquisition than that for white children. For example, Reel specifically excluded long division in math and multiplication with numbers higher than 12 (Riney, 1999). On the vocational side, details of the curriculum in manual labor, trades, agriculture, and domestic work revealed that the main thrust of education was training in the “dignity of labor,” i.e. work ethic, and anything much beyond that (academic skills, specified occupational skills) was seen as setting the bar too high for American Indian children (Littlefield, 1993).

Fuchs and Havighurst (1983) quoted from the 1916 Uniform Course of Study for all federal Indian schools to illustrate the continuing dominance of vocational education: “The character and amount of academic work has been determined by its relative value and importance as a means of solution of the problem of farmer, mechanic, and housewife” (p. 9). With these words, the Uniform Course of Study also echoed the goals of allotment, i.e. to turn Indians into farmers so that most of their land could be given to white settlers.

It has long been a contention in the literature that federal off-reservation boarding schools were only partially successful at best, and many reasons have been advanced for this thinking. Trennert (1988) listed a number of problems with boarding schools that “limited their effectiveness” (p. 9). For one, he stated that although the government supported the schools verbally, it did not fund them adequately, forcing students to work to maintain the schools instead of learning. Furthermore, he lamented a lack of pedagogical knowledge on how to teach American Indian children. Third, he noticed an inconsistent curriculum, which he partly attributed to the great variety of educational backgrounds for incoming students but, unfortunately, he did not provide specific examples of such inconsistencies.

Vocational training according to Riney (1999) originally wanted to prepare students for immediate entry into the workforce. As such, it could help with assimilation or allow economic survival if students decided to return home and farm their allotment after their reservations had been frittered away under the General Allotment Act. Any attempt at effective vocational training was doomed to failure because of the half-and-half schedule of the schools, i.e. students spent half the day on academic subjects and the other half on vocational training. This rigid system made it impossible to teach either curriculum, academic or vocational, to its full extent or to give students extra time to master the designated skills. In addition, many schools had outdated, broken, or insufficient equipment and could train only a few students at a time and often in only a limited number of tasks. This situation was made worse by the chronic funding shortage all schools experienced, so instead of receiving vocational training, students were usually assigned maintenance work to keep the school buildings in good repair (Riney, 1999).

In the Rapid City Indian School, for example, Superintendent Jesse House declared that the labor needs of the school superseded all educational needs because of inadequate funding. He made unilateral curricular changes to award students academic and vocational credit for maintenance chores they were already performing. Students working in the boiler room, for example, were given credit in engineering, and girls working in the kitchen could receive credit for home economics. The result was a curriculum without much articulation, where students were exposed to academics under the half-and-half system but were never given an opportunity to apply their academic skills (Riney, 1999).

Trennert's (1988) and Riney's (1999) assessments are supported by other research. Reyhner and Eder (2004) provided a number of examples of daily life at an industrial boarding school. They argued that students grew and cooked their own food, sewed their own clothes, functioned as building custodians and maintenance personnel, and worked in the bakery, the dairy, the power plant, or the masonry shop, all designed not to teach but to help keep the school operational. Indian Affairs Commissioner Francis Leupp in 1910 recognized these same problems when he complained that students never learned any skills that would make them successful in the workplace or allowed them to return home and become economically self-sufficient. Either the commercial-type equipment used at the schools was not available in anyone's home or some skills like harness making or blacksmithing were no longer in demand in the workplace. However, the issue of what was essentially child labor on campus was not addressed until the Meriam Report in 1928 exposed such practices (Reyhner & Eder, 2004).

Riney (1999) argued for a stronger connection between racist attitudes and the ways boarding schools operated. His assumption was that the government's true objective was disappearance rather than assimilation; an "Indian problem" as stated by Commissioner Morgan had to be solved. As a result, destruction of tribal cultures took precedence over vocational training, and talk about benefiting American Indians rang hollow. The ultimate fate of graduates was of little concern as long as they did not return to their reservations. Adams (1997) concluded that the boarding schools were ultimately unsuccessful in their assimilationist agenda for four reasons: (1) they never taught students any useful academic and employment skills; (2) policy makers and administrators ignored the fact that each school was unique in its relations among different cultures on campus because of the composition of the student body; (3) policy makers and administrators underestimated the ferocity with which students adhered to their cultures and resisted assimilation; and (4) the mix of humanitarian, racist, and progressivist perspectives that informed school governance led to an absence of a clear vision and mission for boarding school education.

Littlefield (1993) lamented that most studies had been written as historiographies or ethnographies and had put too much emphasis on laying bare the sins of assimilation. She in fact discounted assimilation as the main purpose of boarding school education and instead suggested that the schools were much more interested in producing a labor force for the American domestic market. This was a process she called "proletarianization." To make matters worse, examinations of correspondence by policy makers and curriculum designers offered proof that this "proletarianization" was designed from the start to create

marginally skilled workers only, who were not truly able to compete on the job market and even less able to help their tribes become economically viable.

Framing her argument in terms of critical theory, Littlefield (1993) argued that the original aim of the federal government was to devise legal and quasi-legal ways to take land from American Indians, which was accomplished through the General Allotment Act (1887). This effort she equated with an attempt by oppressive forces to separate economically self-sufficient indigenous groups from their means of production. After the dispossession, the boarding schools then served the function to transform American Indian identity to a form that was acceptable to the ruling classes, meaning training that would not allow Indians to enter mainstream society as equals but as an oppressed underclass that was to make up the lower tiers of the manual labor force.

#### *The Meriam Report and the New Deal*

Throughout its existence, the BIA school system had suffered from poorly trained staff, low pay, insufficient food and health care for students, overcrowding at the schools, staff and administrative prejudice toward the students, and a general lack of money. This situation eventually led to a government investigation culminating in a report titled *The Problem of Indian Administration* (1928), more commonly known as the “Meriam Report” after Lewis Meriam, director of the survey staff. Dealing with different aspects of Indian affairs, Chapter IX of the Meriam Report was devoted to education and stated the situation very succinctly: “[V]ery little of the work provided in Indian boarding schools is directly vocational in the sense that it is aimed at a specific vocation which the youngster is to pursue, or based upon a study of known industrial opportunities, and vocational direction in the form of proper guidance, placement, and follow-up hardly

exists at all” (Meriam, L., Brown, R.A., Cloud, H.R., Dale, E.E., Duke, E., Edwards, H.R., et al., 1928, para. 90).

The report rejected the notion of boarding schools and uniform curricula and instead advocated teaching children close to home and developing culturally appropriate curricula. Schools had to provide vocational education, especially in agriculture and homemaking, include vocational guidance, and also offer adult education campaigns to achieve higher rates of literacy. A lack of vocational guidance was attributed to a lack of knowledge of the topic among educational personnel, and as a result, vocational training had little to do with the workplace (Merriam et al., 1928). As Littlefield (1993) pointed out, however, that last fact may have had reasons beyond mere incompetence.

The Merriam Report (1928) suggested that the half-and-half schedule be abandoned because the labor performed by children had little educational value. Instead, the report recommended a three-tier educational system: (1) full-day education for the first six years, including academics, recreation, educational and useful work, and art and music; (2) a junior or middle school with a partial focus on vocational education for the next three years that offered students a variety of vocational training choices but was still driven by academic needs; and (3) a senior high school period for the remaining three years that offered a vocational and an academic track. This approach, the authors believed, would prepare students adequately for future careers (Merriam et al., 1928).

Reiterating the fact that vocational education for Indians did not prepare students for future careers and lacked vocational guidance, job placement assistance, and follow-up, the Merriam Report (1928) made a number of recommendations of how the situation could be remedied:

1. Conduct a survey to find out what students were actually doing after graduation.
  - a. Make a better connections between learning and life on the reservation.
  - b. Tailor programs to available jobs and not to institutional needs.
2. Schools needed to be more proactive in helping students make contacts with outside employers.
3. Agricultural education should focus on what students needed after graduation and emphasize the connection between labor and earning a living.
4. Vocational training for girls needed to be expanded beyond homemaking and domestic service.
5. Some vocational training should take place in co-operative fashion with outside participants.
6. The outing system should focus on skill development, not on earning an income for the school.
7. Vocational guidance and follow-up should be conducted only by employees with the requisite professional training.

Overall, the report stated, the biggest obstacle was the lack of qualified personnel (Meriam at al., 1928).

The Meriam Report (1928) created a shift in thinking about Indian education. W. Carson Ryan, director of education in the BIA from 1930-1935, strongly opposed the Uniform Course of Study and envisioned the school as the center of the Indian student's integration into his or her community. The idea was that children would participate in a course of vocational education that taught them skills they could use on their respective reservations. Students would then be prepared to return to their communities after

finishing school and not be adrift in an urban environment that had no use for their skills as had happened often with boarding school graduates (Szasz, 1974). At the same time, Ryan wanted to enable students to choose life in mainstream society if they so desired, and the vehicle to accomplish that was vocational education because, he reasoned, it would give students a range of choices about their future. In other words, Ryan wanted to base vocational training on local need and student interest, not on a uniform national curriculum. He appointed a Director of Vocational Guidance, who was to research the need for vocational education and the usefulness of different career paths, and he created the position of Placement Coordinator, who worked with schools and potential employers (Szasz, 1974).

The Indian Reorganization Act (IRA) of 1934 failed to address further issues mentioned by the Meriam Report (1928). For example, Education Commissioner Beatty in 1938 complained that students still did not use the skills they had learned in school back home or at work and that the schools had failed to advance the assimilation of students (Reyhner & Eder, 2004). However, the IRA did appropriate \$250,000 annually for vocational education. Further monies came from New Deal funding. The Civilian Conservation Corps provided \$5,875,200 for the creation of an American Indian corps called the Indian Emergency Conservation Work (IECW) program. This program, focused on the needs of Indians and reservations, trained over 85,000 people between 1933 and 1942 to be carpenters, surveyors, mechanics, engineers, and radio operators (Szasz, 1974).

### *The Post-War Years*

After World War II, however, Congress reversed course and endorsed termination and relocation policies instead, i.e. the emphasis was once again on assimilation. The federal government terminated its relationship with a number of tribes (and with that the separate legal status and federal protection from state incursions that tribes had enjoyed) and developed a program to urge residents of reservations to relocate to large urban areas. Commissioner Beatty thought he had observed a desire for cultural change in Indian communities and encouraged American Indian students to train for jobs in the cities, assuming that most young people would prefer to live there. Hildegard Thompson, Beatty's successor, continued in that vein by trying to coordinate vocational training for those individuals that had been relocated to the cities and to convince students that the increasing use of technology required vocational training past the secondary level. This meant that boarding schools should focus on academics so that students were prepared for college (Szasz, 1974).

Thompson believed that the jobs of the future would be in technological occupations, and an emphasis on vocational education in high school would close the door to post-secondary education for American Indian students. Her thinking was that if schools were more academic and vocational education were limited to the last two years of high school, students would be unable to find a job or return home to the reservation to work. Instead, they would be more interested in post-secondary education, which also furthered the goal of assimilation (Szasz, 1974). Naomi Hand, BIA education specialist, put it this way:

Emphasis is now placed on academic training in grades 7, 8, and 9, with some practical arts courses (home economic and basic shop) required in all ninth and tenth grades. Although vocational courses may be taken as electives in grades 11 and 12, high school graduates are encouraged to continue education beyond the high school, either in vocational or technical schools, or in college or universities (Reyhner & Eder, 2004, p. 248).

Higher education for American Indians was not a new concept in North America. Harvard University had founded its Indian College in 1655 to instruct the Natives in English and in Christianity, and Dartmouth College, founded in 1769, wrote the education of American Indians into its charter. Nonetheless, the numbers of American Indians actually attending college were low. A 1932 survey indicated that there were only 385 American Indian college students in the entire United States. This trend changed after World War II, but student retention and persistence remained low. Inadequate preparation, cultural barriers, discrimination, and difficulty adjusting to mainstream life were cited as factors in driving many American Indian students to drop out (Szasz, 1974).

Many American Indian students, however, saw through the attempt to assimilate them and rejected a college education in favor of attending one of the industrial boarding schools (e.g. Chilocco) where vocational education was still prominent. American Indians also criticized the focus on post-secondary education and argued that pushing students away from vocational education actually reduced their job prospects in the long run by giving them fewer career choices (Szasz, 1974).

The focus on vocational training after high school also included those adults who had had little formal education but who needed job training to improve their economic situation. Public Law 959, passed in 1956, supported adult workforce education by offering financial aid to anyone who was interested. Although such adult education programs tried to build upon students' prior knowledge, the training was focused on employment in the cities based on the realization that those people relocated to the cities needed a means to support themselves. Much of this training, however, was inadequate or short-lived and failed to serve its clients well. Furthermore, terminated tribes recognized these programs for what they were, an attempt to diffuse tribal members across the country, and refused to participate (Szasz, 1974).

#### *The Kennedy Report*

The continued challenges eventually led to the completion of the "Kennedy Report," which called the relocation program a failure and stated that despite the emphasis on college preparation, only about 4% of American Indian students entering high school ever completed college. The report further lamented that records about students choosing post-secondary training other than college were unavailable (Senate Subcommittee on Indian Education, 1969).

The success of the Thompson approach with an emphasis on academics coupled with a prevocational program rested on three pillars: (1) quality of academic programs, (2) student ability, and (3) quality of vocational guidance counseling. Two of these pillars were not strong enough according to the Kennedy Report. First, American Indian students were two to three years below grade level by the time they reached high school (i.e. ninth grade). Second, vocational counseling was inadequate. Most counselors had no

sufficient background in vocational education, and the emphasis on post-secondary education led to an absence of guidance for the non-college-bound. The Kennedy Report's conclusions were as follows:

- (1) Vocational programs lacked consistency and coherence and had no clear focus;
- (2) The current approach did little to prepare students for relocation and for employment in the cities; and
- (3) Pre-vocational programs were insufficiently flexible to respond to the unique needs of different tribes and communities (Senate Subcommittee on Indian Education, 1969).

The biggest problem in post-secondary education was the high attrition rate. Although over 75% of high school students indicated a desire to attend college, only about 4% ever earned a college degree. The Kennedy Report identified the following reasons for this situation: (1) lack of pre-college preparation because of teacher prejudice; (2) active attempts by high school staff to steer students away from college; (3) language barriers; (4) feelings of isolation in the college environment; and (5) financial problems. The report indicated that pre-college programs for high school students, bridge programs to help students transition from high school to college, and an inclusion of American Indian culture into high school curricula had all shown promise to lower the attrition rate but that data on the actual effectiveness of such programs were lacking (Senate Subcommittee on Indian Education, 1969).

To alleviate these problems, the Kennedy Report made a number of recommendations:

1. Assess the effectiveness of BIA vocational education programs by a group of experts, tribal leaders, and American Indian parents to ensure that programs were well articulated, prepared students for jobs that actually existed, and responded to the economic context of each community.
2. Effect changes in BIA financial aid policies to focus primarily on need.
3. Encourage colleges and universities to develop programs that are sensitive to how American Indian students differ from majority students and include American Indian culture, history, and language in their curriculum.
4. Create counselor and teacher education programs at colleges and universities that prepare students for future contact with American Indian students.
5. Require that the BIA help establish more tribal colleges and support the ones already in operation.
6. Expand college orientation programs for American Indian students.
7. The provisions of the Education Professions Development Act and the Vocational Education Act should be extended to BIA schools and programs to make their students eligible for benefits (Senate Subcommittee on Indian Education, 1969).

The Kennedy Report referred to a study conducted for the BIA by American Indian historian Alvin M. Josephy, who recommended that the industrial boarding schools be converted into a variety of different institutions such as vocational centers, academic high schools, special education centers, junior colleges, special subject schools, and regional schools (Senate Subcommittee on Indian Education, 1969).

### *The Late Twentieth Century*

Over the following decades, all federal off-reservation boarding schools were closed (the Phoenix Indian School was the last to close in 1990), and although reservation boarding schools remain, they now include students' cultures in their curricula. Simultaneously, a system of tribally chartered and controlled post-secondary institutions began to develop. Beginning with Navajo Community College in 1969, there were 32 fully accredited tribal colleges and universities in 2007 and several others who had applied for accreditation (American Indian Higher Education Consortium, 2007). These colleges try to create a supportive learning environment by emphasizing indigenous knowledge and methods, and three of them have dedicated themselves to technical education: the Southwestern Indian Polytechnic Institute in Albuquerque, New Mexico; Navajo Technical College in Crownpoint, New Mexico; and the United Tribes Technical College in Bismarck, North Dakota.

Despite the opportunities made available by changing approaches to education and the establishment of tribal colleges, American Indian college attendance and retention rates continued to lag behind those of other students. As a result, more studies were commissioned by the federal government. The "Indian Nations At Risk" task force was established by Secretary of Education Lauro F. Cavazos in 1990 to find solutions to the continuing gap between American Indian educational achievement and that of other ethnic groups. The task force held 5 national meetings, 7 regional hearings, and 18 issues sessions and conducted 33 site visits, all during 1990-91. At the same time, the Planning and Evaluation Service contracted a number of commissioned papers to address topics selected by the task force. One of these papers, written by John Hatch, discussed issues

surrounding vocational education and training.

Hatch (1992) first established a cause-and-effect relationship between lack of vocational training, economic health of a community, unemployment, and poverty and recommended that tribes, states, and the federal government collaborate to develop American Indian economies and provide for vocational training. If American Indians were able to obtain adequate employment skills and if reservations or American Indian communities had a better-educated workforce, companies might be willing to locate near such communities, and the cycle of unemployment and poverty could be broken. Hatch also reminded everyone that such training in the past (e.g. in boarding schools) had been woefully inadequate, and most of the blame was placed squarely at the feet of the federal government. The Indian Education Act of 1932, he stated, did call for funds for vocational programs but never provided enough money to make such programs a success. The Carl Perkins Vocational Education Act of 1984 also provided money for an “Indian Vocational Program,” but the federal government found a legal technicality that allowed it to withhold the promised funds. This, Hatch stated, was a prime example of the lack of respect shown American Indian nations.

Hatch’s (1992) recommendations, therefore, revolved mostly around the appropriation of adequate funds to start, maintain, and improve vocational programs. He called on the government to fund tribal education departments, pay for technical assistance to help tribes in matters such as grant writing, ensure the matching of Perkins funds by the BIA as planned, distribute funds better, and support tribal vocational schools. In all these undertakings, American Indians should play leading roles. They should be part of the budget process at the federal level and also work with the states to

make sure funding needs were properly identified. Although there is no question that adequate funding was badly needed then and is still badly needed now, Hatch offered few suggestions other than to provide more money.

### *Summary*

American Indian education has been strongly vocational throughout most of its history. In the industrial boarding schools operated by the BIA, vocational education was often paramount, and most high schools attended by American Indian students have followed the common nationwide approach of offering academic subjects along with vocational ones. Career development and job training can be very helpful to American Indian students, but after more than two centuries of government attempts to assimilate and oppress tribes through schooling, American Indians are often suspicious about the intentions of any new educational policy and see any formal schooling as a European institution hostile to American Indian values (Reyhner & Eder, 2004). For vocational education, this attitude means that even useful programs designed to prepare young people for jobs are assessed through their historical context and are often beset by the same retention problems that educators and scholars have been trying to correct for decades (Fuchs & Havighurst, 1983).

As a result, the next part of the discussion has to be an overview of the literature on student retention to understand what research has found about reasons for departure and about successful retention strategies and then subsequently to examine this information in the context of retention literature about American Indians.

## Student Success Theories and Perspectives

Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) grounded their discussion of student success in college in a causal chain: An increasingly globalized economic environment leads to changes in the workplace, which in turn leads to changes in the knowledge, skills, and attitudes required of future workers, which once more leads to changes in how and for what college must educate students. They asserted that more and more Americans are in need of a post-secondary education because a high school diploma is no longer sufficient to prevail in a workplace that undergoes repeated rapid changes and needs workers who can readily adapt and transfer skills to new situations. The result for colleges is that student success becomes a major factor they must consider because students who do not complete their college degrees will struggle in the workplace of the future.

Student success research, Kuh et al. (2006) stated, must focus on what students need before and during college, how students learn to manage the changes that come with a college education, and how such information informs policy and practice. Contributing factors to student success are pre-college experiences, behavior patterns, institutional environments, and student engagement. To understand these factors better, several perspectives and theories have been offered. Pascarella and Terenzini (2005) divided these into two major groups as follows:

Table 1.

*Developmental and Sociological Perspectives on Student Retention*

Developmental Perspectives	<ol style="list-style-type: none"><li>1. Psychosocial Development</li><li>2. Cognitive-Structural Theories</li><li>3. Typological Models</li><li>4. Person-Environment Interaction Theories and Models</li></ol>
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Sociological Perspectives	<ol style="list-style-type: none"> <li>1. Astin's <i>I-E-O Model and Theory of Involvement</i></li> <li>2. Tinto's <i>Longitudinal Model of Institutional Departure</i></li> <li>3. Pascarella's <i>General Causal Model for Assessing the Effects of Differential Environments on Student Learning and Cognitive Development</i></li> <li>4. Weidman's <i>Conceptual Model of Undergraduate Socialization</i></li> </ol>
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### *Developmental Perspectives*

Psychosocial/development theories try to explain how students grow emotionally and intellectually while in college and generally propose a number of developmental stages students must pass through to reap the full benefits college has to offer.

#### *Psychosocial Development Theories*

Psychosocial development theories try to explain how individuals form their identity. These perspectives assume that identity formation is a step-by-step process in which the successful completion of an earlier step is a prerequisite for the next step. If one step remains incomplete, the next one can also not be complete, which means that the process of identity formation is seriously slowed down. Psychosocial development can be divided into overall development and identity development models. One overall development model proposed by Chickering and Reisser (1993) suggests that colleges can positively influence their students' identity development in seven different ways:

1. Consistent application of policies and practices;
2. Active student involvement in campus governance;
3. Interaction between professors and students inside and outside of class;

4. Integrated curricula so that students can see the connections between different content areas;
5. Instructional climate in which students become active participants in the learning process and professors are well versed in a variety of instructional methods;
6. opportunities for students from diverse backgrounds to interact and form friendships;
7. Programs and services that support the educational mission of the college and include professors (cited in Pascarella & Terenzini, 2005, p. 23).

Identity development models, on the other hand, argue that when students first arrive in college, they may have a monolithic, one-dimensional idea of who they are and see themselves as fully developed. In the fullness of time, this view will be replaced by one that accepts the self as consisting of multiple, even contradictory, facets, which are ultimately integrated to form a new personality. Identity development models have had to accept criticism that they have overemphasized counseling as part of individual development and that the research has focused too much on white students (Pascarella & Terenzini, 2005).

#### *Cognitive-Structural Theories*

Cognitive-structural theories want to describe how students change rather than investigate what colleges can do to encourage such change. They focus on the effect of students' changing views of themselves on their views of their environment. These theories are generally based on six tenets:

1. Anyone who changes goes through a fixed number of developmental stages;

2. The next stage cannot be attempted unless the previous one has been completed;
3. People cannot return to an earlier stage because once they pass through that stage, the change they undergo will never allow them to recapture earlier experiences and perceptions;
4. Each stage is distinguished by the differences of how individuals make meaning of their experiences;
5. Stages are not dependent on specific cultures but occur with people from all cultural backgrounds; and
6. When individuals are confronted with information and experiences that cannot be reconciled with existing values, beliefs, or attitudes, they react with assimilation or accommodation. In assimilation, the new information is modified so that it no longer conflicts with existing beliefs. In accommodation, existing beliefs are adapted to make room for the new information (Pascarella & Terenzini, 2005).

A typical cognitive-structural theory is transculturation theory. The process of transculturation begins when individuals are suddenly confronted with a social and cultural environment in which their cultural traits are seen as foreign and strange or as quaint and pastoral but not usually as something desirable. In the process of transculturation, individuals from non-majority groups learn about cultural patterns and perceptions of the majority society, and developing an ability to relate to such patterns helps college students see the majority culture less as a threat and more as an opportunity to broaden their horizons. Two benefits thus accrue: Learning from others provides

students with knowledge, skills, and attitudes that help them be successful in a majority environment, and realizing that their own culture is not threatened encourages them to retain it and ultimately benefit from it (Huffman, 1990, 2001).

Transculturation theory as applied to American Indian college students argues that students who have a traditional tribal cultural footing do not face insurmountable obstacles to academic achievement. On the contrary, the attributes needed to be successful can be developed only if students acknowledge their cultures and draw emotional strength from them. To arrive at this point of seeing one's culture as an element of support, not a burden or a distraction, students have to pass through four stages before they can be successful in the academic world without feelings of regret, betrayal, or loss. A successfully transculturated student is someone who feels comfortable in both the American Indian and the majority social and cultural environment (Huffman, 1990, 2001).

The first stage of transculturation is referred to as "initial alienation." This is the riskiest phase from a standpoint of student retention. Students in this phase feel that they are not valued and respected members of the college community and are expected to give up their cultural heritage and identity to be successful. The result is a vicious cycle: students feel isolated from the university community and often withdraw from social interaction, which only exacerbates feelings of isolation and often leads to depression. Instead of dealing with these feelings, many students leave because their perception of the college environment as hostile to their needs makes them think that no help is available and that their departure is a foregone conclusion (Huffman, 1990, 2001).

The second stage of transculturation is “self-discovery.” In this stage, students begin to shed their paranoia over the college community’s alleged intentions toward them and realize that interacting with people who are not American Indian and learning what is being offered does not constitute a slippery slope toward cultural identity loss. In fact, students begin to have confidence in their abilities and see their heritage as a success factor rather than an obstacle. Usually at some time during the “self-discovery” stage, students reach a point often referred to as the “transcultural threshold,” which is the pivotal moment when the decision is made about whether to leave or to stay. At this critical juncture of self-assessment, students usually react in one of two ways: Some students define themselves as socially and emotionally alienated and isolated and decide to leave in order to retain their identity while others decide to become transculturated and use their tribal identity as an asset (Huffman, 1990, 2001).

In the third stage, “realignment,” students have developed a level of comfort with themselves and others that allows them to form positive, productive relationships. They are now able to respond and relate to people from different cultural contexts and to function in these different contexts if required by making changes in their personal, social, and academic lives in settings both inside and outside the classroom (Huffman, 1990, 2001).

“Participation,” the fourth stage, finally sees students become active participants in their education. Whereas “realignment” still focuses mostly on students responding to others, they now initiate interactions with non-Indian cultural settings and people (professors, students, and staff). Their earlier acknowledgement that their heritage is a source of strength rather than a weakness and that they can be successful while retaining

their tribal cultures is now fully realized in that they draw on aspects of their tribal cultural heritage for emotional and academic support. Furthermore, in interactions with people outside their culture, students are now able to learn about other cultural patterns without seeing those as a threat to their own culture, and this social confidence usually translates into academic confidence and success (Huffman, 1990, 2001).

### *Typological Models*

Typological models explain the differences in how individuals perceive or respond to their environment in terms of criteria that place people into specific categories. These theories do not want to explain what changes or how people change when they develop; their emphasis is on showing that people behave differently because they are different. The fundamental assumption is that those characteristics that make people different from others and place them in a specific category develop early in life and never change. Although people may exhibit traits of a number of categories, they are still predominantly members of one and can always be identified as such. However, categories do not suggest that their members are identical. People may share certain preferences, but personal differences remain (Pascarella & Terenzini, 2005).

A typological model that has been applied to American Indians is acculturation theory. Acculturation in a nutshell means that when the members of two or more cultures are in long-term close contact, they eventually exhibit changes in language, behavior, social organization, values, etc., inspired by the other culture, both at the macro-cultural and the individual level (Phinney, 2000). For American Indians, Tierney (1993) suggested that the level or degree of such acculturation has been associated with student persistence and academic success. Only a fully acculturated student, i.e. a student who

has become comfortable with most of the majority culture ways, can be academically successful.

Levels of acculturation for American Indians were first proposed by Spindler and Spindler (1958), who identified five categories called Native-oriented, peyote cult, transitional, lower status acculturated, and elite acculturated. This system was modified by Ryan and Ryan (1982), who created the levels of traditional, transitional, marginal, assimilated, and bicultural (cited in LaFromboise, Trimble, & Mohatt, 1990).

“Traditional” individuals are those who speak their tribal languages and observe traditional customs while rejecting the dominant culture. “Transitional” means that people speak both English and their tribal language. They are critical of some aspects of their tribal culture but do not fully embrace the dominant culture. When people have difficulty accepting the heritage of either their tribe or the dominant culture, they are considered “marginal” and experience the most severe identity crisis. “Assimilated” individuals accept and have been accepted by the dominant culture while giving up most if not all of their tribal cultural backgrounds, and “bicultural” individuals are those who accept and respect both traditions and can move easily between them (Johnson, Swartz, & Martin, 1995; LaFromboise, Trimble, & Mohatt, 1990). Garrett (1996) modified this system further by reducing it to four levels and eliminating “transitional.” He unfortunately failed to give a reason for doing so.

#### *Person-Environment Interaction Models*

Person-environment interaction models, the final subdivision of developmental perspectives, look at how development occurs when an individual interacts with a given environment. The focus of these theories is on how and where certain behaviors

originate. Physical models look at the nature of the physical environment and the number and types of people in this environment. Human aggregate models examine how the sum of the various characteristics of those present in the environment influences individual development. Organizational environment models focus on how a college's mission and purpose shape administrative principles, policies, and practices and how these in turn influence student development. Finally, constructed environment models start with individual perceptions of the campus environment and the effect these perceptions may have on development (Pascarella & Terenzini, 2005).

The Social Integration Model proposed by Tierney (1993) to explain American Indian college departure is a person-environment interaction model that focuses on the organizational environment. According to the model, the college environment is focused on assimilation, and American Indian students who want to be successful must give up their cultural values. The cultural values of the institution are seen as incompatible with tribal ones, and colleges actively engage in activities trying to convince students that their home culture is a burden rather than an asset. Organizational structures, too, are designed in a manner that is frustrating and confusing to American Indians. The goal of the institution and the education it offers is to change students, destroy their identity, and remake them in a new image. As a result, students feel unwelcome on campus and find interactions with other students, faculty, and staff to be permeated by hostility, which leads to alienation and eventual departure.

#### *Similarities Among the Different Developmental Models*

Although Pascarella and Terenzini (2005) acknowledged all the differences in the various developmental theories, e.g. the number of stages and their definitions, the

modalities of growth, and the desired final outcome, they nevertheless accord them a number of similarities. First, all theories assume that students' loci of control change. Instead of seeing themselves as more or less passive consumers of knowledge completely at the mercy of outside forces, students more and more turn into active participants and partners in the learning process and grow to understand themselves better. Next, this growth leads to a reduction in self-centered thinking and behavior. Students begin to understand that they do not exist in a vacuum, that their actions have consequences for others, that other people deserve the same respect they expect for themselves, and that they have responsibilities not just to themselves and a close circle of friends and family members but to the community as a whole. Third, students begin to see that reality is complicated and complex and comes in many perspectives, not just their own, and instead of seeing other perspectives as a threat, they learn to meet their needs through the respect they show others (Pascarella & Terenzini, 2005).

Other similarities that Pascarella and Terenzini (2005) identified are related to the process of development and growth. They asserted that all theories see development as an ongoing process. Later development is added to earlier development, people's identities and perspectives become more complex over time, and the growth process follows a pre-determined order. Readiness is another similarity. Development is not just an intellectual but also an emotional process, and individuals who can rationalize the need for growth may still have emotional barriers that lead to resistance.

Furthermore, critical thinking plays an important role in development. In order to reach the higher developmental stages, students must be ready to accept that their environment and their identities are not one-dimensional but instead complex and

multifaceted. Absent that acknowledgement, change cannot occur. When students' knowledge, beliefs, or attitudes are challenged, they will first try to cling to their current developmental stage by denying that the challenge exists or by explaining away any differences between the old and the new. Students must learn that change is in their interest, not a threat to their identity. Finally, the higher the developmental stage, the more important detachment becomes. The less self-involved students are, the easier they can acknowledge and respect other people's values or attitudes, which in turn increases their understanding of themselves and their empathy for others (Pascarella & Terenzini, 2005).

### *Sociological Perspectives*

Sociological perspectives see colleges as human communities and seek to understand how their members interact. They assume that the institutional environment determines when and how students' values, beliefs, attitudes, and goals change. Supportive relationships with people on and off campus are crucial for a student's ability to feel part of the academic community and to persist, and social support networks are especially crucial for minority students whose values, beliefs, and attitudes differ from those of the campus at large (Kuh et al., 2006). Several models have been proposed to explain the impact of the college environment on student success.

#### *Astin's College Impact Model*

One of the first models was Astin's (1977) College Impact Model, which suggested that students (input) are changed by the institutional environment and emerge as different people (output). The input then consists of students' demographic information (age, gender, ethnicity, etc.), family social and economic background, and

any experiences student have had in school or in their social circles. The environment consists of everything that makes up the college: people (students, professors, staff), organizational structures, institutional missions and policies, academic and social programs, and others. The outcome is composed of the new knowledge, skills, attitudes, values, and beliefs that students have acquired because of institutional influence on their development.

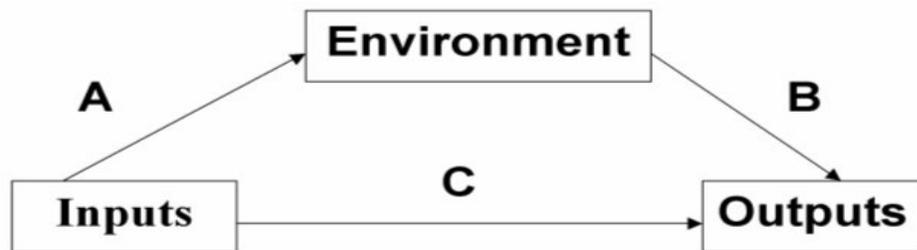


Figure 1. Astin's *I-E-O Model*.

*Assessment for Excellence*. Alexander W. Astin. Copyright © 1991 by Oryx Press. Reproduced with permission of Greenwood Publishing Group, Inc., Westport, CT.

Astin (1991) supplemented his model with a “theory of involvement,” which argues that students must become academically and socially involved in the campus community to reap the most benefits from their learning. This approach adds the idea of student responsibility, meaning that student development was the result of not only the influence asserted by the college environment but also the willingness of students to make an effort and become involved.

To answer the question what colleges could do to address student success factors, Astin (1977) provided some suggestions on how colleges could increase student involvement (both social and academic) without creating an undue burden on college

finances or employee time. For sub-baccalaureate colleges, Astin believed that the students most in need of support were those coming directly from high school, and programs should be developed specifically for them. Ideas presented to get students involved on campus were weekend retreats, cultural events on campus, programs and services specifically for students living in campus housing, better parking, longer office hours for faculty, more on-campus employment, cooperation with those institutions students were likely to transfer to, more student clubs and organizations, and the abolishment of “grading on the curve” in favor of a system of competencies that all students had to master (pp. 257-59).

*Tinto’s Longitudinal Model of Institutional Departure*

Vincent Tinto’s (1975, 1993) examination of the reasons for college departure and the process by which students arrive at such a decision has arguably become the most recognizable if not the most popular sociological model. Tinto’s starting point is the assumption that students come to college with a number of social and academic attributes, skills, and plans that change over time because of the interaction students have with the people, policies, and practices in the college environment. If these interactions are perceived as pleasant and positive, students are more likely to persist in their studies, accept the viewpoints of other people on campus, and play by the rules required to be successful. If these interactions are perceived as unpleasant and negative, students feel unwelcome, are less committed to the campus community, marginalize themselves, and finally withdraw (Pascarella & Terenzini, 2005). Tinto (1993) identified academic and social integration into the campus community as the major success factor for all students regardless of background. Colleges must be sensitive to the unique needs that students

have at each stage of their development. He called on institutions to re-evaluate their principles, policies, and practices to make sure they fit the unique context of their campuses, and he admonished campus communities to ensure that the task of student success was a joint endeavor that both employees and students needed to make their top priority.

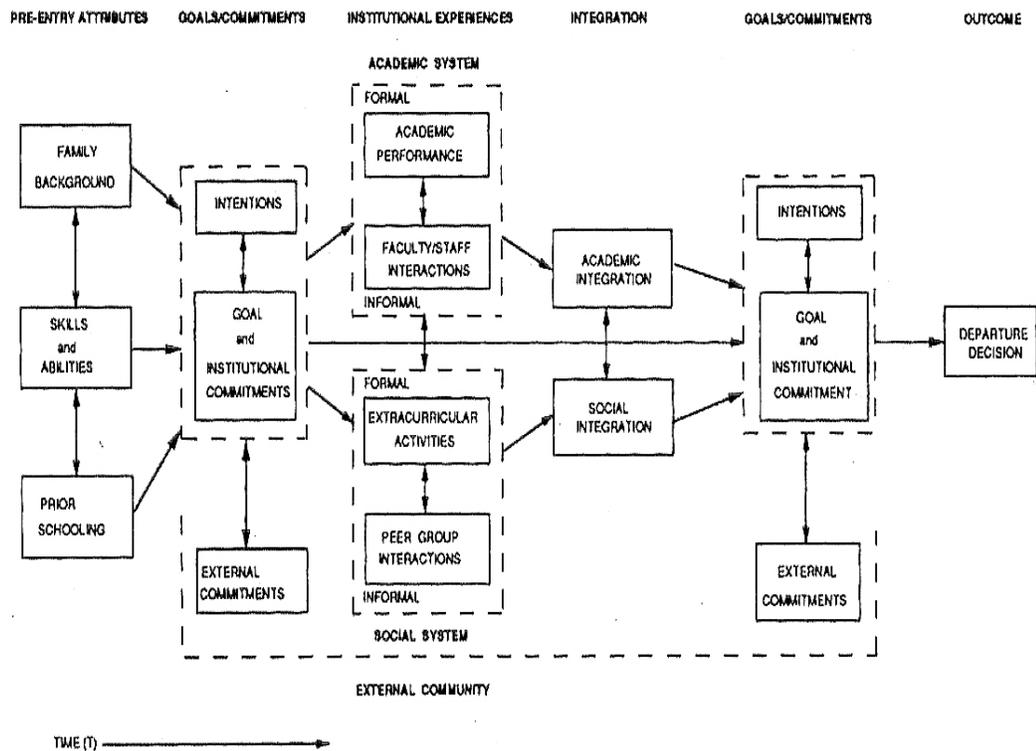


Figure 2. Tinto's *Longitudinal Model of Institutional Departure*.

Tinto, 1993, p. 114. Copyright © 1987 University of Chicago Press. With kind permission of the University of Chicago Press.

Tinto's model, despite its popularity, has received some criticism. Empirical studies have not always been able to verify his claims, the stages students move through may have been overstated, and the idea of integration may not fit all student contexts, particularly those of minority students (Kuh et al., 2006). Although some studies have

found that the basic idea of integration as a requirement for student success applies to both white and minority students (Pascarella & Terenzini, 2005), others have strongly criticized Tinto's implication that minority students give up or suppress their cultural identities and conform to campus values and mores if they wish to be successful (Tierney, 1993).

#### *Pascarella's Campus Environment Model*

A third model has been proposed by Pascarella (2005), who focuses less on the students and more on the campus and its organizational structure. Pascarella's model begins by assuming that when students first arrive on campus, two constants meet. The first constant consists of students' social and intellectual characteristics they bring with them. The second constant comprises the physical attributes and established policies of the college (campus size, availability of on-campus housing, stringency of admission criteria, degrees offered, status as private or public, targeted student population, and others). These two constants together form the college's environment, and those three elements in conjunction with student effort and open-mindedness determine the nature, frequency, and quality of student interactions with other members of the campus community. Change thus primarily depends on student background, college characteristics and environment, and the effort students are willing to expend to be successful. The administrative structure of the college then is reflected indirectly in the other factors (Pascarella & Terenzini, 2005).

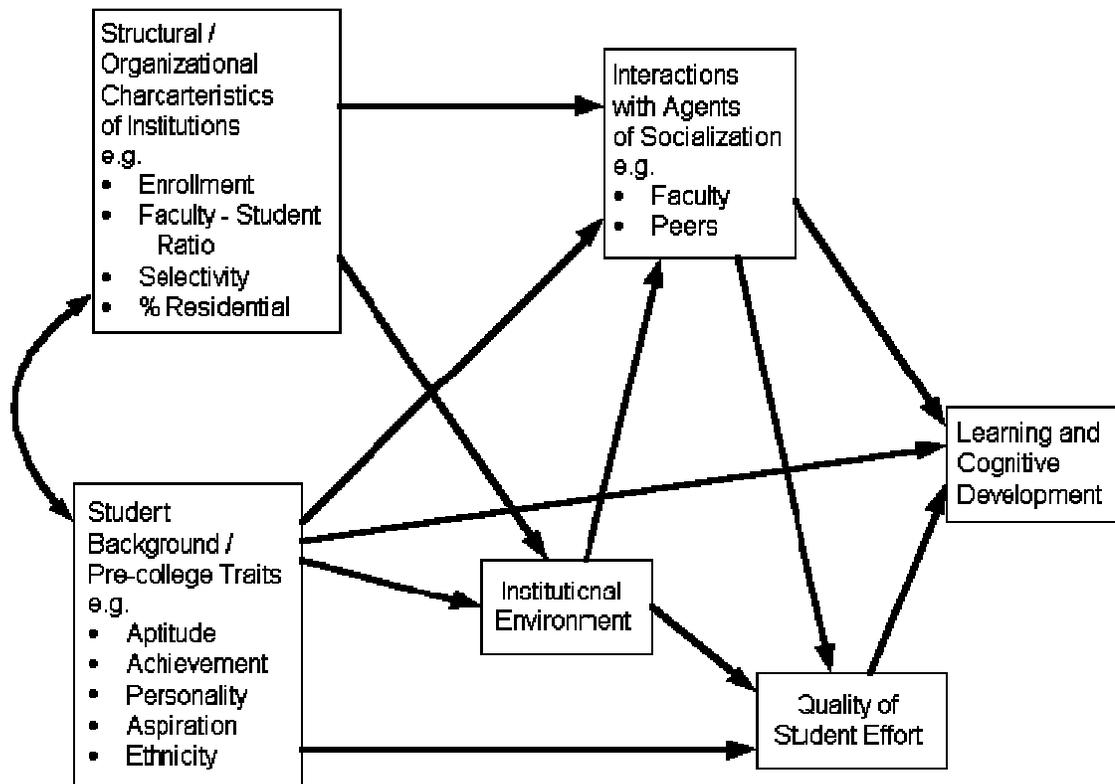


Figure 3. Pascarella's *General Causal Model for Assessing the Effects of Differential Environments on Student Learning and Cognitive Development*.

Pascarella, E.T. (1985). College environmental influences on learning and cognitive development: A critical review and synthesis. In J.C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 1, p. 10). New York: Agathon. With kind permission of Springer Publishing, Dordrecht, The Netherlands.

### *Weidman's Model of Undergraduate Socialization*

Finally, Weidman's model examines how changes in students' life or career goals have an influence on persistence. Once again, the model assumes that students have initial academic and social attributes and goals that are challenged by the various influences in students' lives (parents, peers, instructors, employers, communities, etc.). Students subsequently may feel a conflict between their goals and desires, the expectations of the college environment, and the pressure brought to bear on them by

outside forces and seek a way to balance all these demands while still reaching their personal goals. In this model, failure occurs if this balance cannot be achieved (Pascarella & Terenzini, 2005).

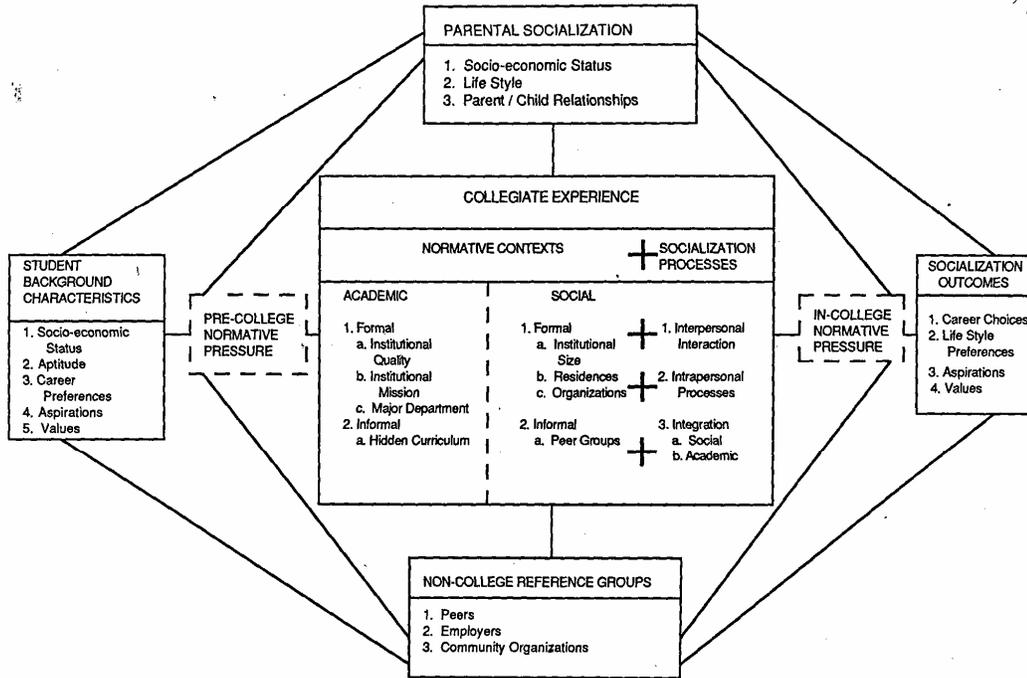


Figure 4. Weidman's *Model of Undergraduate Socialization*.

Weidman, J. (1989). Undergraduate socialization: A conceptual approach. In J.C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 5, p. 299). New York: Agathon. With kind permission of Springer Publishing, Dordrecht, The Netherlands.

### *Factors Influencing Student Success*

Pascarella and Terenzini (2005) cautioned that finding ways to retain students and have them finish college was not necessarily a worthwhile goal in itself. However, once researchers consider the ramifications of college on students' occupational and economic futures, the factors that can have an influence on the opportunities students will have in life become legitimate targets of research. These factors in student success can be divided

into college and non-college factors, which can further be divided into between-college and within-college factors for the former and internal and external factors for the latter.

Internal factors are the values, beliefs, and attitudes students bring with them when arriving in college. Examples mentioned by Kuh et al. (2006) are gender, race and ethnicity, expectations for college, and educational goals. External factors include academic preparation in high school, family support, socio-economic status, previous institutions attended, and family educational background. Especially this last factor, Pascarella and Terenzini (2005) stated, can have a positive effect on whether students attend college in the first place and whether they persist and earn a degree.

Between-college effects are the typical characteristics of a college and can have an effect on student success according to Pascarella and Terenzini (2005). These effects, called “institutional attributes” by Kuh et al. (2006) are the same ones mentioned in the Pascarella model: campus size, availability of on-campus housing, stringency of admission criteria, degrees offered, status as private or public, targeted student population (women, African Americans, American Indians), and others.

Within-college effects comprise essentially the influences colleges themselves can exert on their students. The first effect concerns institutional conditions such as organizational structures, academic programs, student support services, and the degree to which the entire campus is committed to putting student success first (Kuh et al., 2006). A second effect is connected to financial aid. Pascarella and Terenzini (2005) reported that the cost of tuition and the need to work off campus have negative effects on student success, that work study jobs and student loans register as slightly positive, and that

especially institutional scholarships and grants can have a significant positive impact on student persistence.

Additional within-college effects are programs offered to intervene when students falter in the college environment. Examples are pre-college bridge programs for new students, first-year seminars or college orientation courses, developmental or remedial instruction for students with academic deficiencies, supplemental instruction for courses known to have a large rate of non-completers, early warning systems for students who show a lack of progress, advisement and counseling options, and summer bridge programs, i.e. programs offered each summer throughout a student's college career to provide ongoing emotional and psychological support. Whether such programs and initiatives can be successful depends on whether their content and their duration match the needs of the students for whom they were created (Pascarella & Terenzini, 2006).

Finally, the interaction with professors and peers plays an important role in whether students feel accepted or marginalized. Kuh et al. (2006) found that enrollment choices, curricular and extra-curricular activities, and experiences with diversity play an important role, and the opportunity to benefit from these is greater if on-campus housing is available. Professors can help with retention if they are accessible and show interest in student progress; in peer interaction, the type of interaction and the setting or location are most important (Pascarella & Terenzini, 2005).

In addition, learning communities, particularly in students' home departments, have a surprisingly significant influence on success. Pascarella and Terenzini (2005) found that graduation rates are higher in science, engineering, business, and health professions because (1) students are more likely to persist and graduate if the department

gives them a sense of belonging and does not just see them as numbers to be scuttled through, and (2) fields of study where students can expect well-paying jobs right after graduation lead to increased persistence. Pascarella and Terenzini concluded that involvement with professors and peers in a campus and departmental culture that fosters such interactions does contribute to persistence although they admitted that research findings are sometimes contradictory and have been unable to establish clear links.

### *Summary*

Despite a focus on psychological or sociological theories, it can be said that all models, whether they emphasize student identity development or student socialization, address the same broad factors. As discussed above, student retention is contingent upon student attitudes, values, and family and cultural backgrounds; institutional attributes and structures; institutional programs, policies, and practices; and the interaction students have with others on campus. These are the factors institutions are told to be aware of if they wish to improve student retention.

### *Unique Factors for Minority Students*

Some studies claim that especially minority students at mainstream colleges have to overcome higher hurdles than others to have positive learning experiences and often give up instead of engage in what they see as an essentially futile struggle (Kuh et al., 2006). This claim is especially true when students of color perceive the campus culture and environment as hostile toward their culture and the people in this environment as prejudiced (Pascarella & Terenzini, 2005).

Factors that have contributed to the lower rates of minority student persistence include feelings of marginalization, loneliness, and self-consciousness when everybody

else on campus looks different; conflicting feelings about the difference between the home culture and the campus culture and the appropriate reaction to this difference, lack of preparation not for the level but the amount of work to be completed in college, high school grades and rank, lack of significant prior exposure to technology skills expected of college students, the burden of being seen and having to act as a representative of one's entire culture, and greater financial need (Landry, 2002; Seidman, 2005a).

One of the more structured theories that has been developed from the research about barriers and success factors with the intent to increase minority student retention rates is the "Factors for Minority Student Persistence" proposed by Swail and Holmes (2000). They stated that the five most important success factors for minority students are these:

- Better Financial Aid
  - Advisement
  - Application Process
  - Emergency Aid
- Recruitment and admission
  - Outreach
  - Pre-college Programs
  - Assessment
  - Bridging Programs
- Academic Services
  - Academic Advisement
  - Supplemental Instruction
  - Bridging and Pre-College Programs
  - Faculty Relationships
- Curriculum and Instruction
  - Instructional Methods and Design
  - Curriculum Content
  - Assessment Methods
  - Professional Development for Faculty

- Student Services
  - Counseling
  - Housing
  - Extra-Curricular Activities
  - Multicultural Programs

Based on this list of factors, Swail and Holmes (2000) made detailed suggestions on how universities could help improve minority student retention and academic success by making adjustment to each factor.

#### *Recommendations for Student Success*

Different scholars take different overall approaches to recommendations and implications drawn from previous research on student success. Kuh et al. (2006), for example, suggested a list of initiatives that can help colleges increase the success rates for their students:

1. Focus on the pre-college years.
2. Help families and communities function as support systems.
3. Offer sensible financial aid packages.
4. Offer early intervention programs.
5. Help students find something on campus with which they can establish a personal and emotional connection.
6. Create a campus culture in which everyone on campus supports the notion that student success is everyone's responsibility.
7. Make sure that all assessment efforts are directed at policies and practices that have an impact on student success (pp. 89-100).

Instead of offering such specific and concrete advice, Pascarella and Terenzini (2005)

chose to look at the big picture. They first of all insisted that colleges assent to what they called the “learning-centered model” (p. 645), meaning that colleges regard learning as a skill developed through social interaction. The responsibility of a college, therefore, is to confront students with new ideas and to make them interact with people different from the ones they grew up with. Trying to integrate old and new knowledge in the context of interactions with new people is the moment when true learning occurs. Colleges must realize that students will learn only when the learning has meaning for them and that a meaning-making situation cannot be planned beforehand but will often spring up at unpredictable times and locations. To maintain flexibility in when, where, how, and with whom students learn, Pascarella and Terenzini (2005) divided their suggestions into teaching and learning, organizational structures, and institutional policy.

Professors are encouraged to provide learning experiences inside and outside the classroom and to give students the opportunity to become active participants in their learning process. Professors are furthermore exhorted to pay attention to clarity of instructions and information and to make sure they are well prepared and organized for each lesson. Learning should be approached from a constructivist paradigm with significant amounts of active, collaborative, and contextual learning and opportunities for service learning and the use of technology (Pascarella & Terenzini, 2005).

On the organizational side, Pascarella and Terenzini (2005) called for more interdisciplinary learning so that students can better understand where the different courses they must take and the competencies they must learn connect. Colleges should provide opportunities for professors to include students’ extracurricular activities in the learning process and to show how these connect to the academic material. At the same

time, teaching must be given greater value. The fact that faculty hiring, promotion, and tenure are often based on research, publications, and the ability to obtain grants instead of on teaching has an impact on how innovative professors are willing to be and how much time they will spend on teaching. Assessment of student learning must be faculty driven and uniquely tailored to each program of study if there is to be any change in curricula (Pascarella & Terenzini, 2005).

A similar division of suggestions can be seen when researchers focus on minority students. Some writers make specific, concrete suggestions whereas others emphasize the big picture. Specific suggestions for minority student success include these:

1. Better financial aid information and more emergency loans.
2. Pre-freshman bridge programs, summer programs for each year of the students' college careers, high school outreach, and required college orientation.
3. Required advisement and faculty mentoring outside the classroom.
4. A curriculum that is more inclusive of the experiences of minorities, experiential and experimental learning, and authentic, formative assessment.
5. Academic and social student clubs, minority cultural centers where students can find help with problems, and an office of campus diversity (Landry, 2002; Seidman, 2005b; Swail & Holmes, 2000).

Financial aid was a somewhat contentious issue. Whereas Swail and Holmes (2000) and Seidman (2005b) advocated more institutional financial aid in the form of grants, scholarship, and emergency loans, Landry (2002) stated emphatically that better financial aid is not the solution, and neither are more counseling options and the reliance

on role models. Instead, she suggested that the real shift occur in how colleges define intellectual development.

Tierney (1999) shared this line of thinking and agreed with Landry (2002) that colleges be restructured and their outcomes redefined and reinterpreted. Instead of focusing on money, he wanted colleges to focus on cultural capital and cultural integrity. Tierney argued that colleges first of all accept and respect students' home cultures. Nonetheless, minority students need the typical cultural capital, i.e. the understanding and use of cultural competencies, of the majority students on campus because that will make it easier for them to understand the organizational and academic structures of the college environment.

Acquiring the cultural capital of the majority does not result in abandoning one's own culture, which is why cultural integrity is important. Tierney (1999) called on administrators and instructors to not just pay lip service to diversity but instead to integrate students' cultural and ethnic heritages into the curriculum and to use instructional design and methods that are familiar and sensitive to more than the majority group of students. If students feel that their cultural identity is valued and that they do not have to hide or deny it, they will graduate at higher rates, and the responsibility for creating such an environment rests with the university. In the right environment, one that allows students to be who they are and respects a variety of cultures, students will be able to focus on and take advantage of the opportunities on campus instead of having an ongoing struggle with their identity (Tierney, 1999).

Based on these discussions, Kuh et al. (2006) also made a number of

suggestions as to where more research is needed to develop a better understanding of how students can be supported. Those recommendations that have a particular bearing on the success of minority students and on technical colleges are to put in place encouragement programs designed for specific groups of students, develop criteria to measure success that go beyond the standard criteria applied to all universities regardless of type or student population, study the relationship between policies and practices and the success of different groups of students, focus on the impact of college on student success after graduation, and determine which interventions for students with academic deficiencies are actually effective.

#### American Indian Student Retention

Besides having values, beliefs, attitudes, needs, and goals different from those of members of the dominant culture, American Indians also have needs different from those of other minorities (O'Brien, 1990). Such differences do have an impact on how students learn and how they like to demonstrate that they have mastered skills or knowledge, but it is not yet clear exactly how this influence occurs (Swisher, 1994). To fashion programs that are truly supportive of American Indian studies, the entire history of Indian-white relations and any quality that makes American Indians culturally distinct must be taken into account (James, 1992).

Some of the characteristics that influence students' perceptions of their education and ultimately their persistence are whether students live on or off the reservation (Huffman, 2003; James, 1992; Pewewardy & Frey, 2004), which socio-economic background they come from (Scott, 1986), which tribal culture they come from (Edington & Willey, 1971), whether they speak their tribal language or not (Tierney, 1993), whether

they consider themselves traditional or not (Tierney, 1993), and how deeply they have been inculcated in tribal epistemologies and methods of inquiry (Garrett, 1996; Kirkness & Barnhardt, 1991).

### *Overview of Success Barriers*

Scott (1986) and Pottinger (1990) framed the issue of barriers for American Indian students in terms of cultural reproduction theory. This theory assumes that educational systems above all have a functional-structural purpose, which is to preserve existing societal hierarchies, including limiting the access of minority groups to positions of genuine economic, social, and political power. The educational system is essentially the frontline of the battle for power, and institutions must make sure that the values of those in control are supported and minority values are suppressed. To that end, success can come only if students accept the social, economic, and cultural power structures as they are. However, even under these conditions, successful minority students are a threat, so educational institutions are set up to create new barriers at every level of the system in hopes that minority students will eventually become demoralized, tired of fighting the same battles over and over, and withdraw.

What happens then is that students see no way to learn the skills needed for successful employment without giving up their culture, and this conflict leads to anger and confusion (Pewewardy & Frey, 2004). Students begin to look at colleges not as places of opportunity but as instruments designed to force them into the mainstream culture, which they have no intention or desire of joining (Hornett, 1989; Wilson, 1998). As a result, if students perceive that they must change and become part of the mainstream, they will rather drop out and choose their culture (Scott, 1986; Tierney,

1993). Framing his analysis in terms of critical pedagogy, Hampton (1993) even went so far to say that dropping out is a sign of “resistance to cultural, spiritual, and psychological genocide” (p. 267).

Tierney (1993) tried to understand this reasoning on the part of students through the application of resistance theory. Scott (1986) had stated that in the history of American Indian education, white and American Indian cultures had been seen as incompatible and white culture had been declared to be superior. When such boundaries are drawn, students begin to resist. They no longer accept the stigma attached to their cultures and actively work to protect their cultural and social identities. Unfortunately, this resistance soon becomes a distraction to students’ studies, and in the face of an unwillingness on the part of the majority to change, many American Indian students resist by withdrawing (Tierney, 1993).

### *Specific Barriers to Success*

A significant number of barriers to American Indian student college success has been identified in the literature and will be discussed below.

#### *Lack of Academic Preparation*

One of the most frequently mentioned barriers to success is poor academic preparation for college (Carnegie Foundation, 1989; Huffman, 1991, 2001; James, 1992; Pewewardy & Frey, 2004), which is the direct result of an ineffective high school education (Hoover & Jacobs, 1992; Lin, LaCounte, & Eder, 1988; Tate & Schwartz, 1993) and goes hand in hand with a lack of study skills (Hoover & Jacobs, 1992; James, 1992; Lin, La Counte, & Eder, 1988). Career maturity is closely linked to inadequate preparation. Because of a lack of career counseling, students have an incomplete picture

of career opportunities outside their communities, which often leads to a lack of motivation (Huffman, 2001; Jackson & Smith, 2001; West, 1988).

### *Lack of Career Maturity*

Jackson and Smith (2001) gave details about how American Indian career maturity was left wanting. First, students do not fully understand the link between post-secondary education and a career. They have difficulty choosing a career goal and seeing what is needed to reach that goal. Second, many students arrive in college with the plan to earn a degree but do not know which program they might be interested in. To them, success equals earning a degree, not the skills and experiences to be successful in the workplace. Third, students are afraid of taking risks for fear of failure, which prevents many from ever deciding on a major field of study to pursue. Fourth, the connection to their communities and their cultures results in self-limitation. Not understanding how one could be part of a tribal community and culture while still being occupationally successful, many students limit themselves to career choices available on or near reservations.

### *College Environment*

Adjustment to the college environment has been identified as another barrier because this step appears to be particularly challenging for American Indians (Benjamin, Chambers, & Reiterman, 1993; Bowman, 2003; O'Brien, 1990; Pottinger, 1990), who face hurdles to adjustment especially at colleges operating on white, middle-class values (Tate & Schwartz, 1993; Vaala, 1993). Several reasons have been suggested for these adjustment problems, all of which are seen as a consequence of the cultural dissonance American Indians experience on campus (Wilson, 1998).

First, the values and attitudes of the college environment are different from students' home environments (James, 1992). One such value is the focus on competition (O'Brien, 1990). Many American Indian students grew up in homes that emphasized cooperation over competition and have difficulty thriving in a competitive environment (Brown & Robinson Kurpius, 1997; Huffman, 2003). Second, students feel obligated to act as representatives of their cultures and to participate in campus events planned for or by American Indians although they often find that such events perpetuate rather than dispel stereotypes (James, 1992; Ortiz & HeavyRunner, 2003). Third, the lack of transitional programs between high school and college leaves many American Indian students feeling isolated and facing the challenges of an unfamiliar environment by themselves (Brown & Robinson Kurpius, 1997; Bowman, 2003; Kirkness & Barnhardt, 1991; Wilson, 1998).

#### *Student Origin and Culture*

A final adjustment barrier is origin. Reservation students are said to have a more difficult time adjusting to college than other American Indian students (Huffman, 2003; O'Brien, 1990). These students may feel alienated and isolated, and if they perceive that assimilation is needed to be successful, they often choose their tribal culture over college and drop out (Cole & Denzine, 2002; Scott, 1986). However, research also shows that some traditional students are able to use their culture as a means of support and rely on its values for emotional stability (Huffman, 2003).

Cultural differences are closely related to adjustment problems. Huffman (2001) identified such differences as the most frequently mentioned factor for the lack of success among American Indian students. Students have a significant potential to experience

cultural conflict because values, beliefs, and attitudes in their home cultures are different from those on campus (Bowman, 2003; ; Gilbert, 2000; Huffman, 2001, 2003; Scott, 1986; Tate & Schwartz, 1993), an experience which has been called “cultural discontinuity” (Huffman, 2001; Ortiz & HeavyRunner, 2003). Huffman (2001) divided cultural discontinuity into occurring at the micro level as well as the macro level. At the micro level, ways in which individuals communicate, behave toward others, and expect others to interact with them that differ from American Indian norms are the greatest barrier, and Huffman attributed failure mostly to this level. Pottinger (1990) divided the micro level further into “primary” and “secondary” factors, primary being the unique manner in which students think, speak, and interact and secondary being anything that happens as a result of contact with others. The macro level contains factors beyond individual students’ control, such as the social status of American Indians in college and society as a whole and the structural design of society as it relates to minorities (Huffman, 2001).

The problem with such factors is that colleges fail to recognize their own role in student departure. Many colleges are blissfully unaware that they serve to perpetuate the dominant culture (i.e. middle-class white America) and expect everyone else to conform (Hornett, 1989; Huffman, 2001; Wentzlaff & Brewer, 1996). As a result, many American Indian students find behavioral expectations, instructional methods, and interactions with professors, students, and staff members not only strange and confusing but also downright hostile to their culture (Gilbert, 2000; Huffman, 2003). Students feel they are forced to change their cultural values and beliefs and often adopt an oppositional attitude, which helps them maintain a close relationship with their tribal culture but can in the long

run lead to academic problems (Pottinger, 1990). Once counselors and others notice these academic problems, they often pressure students to assimilate more, and when put before the choice of maintaining their culture or becoming part of the campus culture, many students choose to withdraw (Huffman, 2001; Kirkness & Barnhardt, 1991).

### *Hostility Toward Students*

Hostility, as mentioned earlier, is another major barrier to student success. Several authors made it clear that a hostile campus environment creates feelings of being unwelcome, and social isolation from family, community, and other American Indian students leads to alienation on the students' part (Huffman, 2001; James, 1992; Lin, LaCounte, & Eder, 1988; Pewewardy and Frey, 2004). It is also important to note that not necessarily the actual presence of hostile attitudes but the perception of hostility alone can be the deciding factor (Jackson & Smith, 2001; Lin, LaCounte, & Eder, 1988).

Feelings of being outsiders, of not having a community for support, and of being isolated all have a negative impact on academic performance and persistence (Cole & Denzine, 2002; Jackson & Smith, 2001; Lin, LaCounte, & Eder, 1988; Pewewardy & Frey, 2004).

Impressions that professors, other students, and staff members have hostile attitudes toward American Indian students have been reported (James, 1992), and these feelings are based on perceptions of prejudice and racism as well as on overt, blatant racist incidents (Dodd, Garcia, Meccage, & Nelson, 1995; Pewewardy & Frey, 2004). Huffman (1991) argued that traditional American Indian students are more sensitive and vulnerable to real and perceived racist comments in their environment and are at risk for a vicious cycle: racist encounters make students highly suspicious of all interactions with others, more prone to perceive racism even if it isn't present, and more likely to feel

unwelcome on campus. He called the latter reaction “symbolic racism” and asked if maybe some students are too sensitive and suspicious and read negative attitudes into interactions when none are present.

Despite the possibility of a self-fulfilling prophecy, scholars pointed to many real factors that could indeed have an impact on whether students experience the college environment as supportive or hostile. Lack of student services such as administrative support is one such factor (Tate & Schwartz, 1993). A second factor is student attitude toward professors. Interestingly enough, most students seem to have a positive attitude toward their professors and find them quite helpful and supportive (Huffman, 2001; Lin, LaCounte, & Eder, 1988; Tate & Schwartz, 1993). However, it is important that professors understand their American Indian students’ unique cultures and are aware of the perception of hostility (Lin, LaCounte, & Eder, 1988; Tate & Schwartz, 1993). A lack of such awareness can lead to an impression that professors are insensitive, treat students differently based on skin color, and make less of an effort to help American Indian students learn (Pewewardy & Frey, 2004).

### *Family Issues*

Family issues are a final major barrier to student success. American Indian students have many family responsibilities and obligations that they are expected to discharge regardless of possible effects on their own lives (Jackson & Smith, 2001; James, 1992; Pewewardy & Frey, 2004). These family obligations often interfere with schoolwork, but significant pressure is applied to students to return home, even in the middle of the semester and without much warning (Benjamin, Chambers, & Reiterman, 1993; Ortiz & HeavyRunner, 2003; Tate & Schwartz, 1993). The implicit understanding

is that family needs trump personal needs, and long-standing tribal traditions compel students always to honor family commitments first (Pewewardy & Frey, 2004). Students tend to accede to family demands because they realize that missing a family function has repercussions so severe that missing class or even failing a test pale in comparison. To encourage student success, two things must happen: (1) Institutions must understand this need to go home periodically, often very abruptly and without notifying anyone, and work it into any retention programs, and (2) students must develop strategies that enable them to discharge their familial requirements without dropping out of school (Benjamin, Chambers, & Reiterman, 1993).

Other issues are somewhat more intractable. Families and communities are at times outright unsupportive and subject students to open hostility or ridicule (Huffman, 2001; Juntunen et al., 1999; Leong & Serafica, 2001). In addition, unemployed peers who have dropped out of high school exert considerable pressure on individuals, equating a wish for an education and a possible desire to move away with disloyalty to friends and community (Wentling & Waight, 2000). Families often react by showing no interest in the educational plans of their children, sending an indirect but powerful message that choosing a college education will be seen as turning one's back on one's family. Other families speak out openly against any educational choices that will take individuals away from home and not involve or benefit the family (Juntunen et al., 1999).

Further problems are related to the needs and demands of family members. Providing child care for relatives with small children and transportation for those without cars puts a strain on students' ability to find time to study (HeavyRunner & DeCelles, 2002). Many students also have to work to support not only themselves but also family

members who are unemployed, live in poverty, and depend on others for their livelihood (Edington & Willey, 1971; HeavyRunner & DeCelles, 2002). Finally, students are often called to mediate in conflicts between family members, many of which are caused by alcohol and drug abuse or domestic violence. Even if students are not a party to the conflict, family duty compels them to act as arbiters, and the intensity and complexity of such conflicts make it difficult for them to return to school quickly (Jackson & Smith, 2001; Ortiz & HeavyRunner, 2003).

### *Success Factors*

Despite all the information about persistence extracted from an exploration of common barriers, Wentzloff and Brewer (1996) and HeavyRunner and Marshall (2003) insisted that more attention be paid to why students are successful and to their strengths rather than their weaknesses. Aragon (2002) consequently stated the need to inquire into the specific factors that help students develop the willingness, the creativity, and the work ethic needed to be successful, but Hampton (1993) cautioned that to find answers, it would be prudent to focus on just one aspect of American Indian education instead of developing a model that could be applied to all kinds of educational institutions and all kinds of American Indian cultures. Overall, success factors for American Indian students can be grouped into four broad categories: institutions, professors, students, and families.

### *Resilience*

The common ground in the discussion of success factors is resilience. Success factors come into play only if students expect prejudice and are prepared to deal with it (Reyhner & Dodd, 1995), develop resilience against such attitudes (HeavyRunner & Marshall, 2003), and adopt an identity that allows both the adoption of new values,

beliefs, and attitudes needed for success in college and the continued commitment to traditional tribal cultures (Dodd, Garcia, Meccage, & Nelson, 1995; Pottinger, 1990). This identity, however, once again raises the question if traditional or non-traditional identities are more beneficial for students entering college. According to Huffman, Sill, and Brokenleg (1986) and HeavyRunner and Marshall (2003), American Indian students will be most successful when they are able to function in both a traditional tribal and a mainstream college environment and can react constructively to any challenges.

A further question is which level of traditionalism best serves students in their attempts to be successful. Pottinger (1990) especially asked if a traditional identity has any connection to persistence and to which extent being traditional can prevent students from becoming oppositional in resisting attempts at assimilation and dropping out. A discussion of the advantages and disadvantages of being traditional versus non-traditional can be found in Lin (1990). According to Lin, non-traditional students are less likely to perceive a conflict between their home culture and the campus culture. Their parents are often well educated and support them in their educational endeavors. Non-traditional students are also less suspicious of others on campus, have more interaction with professors, and are willing to speak up and participate actively in class. On the other hand, these students are absent more frequently than others and are less likely to make sacrifices for their education.

Traditional students, on the other hand, are more focused, show more desire to learn independently and from others as the situation requires, and spend more time on schoolwork. These attitudes result in overall better performance, and Lin (1990) attributed better performance to the fact that culturally traditional families value effort

and sacrifice and not just the final outcome. According to Huffman, Sill, and Brokenleg (1986), having a culturally traditional identity is positively correlated with academic success and a positive campus experience. Tribal cultures provide students with an emotional grounding that helps them deal better with feelings of alienation, and their emphasis on independent learning and sacrifice can even help students overcome a possible lack of family support. Therefore, Huffman, Sill, and Brokenleg concluded, traditional students may have a better chance of being successful than non-traditional ones.

### *Institutions and Persistence*

The role of institutions in American Indian student retention begins with a number of questions: Should assimilation take place at all, and if so, to which degree? How can the campus culture be changed? How can campus organizational structures be changed? How can faculty, administrators, and staff be trained to respond supportively to American Indian students? (O'Brien, 1990; Scott, 1986) The answers to these questions all emphasize that it is the institution that must change, not the students (Tierney, 1993). For such a change to happen, everyone who is part of the campus organization must understand that he or she plays a role in providing support (Falk & Aitken, 1984; HeavyRunner & DeCelles, 2002). Furthermore, it must be made clear that being supportive affects all aspects of campus life, from student services to instructional design and methods to residential life to tutoring services to administrative practices (Tierney, 1993).

The first and major step for institutions according to Tierney (1995) is to build a culture of success. Based on the thinking that if expectations are high, students will rise

to them, a system must be in place that expects students to finish and not to drop out. This means first of all that students must have the opportunity to master the challenges of a college education without having to give up or change their cultures, values, and identities (Scott, 1986; Tierney, 1995). Helping students begins with creating a more sympathetic atmosphere on campus. All campus employees must become aware that American Indian students have different values, different worldviews, and different needs (Brown & Robinson Kurpius, 1997; Gilbert, 2000). College employees must be taught to respect differing values and understand how such respect is related to retention (HeavyRunner & DeCelles, 2002).

Colleges thus begin by identifying and understanding barriers and showing a willingness to remove such barriers (Gilbert, 2002; Pewewardy & Frey, 2004). Next comes a reduction of the culture shock American Indian students may experience when they first arrive on campus (James, 1992). An important first step in that process is the realization that American Indian student support is not a one-size-fits-all proposition; different tribal cultures require different support and retention strategies, and different programs and approaches will be needed (Benjamin, Chambers, & Reiterman, 1993; James, 1992). Such culturally specific programs must give students the opportunity to become an active part of college life without having to sacrifice who they are and where they come from (Scott, 1986; Tierney, 1995). Students must feel that they belong on campus and that they are not outsiders but an integral part of the campus community, even if remain culturally distinct (Benjamin, Chambers, & Reiterman, 1993; Kirkness & Barnhardt, 1991).

One of the major foci of student retention programs has been the ability of students to integrate themselves into the campus culture, both socially and academically (Brown & Robinson Kurpius, 1997). Social integration, i.e. making friends on campus and developing relationships with people who are not American Indian, is crucial for retention. It is especially important that American Indian students develop professional relationships with people able and willing to encourage them whenever they encounter obstacles (Brown and Robinson Kurpius, 1997; Ortiz & HeavyRunner, 2003), and cultural centers as well as peer cohort program groups can play an important role in developing such support (Ortiz & HeavyRunner, 2003; Scott, 1986; Wentzlaff & Brewer, 1996).

Several strategies have been suggested that institutions can engage in to assist American Indian students in their social integration. First, colleges must make sure that American Indian students' cultures become an integral part of the college environment, not just a quaint and exotic add-on (Tierney, 1993). This includes regular cultural events and the promotion of culturally appropriate and sensitive activities inside and outside of class that all display American Indian cultures in a positive light (Huffman, 2001, 2003; Pavel & Padilla, 1993; Scott, 1986). If these ideas are implemented, students will feel that they can be part of the campus without giving up their identity, and they can then be encouraged to become active participants in campus activities, including leadership positions (James, 1992; Tierney, 1995).

Academic integration refers to interaction with faculty and staff members in the context of classroom and coursework (Brown & Robinson Kurpius, 1997). To be successful, students need faculty members who care about them, respond to them in a

positive manner, and are willing to help with academic problems (Lin, LaCounte, & Eder, 1988; Ortiz & HeavyRunner, 2003). If at all possible, colleges should consider using American Indian faculty and staff members as role models or even as mentors within a formal program (Hampton, 1993; Wentzlaff & Brewer, 1996).

Institutional support to empower students is another frequent theme.

Empowerment according to HeavyRunner and DeCelles (2002) is “an intentional, dynamic, ongoing process centered in the local community, involving mutual respect, caring, and group participation through which people lacking an equal share of valued resources gain greater access to and control over their resources” (p. 33). Support systems and empowerment have been tied to persistence in several to help students not feel overwhelmed by the college experience studies (Brown & Robinson Kurpius, 1997; Dodd, Garcia, Meccage, & Nelson, 1995; Tierney, 1995). Specific services mentioned were administrative support, academic advisement, and teaching students strategies to deal with the campus bureaucracy (Lin, LaCounte, & Eder, 1988; Tierney, 1993). If students learn such strategies, they can function in both cultures and develop a better understanding of how the campus culture affects them (Tierney, 1993).

Once students have a better understanding of campus influences bearing down on them, they are better equipped to develop their own learning and identity preservation strategies, and they can become involved in the campus culture without seeing it as a threat to their own (Tierney, 1993, 1995). By becoming more assertive and self-confident, students realize that their desire to remain traditional is not in conflict with their desire to persist and graduate and that the demands of college are not antithetical to their tribal culture. Their integration into the campus community thus actually strengthens

and reaffirms their connection to their home culture (Brown & Robinson Kurpius, 1997; Falk & Aitken, 1984; Kirkness & Barnhardt, 1991; O'Brien, 1990).

Ortiz and HeavyRunner (2003) tried to look at empowerment in terms of cultural interaction theory. In this theory, professors and staff members help students understand how to play a role in their own academic success and how to tend to their needs and vent their feelings without developing an oppositional attitude that might lead to withdrawal. Any program seeking to promote successful cultural interactions between American Indian students and others on campus, they said, must focus on student needs, student responsibilities, student culture, and student tribal community.

#### *Family and Community Involvement*

Kirkness & Barnhardt (1991) had suggested that all successful student programs be linked to how students could help their communities, and Hatch (1992) likewise tied student motivation and success to community development and employment opportunities back home. Since American Indian students historically had been subject to especially vocational training for jobs that did not exist, any successful college program for them has to show college involvement in community development. In other words, American Indian students ought to be counseled into programs of study that teach the knowledge and skills needed to find employment for the tribe, on the reservation, or in the home community, and institutions can be part of this by being active supporters of and participants in community development initiatives.

Family development is another important factor in institutional support. In addition to focusing recruitment on students, colleges also ought to reach out to families and develop support programs for the entire family (Pavel & Padilla, 1993). To support

students most effectively, the entire family has to become involved in the activities of the campus (HeavyRunner & DeCelles, 2002). One way to do this is to create recruitment materials that appeal to parents, not just to students, and to educate families about the benefits of a college education so that they will then support their children (Falk & Aitken, 1984; HeavyRunner & DeCelles, 2002; Pavel & Padilla, 1993).

HeavyRunner and Marshall (2003) discussed one such program called the “Family Education Model.” In this model, which was developed for four tribal colleges in Montana, campus activities are designed to include the whole family. Counseling and advisement tackle academic as well as family issues, and families are enrolled in programs teaching them skills to deal with problems on their own instead of always relying on their college-going children. Support networks are put in place so that life issues can be addressed and resolved quickly and prevented from erupting again and again in the future.

#### *Pre-College Programs and Services*

Another recommended change concerned college outreach. To attract more American Indian students, outreach should focus more on urban areas with large Indian populations and on reservations (Pavel & Padilla, 1993). If such outreach takes place, colleges can create more interest in post-secondary education and simultaneously address the suspicion of educational programs among American Indians (O’Brien, 1990). To be successful, however, programs have to create diverse materials geared specifically toward each tribe or community (Cole & Denzine, 2002; Pavel & Padilla, 1993).

Once students have been recruited or interest has been created, pre-college programs are useful to help prepare students for the college experience (James, 1992).

Such programs include getting students to think about and consider a college education, helping students develop career goals, and helping students develop academic and social skills needed to be successful in college (Falk & Aitken, 1984; Pavel & Padilla, 1993). Such programs exist in various forms such as counseling services at the local high school, summer orientation programs, pre-college workshops right before the start of the first semester, and orientation courses integrated into the first semester (Falk & Aitken, 1984; Kleinfeld, Cooper, & Kyle, 1987; Reyhner & Dodd, 1995).

After students are on campus, support services and programs can take over to help students become more comfortable with their new academic and social surroundings and to make them feel welcome. Such programs may take the form of study skills courses, tutoring services, and study groups. To reach their objective, that is to encourage students to persist to graduation, all programs need to re-emphasize the benefits of college periodically (Brown & Robinson Kurpius, 1997; Falk & Aitken, 1984; Hoover & Jacobs, 1992; Jackson & Smith, 2001; Kleinfeld, Cooper, & Kyle, 1987; Pewewardy & Frey, 2004; Reyhner & Dodd, 1995).

#### *Counseling and Advisement*

Counseling and advisement services are another important aspect of retention if counselors and advisors are trained appropriately (Cole and Denzine, 2002; Kleinfeld, Cooper, & Kyle, 1987). To be seen as qualified and develop a trust relationship with their advisees, they have to become aware of the cultural idiosyncrasies and unique characteristics of American Indian students (Hornett, 1989; Huffman, 2001; Pavel & Padilla, 1993). Counselors and advisors should be ready to help students select an appropriate program of study, suggest that American Indian students take courses with

low enrollment so they can get personal attention, enroll several American Indian students in the same courses so they can find peer support in class, find courses that incorporate indigenous content and perspectives, encourage students to take courses with professors who are known to be open-minded to diverse viewpoints, help students understand administrative structures and policies, be ready to provide referrals to non-academic services, and offer the kind of support students do not get from their families (HeavyRunner & DeCelles, 2002; Hornett, 1989; James, 1992; Kleinfeld, Cooper, & Kyle, 1987; Ortiz & HeavyRunner, 2003; Reyhner & Dodd, 1995).

Two alternative delivery methods have been suggested for counseling and advisement services for American Indian students. Wentzlaff & Brewer (1996) recommended that counseling be centralized as much as possible and that any support students need other than specialized academic or financial services be handled by one person with whom students can establish a personal trust relationship. Examples of services they mentioned are computer problems, housing issues, class scheduling, and other questions about campus matters. Kleinfeld, Cooper, & Kyle (1987) took this idea one step further and advocated counselors who are not attached to educational institutions. These counselors can be provided, for example, by tribes or by social service agencies and start working with students and their families already in the public school system. Counselors stay with students throughout their entire time in college and even through the first few years of their careers. Although such counselors would not have all the answers, they could function as a clearinghouse for finding the right answer, and their familiarity with each student could also put them in a position to offer personal

encouragement, be a liaison between students and families, and help bring different offices or organizations together.

#### *Relationships with Others on Campus*

Institutions are encouraged to find and create opportunities for professors and students to interact socially outside the classroom (Brown & Robinson Kurpius, 1997; Pavel & Padilla, 1993). According to Huffman (2001), personal, warm relationships with others help students feel more at home, and if faculty members foster such relationships, they in fact act like an extended family toward the students, create a sense of belonging, and contribute to retention (HeavyRunner & DeCelles, 2002).

Mentoring and the use of role models play another important role in creating a supportive, familiar atmosphere (Jackson & Smith, 2001; James, 1992; Tate & Schwartz, 1993). Mentors can come from all different backgrounds. They can be American Indian professors or staff members (Falk & Aitken, 1984) or even non-Native professors and staff trained to mentor American Indian students (Brown & Robinson Kurpius, 1997). Reyhner & Dodd (1995), however, recommended that mentors come from students' major fields of study or at least have a connection to this field so that students can receive the proper academic support. Role models, too, can come from among professors, staff, or even administrators (Tierney, 1995), but they must always be American Indian (Falk & Aitken, 1984). Therefore, most authors mentioning role models suggested that colleges hire more American Indian faculty and staff members so that enough people are present on campus to assist students (Falk & Aitken, 1984; Kleinfeld, Kyle, & Cooper, 1987; O'Brien, 1990; Pavel & Padilla, 1993; Reyhner & Dodd, 1995).

Another important support relationship is that with peers (Hoover & Jacobs, 1992). Support from peers helps American Indian students deal with conflict, be it academic, social, or cultural; improve their feeling of belonging; clarify their cultural identity; and understand how their beliefs and values and their cognitive styles are not a burden but an asset to solving problems (Tate & Schwartz, 1993). Peer support can come in a variety of forms. Study groups and peer tutors (Brown & Robinson Kurpius, 1997), student centers (Cole and Denzine, 2002), and student organizations (Reyhner & Dodd, 1995) can all offer peer support. These groups can be campuswide or limited to the students within a specific program, but they create a feeling of community, help students deal with feelings of isolation and alienation, and can offer specific advice on study skills or other academic matters (Tate & Schwartz, 1993; Wentzlaff & Brewer, 1996).

### *Curriculum*

A final step to be taken by institutions is to engage in a systemwide curriculum redesign. Such a step is not to be seen as an infringement on academic freedom but as an acknowledgement of different kinds of knowledge and epistemologies. Colleges must first make sure that a commitment to diversity becomes part of their mission statement (Tierney, 1995). Subsequently, more diversity can be introduced into the curriculum by adding an indigenous perspective to classes in many disciplines or by requiring all students to take a general education course on American Indian cultures (Scott, 1986). If new programs are designed, the design should be done with an eye on the needs of American Indian students (Pewewardy & Frey, 2004).

### *Antecedents*

Many of the suggestions on what institutions can do to increase American Indian student retention and graduation rates are nothing new. Adams (1946) had already suggested that colleges communicate better with potential students, their families, and their communities to allay fears that community development programs were yet another attempt at assimilation. She further recommended that college employees develop greater awareness of the needs of American Indian students and that elements of American Indian cultures be used program design. At the same time, everyone needed to understand that not all tribes were culturally the same and that their differences had to be taken into account.

Other recommendations were made by Edington and Wiley (1971). Looking especially at vocational-technical programs for American Indians, they suggested that programs not be planned and implemented at a national level as had been done so often in the past but at a local, state, or regional level; that programs be developed for the needs of American Indian students; that programs be sensitive to cultural, occupational, and economic differences and needs among tribes; and that programs be set up in cooperation with governmental agencies and businesses to provide the best training possible. Minear (1969) focused on issues of student support and recommended that guidance and counseling services be part of each program, that life skills training be added, that programs consider students' plans after graduation and prepare them for the future, and that pre-entry programs be developed for those not yet quite ready for the regular program.

### *Families and Persistence*

A number of studies identified family support as a major success factor for American Indian students (Falk & Aitken, 1984; Lin, LaCounte & Eder, 1988; Dodd, Garcia, Meccage, & Nelson, 1995; Tierney, 1995; Brown & Robinson Kurpius, 1997). Colleges should actively seek out families and make sure that their willingness to support family members was maintained and strengthened (Falk & Aitken, 1984).

An important characteristic in family support was the educational background of family members, particularly their college experiences (Brown & Robinson Kurpius, 1997; Dodd, Garcia, Meccage, & Nelson, 1995; Jackson & Smith, 2001). Having family members with college degrees helps students develop a better attitude toward a college education and offers them a positive view on schooling, both of which lead to increased career maturity, self-confidence, and motivation (Jackson & Smith, 2001; Wentzlauff & Brewer, 1996). These family members can then serve as role models to show young people that a college education is well within their reach and worth the effort (Brown & Robinson Kurpius, 1997; Jackson & Smith, 2001).

Even without such role models, families can assist their children, beginning in high school. Families can expect their children to do well academically and to select courses that will put them on the path toward college. Even if family members have no college experience of their own, they can still talk about college, accompany their children on campus visits, find friends and relatives who can function as role models, and be committed to serve as pillars of emotional and social support (Tierney, 1995). Both mothers and fathers play a role here. According to Jackson and Smith (2001), the father's encouragement has been tied to positive campus experiences, and according to Brown

and Robinson Kurpius (1997), support from mothers and grandmothers has a positive influence on retention once the student has begun college.

### *Professors and Persistence*

Studies have time and again stated that professors have the strongest influence on American Indian student perceptions of a positive campus atmosphere and ultimately on persistence (Cole & Denzine, 2002; Dodd, Garcia, Meccage, & Nelson, 1995; Reyhner & Dodd, 1995). Professors can have a positive effect on motivation, on how students adapt to the campus environment, and on whether students will perceive the campus as racist and themselves as victims of discrimination (Brown & Robinson Kurpius, 1997; Hornett, 1989). At the same time, there are also risks. Professors' communication habits and general attitudes can impede learning (Dodd, Garcia, Meccage, & Nelson, 1995), and if the different values, attitudes, and epistemologies of students and faculty members remain unreconciled, the negative effect on persistence can be quite pronounced (Pewewardy & Frey, 2004). Professors' greatest impact lies in areas of cultural sensitivity, academic and personal relationships, instructional methods and design, and sensitivity to student learning styles.

### *Cultural Sensitivity*

Awareness of cultural differences and an open-mindedness and sensitivity toward the different values and attitudes of American Indian students have been cited repeatedly as important traits for professors (Aragon, 2002; Dodd, Garcia, Meccage, & Nelson, 1995; Hornett, 1989; Wentzlaff & Brewer, 1996; Wilson, 1998). Such an attitude requires above all knowledge of American Indian cultures and an application of such knowledge in instruction and other interactions with students (Aragon, 2002; Wentzlaff & Brewer,

1996; Wilson, 1998). According to Hornett (1989), culturally appropriate and caring interactions have been linked to overcoming the barriers American Indian students face. Professors' cultural sensitivity is especially crucial in preventing student isolation and alienation. Professors are better able than others to avoid racist or prejudicial language and to deal with incidents of racism if they occur. Creating a culturally sensitive classroom climate helps students feel better about who they are, allowing them to let down their guard and be less defensive toward and suspicious about non-Indians. In addition, they can then deal with cultural barriers by building resilience strategies instead of developing an oppositional-defiant attitude (Hornett, 1989).

#### *Academic Relationships*

Since learning is the major purpose of attending college, positive academic relationships with professors go a long way in American Indian student retention (Brown & Robinson Kurpius, 1997). However, as Wilson (1998) insisted, sensitivity comes first because American Indian students will learn and develop academically only if professors respect their backgrounds and values. In particular, professors should be open to any question from their students and be supportive of American Indian epistemologies (Dodd, Garcia, Meccage, & Nelson, 1995). This means that professors should find ways for students to develop and demonstrate knowledge, skills, and attitudes that not only build on but also help strengthen their cultural backgrounds (Hornett, 1989).

Hornett (1989) gave some practical examples of what professors could do to exhibit the right attitude. Using the assumption that American Indian students tend to have short-term rather than long-term goals, he recommended that exams be returned promptly, that frequent reminders about deadlines and requirements be given, and that the

focus be put on small steps and easily reachable goals. Furthermore, it is important for professors to meet individually with American Indian students and discuss expectations. Such discussions can help students understand what is expected of them in case they are confused, that course requirements are not discriminatory or racist but apply to all their classmates, and that hard work is expected of them but is not the major determinant of final grades (Hornett, 1989).

### *Personal Relationships*

In addition to academic relationships, personal relationships with professors are important (Cole & Denzine, 2002). Many American Indian students, in fact, have trouble learning unless they have found a personal connection to their professors' lives (Wilson, 1998). Professors must be caring (Dodd, Garcia, Meccage, & Nelson, 1995; Reyhner & Dodd, 1995; Wilson, 1998) and show respect for students' lives and cultures (Dodd, Garcia, Meccage, & Nelson, 1995; Reyhner & Dodd, 1995), and several strategies have been suggested for them to do so.

Professors must make themselves available and exude an air of approachability (Wilson, 1998). In fact, professors should themselves approach students who seem to be struggling and offer support. If students do not seek a personal relationship, it does not mean that none is desired (Hornett, 1989). Being proactive on the part of the professor is particularly important if students enter college with doubts about their abilities, have low career maturity and undeveloped goals, and come from families where they are the first ones to ever graduate from high school (Brown & Robinson Kurpius, 1997). Personal relationships and mutual respect show students that colleges accept them as they are and help them overcome feelings of isolation (Hornett, 1989; Wentzlaff & Brewer, 1996).

However, Wilson (1998) cautioned that professors' caring attitudes have to be genuine; students will recognize it if professors simply act sensitive and understanding, and exposing their professors as hypocrites has a significant negative impact on students' perceptions of the campus environment.

### *Instructional Methods and Design*

In order to help their American Indian students learn and see the value in what they are learning, professors must acknowledge their students' cultural backgrounds and use instructional methods and learning activities that play to the strengths of American Indian students and are different from the ones used for non-Natives (Hornett, 1989; Kirkness & Barnhardt, 1991; Pewewardy & Frey, 2004; Wentzlaff & Brewer, 1996; Wilson, 1998). This means that the classroom focus must shift from the professor to the student (Bowman, 2003; HeavyRunner & DeCelles, 2002). One technique to accomplish that is to make sure that students are actively involved in the learning process (Aragon, 2002; Tierney, 1995; Wilson, 1998), which can best be achieved through collaborative group activities (Aragon, 2002; Carnegie Foundation, 1989; Cole & Denzine, 2002; Gilbert, 2000; Reyhner & Dodd, 1995; Tierney, 1995) and experimental and experiential learning (Bowman, 2003; Tierney, 1995; Wilson, 1998).

Professors should build on prior knowledge (Gilbert, 2000; Kirkness & Barnhardt, 1991), integrate American Indian content into their curricula (Carnegie Foundation, 1989), and help students integrate their old and new knowledge so that they can be open-minded toward new things instead of perceiving them as threats (Kirkness & Barnhardt, 1989; Wilson, 1998). This approach is akin to what Aronowitz and Giroux (1991) have called "border pedagogy," i.e. giving students the tools to identify and analyze how the

dominant culture tries to shape their identity and helping them develop constructive ways of dealing with such influences. Specific strategies mentioned for professors are to use examples from their own lives, give students plenty of time to finish assignments, and provide detailed positive feedback whenever indicated (Aragon, 2002; Dodd, Garcia, Meccage, & Nelson, 1995; Tierney, 1995).

In a summary of sorts, Gilbert (2000) suggested that professors do the following in class to improve student learning:

1. Offer opportunities for reflection so that students may develop a better understanding of their learning styles;
2. Discuss the same material repeatedly, which leads to better understanding and retention;
3. Incorporate collaborative assignments because students can learn at their own pace and understand material better by helping others;
4. Show students that completing a task is a process with a different set of skills required at each step of the process; and
5. Teach critical thinking skills and lead students to independent and creative problem solution.

### *Student Learning*

How well students learn is related to how well professors understand their students' needs and design instruction appropriately (Wilson, 1998). Professors must be aware that American Indian students tend to have a holistic approach to learning, meaning that they prefer to look at the whole first and then the parts (James, 1992), and therefore ensure that all new learning becomes integrated with previous knowledge to

form a new whole. After each step of the learning process, students must return to the whole and integrate the new knowledge into it before they can proceed (Tierney, 1995).

To go through the process, students like a certain degree of freedom to learn by trial and error and at their own pace. Professors should therefore allow their students to take part in the decision-making process of what will be learned and at what pace, employ self-direction in how they move through the steps of learning, and give them the opportunity to show mastery on their own terms, not just through pre-determined assessment activities (Aragon, 2002; James, 1992). This independence, James (1992) claimed, shows students that professors are sensitive to their needs and also protects them from the greatest embarrassment they could possibly suffer, failure in front of their peers.

#### *Students and Persistence*

Despite all the research on how institutions and their employees can help American Indian students, the bottom line is that students are ultimately responsible for their own success (Tierney, 1995). Most students believe that their academic abilities are more than sufficient to be successful in college when they first arrive, but if their experiences in class and on campus do not support such perceptions of themselves, experiences quickly turn negative (Vaala, 1993). They must develop attitudes and strategies that help them deal with conflicting family and college demands and overcome the loneliness they may feel when away from home and possibly their cultural surroundings for the first time (Benjamin, Chambers, & Reiterman, 1993; Vaala, 1993).

This process of creating awareness has to begin early. American Indian students still in high school need to meet with a counselor to learn what is required of them in college and in the workplace so that they can properly assess their own skills, knowledge,

and aptitude (Herring, 1990; Johnson, Swartz, & Martin, 1995; Leong & Serafica, 2001). Persistent career myths among students are a major problem. Herring (1990) described career myths as unrealistic beliefs about career development. Counselors can help students acquire specific knowledge of what is required of them in the workplace, develop realistic career plans, have a realistic view of problems in choosing a career, learn to focus less on extreme (positive or negative) interactions with others, and deal with negative experiences one might have on or off the job without taking them personally.

Academic preparation is one of the major factors students have some control over (Brown & Robinson Kurpius, 1997; Ortiz & HeavyRunner, 2003; Scott, 1986). In order to be prepared, high school students must be counseled to maintain a high GPA, which is indicative of persistence in college (Huffman, Sill, & Brokenleg, 1986; Scott, 1986), participate in AP classes, develop good study habits, and have confidence in their ability to learn (Brown & Robinson Kurpius, 1997).

Another success factor is high academic aspirations on the student's part (Huffman, Sill, & Brokenleg, 1986; Ortiz & HeavyRunner, 2003). Students must arrive in college with a goal and with the intention to complete their studies and be successful (Lin, LaCounte, & Eder, 1988; Ortiz & Heavy Runner, 2003; Pavel & Padilla, 1993), and having such aspirations was usually tied to better persistence (Brown & Robinson Kurpius, 1997). Incoming college students have to be made aware that completing college means more career choices, better chances for career success, better pay, better chances for advancement, and the ability to help develop one's home community (West, 1988).

Huffman (2001) looked at the students' own role in academic and career success through the process of transculturation, that is the progress from loneliness, isolation, alienation, and thoughts of withdrawal to active participation in the campus community and interaction with the members of this community. In this process, an American Indian cultural identity begins to be seen as an asset and a source of strength instead of a liability. Having sufficient career maturity and salience helps students make it through the "transculturation threshold," the moment at which they decide to persist or drop out based on their view of their cultural heritage. Once they are past this point, a career focus and goal enables students to interact with people from other cultures without losing themselves. Transculturation helps students learn to use their culture to their advantage when dealing with the majority culture and is a process of cultural invigoration rather than dilution. However, career maturity, career salience, and academic aspirations and goals are important factors in students' ability to make it through this process successfully.

#### *Toward New Models*

As a result of the frustration felt by many Native scholars at the slow progress in educating American Indians, the persistent misconceptions among non-Native teachers, and the continually high drop-out and non-completion rates, several scholars have tried to develop principles on which teaching American Indians ought to be based. These principles can probably best be summed up with a statement made by Pewewardy (2005): "Indigenous Peoples' culture anchors them to reality and it must be the starting point for all learning" (p. 151). Pewewardy's description of an effective teacher is someone who

uses the cultural context of the students for illustration, accepts tribal cultural mores, develops personal relationships with students, families, and community members, and prepares students for a world in which their culture is not the norm and is not respected.

Regnier (1995) tried to explain how this preparation might take place.

Approaching the issue from a critical perspective, Regnier argued that positivist white worldviews have made it difficult for American Indians to understand which role their cultures play in their lives. Positivist thinking discourages people from asking questions about assumptions presented as facts and compels them to take what they hear at face value. However, individual interests, values, beliefs, and attitudes are the result of one's cultural surroundings, and they can be fully developed only if individuals have the ability to question the assumptions made about their own cultures. Open-mindedness toward new information is possible only if the old information may be questioned and examined, a sentiment supported by Calsoyas (2005):

If education is defined as a means of exploring the deepest strata of human consciousness and understanding through persistent examination of assumptions and perceptions it will be possible to awaken the mind to its fullest potential as a reflection of the universe and all it contains (p. 306).

In other words, as long as American Indian culture is seen as inferior by the majority and members of the majority culture see no reason to question their own culture's assumptions and open their minds to alternative epistemologies, American Indian students will feel out of place on a majority-culture campus. Allowing everyone the benefit of different viewpoints and the ability to question one's own culture is the preferred way to reaching educational equity.

To help find a solution to this situation, Hampton (1993) developed a list of standards for American Indian education. According to this list, certain criteria must be met if programs or institutions are to be successful in teaching American Indian students. To begin, education has to operate under the assumptions that everything in life is connected and that everyone is always part of a group. Education thus benefits the entire group or community, not just the individual. Different cultures are seen as equally deserving of respect, and traditions are not shackles to be cast off but the grounding that helps people understand new knowledge. Students must realize that white and American Indian views on education differ greatly and that finishing college may be a struggle that can be overcome with the resilience drawn from past experiences and from history. If American Indian students see how their learning is connected to their lives and benefits their community, if they feel that their cultures and traditions are being respected, then they can draw strength from their backgrounds to persist and to process their new knowledge. The projected outcome is a transformation of both American Indian and white students, with American Indian students becoming more self-confident and less threatened and white students developing an appreciation for knowledge and epistemologies different from their own.

Possibly the crucial element in this transformation process is place. According to Hampton (1993), American Indians need a place where they are among themselves. Such a place, be it a cultural center or a group of friends, allows people to feel less isolated, discuss and learn how to handle misunderstandings, be themselves without having to worry what other cultures may think, and learn to accept others on equal terms. To say it

with Pewewardy (2005), an American Indian place allows people to deconstruct the assumptions of the majority culture and in the process find allies on both sides.

The importance of place was recognized by Deloria and Wildcat (2001) in the title of their book *Power and Place*. Deloria and Wildcat upheld the notion that all things in the universe are related and that learning must be based on this assumption. If everything is related, any observation or experience has merit, and they indeed exhort the majority society to supplement objectivism with more subjectivism and to accept personal experience along with empirical evidence. If learning is dependent on the interrelatedness of all life, place is important in what may be learned because each place contains uniquely related items, and because of this relationship, each place has a different meaning or power. People's experiences, then, are the result of the power that is present in different places, and since our experiences form our personality, our personality is the result of the combination of power and place.

How does this discussion relate to student persistence? Deloria and Wildcat (2001) argued that if American Indian students are to be successful and persist, a different epistemological approach that respects the unique character of indigenous knowledge creation must be employed. Specifically, all instruction must emphasize the connection to the community. The purpose of education must be seen not as providing individuals with knowledge and skills that give them an advantage over others but to shape them into contributing members of their communities. The spirit of learning is that knowledge acquisition is not a virtue in itself but becomes important only in the context of how it can benefit others. Learning is important, but if people think they know everything and rarely listen, knowledge can be dangerous and destructive. Realizing that

everyone and everything is part of a global community can mitigate these effects and ensure that before we begin to transform places with our technology, we give some thought to the learning that may be lost forever once the place has been changed (Deloria & Wildcat, 2001).

The conclusion then is this: If American Indian knowledge and cultures are to survive, education will be the key: “Education, grounded in sources of knowledge, is integral to the expression of and continuance of culture and a potential way, covert or overt, for preserving knowledge and ways of life” (Calsoyas, 2005, p. 303). At the same time, if American Indian students are to persist in educational programs, their knowledge and ways of finding knowledge must be respected, and any new knowledge must be evaluated through the lens of community benefit. Not minor changes in institutional policies and instructional practices will make a difference, but a major philosophical shift will be needed, an acceptance of subjective knowledge and an epistemological approach that puts the community, not the individual, at the center of all learning.

#### Summary

This chapter discussed historical developments in vocational and technical education for American Indian students, the different models of student retention for students in general, specific retention factors for minority students as stated in the literature, barriers to success and success factors for American Indian students, and the approaches taken by Native scholars to rectify the problem of low retention and graduation rates. In the following chapter, the methodological design of this study will be explained.

## CHAPTER III

### METHODOLOGY

The purpose of this study was to describe and analyze the campus and classroom experiences of American Indian students who were in the second half of their final semester of a degree program at the South Central Institute of Technology (SCIT) as they relate to retention. Would themes emerge from students' interpretations of their experiences in class and on campus that might lead to changes in recruitment, administrative and student services, and instructional methods and design? Were there factors that are unique to American Indian students and that could have major implications for policies, practices, and the use of resources at SCIT and possibly elsewhere? As such, this research is basic and explanatory (Patton, 2002) because it tries to fill a knowledge gap in the research and go beyond current findings to look for new evidence in the study of American Indian student success factors. The basic research function aligns well with the concept of enlightenment use described by Rossmann and Rallis (2004). In enlightenment use, research findings first of all serve to remedy a lack of knowledge that exists on certain topics. More knowledge subsequently leads to a better understanding of how things are done and at how policies and practices can be improved.

## Research Question

What are the perceptions that some American Indian students enrolled in sub-baccalaureate programs at a mainstream technical college have of their experiences on campus and in class that encourage them to stay in college, persist in their studies, and complete their degrees?

### *Additional Research Questions*

1. Which factors that contribute to the retention of American Indian students as stated in previous studies are present at the South Central Institute of Technology?
2. To which degree can students' perceptions of the presence of these factors be linked to technical education?
3. Which success factors exist at the South Central Institute of Technology that have received little or no mention in the literature?

## Research Methods

Qualitative interviews were conducted with American Indian students who were in their final semester before graduation. After having attended a college for several semesters, graduating students were more likely than freshmen to have reflected on their experiences, especially on which ones had helped them persist. Therefore, these students were seen as more likely than other students to be able to point out situations where financial assistance, pre-college and bridging programs, counseling and advisement, tutoring, course content and design, instructional methods, support from family members, and other factors mentioned in the literature had been helpful.

Qualitative interviewing was deemed the methodology of choice because several studies had mentioned that there was a need for qualitative approaches to researching

American Indian student retention. Jackson and Smith (2001) asserted that quantitative instruments and surveys are limited in the number of paradigms that can be used to frame a study, and Haig-Brown and Archibald (1996) even called for a rejection of positivist frameworks and empirical methods because research involving human subjects from different backgrounds and with different experiences than those of the researcher requires face-to-face interaction. A decade earlier, Huffman, Sill, and Brokenleg (1986) had already proposed that researching students' subjective experiences may reveal information on student retention that quantitative studies had missed, but Vaala (1993) and Wentzlaff and Brewer (1996) reported that little such research has occurred.

As a result, several authors recommended that the experiences of American Indian college students be explored in more depth (Deloria & Wildcat, 2001; Huffman, 2001, 2003; Jackson & Smith, 2001), and Huffman (2003) and Jackson and Smith (2001) called for qualitative interview studies that were designed to explore the experiences of students as they related to their being American Indian in a mainstream college environment. Huffman (2003) also reaffirmed his earlier prediction that the personal experiences of students would yield crucial information about how students' perceptions and experiences on campus and in class are tied to their cultural background.

Therefore, this researcher interviewed self-identified American Indian students in their final semester before graduation to obtain information about their experiences on campus and in class and about the factors that they thought contributed to their success. In addition, he collected documents created by the South Central Institute of Technology.

#### Research Setting

The South Central Institute of Technology (SCIT) is a sub-baccalaureate technical

institution that offers mainly Associate of Applied Science degrees in areas such as automotive technology, construction technology, heavy equipment technology, air conditioning technology, engineering technologies, information technologies, health and environmental technologies, precision agriculture, visual communications, and culinary arts. As requested by its industry partners, SCIT received approval from the Oklahoma State Regents for Higher Education in 2004 to offer three Bachelor of Technology programs in civil engineering technology, information assurance and forensics, and instrumentation engineering technology. These programs enrolled 2.52 % of all SCIT students for the Spring 2007 semester.

Total student enrollment at SCIT was 2,403 for Spring 2007. Of these students, 62% were male and 38% female. 95.5% of students were from Oklahoma, 5.4% from 20 other states, and 0.1% from foreign countries. The ethnic composition of the student body was 65.8% white, 23.9% American Indian, 5.1% African American, 3% Hispanic, 0.7% Asian, and 1.5% unknown. All ethnic classification is based on student self-identification. The average student age was 24.3 years (23.6 male, 25.5 female). The average composite ACT score for new students was 18.7.

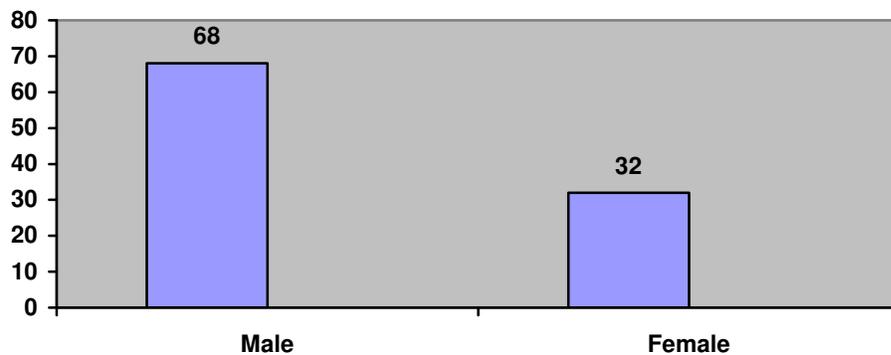


Figure 5. SCIT Spring 2007 Enrollment by Gender (Percent).

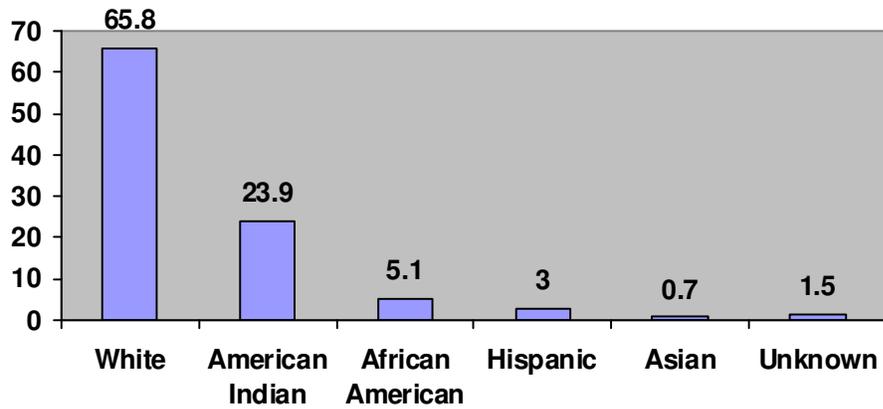


Figure 6. SCIT Spring 2007 Enrollment by Ethnicity (Percent).

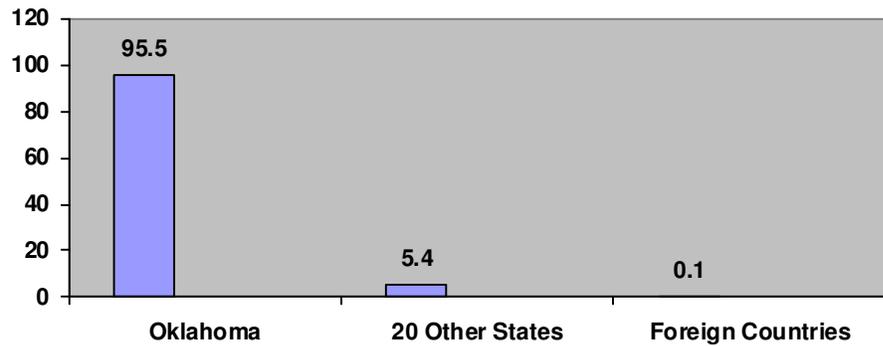


Figure 7. SCIT Spring 2007 Enrollment by Origin (Percent).

The focus on SCIT and its technical programs of study was chosen for several reasons:

1. SCIT's average Associate's Degree graduation rate for American Indian students of 33.8% for the 1996 to 2003 student cohorts as compared to the reported nationwide rate of 6.2% (Bailey, Jenkins, & Leinbach, 2005).
2. The commitment made by SCIT in its strategic plan that the graduation rate of minority students groups will be doubled by 2012, that partnerships with Indian tribes will be expanded, and that the institution will make changes in

curriculum and professional development to increase the cultural competence of all faculty, staff, and students (South Central Institute of Technology, 2007).

3. The limited amount of research on post-secondary sub-baccalaureate technical education for American Indian students at mainstream institutions.
4. Statements by West (1988), Tierney (1995), and Tippeconnic (2000) about the potential benefits of technical education for tribal development and student motivation and retention.

#### Population and Sample

The sampling procedure for this study was “criterion sampling” (Patton, 2002). In criterion sampling, an attempt is made to study all cases that meet some pre-established criterion (e.g., American Indian students in their last semester before graduation). The assumption is that these cases can provide some information about the strengths of programs (e.g., success factors for American Indian students present on campus) and ways to improve programs (e.g., what can be done to increase graduation rates further).

#### *Selection of Participants*

The participants for this study were defined as students in their final semester before graduation who had self-identified as American Indian. From among the 28 American Indian students who were graduating at the end of the Spring 2007 semester, 18 agreed to participate in the study. No distinction was made between tribes in the selection of the sample because SCIT does not require students to identify their tribal affiliation.

In December 2006, this researcher, who is a faculty member at the South Central Institute of Technology, received permission from the president of SCIT to obtain student data from campus administrative offices as well as from the college's electronic enrollment management system accessible through Intranet. He subsequently contacted the Registrar's Office by telephone to inquire about the availability of names of students slated for graduation and was informed that the academic departments had to submit these names by mid-February. On February 16, 2007, he received a file by e-mail with the names of all students who had filed graduation paperwork for the spring semester. This list of names was not coded for ethnicity. As a result, he had to search the enrollment management database for all 149 student names to identify those students who were American Indian.

After identifying all graduating students who were American Indian, this researcher accessed their class schedules for the Spring 2007 semester to see when they were in class and when he might be able to speak with them. He then sent an e-mail message to all affected instructors on the SCIT campus, introduced his project, and asked if they would allow him to stop by their classrooms at a certain time and day to speak with each student on his list. All but one faculty member, who never responded to his e-mail, agreed to help. (A copy of the e-mail contact script is attached as Appendix D.)

Following the assenting response from each instructor, this researcher went to the classroom at the agreed-upon time to be introduced to the students with whom he wanted to speak. He had solicited faculty members' help since he did not know most of the students personally and was hoping that his colleagues could facilitate first contact. Once

he had exchanged greetings with the students, they found a quiet area either in the classroom or outside, at which time he explained the project to each student and the role he or she would play in it. Students were advised that there was no obligation to participate. (A copy of the student contact script is enclosed as Appendix C.)

For Spring 2007, 149 students had filed graduation paperwork, and 28 of these students had self-identified as American Indian, which means that 18.78% of all graduates that semester were American Indian. Of those 28 students, 21 were contacted. Five students were taking only online courses in Spring 2007 and were not on campus, and two students were repeatedly absent and could never be reached. Three students declined to participate, and one student who had originally agreed to be interviewed did not show up at the appointed time and made himself unavailable for a rescheduled interview. Hence, 17 students were ultimately interviewed, which is a participation rate of 60.71% for all graduating American Indian students that semester and 80.95% for those students this researcher spoke with. Ages and tribal affiliations of students are shown in the following table:

Table 2. Participants' Age and Tribal Affiliation

<b>Name</b>	<b>Age</b>	<b>Tribal Affiliation</b>
Suzanne Atkins	26	Choctaw, Yuchi (not enrolled)
Nancy Berryhill	34	Muscogee (Creek), Seminole
Matthew Bledsoe	22	Cherokee
Susan Brown	42	Quawpaw
Jasmine Crenshaw	21	Muscogee (Creek)
Greg Densmore	25	Muscogee (Creek)

Shane Dickson	20	Choctaw, Cherokee (not enrolled)
Jacob Fixico	23	Muscogee (Creek)
Autumn Goldsby	20	Cherokee
Lucy Haney	27	Cherokee
Jason Marshall	23	Chickasaw
Benjamin Posey	20	Muscogee (Creek), Cherokee
Dustin Ross	21	Cherokee, Ottawa
Mitchell Tiger	21	Cherokee
Andrew Vann	22	Cherokee
Ernest Watson	65	Muscogee (Creek), Seminole (not enrolled)
Mary West	44	Muscogee (Creek)

If the student agreed to participate, this researcher asked for a convenient time and date for the interview and set up an appointment, which he wrote on his interview calendar. He gave students one of his business cards with his contact information in case they needed to cancel or change appointment times, and he wrote the date, time, and location of their appointment on the back of that card. Students were told that the interview would last about one hour. This researcher reconfirmed each appointment by e-mail and reminded students one more time on the day before the interview, also by e-mail. Two students stated that they preferred to be called on their cellular phones, so he requested their phone numbers and reminded them in this fashion.

#### Data Collection

All interviews occurred between March 5 and April 19, 2007, and all document

collection occurred in February 2007. The time frame for conducting interviews was limited by the focus on graduating students. Names of students became available on February 16. After looking up the names of 149 students on the enrollment management system, this researcher contacted the instructors for all American Indian students, and after receiving their assent, he met with each student personally to set up an appointment. That process took nearly three weeks because he could make contact with students only when he was not teaching and knew that they were on campus. In addition, he had to try several times to meet some students because of absences from class. Once all appointments had been set, he began the interviews. Graduation was scheduled for April 20, 2007, which means that this researcher had only five weeks to interview all participants before they would leave the campus. Furthermore, several interviews had to be rescheduled because students canceled or did not show up at the appointed time. Luckily, only one student of all those who had agreed to participate made himself unavailable for a rescheduled interview.

#### *Interview Data Collection*

Based on the definition given by Rossmann and Rallis (2004), all interviews were standardized and open-ended, meaning that every participant was asked the same set of questions but that the questions were designed to elicit more than a yes/no response. The interview strategy was topical interviewing with a tree-and-branch model (Rubin & Rubin, 1995). This researcher had a specific topic in mind, which was to uncover success factors for American Indian students, and the tree-and-branch model allowed him to formulate questions for the specific branches of the tree he wished to explore without taking away his opportunity to follow up on answers and explore new branches as they

came up during the interview. During the first half of February 2007, the interview protocol was field tested with students who were not graduating, and as a result, questions were added and deleted, the order of some questions was changed, and the wording in others was clarified.

Each interview began with questions about students' familial and cultural backgrounds to establish a "conversational partnership" (Rubin & Rubin, 1995). Subsequent questions dealt with issues of college preparation and readiness, reasons for choosing SCIT, financial aid and other student services, relationships with their instructors, classes, tests, classmates, extracurricular activities, and their feelings about dropping out. (The student interviews protocol is attached as Appendix A.)

#### *Interview Location*

All interviews but one took place in the Student Support Center (SSC) on the SCIT campus. One interview was conducted in the adjacent library because of a last-minute event that had been scheduled in the SSC. The Student Support Center is part of the Learning Resources Center and is located in the same building as the library. It consists of a number of classrooms plus a large lounge where students can use computers, meet with tutors, or just relax. This lounge is where the interview took place. Other students and staff members were present in the lounge and could observe and listen to the interviews.

The SSC was chosen for a number of reasons. First, it provided neutral ground. Since this researcher is a faculty member at SCIT, using his office could have exacerbated the potential feeling of a power differential between students and a faculty member as researcher and led the students to withhold information or to provide skewed

interview responses that they thought the researcher wanted to hear. Second, the center of the lounge was decorated to resemble a living room and create a more comfortable atmosphere than a faculty office would.

The lounge was a large rectangular room, with the long walls about twice as long as the short ones. After entering the room, one stood in front of a chest-high, L-shaped receptionist's desk, in front of which was a computer station where students signed in. Computer workstations and study tables were located along the inside walls of the room. SCIT blankets, pennants, and logos decorated those walls. At the opposite short end of the lounge were four cubicles, office spaces for employees of the SSC and the university's TriO program. The outside brick wall featured one large window and a fire escape door with a red "EXIT" sign above it. A birdcage hanging from a stand with two green-and-yellow budgerigars ("Techie" and "Twyla") was located near the one window.

An electric fireplace stood against this wall, and a flat-panel television set and art prints hung on the wall above the fireplace. The mantle was decorated with two small lamps and assorted education-themed bric-a-brac. Two tall bookcases on either side of the fireplace contained books for developmental math, reading, and English. Despite the severity of the brick wall and the fire escape door, the various furniture and decorative items did succeed in creating a less institutional feeling. Three overstuffed couches with pillows were in the center of the room and were supplemented by three wingback chairs, two coffee tables, and several end tables. The end tables each had a large lamp, SCIT coasters, and various knick-knacks on them. An SCIT rug had been placed on the floor between the coffee tables. This furniture had been bought on purpose to give part of the lounge the feeling of a living room rather than a classroom.

### *Interview Procedure*

For each interview, this researcher offered participants the choice of where they wanted to sit, and all but one chose one of the couches. (One student preferred to sit across one of the study tables from this researcher.) The researcher then pulled up one of the wingback chairs so that he sat at an angle to each participant. This setup made it easier for him to maintain good listening posture and take notes than if he had sat next to the participant on the couch.

At the beginning of each interview, this researcher wrote down the time and date and some information about each student, especially a physical description of the students' appearance, a notation on what students had brought with them, and their body language when they first took a seat. Next, the student and he reviewed the Informed Consent document. This researcher explained to students once more the purpose of the study and the participants' role in it, let them know that the interview would be audio recorded and transcribed verbatim, and informed them of their rights as participants. As this researcher is a faculty member at SCIT, specific emphasis was placed on the fact that faculty members and administrators at SCIT would not have access to recordings and transcripts. Students were also told that they would be given a pseudonym on all transcripts, field notes, and quotations of student comments, and that all other names of people and places would be changed as well. Throughout this review and once more at the end, this researcher asked students if they had any questions and finally asked them to sign the consent form. (A copy of the informed consent form is attached as Appendix B.)

All interviews were audio taped. This researcher used a digital voice recorder with an external omni-directional microphone and a built-in removable USB drive.

Before the taping, he handed the microphone to each student and asked him or her to clip it onto his or her collar, button strip, or shirt front. He then conducted a sound check (i.e. a few words were recorded) to ensure that both the student and the researcher could be understood and heard clearly on the recording. During the interview, this researcher took handwritten notes pertaining to nonverbal communication such as eye contact, gestures, posture, vocal variations, etc.

The interview was kept in as much of a conversational tone as possible. This researcher asked his main questions and, taking his cues from participant responses, developed the conversation from there. Probes were asked when greater understanding was needed on an issue or when students had said something contradictory, and he also used follow-up questions to delve deeper into some of the students' experiences. The exact nature of the conversational partnership depended on each student. Some students were more comfortable in the conversation than others who gave only short responses. In the latter case, this researcher tended to take more of a lead and follow the order of the questions more closely.

#### *Interview and Field Note Transcription*

After each interview, this researcher sat down to write his field notes as soon as he could. Whenever possible, they were written in his office directly after the interview. If that was not possible, they were completed that same evening. This way, this researcher could be assured to have a more complete recollection than if he had waited longer. Field notes included observations on student body language, the settings and any possible disturbances, and his personal disposition. The field notes also functioned as methodological memos as this researcher used them to reflect about how the interview

had progressed, where he had noticed room for improvement, and which changes might be advisable for the next interview.

The next step was the transcription of all interviews. Interview sound files were uploaded to this researcher's computer hard drive from the digital recorder's USB drive. He then copied each file to a backup CD-RW and deleted it from the USB drive. Transcription was completed using the f4 transcription software (version 2.1) available as a free download from dr. dresing & pehl GmbH in Marburg, Germany, at [www.audiotranskription.de](http://www.audiotranskription.de). Advantages of f4 are its variable playback speed and its spooling ability, i.e. the file may be automatically rewound between one and five seconds after each stop and restart.

Following the recommendations made by Powers (2005), this researcher opted for a lightly edited verbatim transcript. Non-standard articulation, enunciation, and pronunciation were rendered in standard spelling unless emphasized by the participant; non-standard words were included as spoken. Punctuation was added as deemed appropriate, but as suggested by Powers, colons and semicolons were not used as punctuation marks. False starts, fragmented sentences, and stammering were fully transcribed. All filler words such as "like" or "you know" were included, as were assent and dissent sounds. Laughter, pauses, overlapping speech, emphasis, and volume were all transcribed. After the first draft of a transcript was completed, the entire transcript was checked for accuracy by listening to the tape once more and going over the transcript line by line.

Offering contextual information about the interview setting such as interviewer and interviewee name, date, starting and ending time, and location, began each transcript.

Following this, the transcription key was included. Symbols for the transcription key for items such as lengthened sounds, pauses, false starts, overlapping speech, etc., were created based on the recommendations by Powers (2005). (The transcription key is attached as Appendix E.) All transcripts were created using the “line numbering” function of Microsoft Word for easier identification of specific statements.

Powers (2005) distinguished between two levels of editing. The first level of editing according to Powers includes tasks such as deciding on punctuation or the representation of non-standard enunciation. She sees this as an integral part of creating a transcript but nonetheless a series of editing decisions. The second level of editing includes adding and deleting words and correcting grammar and sentence structure to create a more smoothly flowing text. The transcripts for this study were produced according to the first level of editing. Entire transcripts were not subjected to the second level of editing.

As editing is one of the considerations in representing participants’ speech, a decision had to be made on how much direct participant quotations from the transcripts should be edited before being included in this study. Powers (2005) contended that many participants are shocked by how incoherent spoken language can sound, are embarrassed by their own statements, and want their speech to be represented in a fluent, polished manner as if it had been prepared for writing. Such editing, of course, raises the questions of the authenticity of the original statement. Using quotations as they appear in the transcript may leave participants feeling self-conscious and open to ridicule; editing for style and fluency may lead to a sentence that is no longer faithful to the original words or meaning.

This dilemma was discussed by Appleman (2003), who pointed out that any qualitative research deals with issues of power (that of the researcher over the participant), representation (how statements made by participants can be represented so that participants feel comfortable with them but are still faithful to the original words), and invention (at which point editing changes the meaning of the original words). These questions are especially acute when the researcher belongs to a racial, ethnic, or cultural group that has historically misrepresented the group the participants belong to.

One of Appleman's (2003) participants brought these issues to a head by asking the question that became the title of her essay: "Will you be makin' me famous or making me a fool?" (p. 71). Determined to make his participants famous, this researcher first of all had to acknowledge the existing power relations in his research, i.e. researcher vs. participant, faculty member vs. student, and white (although not of American origin) vs. non-white. These reflections then allowed him to develop an approach to editing that was sensitive to participants' needs and faithful to the original words. Recognizing that this research was not about regional speech patterns or psychological analysis that required him to reproduce oral speech verbatim, this researcher decided that editing for clarity, flow, and readability was justified here.

Based on the recommendations made by Powers (2005), items edited out when statements from the transcripts were quoted in the text of this study were false starts, repetitions, short fragments, filler words, nonverbal sounds that did not add to the meaning of the statement, and non-standard grammar. Ambiguous statements were supplemented with explanations in square brackets. Overall, care was taken that all changes used participants' words and were not rephrased with words chosen by this

researcher.

### *Document Collection*

Prior to the interview process, this researcher collected a number of documents for his study. These documents can be divided into demographic student information and documents relating to SCIT's vision, mission, and goals. For the first category, enrollment and graduation data were collected. This information allowed this researcher to obtain statistical information about the college and the student population and learn the names of potential participants. The second category consisted of SCIT's strategic plan, a document that contains some information about the institution's plans for minority and American Indian student development.

### *Data Analysis*

If there is anything qualitative researchers probably agree on, it is the concept of "immersion," i.e. intimate familiarity with the data. This has been best expressed by Rossman and Rallis (2004): "Read, reread, and once more read though the data. ... You must know the data intimately—there is no substitute" (p. 281). The most common challenge in this regard, Patton (2002) explained, is that qualitative researchers tend to deal with large amounts of data that must be well organized so that the researcher can begin the immersion process properly prepared.

### *Organizing the Data*

Mayring (2007) recommended three steps as part of the data organization process: (1) inventory the material to be included in the analysis, (2) check for consistency in material preparation, and (3) check for consistency in the formal characteristics of the material. This researcher first determined which materials were available, which were 17

interview transcripts with accompanying field notes and the strategic plan for SCIT. If the data corpus is particularly large, sometimes only part of the data can be used, but this researcher decided that all data would be part of this study. Next, he checked the materials to make sure that everything was properly labeled. He made sure that all interview transcripts had complete headers with the information about participants and settings, that he had done the same for field notes, and that line numbers had been applied. Third, he looked at the consistency in all documents. Were all transcripts labeled in the same manner, and were they all created by applying the same transcription guidelines? If any transcript showed a deviation from the guidelines, corrections were made at this point to ensure consistency.

#### *Coding the Data*

Data analysis was conducted in terms of what Rossmann and Rallis (2004) called “content analysis” (p. 198), where intimate knowledge of the data from all participants is used to uncover consistencies across data sources that help find answers to the original research question. Data are organized into patterns, categories, and finally themes based on participants’ statements (emic analysis), and these themes and categories then lead to the generation of meaning through interpretation.

Coding is the step that makes the connection between participants’ statements and the categories into which statements will be grouped, meaning the researcher tries to develop a classification scheme, a way to label data segments (Mayring, 2007). Such categories may be brought to the coding task as a result of the research question or the literature review or may develop as indigenous, i.e. participant generated, categories during the interviews (Weiss, 1994). Rubin and Rubin (1995) recommended that

researchers in the coding phase try to identify “concepts” (p. 226) that frame each participant’s experience. Concepts can be found by paying particular attention to specific words or phrases used repeatedly by participants as frequency of use is a good indicator that a particular idea or experience is of importance to the interviewee.

In the first coding step, often referred to as “open coding” (Flick, 2002; Patton, 2002), this researcher first immersed himself in the data by reading the transcripts several times. While reading the transcripts line by line, he jotted down first codes representing interesting and emerging ideas, unexpected information, and possible items that might indicate patterns and themes into the margins of the transcripts. Since some data segments might represent more than one idea, Rubin and Rubin (1995) suggested that researchers consider underlining text in different colors for easier accessibility of the data later. This process has been referred to as “pawing” by Ryan and Bernard (2003) because researchers simply rifle through the data again and again to get a sense of which patterns may be present. Flick (2002) warned that the number of codes to come from this initial reading could be in the hundreds, and indeed, this researcher had jotted down 143 different initial codes.

After this first round of open coding, this researcher stepped away from the data to reflect on possible convergence. Were there any codes that fit together? Were there codes that seemed redundant? Were there any regularities or patterns that had appeared in the coding? He returned to the transcripts for another round of open coding after this incubation period to see if any of the codes could be grouped together. This search for connections was completed by using the word-based techniques described by Ryan and Bernard (2003): word repetitions (frequently occurring words), key indigenous terms

(words used by participants without having them suggested by the researcher), and key words in context (any words that appears to carry importance for participants is examined in all its context within the data). Flick (2002) proposed that a second reading should lead to a grouping of the codes into relevant categories, and at the end, this researcher had placed the codes into different categories, taking care to use indigenous categories whenever possible.

Once the second reading had been completed, this researcher wrote basic analytical statements about data segments, taking care once again to use indigenous terms and avoid interpretation. He simultaneously wrote thematic memos to document the process of arriving at the codes and categories and to explore possible themes. Just as claimed by Flick (2002), at the end of this step, he had a list of codes and categories as well as thematic memos about anything in the material that might lead to the discovery of themes.

A final reading, Mayring (2007) insisted, is needed to see if any new categories are needed, if categories have been duplicated, and if other categories should be relabeled. At the end of this reading, this researcher had added one category and relabeled five. According to Flick (2002), if this final reading leads to only a few new categories or changes, the analysis is ready for the next step. Therefore, this researcher once again stepped away from the transcripts and memos for another period of incubation.

In the next step, interview transcripts with codes and categories clearly applied are refined and expanded in a step called “focused coding” (Patton, 2002; Rossman & Rallis, 2004). According to Flick (2002), the purpose of this step is to choose the categories that are most likely to provide answers to the research question, assign the

different data segments to these categories, and decide which codes should function as major categories and which ones as subcategories. When this researcher returned to the data, he chose the most promising categories, worked to arrange and rearrange codes and data to look for connections and contrasts, and clarified and adjusted category divisions and labels. Checking was done within and across categories to find possible new connections.

The final step, which Flick (2002) called “selective coding” and Mayring (2007) referred to as “content structuring” is to develop core categories or themes from the categories at hand. Researchers now synthesize the categories into themes by writing a summary of similar responses from among the participants and adding descriptions of those responses that do not fit the “main line” (Weiss, 1994, p. 158). Qualitative researchers have been somewhat reluctant about providing a fixed definition of the term “theme,” but it can probably be said that themes tend to point more toward interpretation and a deeper understanding than categories, which are more descriptive of participant statements. Themes try to express unstated, hidden information and assumptions (Rossmann & Rallis, 2004). Flick (2002) defined themes as the representations of “central phenomena” that were present in the data although not in explicit terms. In this step, this researcher integrated the categories around such central ideas, once again working across categories to look for any connections that had gone unnoticed, and ended up with four themes that the categories could be grouped around. In addition, he made note of all statements that did not fit in categories and sub-categories or were contradictory to the observed convergence within participant responses. At this point of the analysis, Mayring (2007) stated, the researcher is ready to proceed to the

interpretation of the system of themes and categories.

### *Interpreting the Data*

Interpretation according to Rossmann and Rallis (2004) is to write up the meaning contained in the themes and categories in a coherent text so that readers can share in the researcher's understanding. Patton (2002) cautioned that interpretation must include a discussion of those items that do not fit the major categories and themes and listed seven purposes of interpretation: attach significance to what was found, make sense of findings, offer explanations, draw conclusions, extrapolate lessons, make inferences, and consider meaning (p. 480).

In the interpretation phase, this researcher first made sure that his reporting of the findings included clarifications of the themes and categories he had chosen and provided quotations to back up his findings. Second, if any connections were present across categories, those were spelled out in concrete terms. Finally, all findings were connected to the theoretical framework of this research as well as to findings from other studies. Since the purpose of this research was to elicit a deeper understanding of success factors for American Indian students, any discrepancies or expansions of earlier findings were expressly pointed out. Findings were then used to extrapolate what students' comments had revealed about successful policies and practices and where further, more targeted research may be warranted.

### Judging the Trustworthiness of Qualitative Research

Flick (2002) saw the most common criticism of qualitative research in its tendency to employ what he called "selective plausibility," meaning that the interpretation was coherent only because the choice of quotations was limited to those

data segments that supported the researcher's findings. Anything contradictory may be mentioned but is rarely cited, and as a result, critics often accuse qualitative studies of limited credibility. Merriam (1998) recommended that qualitative researchers pay close attention to data collection procedures, data coding and analysis, and extrapolations and conclusions drawn from data. Nonetheless, the question remains by which standards qualitative research findings and results can be judged trustworthy.

Patton (2002) identified five sets of criteria for judging the quality and credibility of a qualitative inquiry: traditional scientific research criteria, which are used by those researchers looking for cause-and-effect analysis and generalizability; social construction and constructivist criteria, which are applied when deep understanding is desired; artistic and evocative criteria, used by researchers trying to convey a direct experience rather than an analysis; critical change criteria, typical for researchers trying to expose inequities and change power relations in society; and evaluation standards and principles, helping people determine if programs meet certain standards of quality (pp. 544-545). He argued that different philosophical orientations engendered and required different criteria, and based on the theoretical underpinning of this study and its attempt to acquire a better understanding of American Indian student success factors, the social constructionist and constructivist criteria seemed most appropriate.

Flick (2002) and Merriam (1998) both mentioned internal validity, external validity, and reliability as important criteria for the trustworthiness of qualitative research. However, since these terms come from traditional empirical models, Lincoln and Guba (1985) suggested that the slightly modified criteria of credibility, transferability, and dependability be used in their place, and these alternative criteria

together establish the trustworthiness of a qualitative research study.

### *Credibility*

Credibility of qualitative research according to Patton (2002) rests on three foundations: rigorous methods, credibility of the researcher, and the philosophical belief in the value of qualitative inquiry. Rigor requires first of all that the process of data collection, analysis, and interpretation be documented in detail. In his quest for rigor, this researcher wrote detailed field notes about every interview with particular emphasis on context (e.g. setting, student dress, non-verbal communication, and anything he thought had gone well or could have gone better). Before, during, and after the interviews, participant comments were jotted down. During the analysis step, thematic memos were composed, and all documents created during the different steps of the analysis process were kept for further reference.

Such documentation is useful for meeting the second criterion of rigorous methods this researcher performed, an ongoing search for alternative explanations and themes. Data were organized in different ways to see if alternative themes and categories could be supported. To make such a search for alternatives possible, all coding schemes, from the initial open coding to the final coding, were kept and periodically rechecked to see if any new interpretations may have arisen. Furthermore, this researcher checked across categories during both the focused and the selected coding phase to make sure no possible connections had been overlooked.

Following Patton's (2002) suggestion of giving participants an opportunity to respond to the data, another technique to ensure researcher credibility was to perform a member check. All participants were sent copies of their interview transcripts, and they

were encouraged to add, delete, or change information as they saw fit. Next, this researcher conducted a data source check by looking for differences between what was said during the interview and what was said after the recorder had been turned off and by looking for consistency in responses to the same issue. Finally, care was taken to develop emic codes and themes that were truly reflective of participant responses and not of a desire to find certain answers.

A second aspect of rigor is researcher credibility. Pertinent information about the researcher that may have an effect on data collection, analysis, and interpretation (e.g. biases, expectations, and prior knowledge) has been noted whenever appropriate. Great care was taken to assume a stance that Patton (2002) called “empathic neutrality” (p. 50), that is researchers show caring and warmth toward their participants while remaining neutral toward the content. Limitations of this research have been stated throughout this text as appropriate, with particular emphasis on the fact that the researcher is not American Indian, that he is a faculty member at SCIT, that the time period during which interviews could take place was limited, and that the selectivity of the students who were participants was limited by factors such as tribal affiliation or geography. A separate section discussing researcher subjectivity has been included in this chapter.

Finally, credibility requires a belief in qualitative inquiry. The idea of a qualitative study arose from discussions in the literature that quantitative studies had failed to help increase student completion rates and that qualitative inquiry was needed to fill in the knowledge gaps. Many quantitative studies have been conducted on the topic of American Indian student retention, but this researcher believes strongly that if we want a deeper understanding of people’s experiences, we must actually talk to them.

### *Transferability*

As stated by Rossman and Rallis (2004), applicability to other contexts is one of the quality criteria for qualitative research. Applicability does not mean generalizability in the empirical sense but rather what Patton (2002) called “fittingness” (p. 584), the perception that if two contexts share sufficient characteristics, then assumptions derived from findings in one context may be applicable to the other one. The word “assumption” is key here. To ensure transferability, Patton (2002) suggested that researchers develop extrapolations instead of conclusions and advocated a search for new perspectives rather than truth. Either way, findings and interpretations are not the final word, just guidelines upon which readers can make decisions for their policies and practices.

To assure a level of transferability, this researcher described the complete process of data gathering, analysis, and interpretation as well as the setting in detail. The more pertinent detail has been provided, the easier it will be to identify another context as sufficiently similar and check if findings from this study may apply. In addition, Weiss (1994) suggested that a deep understanding of the data, a thick description of the findings, and a connection to other studies add to the transferability of qualitative research. The deeper our understanding of a phenomenon, Weiss explained, the more universal it probably is, and this study is indeed concerned with exploring student experiences that become success factors and lead to persistence in greater detail. Finally, this researcher attempted to make his group of participants as diverse as possible. Although he had limited himself to graduating American Indian students and was also limited in tribal affiliation, he was able to achieve diversity in several criteria such as gender, college major, family educational background, and previous college experience.

### *Dependability*

According to Merriam (1998), dependability was less concerned with replicability than with making sense, and she offered three techniques that can make qualitative research more dependable: the researcher's position, triangulation, and the audit trail. To clarify the researcher's position as suggested by Merriam, this researcher explained the theoretical background of the study and his motivation for conducting it, reflected on the relationship between researcher and participants, provided a description of participants, and detailed the context in which the data were collected. Triangulation could not be performed since observation and document data were not available, so in its place a careful check of data sources was used to ensure dependability and credibility. Finally, to create an audit trail, the process this researcher followed from collecting data to writing the narrative has been described step by step.

### Researcher Subjectivity

The relationship between the researcher on the one hand and the study and its participants on the other can lead to complications to achieve Patton's (2002) "empathic neutrality." One such issue was the fact that this researcher is a faculty member at the South Central Institute of Technology. Knowing campus administrators and faculty members personally entails the risk that requests to reveal data may be made. To prevent this, this researcher let all faculty members who assisted him with contacting students know that he could not provide them with any information beyond what is revealed in this study, and he also made it a point to assure participants that no one on campus would have access to interview recordings and transcripts. In addition, assigning pseudonyms becomes even more important, and this researcher made sure that the

pseudonyms of both students and faculty members are not even remotely similar to their actual names.

In addition, previous experience can influence researcher perceptions. Since this researcher has frequently taught American Indian students in his classes and has personal experience with how these students learn, he was careful not to let his classroom perceptions cloud participant responses. This was especially pertinent for participants who had taken this researcher's classes before and occasionally made comments about how much they had enjoyed the class. Fearing that participants were trying to say what this researcher wanted to hear, he usually defused such comments with self-deprecating humor and encouraged students one more time to speak openly.

Finally, the relationship between a researcher from the dominant culture and a participant from a minority culture can be very delicate and is fraught with issues of power and cultural misunderstanding as discussed earlier in this chapter. Swisher (1998), for example, claimed that non-Native researchers cannot possibly understand the intricacies of Native cultures and contemporary life issues of tribal people and made a suggestion that may not sit well with some researchers: "If non-Indian educators have been involved in Indian education because they believe in Indian people and want them to be empowered, they must now demonstrate that belief by stepping aside" (p. 192). Recognizing the strong feelings that exist on this issue, this researcher made sure that his data analysis consisted on a very close reading and that all conclusions could be supported with participant statements.

#### Summary

This chapter introduced the research methods for this study. Research design,

setting, and participants were explained, data collection and analysis procedures were described, the relationship between researcher and research, and measures taken to ensure trustworthiness were made explicit. In the following chapter, participants will be introduced, and findings will be discussed.

## CHAPTER IV

### PRESENTATION OF THE DATA

The purpose of this study was to identify the success factors of graduating American Indian students at a sub-baccalaureate technical college. In this chapter, the participants are described first. Next, data collected from interviews is presented in relation to primary and secondary themes. The names of the participants used in this and subsequent chapters will be their assigned pseudonyms.

#### Description of Participants

All seventeen participants were self-identified American Indian students in their final semester at the South Central Institute of Technology. All claimed affiliation with tribes now located in Eastern Oklahoma. Those tribes were, in order of frequency, Cherokee (8), Creek (7), Choctaw (2), Seminole (2), Quapaw (1), Yuchi (1), Chickasaw (1), and Ottawa (1). Seven participants claimed affiliation with more than one tribe, and three mentioned that despite their heritage, they were not currently enrolled members. Participants' ages lay between 20 and 65 although the majority of them (10) were clustered in the 20-23 age bracket. Only four participants were older than 30. Participants' came from a variety of programs of study: electrical and electronics technology; instrumentation engineering; information technologies; graphic design; shoe, boot, and saddle making; business; and pre-education. No students from heavy equipment and automotive technologies participated since these students are admitted as cohorts

only for the fall semester and graduate in August of each year at the end of the summer semester. The following table is a summary of the information given above:

Table 3. Participants' Age, Tribal Affiliation, and Program of Study

<b>Name</b>	<b>Age</b>	<b>Tribal Affiliation</b>	<b>Program of Study</b>
Suzanne Atkins	26	Choctaw, Yuchi (not enrolled)	Graphic Design
Nancy Berryhill	34	Muscogee (Creek), Seminole	Pre-Education
Matthew Bledsoe	22	Cherokee	Engineering Technologies
Susan Brown	42	Quapaw	Information Technologies
Jasmine Crenshaw	21	Muscogee (Creek)	Pre-Education
Greg Densmore	25	Muscogee (Creek)	Pre-Education
Shane Dickson	20	Choctaw, Cherokee (not enrolled)	Engineering Technologies
Jacob Fixico	23	Muscogee (Creek)	Engineering Technologies
Autumn Goldsby	20	Cherokee	Pre-Education
Lucy Haney	27	Cherokee	Pre-Education
Jason Marshall	23	Chickasaw	Engineering Technologies
Benjamin Posey	20	Muscogee (Creek), Cherokee	Pre-Education
Dustin Ross	21	Cherokee, Ottawa	Information Technologies
Mitchell Tiger	21	Cherokee	Information Technologies
Andrew Vann	22	Cherokee	Engineering Technologies
Ernest Watson	65	Muscogee (Creek), Seminole (not enrolled)	Shoe, Boot, and Saddle Making
Mary West	44	Muscogee (Creek)	Business

Participants' demeanor, dress, or appearance did not in any noteworthy way deviate from that of other students. All participants wore clothes similar to those of their non-Native classmates. They sported a variety of baseball hats; t-shirts with various imprints; jeans, shorts, or skirts; and thong sandals, tennis shoes, or other popular styles of footwear. None of the logos, images, or words on hats or shirts had any obvious connection to American Indian themes. Only one participant, Mary West, wore a piece of jewelry, a bracelet, whose design revealed her heritage. No one else wore any American Indian-style jewelry.

Non-verbal communication likewise matched that of other students and overall seemed rather subdued. Male participants tended to be more fidgety than female ones and engaged in behaviors such as pumping their legs, playing with items they had brought, or cracking their knuckles. However, these movements could not be linked in any meaningful way to the content of participants' comments. Everybody smiled frequently throughout the interviews. Gestures were used almost exclusively to complement verbal statements; very few instances of repeating or substituting were observed. When asked a question, several participants looked away from the interviewer while thinking about the answer and then turned back toward him. If no time to think was needed, eye contact was maintained throughout. The only participant who showed a deviation from this pattern was Mary West. When giving a response, she frequently did not maintain full eye contact with the interviewer but lowered her head slightly and looked at him out of the corner of her eye. Her behavior could potentially be interpreted in the context of American Indian behaviors that looking a person of authority into the eye is considered highly disrespectful.

Most participants reported that while they were growing up, their families were not involved in tribal cultures and did not teach them about their cultures. As a result, participants were distant from their tribal cultures then, are not involved now, and do not have much knowledge of tribal matters. Some family members were identified as being more traditional, frequently the grandparents. If participants had learned about tribal cultural traditions, it was usually through programs in school such as Indian education, art competitions, field trips, language courses, etc., although for most, the interest had ebbed by the time they were in middle school. Several participants professed a desire to learn more about their cultural heritage, but they begged off when queried about specifics and cited a lack of time. Three participants declared that they had no interest in their tribal culture and no plans to become involved.

Three participants spoke in some detail about their culture. Suzanne Atkins reported that her father had instructed her in Choctaw lifeways, especially how to comport herself and how to treat others. She stated her pride in her background but also admitted that she was uninvolved at this point in her life. Jasmine Crenshaw mentioned the ceremonies, dances, and events that she participated in and hoped that this heritage would be passed on to her child. Mary West described the Native artwork that decorated her home and her interest in tribal history, which had led her to engage in some significant independent reading on tribal matters, including history.

With the exception of Mary West, who knew some words and basic phrases in Creek and insisted that her children and grandchildren learn those as well, none of the participants were able to speak their tribal language. Some pointed to ancestors who had been fluent in the language and had had only limited English skills, but their family

members today could speak the tribal language only in a limited fashion. Several participants had learned some of the language when they had been younger but admitted to having forgotten most. Many expressed a desire to learn more but qualified this desire by saying they would consider it only if they had time, if the language was not too hard to learn, and if there was some practical use. Andrew Vann justified his lack of interest this way: “If it wasn’t so hard, I could take it up as a hobby. It’s just not a whole lot of us people—you can’t go to a Cherokee restaurant, really” (AV 210-11).

*Susan Brown*

Susan Brown, a member of the Quapaw Nation, was born in California but moved to Oklahoma at age five. After finishing high school in Tulsa, she attended two other sub-baccalaureate colleges in the region to major in computer science but dropped out of both. She subsequently married, had children, and attended a state-sponsored training program for nurse’s aides; however, this training did not lead to permanent employment. After several years in food service jobs, Susan was seriously injured in a car crash. With the help of her vocational rehabilitation counselor, she rediscovered her interest in computers, which ultimately led to her enrollment in the information technologies program at SCIT. Susan was hoping to work in computer security for a private corporation. She referred to her living without tribal culture as a “normal life” (SB 523), but when asked about learning Quapaw, she admitted interest in her “own language” (SB 605).

*Lucy Haney*

Lucy Haney, a member of the Cherokee Nation of Oklahoma, came from a troubled background with family violence and a father in prison. She dropped out of high

school, became involved with alcohol and drugs, and ended up in an abusive relationship. Lucy credited her strong will and her Pentecostal church for her turnaround. She finally decided that she did not want to live like her parents had, ended all contact with her friends, and eventually earned her GED. Lucy stated that she thrived on the structure her church provided, and she followed their dress code in that she wore ankle-long skirts and long-sleeved blouses and never cut her hair. Lucy came to SCIT because some family members had attended the college, and a friend had finally talked her into enrolling. Lucy was considering going into social work to help women and children in situations similar to the one that she had been in.

*Suzanne Atkins*

Suzanne Atkins was of Choctaw and Yuchi ancestry but not an enrolled member because her grandmother had feared that enrolling Suzanne's father would have made his life more difficult. Suzanne was one of the few participants with traditional culture in her background. Her father was friends with a number of artists, took the children to tribal events, and instilled tribal values in them, of which she was very proud. Suzanne had a Bachelor's degree in Business Administration from a regional state university, which she attended on a soccer scholarship. She came to SCIT because she could not imagine spending her life working in accounting or finance and had always been good at art: "I want to do what I love because life is too short to not do something that you love" (SA 383-84). Suzanne was looking for her own niche within the graphic design field, something in terms of commercial illustration with a company that values employee input, and she was working on her own children's book.

### *Mitchell Tiger*

Mitchell Tiger, a member of the Cherokee Nation of Oklahoma, had some interest in art in high school and actually won a scholarship at an art competition to attend another sub-baccalaureate institution in Oklahoma. He came to SCIT because a friend had told him about the college, and the information technology program seemed to fit his recent interest in computers. He was hoping to earn a number of IT certifications and then find employment in network security as a network manager.

### *Nancy Berryhill*

Nancy Berryhill was a member of the Muscogee (Creek) Nation but also claimed Seminole ancestry. Nancy's parents had decided to let their children grow up without much tribal culture, and Nancy referred to growing up in a tribal environment as "that type of culture" (NB 183) and "that situation" (NB 185). She related that many of her father's relatives had sold their allotments for good money, had never worked, had spent their days partying, and had ended up on welfare when the money had run out. Nancy did not want her children to grow up around these family members. Nancy had an accounting degree from SCIT but decided to return because of a lack of advancement at the bank where she used to work. She had discovered her love for teaching while working as a teacher's aide at a local elementary school and was hoping to become an elementary school teacher herself.

### *Jason Marshall*

Jason Marshall was an enrolled member of the Chickasaw Nation. Jason first came to SCIT to earn a degree in Automotive Collision Technology because a friend of his was doing the same and because he liked to work on cars. However, after finishing his

program, he transferred to Electronics Technology to earn a second degree. Jason had no specific career plans yet, but his dream was to build a house on his grandfather's land and start a family. He referred to his tribe as "the Indians" (JM 173).

*Jacob Fixico*

Jacob Fixico, a member of the Muscogee (Creek) Nation, was an Iraq war veteran who was present at the first battle of Fallujah. He came to SCIT because the military had peaked his interest in electrical engineering. He had attended a regional state university before joining the military and decided on SCIT because of its engineering technology program. Jacob lived one hour away from SCIT and commuted to his classes, which he said was exhausting at times. Jacob wanted to return to SCIT after earning his Associate's degree to complete a Bachelor's degree as well. He did not yet have any specific employment plans other than working in a supervisory capacity, but he was looking forward to making more money than his parents so that he would have an easier life than they had had.

*Jasmine Crenshaw*

Jasmine Crenshaw, a member of the Muscogee (Creek) Nation, was the single mother of a 21-month-old boy. Jasmine was actively involved in some of her tribal culture such as participation in ceremonies and stickball games and learning to make dance regalia. Jasmine came to SCIT on the advice of her high school counselor, who had stated that Jasmine would receive more personal attention at SCIT than elsewhere. Jasmine was hoping to eventually earn her teaching certificate and return to her former high school as a history teacher to offer more instruction in American Indian culture and help eradicate stereotyping.

*Shane Dickson*

Shane Dickson was of Choctaw and Cherokee heritage but was not an enrolled member of either tribe. He came to SCIT because he thought that a degree from the college would be more marketable than a degree from another university. He chose electrical engineering because of his interest in science. Shane commuted to school for one hour each way, but he thought it was worth the sacrifice. He did not yet have any specific employment plans. Like Jason Marshall, Shane referred to his tribe as “the Indians” (SD 190), and when asked about learning Choctaw, he responded that a “foreign language” might be useful (SD 162).

*Benjamin Posey*

Benjamin Posey was a member of the Muscogee (Creek) Nation but also claimed some Cherokee ancestry. Benjamin had attended a private Christian university in the area with plans to become a pediatrician but had not enjoyed his required biology courses. He had decided to come to SCIT because all his friends lived close by and because he was familiar with the campus as the result of concurrent enrollment. His plans were to finish his Associate’s degree, transfer to a comprehensive state university to major in structural engineering, work for a large engineering firm upon graduation, and eventually start his own business. He, too, referred to his tribe as “the Indians” (BP 209).

*Andrew Vann*

Andrew Vann was a member of the Cherokee Nation of Oklahoma. He had attended another sub-baccalaureate college in Oklahoma but hadn’t liked the emphasis on theory there. When he had tried to enroll at an area CareerTech center instead, the counselor there had recommended SCIT for its practical orientation. Andrew wanted to

earn his Bachelor's degree in addition to his Associate's degree, and he already had been promised employment with a major oil company in western Texas. His goal had always been to become an engineer. Andrew was planning to get married over the summer and then have his wife join him at their new home in Texas.

*Autumn Goldsby*

Autumn Goldsby was a member of the Cherokee Nation of Oklahoma. Autumn had taken concurrent courses at SCIT while still in high school and had decided to earn a college degree so that she would never have to depend on anyone else for material support. She had enrolled at a regional state university but never attended because she did not want to move that far away from home. Autumn enjoyed outdoor activities and was looking forward to a career in early childhood education.

*Greg Densmore*

Greg Densmore, a member of the Muscogee (Creek) Nation, was not a dedicated student in high school, but after he had started working for his uncle in the oil fields, he realized that he did not want to do hard, physical labor for the rest of his life and enrolled at SCIT. At the same time, he decided to cut ties with his friends because the party lifestyle interfered with his studies. However, if one read between the lines, it became clear that Greg missed his friends nonetheless. After earning his Associate's degree, Greg was considering staying on at SCIT and transferring into the Bachelor's program in Civil Engineering.

*Matthew Bledsoe*

Matthew Bledsoe was a member of the Cherokee Nation of Oklahoma. When he was growing up, he had an interest in drawing. He became friends with a group of

American Indian artists and gallery owners who used to meet at a local diner. They helped him with his artwork and occasionally bought drawings from him. He had originally attended another university in Oklahoma to major in nursing and later become a pharmacist but hadn't enjoyed his studies. His father, who worked in the electrical field, and some of his father's co-workers had told him about SCIT. Matthew was looking forward to starting his employment with a utility company in eastern Oklahoma.

*Dustin Ross*

Dustin Ross is an enrolled member of both the Cherokee Nation of Oklahoma and the Ottawa Tribe. Dustin had first attended a regional state university in Oklahoma to major in Cherokee education but had become bored with his studies and realized that he was not good at working with children. After taking a summer off, a friend had convinced him to enroll at SCIT. Dustin was the only participant dissatisfied with his program of study. He mentioned that administrators and instructors were not willing to help him with his learning or with finding an internship and that some instructors taught classes they were not qualified for. Dustin planned to finish his degree, return to the regional state university he had previously attended to take science courses, and then apply to medical schools in the state. His attitude toward SCIT was unequivocal: "I'm very tired of the crap here" (DR 1036).

*Mary West*

Mary West was one of the few participants who were actively involved with their tribal culture. A member of the Muscogee (Creek) Nation, she was the only one to wear Native jewelry, and she did this deliberately: "I represent myself as a Native person wearing beadwork" (MW 864). In addition, she spoke some Creek and insisted that her

children and grandchildren used the language as well. Mary had attended a proprietary career college when she was younger and had decided on SCIT because she had always wanted a college degree and because her husband had suffered a disabling injury at work. She was also enrolled at the Five Civilized Tribes College. Mary planned to eventually earn her Bachelor's degree but first wanted to work for the tribe to make some money while looking for more permanent employment.

#### *Ernest Watson*

Ernest Watson had grown up in central California where his parents had moved in the early 1940s to find work. He claimed Muscogee (Creek) and Seminole ancestry but was not an enrolled tribal member because his grandfather had not wanted the family to have the stigma of being Indian. Ernest's family history is quite colorful with connections to what is likely the best-known family feud in American popular history. Ernest had attended college in California for two years but had dropped out because he was more interested in cars. He eventually joined the military and later worked for a major semi-truck manufacturer as a test driver. He came to SCIT later in life because of his interest in horses. When a friend told him about the saddle-making program at SCIT, Ernest decided that this would be a worthwhile undertaking for him since his mobility had been hampered through complications from diabetes. Ernest had no specific career plans but wanted to use his new skills to make boots and saddles for himself and others at his own leisure.

#### Findings

After all responses had been analyzed and coded, the findings revealed two overall trends:

1. The level of agreement among participants about which factors had had the greatest influence on their success was quite surprising. In some cases, there was even unanimity although not all students made comments for every sub-theme that crystallized from the analysis. Outliers, although they appeared, were few and far between.
2. The answers overwhelmingly pointed not to principles, policies, or practices as success factors but to people. Time and again, participant responses made it clear that people had played the ultimate role in their success. The findings, therefore, appear to support the interactionist perspective of this study, that is, the interactions between students and other members of the university community play a pivotal role in the meaning students make of their campus experiences and help determine whether students persist or drop out.

Overall, responses could be divided into four major themes, which then are divided into a number of sub-themes:

1. Success Mindset,
2. Encouragement and Support,
3. Finding Help, and
4. Teaching and Learning.

#### *Success Mindset*

The overall name of this theme was very poignantly expressed by Mitchell Tiger: “Success is just about how the person wants it. ... I guess it’s just how people are raised up, their mindset, how determined they are to do something” (MT 988-91). Several

participants mentioned that the right attitude is important, that students must want success, and that they must be willing to make college a priority in their lives.

*“It’s just a desire that you want to”*

“Desire” and “determination” were terms that came up repeatedly. Mary West mentioned her belief that determination was an important component for success (MW 682), a sentiment seconded by Greg Densmore: “I think in order to be a successful student, you also have to be determined” (GD 1230). Lucy Haney spoke about her strong will and strong mind that had been necessary for success, and Mary West added that she had simply made up her mind to attend SCIT. She was willing to learn and wanted to be there: “I just made it in my mind that I’m coming back to school, coming back to college” (MW 313). The same applied to Lucy Haney, who showed her determination when her mother raised doubts: “Oh yeah, I’m going to make it. No matter what I got to do, I’m going to make it” (LH 416-17).

In addition to having the desire and determination to attend college and be successful, participants also emphasized the need to be determined to overcome challenges that arose while they were in college. Lucy Haney stated her attitude quite forcefully: “I had a strong mind to do it, and I was not going to let anything come in between that. I was just going to accomplish that, period” (LH 506-07). Mitchell Tiger likewise connected overcoming challenges to being determined: “If they want to be successful, they’ll work hard enough to do it” (MT 989-90). Many participants admitted to encountering challenges. Jason Marshall stated that he found writing assignments challenging, Shane Dickson struggled with working on some small equipment, Benjamin Posey had difficulty in his statistics class, Greg Densmore felt uncomfortable with public

speaking, and Mary West struggled in her accounting class. In all responses, challenges were quite circumscribed and related to specific class content, not to the college environment as a whole.

As for solutions, all participants subscribed to a type of bootstrap philosophy and stated that they simply pulled themselves together and did what they had to do: “I just made myself do it even though I didn’t want to” (JM 625). “There have been challenges in parts, but I’ve always worked my way through them” (SD 482-83). “I just went through it, no matter how nervous I got” (GD 904). When asked for details on what exactly participants did, there were no deep insights. The answers all came down to doing the work and studying. Shane Dickson listed these success strategies: “Paying attention in class and doing assigned readings that they called for outside of class or doing labs” (SD 412-13). Other participants had similar responses. “I wouldn’t let myself get up before I figured it out, and I finally figured it out” (BP 665). “I studied a whole lot. I spent a lot of nights up” (AV 960). “I just studied a little longer than anybody else, I guess, and asked the teacher a lot of questions” (MB 580). “I studied that much harder” (SB 2319). These answers all imply that success was the result of hard work, not of some panacea that allowed students to breeze through their coursework.

Participants further made it clear that even though they considered it their instructors’ obligation to help students, ultimately they themselves were responsible for their learning. Being determined also meant that any challenges with course content were theirs to overcome. This fact was stated most clearly by Benjamin Posey: “[If] I’m just the only one who doesn’t get it, .... I have to change my way of thinking to be a good student for him” (BP 817). Matthew Bledsoe echoed this thinking when he talked about

being challenged in his Ethics course: “I just tried my best, really. Usually classes like that, I get an A in just by studying . . . , but I guess I should have read more over the chapters or something” (MB 970). Others once again touted the benefits of constructive self-talk, as expressed by Mary West and Lucy Haney. Even Dustin Ross, who complained about instructor unwillingness to offer more direct instruction and be more helpful, reported that he overcame this challenge on his own: “I did it by myself. I had to figure it out” (DR 681).

An attitude of readiness was another important component of determination and desire: “[If] the instructors could be here every day . . . willing to teach us, we should give them the same back. We should be here and ready to learn” (MW 599-601). Curiosity was part of this readiness. Several participants expressed their love of learning and added that they had come to college because they wanted to learn new things, especially things they had wondered about or had been interested in for a while: “I like to learn things I have always wondered about” (MT 655). Susan Brown was probably most expressive and stated that she was “elated” (SB 1394) to be in college and described her attitude toward college as “excited,” “energized,” and “enthused” (SB 1379). Mary West, on the other hand, addressed negative attitudes and argued that many American Indians lacked readiness because they thought that they were stupid and that college was beyond their abilities (MW 1172). Mary also insisted that everyone could be successful, “You can do it, no matter how old you are” (MW 1149); she was supported in this by Ernest Watson, who expressed pride in the grades he had earned despite his age.

In addition to having the desire to do well and to learn, there must be a determination to not quit. Several participants admitted to feelings of being overwhelmed

by the workload, but all insisted that this was not a reason to quit: “I’ve had times where I have felt like it [quitting], but it’s [the work] never been not worth it” (BP 1027).

Thoughts of quitting were often related to specific incidents, such as when Lucy Haney’s father was dying, when Suzanne Atkins was frustrated with progress in her capstone course, when Jasmine Crenshaw ran out of money, when Mary West struggled with her accounting course, and when Greg Densmore had difficulty with his research paper assignment in composition. However, Andrew Vann ably summed up sentiments with this statement: “[I felt like quitting] once or twice probably, but that was just because I was having a bad week. ... Next week will be better” (AV 1299-1301). The only general statement came from Mitchell Tiger, who mentioned that stress, too much work, and too much school made him think of quitting (MT 950).

What helped participants persist was the attitude that they were not quitters: “I’m not a person to quit in mid-stream, and when I start something, I want to finish it” (EW 974-75). Even Dustin Ross explained his persistence with this attitude: “I really do not quit at anything that I start” (DR 1044). Furthermore, participants had their eye on their goals: “Maybe it was the feeling of success, whenever you achieve something, .... or just the gratification of completing something, I guess” (GD 1155-57). As a result, little patience was shown for non-completers: “I do not want to quit like a lot of them do” (EW 966). “It drives me nuts, people that just give up and quit” (DR 1049). Three participants offered reasons for resisting an urge to quit. For Jason Marshall, it was his personal investment: “I just can’t see putting all that work into it and then not finishing up” (JM 537). For Nancy Berryhill and Autumn Goldsby, it was the final achievement, reaching their goals and graduating. As a result, goals are the next sub-theme of the success

mindset theme.

*“My main objective right now is finding a good job”*

Goals were mentioned as important elements in college success. Students had to have goals when they arrived on campus, and Susan Brown stated that she did: “I had a goal before [I began college]” (SB 2272). In fact, Autumn Goldsby made the connection between the lack of a goal and failure: “I have some friends that quit because [they] didn’t have a plan, so they just felt like they were going for no reason” (AG 1118). The need to have a goal was taken so much for granted that when told that many new students had no career plans, Suzanne Atkins made the following incredulous statement: “That’s weird because I thought that’s what you were supposed to do” (SA 961).

The foremost goals for all participants were their life goals. As Nancy Berryhill said, “I wanted to be successful with my life” (NB 502). For many participants, finishing their education and earning a degree was such a life goal. As stated by Dustin Ross, “My other goal is finish school and be happy and be done with this” (DR 1058). For Nancy Berryhill, earning a degree was a deeply personal matter: “I just needed that personal satisfaction I guess is what you could say” (NB 1027). Others cited the fact that they were the first person in their families to graduate from college: “My pretty much number one goal is to be the first one of my immediate family to graduate from college” (AV 275-76).

The second life goal was a desire for personal improvement. Jason Marshall stated that he attended college “just to better myself” (JM 155). College was seen as a vehicle that could lead to this improvement and indeed change lives. Lucy Haney came from a background of drugs, alcohol, and domestic violence, which college could help

her shed: “There was a vicious cycle that I needed to break” (LH 473). Susan Brown was tired of working in food service jobs and claimed that SCIT had changed her life (SB 1317). Nancy Berryhill and Mary West, however, two of the participants with children, wanted to serve as role models for their children and show them that they, too, could be successful in college: “They say once one person started, your family follows in your footsteps” (MW 175).

Career goals also helped students with their determination to persist, and when asked about college and career success, several participants made this connection: “Well, it’s pretty much your objective. ... I think I’ve always had that in my head” (SA 952-54). In fact, several answers contained the phrase “good job” and connected this desire to persistence: “Probably just the fact that you got have a degree now to get a good job” (MB 1208). “That was my goal—get a good job, buy a house” (JM 157). SCIT played a role in these considerations as well. Suzanne Atkins spoke about an unemployed friend who had found work immediately after earning a degree from SCIT, and several others mentioned that the high graduate placement rates for SCIT students were a major contributor to persistence: “The main thing [was] knowing that this college would help you get a job and everything. ... I knew I wasn’t wasting my time here” (SD 943-45).

The major motivator in developing a focus on success, especially for male participants, was definitely money. Over and over, participants stated that they did not want to be concerned about money and live paycheck to paycheck: “I just like to have more money than to get by. I don’t like to scrape by from week to week” (JM 810-11). “I want to be able to live easily and not have to worry about living paycheck to paycheck” (JF 203-04). “I need to make a good living and everything and not live paycheck to

paycheck” (SD 197-98). “Not living paycheck to paycheck. Having money” (BP 242). This theme, not having to worry about money and being able to buy things as desired, was clearly of major importance. Although some participants appeared uneasy about focusing on money (Greg Densmore and Shane Dickson, for example, both stated that money was not their most important goal), others made it clear that they wanted financial security for their families: “That’s ultimately my goal, to be able to support my family” (BP 237).

A final success factor was mentioned by some of the female participants and was the goal of being financially independent from men and supporting a family on their own if needed: “I’m planning to get a really good .... a pretty decent job so I don’t have to depend on my husband right now” (MW 915-16). This attitude was not exclusive to married women. Autumn Goldsby was just as adamant: “[I want to] finish school and just be able to take care of myself and not have to depend on anybody to take care of me” (AG 249). Financial independence and the ability to be the breadwinner for a family seemed to be among the factors for female participants.

*“They were really nice when they were talking to me”*

In addition to a success mindset coming from within the students themselves and being linked to their desire to obtain an education and reach their goals, there were also outside influences that put students in the right success frame of mind. One of these influences was students’ parents. Participants responded time and again that their parents wanted them to go to college: “They definitely wanted me to go to college” (JF 420). Often, parents were more insistent than just “wanting” their children to attend college and had instilled the appropriate attitude right from the start: “It’s never been a choice

whether I go to college or not; it has always been understood that I'm going to go to college" (BP 96-97). In fact, going to college and being successful was even described as matter of family honor and pride: "For us to want to go to college was a big deal, .... [s]o I would have gone regardless of whether I even wanted to" (AV 604-06).

Fathers helped create a success mindset by giving practical advice about job prospects and the need for a college education: "If you get an education, you can make money without breaking your back, so that's what I've always been taught" (BP 94-95). Another important motivator was pride. Several participants mentioned that their minds were focused on persistence when they knew that their fathers were proud of them: "Just knowing that he was proud of me and knowing that he still would be, that helped me get through" (JM 838). Mothers, on the other hand, seemed to play a lesser role in creating a success mindset and were more involved in small, day-to-day matters: "My mom, she still calls me every morning" (AG 1069). Although Autumn Goldsby sounded annoyed, her body language at the time seemed to contradict her words and suggested that she nonetheless appreciated this kind of attention.

An interesting example regarding family was Lucy Haney. Lucy was the only one to report that her mother had told her that she was not going to make it (LH 416), but she persisted nonetheless, and when she was reunited with her absent father after many years, his pride in her accomplishments made a difference in her attitude to persist even though he died from his illness (LH 1216).

The size of the SCIT campus was another external factor helping students to focus on success. Many SCIT students come from small towns and small high schools and feel less overwhelmed on a small campus: "I don't really think I was ready for a big school

yet. ... I want to still be at a [smaller] school, and so this is why I came here” (BP 470-472). On a small campus, students felt more comfortable about their chances for success and less intimidated: “I wouldn’t be going through such a big shock going off to somewhere bigger” (AG 501). Still, Jacob Fixico was one participant to see things differently when asked for his greatest adjustment challenge: “Probably just getting used to how small it [the SCIT campus] was. I mean, Compass Point State College is not that big, but it’s a lot bigger” (JF 465-66). Class size also mattered. SCIT tries to cap all classes at 20 students, and that definitely had a positive effect on student attitudes: “The class size really helped me not only academically but being able to get through everything that I needed to get through” (BP 1078-79).

Along with the size of the campus and of classes, familiarity with the campus helped many students focus on success instead of the campus environment: “I’d already been here for a year before I actually enrolled, and I already knew where everything was” (AG 498-99). Several participants had learned about the concurrent enrollment option at SCIT (i.e. high school students can take college classes and earn credit while still in high school), and this enrollment made it feel like they were returning to familiar territory: “My first day of school, it was just like coming back” (BP 502). Another aspect of familiarity was friends. Knowing people from their hometowns and their high schools allowed students to be less tense and more focused on success: “That [having former high school classmates on campus] made it a lot easier, that I knew people” (JM 477).

Campus environment thus was another facet of a success mindset. Participants stated time and again that they liked the campus environment and that they felt they belonged: “I liked that environment a lot” (MB 691-92). “I didn’t have any bad

experiences” (GD 839). Adjectives used to describe the environment were “comfortable” (LH 525, BP 458, SD 428), “quiet” (SA 576), “laid back” (LH 511), “super friendly” (AV 653), and “kind and friendly” (EW 708). As for the people in the environment, the most frequently used terms were “nice” (MT 365, 367, LH 514, SA 576, GD 643, MB 649) and “friendly” (JC 345, MW 459, 485, 553). Participants mentioned the fact that people talked with one another made the experience on campus positive: “Everybody knows everybody, and you can make friends in different departments” (AV 648-50). This atmosphere allowed students to focus on their studies and their success and not be distracted by trying to fit in.

The one dissenting voice was Dustin Ross. He admitted to positive feelings at first but stated that his attitude had changed with time when he felt especially constrained by residential life rules: “The campus tries to rule your life. I don’t want it to rule over my life” (DR 601). Dustin then became increasingly frustrated when he perceived that no one wanted to take his concerns about his program of study seriously: “After a couple of semesters, they just don’t seem to care” (DR 602). This researcher’s impression during the interview was, however, that these perceptions were primarily driven by incidents within his department instead of by the overall campus environment.

The most unexpected influence on a positive success attitude was possibly participants’ perception of prejudice. Three participants talked about incidents of prejudice that they had been subject to. Nancy Berryhill complained about the work climate at the Muscogee (Creek) Nation where employees were making snide comments about tribal members married to white people and were rude to non-Indian visitors. Ernest Watson talked about how he was subjected to prejudice while living in California

because he had a Native name but did not look stereotypical. He was blunt in his assessment: “Out in California, you didn’t tell them that you were Indian” (EW 463). Jasmine Crenshaw provided some examples from her high school. Although many teachers had been respectful of Native cultures and had tried to portray them in a positive light, others had been very negative and had blamed Indians for losing their land, depicted Indians as drunks, and claimed that Indians had brought the bison to the brink of extinction. Her high school friends, too, had made snide remarks and had tried to upset her with negative stereotypes, but she had stood up to them and her teachers. These experiences had convinced Jasmine that she wanted to become a teacher, return to her school, and teach students the truth.

As far as SCIT was concerned, the verdict was unanimous: All participants insisted that they had never had any problems with prejudice or with being Indian on campus: “I never had any problems at all.” (SD 768). Mary West, in fact, said so three times. Several reasons were offered. Mitchell Tiger thought that the absence of prejudice was related to the number of American Indians living in northeastern Oklahoma, so people were used to seeing them (MT 933), and Mary West argued that people on campus simply saw others who also wanted to better themselves (MW 533).

Upon some probing, Andrew Vann admitted that his friends occasionally made jokes, but these jokes were “not meant to be hurtful” (AV 1254) and that he “never had anybody really come off mean about it” (AV 1270). Jacob Fixico, too, insisted that his friend “just jokes around with me about that. Nothing bad or anything” (JF 998-99). Matthew Bledsoe said that occasionally classmates had misconceptions about how much money he was getting from his tribe, but he simply told them that they did not know the

truth and left it at that (MB 1134).

### *Encouragement and Support*

Having a success mindset, however, was not sufficient. Although it helped participants stay focused on their goals, they spoke about the fact that more was needed, especially when obstacles appeared along the way. Therefore, encouragement and support were frequently referred to by participants and emerged as another major theme in student retention. Participants stated the need to have the support of others on their journey through college: “I just think everybody needs someone to encourage them to keep going” (AG 1115). Such encouragement could come from people both on and off campus.

*“I think family is really important”*

Families were important in not only creating but also sustaining a success orientation, and several participants touted the importance of family support for college success. Some comments referred to the general importance of family as well as to the role families can play in difficult times: “I guess it [family support] helped keep me going when times were tough and that my determination didn’t” (GD 1196). Greg Densmore related how his family told him not to quit a difficult trigonometry course, and Benjamin Posey could rely on support and encouragement after an accident that resulted in multiple fractures. The most important family members to encourage students were parents on the one hand and spouses or boy-/girlfriends on the other.

The importance of parental support was stated by several participants, and its effect was best expressed by Matthew Bledsoe: “Without their help in some ways, I probably wouldn’t have graduated” (MB 1236). Several specific examples of support

were provided. Andrew Vann mentioned how his parents had always supported his interest in electronics, and Jasmine Crenshaw's parents encouraged her to continue with her education when she encountered financial problems. The effects of parental support were summarized by Greg Densmore as follows: "I guess it [parental support] made me feel good. .... Made me want to stay in and not quit" (GD 1177).

Comments about participants' significant others showed certain differences between younger and older and male and female participants. The four women no longer in their early twenties all mentioned the importance of spousal or boyfriend support. Mary West stated that her husband's support had helped her, and Nancy Berryhill added that her husband had encouraged her to attend college. The younger women said nothing about a significant other's support. Among the male participants, several commented on how their girlfriends had been sources of support, especially at critical junctures like Benjamin Posey's accident or Jason Marshall's change of programs.

*"The teachers were very helpful"*

On-campus encouragement came from three different sources: departments, instructors, and classmates and friends. Andrew Vann explained that departments could best support students by making connections with employers: "Coming here [has] opened up a world of opportunities as far as the oil and gas industry for me" (AV 277). Matthew Bledsoe especially was impressed with SCIT's willingness and ability to bring employers to campus for job interviews and considered this instrumental to his success: "[To] have all [those] companies come up, .... that was a good thing. That was one thing that was probably one of the most important things for me because that's what got me my job" (MB 1246-47, 1248-49).

As for people, instructors were clearly the most important on-campus people to provide students with encouragement and support. Adjectives used to describe instructors were “awesome” (LH 490), “nice” (LH 746, 862, MT 345, 426, 578, GD 643, JC 370), “understanding” (LH 746), “helpful” (MT 578, 580), “really good” (NB 591), “professional” (NB 584, 595), “friendly” (NB 595), “calm” (JC 370), and “patient” (JC 370). Andrew Vann summed it up as follows: “[I] never had instructors that were this personable” (AV 815). Participants also revealed that their instructors had been encouraging and supportive: “They were very encouraging” (SA 585). Such encouragement extended to instructors telling students not to give up in challenging courses (JC 508), to be positive about their ability to solve challenging assignments (MW 718), to support student project ideas (SA 660), and to tell students that they were making good progress and had no reason to worry (JC 437, SA 663). Suzanne Atkins specifically mentioned the importance of constructive criticism as a motivator and an indication that her instructors were supportive of her work (SA 586), and Greg Densmore appreciated the fact that his instructors set high standards for everyone and insisted that all students attend class every time (GD 629)

Personable instructors were definitely on participants’ minds, and the desire for a relationship that went beyond strictly professional was uttered by Autumn Goldsby: “It made me feel more comfortable not to just think that I’m talking to somebody that I don’t really know. .... Then if I needed something, I wouldn’t feel funny going to ask them for something” (AG 740-41, 745-46). Participants responded that they did not have problems with their instructors and that they liked and got along with them. Several described their relationships as “good” and mentioned that it was more like one between friends than one

between students and professors. Although Matthew Bledsoe stated that this kind of relationship worked better for him than the interaction he had had at other colleges (MB 805), Andrew Vann, despite agreeing with the basic sentiment, was nonetheless slightly ambivalent: “Good. .... Probably too good. We joke quite a bit, so it’s a really good relationship” (AV 810).

Dustin Ross expanded on the negative repercussions of instructors as friends. He supported the notion that instructors might want to be friends and voiced a positive attitude toward instructors’ caring about students on a personal level. At the same time, instructors should be careful not to let the desire for friendship interfere with their primary duties: “They try to be your friend, which is a good thing sometimes, but sometimes .... you’ve got to teach on” (DR 632-34).

Despite the risks of forgetting to teach over attempts at being friendly, Matthew Bledsoe liked to get to know his instructors personally (MB 719), and Greg Densmore found a personal connection to be important (GD 795). Mary West found it especially important to be acknowledged by her instructors outside of class, and Lucy Haney and Shane Dickson enjoyed conversations about non-class related topics (SD 501, LH 751). Personal relationships seem to be an important element of perceiving people as supportive and have a positive impact on student persistence and retention.

Examples of encouraging and supportive behaviors were brought up frequently. Suzanne Atkins and Jasmine Crenshaw both mentioned how their professors had always treated them with respect (SA 655, JC 381) and not condescendingly: “They talked to you like you were a person, not like you were stupid or anything” (JC 380). Nothing special or unusual was required on the part of instructors to be considered supportive and

encouraging. For example, being available was an important form of support. Suzanne Atkins praised her instructors for being in their offices during posted office hours: “They’re always there at their office hours when they say they were going to be there” (SA 584-85). Jasmine Crenshaw reported that her instructors took the time to answer her questions and did not usher her out right after class (JC 383). Small personal actions left a particularly positive impression that instructors cared. Shane Dickson felt positive when instructors learned students’ names quickly, Greg Densmore enjoyed the fact that instructors always kept abreast of his progress, and Benjamin Posey appreciated the fact that his instructors kept him informed of what he needed to do to pass a class. Nancy Berryhill and Jason Marshall for their part emphasized the need for flexibility when it came to life circumstances of adult students: “I feel like I’m not a typical student fresh out of high school. I do have a life outside of this place that’s very important” (NB 608-09). Jason Marshall stated that instructors had always been helpful in case of students’ personal emergencies (JM 826).

Finally, the encouragement and support coming from peers played a role in student persistence. Several participants spoke about leisure-time activities they engaged in with peers, and although not everyone socialized with classmates after school because of work, family, or commuting issues, comments suggested that individuals did get to know their classmates and generally regarded the relationship to be positive: “But they always have a good attitude, so I’m going to say that I have a good relationship with my classmates” (SB 2111-12).

The positive influence of peers was both direct and indirect. Mary West, for example, stated that her friends encouraged her to persist by telling her that she could

finish college (MW 951). Other influences were not quite as intentional: “I guess you could say it [working with classmates] encourages me to come to class” (GD 790). “It [working with classmates] boosted confidence a lot, and it wasn’t near as stressful” (SD 627-28). As a result, a positive personal and working relationship with classmates appears to be a boost to students’ positive perceptions of themselves and their abilities and ultimately to their persistence.

Two participants, however, sounded warnings. Looking at her background, Lucy Haney stated that she had had to give up her old friends and make new ones to be able to be successful in college (LH 343). Greg Densmore seconded this approach and explained that he had had to change his attitude about drinking, and since his friends had not, he had had to break off contact with them: “I had to break ties with some of my friends because they’re wanting to go out to drink and hang out. I couldn’t do things like that and go to school” (GD 567-68). Despite the positive influence peers can exert, there is an acknowledgement of possible negatives and a willingness, although reluctantly, to make sacrifices for one’s education.

### *Finding Help*

The third theme, finding help, appears to be one in which SCIT must have excelled based on the responses given. Comments repeated the same idea time and again: “I could always get help” (SB 1708). “Every time I needed help with something, I could find somebody that could help me out” (MT 446-47). “I cannot think of any time [when I could not find help]” (MB 787). “I never had a problem finding help” (MW 482). Three aspects of help appeared to be important: (1) help was easy to find (LH 536, AV 799), people on campus were always willing to help (SA 577, MT 446, JC 472, SD 449, EW

706, MB 691), and students themselves were responsible for finding help when needed: “As long as you want to look for it [help]. .... That tends to be most people’s problem. They don’t want to try” (AV 803-04). This last argument showed a clear connection to the earlier discussion of desire: Having the desire to do well also motivated students to take advantage of the help that was being offered. Several groups of individuals were involved in providing help and are discussed below.

*“It was more like they actually wanted to help you”*

The perception that instructors were not only helpful but also willing to help was stated by numerous participants. Statements like the following by Shane Dickson were common: “They’re always willing to help” (SD 502). Jacob Fixico had a similar experience: “They’ll definitely do anything to help you out” (JF 1025). “They were very helpful through this whole process” (BP 1079-81). Several aspects of help were mentioned in particular. It was important for students to see that instructors not only helped but did so gladly: “Every time I had a question or wanted him to help me with this problem, he was willing to do it” (MW 408-09). Instructors were expected to do two things: understand that helping students was part of their job and offering help without having to be asked: “He comes over and helps you. He probably knows what you’re having trouble with” (JM 754-55). If this attitude was clearly projected, students had no problems approaching their instructors themselves: “I could just go those people any time with anything” (SB 1679). This helpful attitude, the availability, and the proactive behavior thus have a correlation with success as expressed by Mary West and Benjamin Posey: “I strive for this education, and without them, I couldn’t have done it” (MW 705).

One specific instructor behavior that was highly praised was the willingness to spend time beyond posted office hours: “They’re willing to be there to dedicate their time even though they’re real busy, but they’re willing to help the student out when it’s needed” (MW 726-27). The focus on students and the willingness to put students’ needs first, even if such help was time consuming, was mentioned several times. Susan Brown received tutoring from her physics instructor outside of class (SB 1639), Benjamin Posey related how his instructor helped him catch up after a two-week absence for an injury (BP 749), and Lucy Haney was surprised that one of her instructors even came to her workplace to tutor her in math (LH 865). The fact that surprised several participants most was that instructors even helped students who were not theirs: “You all have your time with them even if you’re not their student, and they still help you out” (JM 752). The connection between help and success after a prolonged student absence was best made by Benjamin Posey: “That [personal tutoring] really helped me because I think I wouldn’t have passed missing that much school” (BP 752).

What kind of help did instructors offer that students needed and appreciated? Answers included that instructors had always answered questions that students may have had, even after class (JF 695, 812, SD 462, EW 914), explained the material repeatedly and in different ways to help students understand (JC 379, DR 667, EW 1075, 1083), and sat down with students and helped them step by step (MW 405, 718, EW 917, MT 579, 591). Very important in terms of support once again was proactive behavior on the part of instructors, i.e. instructors noticed that a student was having a problem and offered help: “If a teacher noticed that I was doing poorly, they would offer to help” (GD 705).

This student-centered attitude exhibited by instructors also made students more comfortable when they had to ask questions. Once again, a personal connection was important for students to feel comfortable asking questions, and if this connection existed, they indeed felt free to do so: “I lot of times I just asked my teachers because I’m a pretty upfront person” (BP 559-560). Students were also willing to ask specific questions: how to do better in a specific class (JC 507, GD 689), what the student could do to improve grades (SB 1996), and how to understand the course material better. The benefit of asking questions was probably best expressed by Shane Dickson: “You’d have to ask specific questions to get them to help you, and then ... they’d get it down to your level to where you could understand it” (SD 527-29).

However, Dustin Ross was not quite so satisfied with the instructors in his department. Susan Brown had admitted that instructors’ answers had not always been helpful (SB 1629), but she was still very satisfied overall. Dustin Ross saw things differently: “They wouldn’t help me do it or explain it to me. .... If you ask for help, they should help you” (DR 691, 673). He attributed this attitude to incompetence, stating that instructors did not help because they taught in areas that they were not familiar with and actually did not know the answers to questions. Dustin then made the connection between finding help and learning: “They’re not teaching anything if they’re not going to help” (DR 676). Despite Dustin’s dissatisfaction, his statement nonetheless once more reaffirmed the connection between instructor help and student success.

*“She was willing to help me out every time”*

Campus counselors, who at SCIT are the enrollment counselors, were other important people that were sought out for help: “If I have a question about anything about

the college, I just go to her because she has an answer for anything I ask” (BP 571-72). As a result of the administrative structure at SCIT, these counselors are often the first line of help for students who have non-class-related questions and act in the capacity of a type of clearinghouse: “Pretty much every time I walked in with a problem, she had an answer for me” (BP 596). As a result, several participants talked about seeking their counselors out for help, and having one specific person to go to was seen as helpful: “It [having one person to go to for help] makes it feel a lot more personal. It makes you be able to talk to that person a lot easier” (BP 587). Counselors did all kinds of things for students: suggest possible programs of study (SB 1990), arrange class schedules (LH 561), help resolve financial aid issues (LH 564), help choose the right classes for transfer (BP 608), and even help find an internship (MW 466). Participants definitely felt that having one person who knew them and who could help them with problems was a significant means of support.

Academic advisors played another important role in student success. Depending on the administrative structure of each department at SCIT, advisors may be department administrators (even the chair), staff members, or instructors. Students went to advisors when they had specific problems with course selection and scheduling, and this help was clearly appreciated: “I could go in there and tell her kind of what my schedule needed to be, and she’d sit there and she’d help me work it out” (SD 470-71). Internships and information about potential employers were another reason to see one’s advisor” “[He] just gave me some good advice on companies that he knows about that I didn’t. .... He helped me out with that” (JF 623-625).

*“I don’t think without them, I probably couldn’t finish”*

Several participants reported that they had relied on the help of classmates when faced with difficult course content and that there had been an atmosphere of support: “One gets down .... we support that one. Then the other gets down, we support that one. Then when I got down, they supported me” (MW 969-70). In addition to this help, students also enjoyed collaborative work: “I cannot imagine not working with other people” (SA 611). To take advantage of this source of help, participants found one or several classmates to whom they were close: “I had two or three guys that we worked together all the time, and it really helped us out a lot” (SD 747). Classmates were used as sources for class notes, study buddies, project partners, and collaborators on homework assignments. Shane Dickson stated why classmates were such an effective source of help: “It seemed like there wasn’t quite as much pressure on a single person” (SD 625).

Sometimes, however, help among classmates was a matter of solidarity. Dustin Ross explained that because his instructors were unwilling or unable to help students, he ended up helping his friends and classmates for lack of alternatives: “I helped him [my friend] do homework and help him understand his stuff that he has to do” (DR 698). Only one person, Mary West, alluded to reciprocity and her desire to return the favor and help classmates (MW 985). Most participant comment were focused on how they could benefit from studying and working with classmates.

*“I could find any help that I needed in the Tutoring Center”*

The Tutoring Center played a minor yet still important role in success for some participants. Lucy Haney and Jasmine Crenshaw, who had both been determined to finish college yet had been insecure about their abilities, took advantage of the Tutoring Center

for help especially with their math classes (LH 700). Jasmine Crenshaw put it this way: “If I don’t understand something, I come to the tutoring center and get help on it (JC 455). Other participants made it a point to emphasize that they did not need help: “I never really needed any kind of help from him [the lab monitor] most of the time” (MT 433). Having the Tutoring Center was clearly one element in offering student support, but whether students would take advantage of this opportunity appeared to depend on their personalities and their perception of their own abilities.

### *Teaching and Learning*

Participant comments reflected the importance of teaching and learning for student success. Susan Brown stated that she had learned something every day (SB 1924), and even Suzanne Atkins, who already held a Bachelor’s degree from another university, was quite impressed: “I’ve done better here or learned more here than anywhere else” (SA 565-66).

*“That’s what really helped me was their teaching”*

Apart from their skill in instructional design and delivery, instructors had to show one attribute above all to help their students learn, and that was enthusiasm: “[What helped me was if instructors were] also having a good time doing it, actually want to be there instead of just kind of teaching on the board and leaving” (MB 832-33). It was important for students that their instructors enjoyed class, wanted to be there, and also showed their enthusiasm both verbally and non-verbally: “[I don’t like it] when a teacher walks in, they just have a monotone voice, and they’re not really looking at anyone” (BP 786-87). In addition, it was not enough to just play the part; Benjamin Posey claimed he could learn well only if the enthusiasm was genuine and disabused instructors of the

notion that they might be able to just feign excitement: “You can tell the teachers that actually care and then the teachers that are just teachers” (BP 1093-94). Genuine enthusiasm and a love for teaching, which must be shown clearly, thus emerged as major contributors to student success.

A second success factor in teaching was clear, simple explanations. Simplifying complex or technical information so that beginners could understand was important to students: “They need to learn how to bring it down to our level so that we’ll pick it up quicker and everything. I think we could get a lot more out of the learning experience” (SD 521-22). “I’ve enjoyed my two science classes that I have. I feel like the instructor brings it down to a very elementary level” (NB 733-34). In addition to simplifying information, students appreciated the fact that instructors ascertained that everyone had understood before they moved on in class and were willing to explain material again or differently if needed (GD 668, 674). Unfortunately, this level of instruction was not always achieved. Shane Dickson mentioned that some instructors with an industry background had difficulty making certain concepts understood (SD 518), and Dustin Ross complained that several instructors in his department even admitted that they lacked the knowledge for certain classes and had no idea what they were teaching, which led to his not learning much in some upper-level courses (DR 610).

Third, clarity and organization were additional success factors: “Clarity is key to being a successful person, being successful in that class” (DR 795). Mary West even went one step further: “That [when instructors are clear] lifts my spirit each day” (MW 606). Participants wanted instructors to be prepared, have a lesson plan, and stick to it by doing what they said they would do. In addition, instructors needed to explain clearly

what was expected of students. Lucy Haney praised her instructors in this respect: “They explained everything really well and what they wanted from me” (LH 863). On the other hand, students did not like surprises. Unannounced tests or last-minute assignments went against students’ desire for clarity and organization and were seen quite negatively. What students asked for instead were detailed directions: “I like to know what I’m getting into” (AV 884). Participants indicated that they felt more confident and had better results if instructors explained in detail ahead of time what material would be covered, what the student’s role was in learning the material, and what exactly students were expected to do: “Still I like to be told what to do” (LH 1008). Once again, clarity, organization, and predictability can be identified as success factors.

Finally, instructor background was an important component in learning. Andrew Vann stated it this way: “I like to listen to somebody that I know from my personal experience that they work in that position” (AV 890). In technical fields of study, industry experience was an asset: “Donaghue worked in the industry, and relating the material they teach to the material that they actually use down in the field” (JF 708-09). Andrew Vann spoke at length about the advantages of industry experience. Instructors can use their experience to illustrate course material, can give better advice, and can help students learn practical skills faster because they know all the tricks of the trade. His final verdict speaks for itself: “That’s what you need. Somebody that’s been in there, come back, and is teaching your class. I mean, you can’t get it much better than that” (AV 847-49).

*“I like doing rather than reading or listening”*

When it came to learning, participants other than Lucy Haney emphasized that they did not like to learn through lecture. Although some admitted that they were able to adjust, they still found lectures uninspiring and boring and would rather have visual materials or hands-on activities to supplement lectures. They also connected their learning to a variety of teaching and presentation methods: “I liked the way how they taught differently. .... It wasn’t the same thing every day. .... If it was something different, then I was more apt to pay attention” (AG 766, 768, 773). One way to keep their attention and help them learn, participants said, was interaction in class and the ability to participate actively in their learning: “I have an interactive relationship with my instructors. That’s why I don’t take online classes because I have to have that interaction to learn” (SB 1801-02). Interaction meant instructors who asked students questions, listened to students’ ideas, gave students a chance to be part of their learning, and offered them the opportunity to learn according to their learning style.

The expressions “one-on-one time” and “one-on-one attention” were used repeatedly by several participants. Mitchell Tiger expressed it like this: “This [one-on-one time with instructors] just makes it easier to learn” (MT 589). This individual attention was highly prized because it allowed students to ask questions specific to their needs and gave instructors the opportunity to tailor their explanations to students’ learning styles: “You need that one-on-one time to be able to ask your question to be shown what you’re not understanding” (LH 877-79). Several students expressed appreciation for their instructors’ willingness to work with them individually to help them

and made the link to better learning: “Mainly the one-on-one [attention] that you get out of your instructors” (JM 747).

Another important term was “hands-on learning,” not only to facilitate student learning but also to help potential students make the decision to attend SCIT. When asked about his reasons for attending SCIT, Shane Dickson replied as follows: “Probably I would have to say the type of hands-on learning that this college offered” (SD 385). Several students emphasized that hands-on learning was their favorite approach as stated by Shane Dickson: “I love learning through hands-on experience” (SD 1852). Doing things made it easier for many students to learn than through strictly visual or auditory means: “I learn best [when] I actually do something than just seeing or hearing it from somebody” (JF 720-21). Over and over, students reiterated that they like to learn with hands-on activities and learned better when these activities were part of their learning process.

In conjunction with hands-on learning, students also expressed a preference for being shown what to do instead of having it explained: “Once they [instructors] start doing it and they show me how to do the stuff, I pick it up pretty easy” (MT 601-02). In fact, several students insisted that in order to learn the material, they have to be shown how something is done: “I guess them just showing you what they’re talking about and why they’re talking about it. That helps a lot” (JM 655-56). Seeing a demonstration of how something is done or how something works provides students with a better understanding of what they are to learn and which skills and knowledge they need to master. In addition, students liked to be “walked through” all the details of a task before attempting it. They felt much more comfortable with new information if in addition to the

demonstration, they were given detailed instructions on what to do: “I liked it better whenever they went over it first and then give us some time for it to soak in, and then we got to get out there” (SD 576-77). This does not mean that necessarily everything should be shown or explained in detail, but at the same time, students did not like to be let loose on a task without some prior information: “You know, just walk me through this. I can take off after that” (MW 406).

“Figuring it out” and “trial and error” consequently were another two important phrases for student learning: “You got to play around with it for a while before you actually get it down” (MT 627-28). Many students expressed that trying to learn things by themselves after their instructors got them started was an effective way to learn: “I like to get in there and figure stuff out” (SD 575). Students showed a desire to try to solve problems on their own, but they preferred to do this with a safety net: “You learn as you go, but if you get stuck, the instructor will help us out just to get past that point, but then we’re on our own again. For me, that’s the best way to do it” (JF 805-06). Students liked classes where they could learn by themselves and do things their own way, but their patience and persistence were limited. All admitted that when they were stuck or reached a point of frustration, they appreciated the help of their instructors: “I try to figure it out until I’m all exhausted, and then I got to get help” (MB 876). This desire to work independently as much as possible is connected to the earlier discussion: participants could learn best when instructors started them on their assignments and remained available for questions and help while they worked on their own. On the other hand, participants wanted to work independently only to a degree. They did not like to be

thrown into a problem without direction and left to solve it completely on their own without input from the outside.

As a result of this desire to do hands-on, applied work, several participants touted the usefulness of lab courses or lab components of theory courses: “Once I got into the lab, it was usually when I learned the stuff” (MT 613). Labs were desirable because they allowed participants to do something, allowed instructors to demonstrate tasks on equipment, and made it possible for participants to practice skills or reproduce results on their own. Doing that not only helped them learn but was also more enjoyable: “That was something that I dreaded was having to do those labs, and that’s something that I’ve enjoyed more than I thought I would” (NB 773-74). Labs, therefore, become important components to making sure that hands-on learning by trial and error as desired by many students actually becomes possible.

A second advantage of labs was their connection to the workplace: “That was probably the most stuff we use out in the field” (JF 788-89). Several participants mentioned that learning with equipment in the lab prepared them better for the demands of the workplace: “It prepares you whenever you go out there to actually use the equipment yourself” (SD 564). In addition to the workplace connection, labs gave instructors the opportunity to stress the practical application of the classroom material and allowed participants to see the purpose in what they were learning. When Suzanne Atkins and some classmates prepared a project for a real company, she came away impressed with the experience and felt that assignments with a purpose helped her learn: “It was pretty fun, and it was for an actual company, too, and we gave our presentation, and I thought that was going to be really hard, but actually it was really good” (SA 694-

95). Labs, therefore, appeared to help participants understand which knowledge and skills would be useful in the workplace, and seeing that connection helped them be more motivated to learn the material.

Along with the applicability of learning content came transferability. In this context, participants were not talking about applying knowledge in the workplace but about seeing connections between different classes and realizing how content learned in one class could be helpful in another: “I learned about research, and without that knowledge, I could not even have made it through some of my other classes that I took” (SB 1943-44). “I really learned probably more because I can use what I learned there now into the other stuff that I’m doing now” (MW 649-50). Making connections between courses appears to have a positive impact on learning and motivation. Second, students also liked to connect their learning to their personal lives. Lucy Haney especially mentioned that she had changed her cooking and eating habits because of what she had learned in her nutrition class, and her psychology class had provided her with much insight into her family’s dysfunction. Overall, integrating course content into the bigger picture beyond the confines of just that one course does appear to help students learn better and more enthusiastically.

Finally, some students also touted the benefit of group work for their learning: “The biggest thing for me that really helped me [was] when we do our group activities” (JC 411). Several participants simply enjoyed the fellowship that group work provided and the respite it offered from standard assignments like papers or tests. However, not all participants agreed. Lucy Haney was skeptical because classmates were often not reliable (LH 815), and Autumn Goldsby preferred to do things her way without having to answer

to anyone (AG 830). Overall, some students responded that group work helped them learn without providing too many specifics; others enjoyed especially the community atmosphere created by the group, and some preferred to work on their own. Nonetheless, group work was generally seen as a positive learning experience.

*“We didn’t cover much about anything about Indians”*

The need to indigenize the curriculum and to integrate the experiences and knowledge of indigenous populations into course content has received a fair amount of coverage in the literature recently, but participants in this study offered surprisingly few complaints about course content and topics they would have liked to have discussed. Students who had taken SCIT’s courses “Oklahoma History” and “Native Peoples of North America” enjoyed learning about historical events such as the Trail of Tears or personalities who had become allies to the tribes, but Jasmine Crenshaw admitted that learning about how tribes were cheated out of their land was difficult to process. The desire was expressed to learn more about the history of a specific tribe (MW 736) and about treaties and other laws. Mary West stated an interesting point: “I needed to learn a little bit more in how this became, .... but I guess by books is really not the truth” (MW 737-39). These statements do not reflect a significant dissatisfaction with what was learned but a desire to delve deeper into the subject and to include the American Indian perspective in various learning contexts.

### Summary

This chapter presented the data collected from participant interviews. The data were grouped into four major themes: (1) success mindset, (2) encouragement and support, (3) finding help, and (4) teaching and learning. In addition, the different sub-

themes that had emerged from participants' comments were introduced and supplemented with interview quotations. Chapter 5 presents an analysis of the data and implication for research and practice.

## CHAPTER V

### IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

Despite several decades of research and Congressional investigations into American Indian education, especially how student performance and persistence can be improved, many gaps still remain in our knowledge about appropriate programs and strategies to support American Indian students. This study explored whether the experiences of American Indian students at a sub-baccalaureate technical college, which have received little attention in the literature, could offer new insights and avenues into student learning and retention.

This chapter first looks at the implications of the findings that can be gleaned from participants' responses about which factors helped them succeed. Subsequently, issues of policies and practices in which further research appears promising are identified. All implications are discussed in the context of the study's research questions, particularly focusing on (1) deviations from previous research findings as seen through the context of technical education and (2) factors that have so far received little attention in the literature and ways in which the impact of such factors can be further investigated.

#### Research Question 1

Which factors that contribute to retention of American Indian students as stated in previous studies are present at the South Central Institute of Technology?

A detailed presentation of the success factors as stated by the American Indian

participants of this study was presented in Chapter 4. The findings revealed that it was the relationship of students to other people that played the largest role in persistence, and four themes emerged from the data:

- Success mindset,
- Encouragement and Support,
- Finding Help, and
- Teaching and Learning.

#### *Success Mindset*

The theme of “success mindset” can be framed by participants’ responses that students must want success, must have the right attitude, and must make college their priority. It was divided into the sub-themes of desire/determination, goals, and influences on mindset.

#### *Determination*

In their discussion of determination, participants mentioned their strong will, their desire to overcome challenges, and their willingness to assume responsibility for their own success. They added that a readiness to learn and a love of learning were prerequisites for success and for developing a desire to not quit. The literature on student success reaffirms that determination is driven by what Pascarella and Terenzini (2005) called “internal factors,” especially the values, beliefs, attitudes, and expectations students bring with them. Such attributes can be hard to influence by colleges since they are developed before students ever set foot on campus. Therefore, colleges may consider heeding the advice given by Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) and spend more time and energy on the development of students not yet in college. Kuh et al.

suggested that students in high school be shown that college was a real option for them and that pre-college students ought to be encouraged to develop the willingness to attend college and the work ethic needed to be successful.

### *Implications for Practice*

The first implications thus are for those faculty and staff members engaged in recruitment and pre-enrollment counseling. Some of the specific issues that counselors may be forced to discuss so that students develop a success mindset can be found in the literature on career counseling. The first piece of advice to give counselors when looking at solutions for individual students is probably the most uncomfortable one. According to Cohn (1997) and Martin (1995), many counselors of European-American background may be nervous about bringing up the subject of racism, fearing that they might inadvertently say something offensive, that the students might lash out at them about past injustices, or that their focus on the negative might affect students' attitudes.

This implication appears to contradict the findings discussed earlier that participants in this study had not had any experiences with prejudice at the South Central Institute of Technology, and if racist attitudes are indeed absent and are a non-issue for students, little needs to be said on the part of a counselor. Still, the fact that this study did not find prejudice does not mean that none existed. Maybe those students who dropped out of SCIT might have a different perspective, and maybe the situation is different at other institutions or in other parts of the country. Wright (1986) had, after all, affirmed that Indians in Oklahoma were more accepted than elsewhere in the country. Therefore, if students bring up or hint at the subject, Cohn (1997) and Martin (1995) insisted, counselors have to address the issue openly and take the time to truly listen to their

students. They have to acknowledge that racism, prejudice, and discrimination are a reality and that they are possibly going to play a role in the student's career.

Once students realize that counselors are willing to treat them as partners and to take them seriously, they tend to be more willing to become active participants in the counseling process rather than just passive consumers (Subich, 1996). To understand students' maturity (readiness for college study and a career) and salience (importance of finishing college and having a career), internal factors related to success attitudes must be explored. What do the students perceive to be college barriers? Do the students adhere to any misconceptions about what college is like (also called "college myths")? How much academic and technical knowledge and skills do the students possess before entering college? (Wentling & Waight, 2000)

Once this information is available, counselors can then move to a discussion of career options and appropriate programs of study. First, they can find out which level of access students have to occupational information and then provide materials that go beyond this level. In its simplest form, this means giving students brochures about certain occupations and the college majors leading to such occupations or providing computer access so that students can search for career information online. However, a counselor can do much more. If students have a limited view of which occupations might be available or suffer from career myths, counselors can expose students to non-traditional career paths they might have never considered and explain how to complete these paths (Smith, 1983; Johnson, Swartz, & Martin, 1995).

After students have been given better access to occupational information, salience must be addressed by showing them how choosing the right career can be an asset to

them, their families, and their communities. Students will also understand what their values are and which occupations can best help them realize these values. At the same time, career maturity also has to be developed. Students have to determine where their strengths and weaknesses lie so that they can make an informed choice about how much education they still need to be able to follow the career path they have chosen (Martin, 1991).

Helping students find the appropriate careers and programs of study as discussed above is certainly a contributing factor to creating the right mindset for persistence, but issues of feasibility remain. Guidance counselors in high schools are often overwhelmed with the number of students they have to serve, and they do not have the time to learn a whole new set of skills and provide more services. Colleges for their part might be reluctant to expend time and money on pre-college programs in high schools and then see students attend a competing institution. The implication then is that if pre-college programs designed to help students develop career and college maturity and salience are to be practical, the state agency in charge of higher education might want to coordinate them. Colleges and universities could all contribute to a fund that provides financing for specially trained higher education counselors who would be working at local high schools or even in lower grades and be charged not to steer students into a specific college or program but to help them develop career maturity and salience and a mindset focused on success.

A second implication could be the establishment of bridge programs, seminars offered the summer before students' freshman year and designed to help students make the transition from the high school to the college environment smoothly. Such programs

could even be designed specifically for American Indian students. Participants in this study did not mention bridge programs, but the reason was most likely that they had never heard of such programs since they were not available at SCIT. Bridge programs could fill in those areas where high school counseling may not be sufficient. Kuh et al. (2006) mentioned two areas in particular, developing students' academic and social skills and helping students make an emotional connection to their studies. These last two tasks may be better undertaken when students are already on campus so that student development may be tailored toward the demands of each campus.

Third, colleges might make use of the theoretical models of student retention to better understand the needs of their students. As for developmental approaches, typological models may be especially useful. Almost all participants in this study described themselves as not being involved in traditional tribal culture. In terms of acculturation theory (see Chapter 2), they would most closely fit the "assimilated" category. However, transitional, bicultural, or marginal students may need a different approach to be successful in college. Furthermore, if students are to play a role in their own success, HeavyRunner and DeCelles (2003) suggested the applicability of cultural interaction theory because instructors and staff members help individual students of varying backgrounds develop an identity that allows them to become active participants in their own success.

#### *Implications for Research*

These implications then lead to certain recommendations for further research. First, researchers may set up studies in which high school students are offered additional pre-college counseling, either in high school or on campus, and compare their graduation

rates to those of students without access to such programs. Such a comparison may shed light on the effectiveness of such counseling. Second, before a program can be set up, the question is how exactly it should operate and which services it should provide. For example, what exactly does “develop a willingness” mean? Further interviews with successful students may provide more information about how they developed their determination, and those answers can then be translated into counseling strategies. Third, studies could also be conducted with students who are transitional, marginal, or assimilated as described by acculturation theory. Would the answers have been different if the participants had been from different tribal cultures or if they had considered themselves traditional? Further answers may be obtained that can validate the use of acculturation theory and suggest how programs for different groups of incoming American Indian students might have to differ from one another.

### *Goals*

Goals mentioned by participants were life goals such as the desire to earn a degree or personal improvement and career goals such as finding a good job and having financial security. Participants stated that such goals ought to be in place when students arrive on campus, and some took it for granted that everyone had such goals. Pascarella and Terenzini (2005) also listed “goals” as one of their internal success factors.

### *Implications for Practice*

If having goals is an important element of a success mindset and if such goals must be in place before students arrive on campus, then goal development must become part of the counseling initiatives described above. Psychological and sociological perspectives on student success largely try to explain how and why students change and

develop once they are part of the campus community, but they put much less focus on the pre-college years. Counseling then, as suggested by Martin (1991), must take into consideration students' maturity and salience.

#### *Implications for Research*

Research, as a result, would have to focus one two aspects of goals: goal development and financial goals. Although a few participants mentioned personal improvement, the majority of goals were related to participants' future economic and financial situation. One, the suggestions above on what needs to be included in counseling programs can also include goals. How do students develop goals? At what age do goals begin to form, and which influences are strongest? These questions could be asked of incoming college students to help establish a picture of where on-campus programs may be useful. Two, the issue of money would have to be considered. Are there elements in students' lives (family's socio-economic status, career salience, etc.) that make money a particularly good motivator? If the influence of salary expectation on students' success mindset can be confirmed, how can future earning potential be used as a motivator and a retention strategy?

#### *External Influences*

Finally, external influences play a role in creating the right mindset for success. For most participants, their parents had a significant influence on their desire to attend and complete college.

#### *Implications for Practice*

Kuh et al. (2006) had already mentioned some of the implications of this situation: develop support networks and programs for parents where even parents without

a college education can learn how to support their children, have counseling available for families, and include families in the recruiting effort by producing print materials directed at parents, not just prospective students. All those approaches, Kuh et al. stated, can help turn parents into a support system that instills the right mindset in students.

### *Implications for Research*

Two recommendations for research then arise from this discussion. Studies can investigate the difference in attitude and ultimately persistence between students whose colleges offer family support programs and those who do not to gauge the effectiveness of such programs and their components, and further research can also be conducted on the role of the mother and the father. Based on participants' answers in this study, fathers had a greater influence on developing career salience, and mothers were more adept at helping students maintain the right attitude. Research on the unique influences of mothers and fathers on American Indian student attitude and success may be useful here.

### *Campus Familiarity*

Familiarity with the campus was a factor mentioned by participants that appeared in the literature only in terms of support services and commitment to student success (Kuh et. al, 2006; Pascarella & Terenzini, 2005). Being in familiar surroundings seems to enable students to focus on their success and less on the environment. Participants achieved the needed familiarity through two measures: concurrent enrollment and friends. Concurrent enrollment, also known by terms such as "college in high school," "dual-credit enrollment," "early college," "running start," and others is a program allowing high school juniors and seniors to enroll in selected college coursework that may count toward their high school credits and may also be applied to their college credit

requirements later. Several participants explained that they had been familiar with the SCIT campus because they had been enrolled concurrently and had developed a more positive attitude toward college work. Friends were cited as another success factor. Participants mentioned that they wanted to attend college where their friends were or that they had chosen SCIT because a friend was attending the school.

#### *Implications for Practice and Research*

Implications for colleges would be to expand their concurrent enrollment programs and to encourage American Indian high school students to take college classes on campus. Such a program could even be conducted in partnership with local high schools, where some high school courses are offered on the college campus or college faculty go to the high school campus to teach. As for friends, recruitment efforts could be targeted not at individual students but possibly at small groups of friends to convince them all to attend the same college.

Research may want to compare the persistence of students who were enrolled concurrently with those who were not and also investigate the role friends from high school or from one's home town play in persistence and in having a success attitude.

#### *Campus Environment*

Finally, the overall campus environment was mentioned as a factor in maintaining a positive attitude. Both Pascarella and Terenzini (2005) and Kuh et al. (2006) recommended that institutions above all create a campus culture where every single employee understands that student success and persistence are everyone's job.

### *Implications for Practice and Research*

For American Indian students in particular, Tierney (1995) added that this campus culture should include the unspoken expectation that students finish and not drop out, and this attitude should permeate all interactions with students. When participants mentioned that the SCIT campus was “laid back,” “friendly,” and “nice,” they meant everyone in it, hence everyone must be committed to supporting students. Second, institutions can look at their organizational structures to see if there is room for simplification. Participants wanted the campus to be “comfortable,” but contradictory policies, overlapping responsibilities, and Byzantine processes for paperwork can make students feel frustrated and less able to succeed.

Research especially into colleges with higher than average success rates and their policies and practices may be able to shed light on what can be done to create a supportive campus environment.

### *Encouragement and Support*

The second theme, “encouragement and support,” was divided into people on campus and the people off campus.

#### *People Off Campus*

Off-campus people meant family members in general but specifically parents and significant others. It was important to participants that close family members provided ongoing emotional support and encouragement. For institutions, the implications here are an extension of their efforts to create a success mindset. Programs for families that stress how family members can help their children and spouses develop the right mindset might be extended to include programs teaching families how to provide ongoing support,

especially when the going gets tough, and how to avoid letting family issues needlessly influence the student negatively. The literature already mentioned one such program, the “family education model” (HeavyRunner & DeCelles, 1992). The suggestions given for research into how families can create a success mindset apply to this theme as well.

### *People On Campus*

Persons on campus who could provide encouragement and support as reflected in participants’ answers were instructors and peers.

#### *Instructors*

Instructors had significant contributions to make when it came to encouraging their students. Although their major influence could be found in matters of teaching and learning, which is discussed under that theme, instructors also played an important role in showing students that they could finish college and in encouraging them to persist.

Participants mentioned that they wanted their instructors to be verbally encouraging and to provide positive reinforcement whenever possible. This included writing positive comments on assignments as well as supporting students’ ideas for research projects.

Statements in the literature indicate that pleasant interaction with instructors is positively correlated with students’ persistence, and one of the aspects of developmental theories is the benefit of interactions outside of class (Brown & Robinson Kurpius, 1997; HeavyRunner & DeCelles, 2002; Huffman, 2001; Pavel & Padilla, 1993), which Pascarella and Terenzini (2005) listed as one of their within-college factors. Indeed, participants reported that they appreciated developing a more personal relationship with their instructors, which to them was established through conversations about non-class-related topics outside of class and instructors revealing parts of their personal lives.

Another factor was availability and accessibility. Being available before and after class to answer questions and being in one's office during posted office hours were very positively rated. Astin (1977) had already suggested longer office hours as a strategy to help with retention, and Pascarella and Terenzini (2005) once again had accessibility listed as a major within-college success factor.

A final support factor could be found in instructors' staying abreast of their students' progress. One might argue that students themselves can easily gauge their progress in class by looking at the grades they have received so far, but participants nonetheless found it supportive if instructors were proactive in discussing any issues related to academic progress with students, which is likely why Pascarella and Terenzini (2005) again featured this factor on their within-college-factor list. Finally, there is the issue of flexibility. Participants mentioned flexibility in terms of instructors' willingness to work around students' life issues and not rigidly enforce course policies, and Dodd, Garcia, Meccage, & Nelson (1995), Hornett, (1989), Wentzlaff & Brewer (1996), and Wilson (1998) added that an awareness of cultural differences and different community and familial responsibilities for students was perceived as strongly supportive.

#### *Implications for Practice*

Implications for colleges would first of all be to make sure that instructors follow their schedules, i.e. departments insist that instructors arrive and leave when stated and be present during posted office hours. Second, the possibility of offering longer office hours or being more flexible in scheduling could be explored. SCIT, for example, has a system where instructors are considered to be having office hours any time they are in their offices and not in class. Such a system may not be workable at all institutions, but if a

culture of student success is to be created, faculty and administrator may want to give thought to longer office hours as part of any discussion about changes.

Furthermore, colleges could consider playing a role in helping instructors interact more with their students outside the classroom. Such assistance could come in the form of training sessions for instructors uncomfortable with such an approach, or the college could provide events and venues for students and instructors to meet informally. Training could address the importance of informing students about their progress in class, teach compassionate ways of relaying bad information, and show methods of making this information available that are not too time-consuming for instructors (e.g. how to use a spreadsheet program to set up a grade book or how to use grade books in online course management systems). Finally, cultural awareness training on campuses with large American Indian enrollment can go a long way, and if student absences for cultural or family reasons are indeed an issue, a sensible policy providing students with the flexibility to be absent without undermining academic rigor and course requirements could be developed.

#### *Implications for Research*

Suggestions for research focus on the effectiveness of such measures.

Comparative studies between colleges with short or extended office hours, colleges that periodically update students on their progress and those who don't, and colleges that provide opportunities for students and instructors to interact outside the classroom could be conducted to see what impact if any these practices have on retention. At the same time, a study of the general impact on retention of student absences for family or community reasons could be undertaken. This study may want to examine two additional

factors: the reasons for a low incidence of such absences at any college, and the reasons for higher-than-usual retention rates at colleges that do have students absent frequently for reasons mentioned above.

### *Peers*

Peers are the second group of people on campus who have a positive impact on student success. Participants credited good relationships with classmates for an increased desire to attend classes, a generally more positive perception of their classroom experiences, a feeling of being less stressed, and an increased desire to finish. Several authors have suggested the creation of peer cohort groups or student organizations and student cultural centers where American Indians can be among themselves (Brown & Robinson Kurpius, 1997; Cole and Denzine, 2002; Reyhner & Dodd, 1995; Tate & Schwartz, 1993; Wentzlaff & Brewer, 1996). None of these factors, however, are present at SCIT, and participants were still successful. Other factors mentioned in the literature were giving students the opportunity to make friends and develop relationships in general and to create a sense of belonging for them in their departments (Reyhner & Dodd, 1995; Pewewardy & Frey, 2004).

### *Implications for Practice and Research*

The implications for colleges would be to focus less on campuswide initiatives and instead create learning or social communities within departments. Social events on and off campus, peer tutoring and study groups, participation in collaborative projects or competitions, and involvement of students in the governance of the department are all options that departments can explore to make students feel more welcome.

Research in turn can investigate the impact of such activities in departments with high graduation and persistence rates. If no such programs exist, researchers could even start one and measure its effect on graduation rates.

### *Finding Help*

“Finding help,” the third theme, was divided into six sub-themes: instructors, counselors and advisors, family members, classmates and friends, the tutoring center, and the students themselves. Participants stated that although help was easy to find and people were always willing to help all students, students were ultimately responsible for getting help when needed. Despite proactive behavior on the part of instructors and staff members, students should not expect others to read their minds and approach them first all the time.

### *Instructors*

Although instructors have the greatest influence on teaching and learning, they also play an important role when it comes to offering help. Participants emphasized that it was important not only that instructors were helping students but also that they were always *willing* to help and did so gladly. Helping students was considered an important part of an instructor’s job. Participants appreciated the fact that instructors were available for help, offered help without being asked when they saw a student was struggling, and spent extra time with their students. Several participants equated learning with helping and helping with success.

The literature agreed with the participants in that help for struggling students and a willingness to be helpful were crucial. Previous studies also offered some specific advice on how to help American Indian students. Instructors were encouraged to offer

individual help to struggling students, proceed in small steps, provide frequent and positive feedback, and give frequent reminders about dates and deadlines. The argument was that many American Indian students had trouble with expectations of the campus environment, and the greatest help instructors could provide was to explain such requirements to students and assist them in meeting expectations (Brown & Robinson Kurpius, 1997; Lin, LaCounte, & Eder, 1988; Ortiz & HeavyRunner, 2003; Wilson, 1998).

#### *Implications for Practice and Research*

The implication is that colleges consider providing professional development for their instructors. Many instructors may be unsure of the signs of a struggling student or of the wording of feedback. Practical, hands-on advice on how to appear approachable, how to help students without making them feel inadequate, and how to explain rules and policies that students find incomprehensible or non-sensical appears to be needed.

Research can add to this discussion by expanding the list of instructor behaviors that students consider helpful so that any training program can offer a full complement of techniques and tricks.

#### *Counselors and Advisors*

Counselors and advisors played another important role for participants. Whereas participants in this study used their academic advisors predominantly for issues related to scheduling or internships, they appreciated the fact that their admissions counselors were persons they could approach with any problem, even after several semesters. Several participants found the opportunity to take any questions to one person who knew them to be a strongly positive factor. The literature argued that counselors can help their

American Indian students by tracking them into courses with other Indians or professors known as sympathetic and to help students understand the organizational structures of the campus (Hornett, 1989; James, 1992; Kleinfeld, Cooper, & Kyle, 1987; Ortiz & HeavyRunner, 2003; Reyhner & Dodd, 1995). Suggestions were made to centralize all counseling functions into one person, as participants had also mentioned, or to develop counseling systems that begin already in high school and continue into the first few years of a graduate's career (Kleinfeld, Cooper, & Kyle, 1987; Wentzlaff & Brewer, 1996).

#### *Implications for Practice*

The implication then would be to consider splitting the functions of counselor and advisor. Based on the responses by participants in this study that they saw their advisors for questions specifically related to their studies and their admissions counselors for more general or personal issues, advisors could limit themselves strictly to academic matters (course selection, scheduling, and sequencing; meeting program objectives; conforming with departmental regulations) whereas counselors could function as the lynchpin for all other campus services. Although participants appreciated a personal relationship with their advisors (Andrew Vann, for example, played golf with his), they still took general campus issues to someone outside their departments. Colleges thus could try to centralize their counseling services as much as possible and assign each American Indian student to one counselor who would accompany the student through all his/her years at that institution. Second, if funding allows, colleges may consider cooperating with local high schools by having colleges counselors available on the high school campus and at the other end allowing students who have graduated from the college to use their campus counselors for a specified time period afterwards.

### *Implications for Research*

Research could investigate different approaches to counseling. Scholars can look at institutions with different processes to providing student counseling to see if there is a link to persistence. If funds can be secured, researchers could set up their own pilot programs to see if a system of different counselors for different areas, centralized counseling, or ongoing counseling across institutions is most closely associated with American Indian student retention and graduation rates.

### *Peers*

Participants once again touted the help and support they had received from peers. Studying together and working on collaborative projects made it possible for participants to make it through difficult courses and also to experience less stress since the workload did not rest on them alone.

### *Implications for Practice and Research*

For peers, the same implications and research suggestions apply as for the encouragement sub-theme. Departments can set up study groups or seminars, and collaborative projects can be required as assessment tools for capstone courses or similar programwide assessments.

### *Tutoring Center*

The tutoring center seems to have been a double-edged sword. Some participants used it when they were enrolled in difficult courses, particularly math, but others were adamant about not having needed tutoring. Needing more than instructor help to pass a class may be embarrassing to some students, but the existence of tutoring services

appears to be seen as positive and also was mentioned in the literature as a success factor (Brown & Robinson Kurpius, 1997; Kleinfeld, Cooper, & Kyle, 1987).

#### *Implications for Practice and Research*

Colleges may think about arranging tutoring services to their American Indian students, campuswide for general education courses and at the departmental level for program-specific courses. Peer tutoring is a common approach at the departmental level, but participants appeared to prefer tutoring from staff members hired for this purpose or from their regular instructors who volunteered hours in the tutoring center.

Research then could explore if the availability of tutoring centers has a positive impact on graduation rates and how this impact is influenced by those providing the tutoring and the location of the tutoring (departmental vs. centralized on campus).

#### *Teaching and Learning*

Finally, “teaching and learning,” the fourth theme, had three sub-themes: instructors, learning, and content. As for instructors, it was deemed important that they enjoyed teaching, were organized and well prepared, had clear expectations of their students, provided clear explanations of the material, and had a background that made students see them as cognizant of the world outside the academy. In other words, the success factors mentioned in this theme reflected common characteristics of good teaching. Interestingly enough, the literature provided few if any concrete examples for instructors on how to increase American Indian student learning.

#### *Instructors*

Factors mentioned by participants were the need for instructors to not only teach but also be enthusiastic about their teaching and enjoy their time in the classroom:

“[What helped me was if instructors were] also having a good time doing it” (MB 832). The implication for faculty members was that good teaching alone was not sufficient, and neither was dedication to their profession. What appeared to be important for participants was that there were outward signs of instructors’ attitudes, and faculty members had to work on not only *being* enthusiastic but also *showing* enthusiasm through vocal delivery and body language.

The next factor was to provide clear explanations. Participants wanted instructors to have the skill to simplify complex or difficult subject matter so that students could understand it easily: “Clarity is key to being a successful person” (DR 795). Being clear included a willingness to explain the same material again and again and to have different ways of explaining a problem or topic. Once again, the literature was silent on this issue.

Clarity, organization, and predictability were the next success factor. Participants wanted instructors to be well prepared and well organized and to come to class with a detailed lesson plan instead of teaching on the fly. This included giving detailed explanations as to what was expected of students in class and avoiding surprises such as last-minute assignments. Pascarella and Terenzini (2005) mentioned two of these factors as well, giving clear instructions and being well prepared. Finally, instructor background was considered a success factor. Participants saw it as positive if instructors had had work experience in the field they taught in so that they could relate course content better to workplace demands and make learning more applicable.

#### *Implications for Practice*

The implication for faculty members then is to not only *be* prepared but also *show* preparedness. This can be accomplished through having detailed lesson plans, organizing

course materials, and showing their preparedness in class by having everything ready and by not fumbling through notes or handouts. They must preview each day's lesson, make sure that all assignments come with detailed instructions, and plan ahead for tests.

Furthermore, they might benefit from preparing their lecture notes with possibly several different ways of explaining the same content and using these different ways when needed as well as breaking down new material into chunks that are as small as possible.

Institutions once again may include such topics in training seminars for new faculty members. Second, institutions may consider putting teaching on par with research in their hiring, tenure, and promotion process and offer teaching seminars to inexperienced new faculty members. Third, institutions can also consider non-academic work experience as a factor or even make it a requirement when hiring new faculty and offer current instructors the opportunity to gain such experience over the summer. Such programs, often called "teacher externships," place educators in other workplaces for a period of time so that they become familiar with the operation of a company and the different skills used at work (Ohio Department of Education, n.d.).

#### *Implications for Research*

Research here could investigate further the link between instructor background and student success and also explore the effectiveness of teacher externships. Are student persistence and graduation rates higher at colleges where instructors have more workplace experience? Can teacher externships lead to a better understanding of the workplace and influence student retention? What exactly needs to be included in faculty professional development, especially concerning instructional design and methods?

## *Learning*

The sub-theme of learning was essentially centered on how students learn. Interactive courses, one-on-one attention from the instructor, hands-on learning, being shown and not just told, self-directed learning by trial and error, and group work were all mentioned as success factors.

Participants spoke at length about “doing” things. Several of them expressed their dislike for lectures and their preference for varied presentation methods, including visual materials and interaction in class (discussion, active participation): “I learn best [when] I actually do something” (JF 720). The implication for faculty members is clear: They can supplement their talking with visual elements and give students the opportunity to do something, i.e. apply their knowledge. In this context, hands-on learning was important. Several participants described themselves as kinesthetic learners who had to try new skills to learn well, and they even mentioned that the opportunity to apply their knowledge had been part of their decision to attend SCIT in the first place. Hands-on learning is discussed in detail under Research Question 2.

One-on-one attention was another important factor. Although one might surmise that some students want to be left alone by their instructors as much as possible, this was clearly not the case. Participants craved individual attention from their instructors. They believed that the material was easier to learn in this manner because they could ask specific questions pertaining to their situation and receive more targeted and focused answers: “You need that one-on-one time to be able to ask your question” (LH 877). Once again, one-on-one attention is discussed in detail under Research Question 2, but instructors in all disciplines might consider taking class time to have students work on

small projects during which they can sit down with each student individually and offer assistance.

Showing, not just explaining, course content was another success factor mentioned by participants and underscores their preference for kinesthetic learning. Participants strongly encouraged instructors to demonstrate the competencies students were to possess and to walk them through each step of the task: “Once they . . . show me how to do the stuff, I pick it up pretty easy” (MT 601-602). After each step, they requested time to let the new information integrate with the old before students would make an attempt at showing mastery. The literature agreed in that instructors needed to emphasize the process and also to be responsive to the holistic learning style of American Indian students by always returning to the whole after each new step before proceeding (James, 1992; Tierney, 1995).

The learning approach mentioned by participants does show elements of what is considered the standard five-step American Indian learning style of observation, incubation, further observation, private practice, and ultimately performance (James, 1992; Swisher, 1994). The connection to technical education will be discussed under Research Question 2, but already at this point, the implication for instructors is not to expect immediate public performance by their students but to have patience and structure courses so that American Indian students can take as much time as needed to show mastery.

Self-direction or “figuring it out” as stated by participants was another important factor for success. Participants voiced a preference for instructors who got them started on an assignment but then allowed them to continue in an independent, self-directed

fashion. This approach was tempered by two caveats. One, students did not just want to work on a project or an assignment without guidance; as discussed above, they needed detailed instructions and fundamental information so that their efforts did not end in frustration. Two, students' patience for self-directed learning was limited. Although they relished their independence, they still appreciated a safety net and instructors who came to the rescue when students were stuck.

Self-directed learning with the instructor as a facilitator and resource person is part of contextual learning and falls within a pragmatic orientation. The literature encouraged instructors to use more experimental and experiential learning but gave few concrete tips on how to accomplish that (Bowman, 2003; Tierney, 1995; Wilson, 1998). As this topic has received limited attention in the literature on American Indian students, it is discussed in detail under Research Question 3.

Group work received mixed reviews. Although participants liked collaborative assignments because of the fellowship, the variation in classroom assignments, and the ability to share the workload, they were nonetheless ambivalent because too often, group members were unreliable and did not do their share of the work. The literature, however, strongly endorsed experiential and experimental learning and also clamored for more group work and more collaborative learning (Aragon, 2002; Carnegie Foundation, 1989; Cole & Denzine, 2002; Gilbert, 2000; Reyhner & Dodd, 1995; Tierney, 1995).

#### *Implications for Practice*

The implication for instructors thus would be to build more self-directed, collaborative assignments into their lesson plans. Although this researcher also believes in the value of group activities, the lukewarm endorsement by the participants requires a

degree of caution. First of all, simply putting a number of students together in groups is not collaboration. Group work must be carefully planned, structured, and supervised so that the intended outcomes are met, and students must be prepared and trained for such interaction. Instructors must also be aware that using groups is probably going to be rather taxing and exhausting for them and not a time where students work and instructors observe from a distance.

#### *Implications for Research*

Although the potential effectiveness of collaborative for American Indian students has been discussed in detail (Aragon, 2002; Carnegie Foundation, 1989; Cole & Denzine, 2002; Gilbert, 2000; Reyhner & Dodd, 1995; Tierney, 1995), further research will be needed to ascertain the actual effectiveness when it comes to retention and graduation of American Indian students. What exactly is the correlation between collaborative work and retention, and how do assignments have to be structured and facilitated so that students derive the most benefit?

#### *Labs*

A last success factor closely connected to self-directed learning was labs. Participants enjoyed labs because they saw the practical application of their learning and could make connections between coursework and the workplace. They also appreciated the active engagement and the ability of their instructors to demonstrate skills instead of just discussing them.

### *Implications for Practice and Research*

The implication for instructors, once again, is to provide students with the opportunity to practice new skills in class at their own pace. Further issues with labs touch on the role of technical education and are discussed under Research Question 2. As for research, studies can investigate retention rates for courses and programs offering lab components with their courses as opposed to those who do not. Is it the simple existence of a lab that can aid in retention, or are there factors that must be present for a lab to be helpful in retention?

### *Content*

Lastly, content was concerned with the importance of transferring the knowledge to other contexts, the relation of course competencies to the workplace, and the inclusion of American Indian topics and issues in the curriculum or the course content.

### *Transferability*

When participants mentioned transferability, they were not talking about the workplace but about other courses at SCIT or their personal lives. Participants wanted to understand how the content of different courses was connected and how the content learned in one class could be useful in another. They needed to see how learning was integrated into the bigger picture.

### *Implications for Practice and Research*

For instructors, the implication is not to remain in their respective bailiwicks but to reach out to colleagues within and across disciplines to find connections, especially for general education skills. For example, in which manner are composition, public speaking, American history, psychology, and other courses related to courses in the sciences?

Making such connections, participants stated, helped them learn and persist. In addition to working with colleagues to find points of contact, instructors could even collaborate on joint or at least related assignments, especially in courses that enroll large numbers of non-major students from one specific discipline.

#### *American Indian Topics*

Several scholars recommended the inclusion of American Indian materials or perspectives into courses (Pewewardy & Frey, 2004; Scott, 1986; Tierney, 1985), but few participants in this study complained about the absence of such course content. Some expressed a desire to learn more about history or culture or treaties or their tribal backgrounds, but no one insisted that this material be included in all their classes. Especially outside their humanities and some social science courses, no mention was made of indigenous perspectives.

#### *Implications for Practice and Research*

These answers raise questions about the recent trend in the literature that ask to indigenize college courses, particularly in the sciences (Cajete, 1994; Deloria & Wildcat, 2001; Pewewardy, 2005). As participants' answers appeared to show less urgency than the writings of some scholars, the major implications of the degree to which indigenization may be related to retention and graduation rates are discussed under Research Question 3.

#### Research Question 2

To which degree can students' perceptions of the presence of these factors be linked to technical education?

Several success factors mentioned by the participants of this study deviated from discussions in the literature, and in almost all these cases, this writer believes that a connection with technical education can be established that can lead to suggestions for improving student learning and retention in a variety of disciplines.

*Determination, Desire, and Readiness*

The first major surprise in participants' answers was their insistence that student determination, desire, and readiness were the foundation for success and that it was the students' responsibility to make sure that such attitudes were present, not the institution's. Instead of feeling sympathy for non-completers and making comments about how SCIT had failed these students, participants showed little patience with and understanding for those who did not complete their programs of study as expressed, for example, by Dustin Ross: "It just drives me nuts--people that just give up and quit" (DR 1049).

Determination may be linked to the goal of having a good income. Discussions about student success have a tendency to downplay the issue of money and to minimize its effect as a potential motivator or success factor. However, Pascarella and Terenzini (2005) reported that students in some majors that led to well-paying jobs straight out of college had a much higher retention rates than students in other programs. For some American Indian students, therefore, the conclusion may be that money and one's personal earning potential are significant motivators. Unfortunately, although Pascarella and Terenzini discussed the relationship of learning and money in terms of greater lifetime earnings, they failed to provide specific ideas and suggestions on how this information can be used to motivate students in the classroom.

Money also provides the connection to technical education. The greater motivation for American Indian students may be linked to their job prospects. Most technical programs of study at SCIT lead to employment, not to further study elsewhere. Of all SCIT students, 75% look at the degree earned as their terminal degree and their passport to a good career, and graduate placement rates in many programs are at or near 100%. Students often come from families where money was tight when they were growing up. In fact, none of the participants in this study spoke about parents who were well off financially. As a result, the prospect of an immediate payoff of one's studies in terms of a good career and a good income as the result of the technical skills learned in their classes appears to be a success factor for American Indian students at SCIT.

#### *Implications for Practice*

Implications for institutions derive from the discussion for Research Question 1. Institutions can and indeed should consider help students develop the right success mindset, but one aspect of making students more determined may be to focus on future career and salary when recruiting students and to re-emphasize this message periodically throughout a student's course of study. Bringing American Indian graduates back to campus to provide evidence for a monetary payoff will be part of this approach. Colleges wishing to increase the graduation rates of American Indian students may even consider tracking some students into programs of study where the payoff upon graduation is clearly measurable.

The connection between college, career, and money is quite direct in technical education, but non-technical disciplines may also consider making such links more explicit for their American Indian students. Motivating students with a specific, positive,

immediate outcome at the end instead of abstract future benefits in intellectual capital and personal growth may help to improve retention rates. This suggestion does not imply that learning not directly applicable to the workplace ought to be abandoned or changed, only that a greater effort be made to link it to students' career plans.

### *Implications for Research*

Research, as a result, can investigate the link between persistence and employment right after graduation further. Which programs of study show the highest graduation rate among American Indian students, and what is the relationship of such rates to monetary rewards? In addition, is there a link between the amount of money students stand to make immediately after graduation and their persistence and graduation rates?

### *Campus Familiarity*

Campus familiarity is another topic with a relationship to technical education. Participants acquired such familiarity as the result of concurrent enrollment while still in high school or because their friends also attended SCIT. Research discussed the value of bridge programs to familiarize students with the college campus and its environment (Pascarella & Terenzini, 2005). Participants in this study did not mention any bridge or other programs, most likely because SCIT does not offer them and participants were not even aware of their existence. The relationship between bridge programs and American Indian student persistence, therefore, may deserve further attention from research, as does an analysis of the impact of concurrent enrollment programs compared to students who participated in bridge programs or neither of the two.

One aspect of campus familiarity, campus visits, showed a distinct relationship to technical education. Participants mentioned several times that visiting the campus was important in their decision to attend and helped them develop the right mindset. Their comments clarified that such campus visits were useful for two reasons: (1) visits included meeting instructors and department administrators, and (2) visits were focused on the department only and included a tour of classrooms and equipment. Several participants, in fact, pointed out that discussing how instructors would teach courses and seeing all the equipment helped them make their decision for SCIT and put them in the right frame of mind.

#### *Implications for Practice and Research*

As a result, institutions may want to reconsider their approach to familiarizing students with the campus and focus first on the department. Impressing students with equipment or showing students what they will be working on, of course, is easier in technical fields or in the sciences, but any department can arrange more opportunities to meet with faculty members. This suggestion, however, requires additional time commitments on the part of instructors, and colleges may want to encourage instructors to participate by counting recruitment activities and working with prospective students toward service obligations or giving them a higher value in tenure decisions. Research, in turn, can investigate differences in graduation rates among colleges and departments with different approaches to recruitment.

#### *Employer Connections*

Building connections with employers is another strength of technical education. Participants of this study expressed great satisfaction with their departments' ability to

bring employers to campus. If a program of study is designed to provide students with knowledge, skills, and attitudes that enable them to enter the job market immediately upon graduation without needing much further training, employers will, of course, be interested, and employer interest along with future earning potential has a positive effect on student persistence.

Job or career fairs are common occurrences on many campuses, but the ones at SCIT are planned in a very targeted fashion. Each program or department holds its separate event; students are not just able but required to participate, and they are excused from their other classes for the day. Employers are invited to not only collect resumes and hand out high-gloss brochures but also conduct interviews.

#### *Implications for Practice and Research*

Although such events may be easier to organize in technical fields with a shortage of trained workers than in professions with a glut of applicants, all departments may nonetheless re-consider the format of their job fairs by focusing less on information dissemination and more on recruitment. Based on the replies from participants, such events were a major contribution to their persistence. Research for its part can further investigate the effect of job fairs, job placement rates, and employer interviews on campus on the retention rate of both incoming and graduating American Indian students.

#### *Instructor Background*

An important factor for participants was instructor background. They deemed it crucial that instructors had had experience in a non-academic workplace and were able to use that experience to relate course content to workplace applications. Once again, this connection is one of the strengths of technical education.

### *Implications for Practice and Research*

However, the implication is that institutions might consider putting more focus on non-academic work experience for new faculty members, especially in occupations their students may choose. Teacher education instructors in most cases already are expected to have experience teaching in public schools. Other examples could be management instructors who must have business experience, psychology instructors who must have clinical experience, agriculture instructors who must have had their own farms, civil engineers who must have worked for engineering firms, and the list goes on. Although finding enough instructors with applicable work experience may be challenging at first until applicants expect such requirements, colleges nonetheless have the prerogative to make them factors to be considered in hiring. Research, then, could investigate retention rates for American Indian students when their instructors have had industry experience versus when they have not.

### *Kinesthetic Learning*

Participants mentioned their preference for labs and the opportunity for self-directed learning, application of knowledge and skills, and preparation for the workplace. In that context, participants also touted the hands-on approach that technical skills allowed and the one-on-one attention they could get from their instructors during labs and during class. Many students are kinesthetic learners. According to one expert, up to 50% of secondary school students are kinesthetic learners while educational delivery is still about 80% auditory (University of Illinois Extension, 2008). Workers tend to drift toward careers that favor their learning styles, and college students tend to choose programs of study for the same reason. Kinesthetic students often prefer technical education because

of the opportunity to do something besides listen (Gray & Herr, 1998). They also tend to be “engagers” according to the Assessing the Learning Strategies of Adults (ATLAS) personality type model developed by Conti (n.d.) because they like to become actively involved with their learning.

### *Implications for Practice*

Implications here are challenging. Because of the use of equipment, technical courses tend to have a limited number of students, which makes it easier for instructors to let students work independently and give them one-on-one attention. Nonetheless, whenever possible, instructors may consider making adjustments to the manner in which some courses are taught. If, for example, all assessments consist of multiple choice testing, could there be a way to replace some of that with project work or presentations to give students an opportunity to show not only what they know but also how they can apply their knowledge? Is there a way to design such projects so that they help students work on tasks that might be common in the workplace? Doing something instead of absorbing information seems to have a clear link to retention for some American Indian students.

### *Implications for Research*

Research can do its part by investigating the link between types of assessment and persistence. Are American Indian student retention rates higher in programs that use authentic assessment techniques? Do students graduate at higher rates from programs where much learning is experimental and experiential? To which degree does contextual learning influence student retention?

### Research Question 3

Which success factors exist at the South Central Institute of Technology that have received little or no mention in the literature?

Two areas stand out in the analysis of participants' comments that have received inconsistent treatment in the literature on American Indian post-secondary student success: epistemological considerations and specific classroom practices. This fact is all the more surprising since both areas are closely related. Philosophical and epistemological assumptions generally lead to educational principles that culminate in specific classroom practices. Elias and Merriam (2005), for example, described which practices are typical for different philosophies and how each philosophy drives the practice. The conclusion then would be that educators choose their practices based on their philosophical and epistemological stance, and the more awareness they have of the latter, the better their choices can be for the former.

This is not to say that such discussions have not taken place in the field of workforce education. Gray and Herr (1998), for example, wrote about repeated failed attempts to find a philosophical stance acceptable to the discipline as a whole, which has led to many an argument and has left behind frustration and confusion. If, however, technical education is to provide insights into American Indian student retention, the discussion of philosophy must be part of the effort, regardless of how contentious it may be. Therefore, both philosophy and instructional methods not only deserve but require further investigation.

#### *Epistemological Concerns*

Over the past 20 years, a shift has occurred in the scholarship on American Indian

education. As more and more Native scholars have entered the discussion, these scholars have increasingly argued against working within existing frameworks and have instead advocated the development of an indigenous epistemology that can help Native students be more successful than non-Native traditions (Alfred, 2004; Cajete, 1994; Deloria & Wildcat, 2001; Grande, 2004; J. Miheuah, 2004; Pewewardy, 2005; A.C. Wilson, 2004). This approach has been stated by A.C. Wilson (2004) as follows: “The strategies we develop as Indigenous people of North America toward decolonization and empowerment must be distinct to us and developed from the guiding principles that allowed us to live a sustainable existence for thousands of years” (p. 71). A related statement was made by Alfred (2004): “Fulfilling our purpose means engaging in resistance with the moral purpose of contending against imperial and commercial power and its suffusion into the way we live our lives and see our world” (p. 95).

References to imperialism, resistance, and empowerment suggest a focus on critical theory approaches, a conclusion supported by a statement from Grande (2004): “[T]he frameworks of revolutionary critical theory provide indigenous educators and scholars a way to think about the issues of sovereignty and self-determination that moves beyond simple cultural constructions and analyses” (p. 165). The first step of this thought process is often seen to be decolonization: “Decolonization becomes central to unraveling the long history of colonization and returning well-being to our people. .... Decolonization is about empowerment—a belief that situations can be transformed, a belief and trust in our own people’s values and abilities, and a willingness to make change” (A.C. Wilson, 2004, pp. 70-71).

Decolonization or postcolonialism (these two terms are closely related, with

postcolonialism referring more to the theory base and decolonization referring to the process of shaking off colonialism) is first of all a method to deal with the past, particularly a past in which an outside culture invaded the territory of another culture, declared its values, beliefs, and attitudes the norm and anything else as inferior or depraved, and assumed political, social, and economic control. In the process of becoming decolonized, members of the oppressed culture begin to speak up about their view of reality, the right of their culture to not only exist but also be treated with equal respect, and their response to efforts by the dominant culture to remain in control. Decolonization often begins with a form of venting in that the dominant culture is told how and to which degree it has harmed and destroyed the culture, the identity, and the humanity of the oppressed (Bressler, 1999). However, this process is not sufficient as explained by Smith (1999): “In a decolonizing framework, deconstruction is part of a much larger intent. Taking apart the story, revealing underlying texts, and giving voice to things that are often known intuitively does not help people to improve their current conditions” (p. 3).

Therefore, the declared goal of decolonization for American Indians is not just to speak up about past and present injustices and to make people feel proud about their heritage, it is to set up social, political, economic, and educational frameworks that will help improve people’s daily lives and steel their cultures against future attacks. Grande (2004) called this approach “red pedagogy” that will lead to a “fourth space of indigenism” (p. 169). This space, she claimed, was a way to bring traditions back into modern life and use those traditions to solve modern problems. For education, Deloria and Wildcat (2001) advocated that educational principles and practices be built on

traditional philosophical orientations to be truly effective: “Deloria’s proposal that we explore an indigenous (in this case American Indian) metaphysics must be among the first projects American Indian educators undertake if we are not only to decolonize, but also actively “indigenize” and truly make Native educational institutions our own” (p. 31). If this is accomplished, they argued, individuals as well as communities can live in moral and physical self-determination, deal with all manner of problems in a locally acceptable and effective way, and inoculate themselves against future attempts by outsiders to assume cultural hegemony.

Still, this path is not as easily taken as it seems. For example, J. Mihesuah (2004) admitted that not all American Indian students are committed to helping their communities and may be more focused on their personal success. This assessment appears to apply to the participants in this study. When participants alluded to their communities at all, perceptions were generally critical. They mentioned the desire to get away from an environment of drugs, alcohol, and welfare dependence (Nancy Berryhill, Lucy Haney), rude treatment of non-Indians (Nancy Berryhill), and examples of what they considered incompetence in handling financial aid matters (Dustin Ross, Jason Marshall). Positive comments were associated with specific persons in their lives. Unfortunately, instead of elaborating on such differences, J. Mihesuah brushed them aside and decided to limit his discussion to students who “hail from a reservation or tribal community” (p. 195). The same can be said for his discussion of Native scholars. He expressed unequivocally that those Native scholars who do not subscribe to decolonization, empowerment, activism, and the inclusion of indigenous knowledge into the curriculum have a negative influence on their students and deny them the type of

education they need.

At this juncture, this researcher believes, the ideas of Gerald Vizenor, one of the foremost American Indian writers and critics of the past three decades, can help find a third way besides following established pedagogical models or the decolonization model. Vizenor (1993) found a critical theory approach alone flawed and proposed that scholars include a more subjectivist epistemology and a perspective that Rosenau (1992) has called “affirmative post-modernism” and Elias and Meriam (2005) have called “constructive postmodernism.” Crotty (1998) argued that critical inquiry had a tendency toward universality and espoused a belief that it could help everyone all the time. Vizenor agreed and made it quite clear that to him social science is a power game, a way to control people and to make them conform to the fad theory of the day. Critical theory then is just another attempt at a one-size-fits-all model of what liberation from oppression means and ignores the unique needs of individuals.

Affirmative post-modernists according to Rosenau (1992) do not share the gloomy outlook that other post-modernists have of an essentially meaningless world. They believe that it is worth fighting for better social, economic, political, or educational conditions but that this fight ought to be conducted in a way not permeated by ideology. A similar argument was made by Elias and Merriam (2005), who attributed the following characteristics to constructive postmodernists: (1) individuals fighting oppression from the margins of society and rejecting one-size-fits-all theories are the heart and soul of constructive postmodernism; (2) grand historical narratives are replaced with individual ones; (3) truth is individual, and each community member has a different view of reality; (4) communal truths are bound to time and place, are created for a specific purpose, and are never universal or perpetual; and (5) feelings supersede theory so that individual and

local realities can be transformed as needed and are not constrained by grand narratives.

A transformative response to power and control might be revolution as suggested by many critical theorists, but this course of action requires people always to do what is best for the community at large, or revolutions can quickly turn on themselves and resort to oppression worse than the one they had been trying to overthrow. The French philosophers Gilles Deleuze and Félix Guattari (1987) therefore did not have that much faith in human progress. They stated that as people become more revolutionary and more multifaceted, they also become easier to control. For many minorities especially, revolutions are impossible because the dominant culture (the “State” in their parlance) has too much power and too much control over the political, social, and cultural surroundings, and any attempt at changing these power relationships will lead to immediate retaliation. The only way to be truly empowered is not to focus on community to begin with but to develop individual “lines of flight” (i.e. ways to resist) that keep challenging and questioning the State again and again from the margins.

Vizenor (1993) and Vizenor and Lee (1999) agreed that the notion of empowerment could not be constructed universally as critical theory would have it. Instead, each individual has a right and a need to construct a unique meaning out of his or her experiences, e.g. as a student on campus, and language can help accomplish this. The role of language in the process of oppression and liberation was described by Wub-e-ke-niew (1995):

Aboriginal Indigenous languages are the living past and present, embodying the values, the consensus harmony, and the meaning of life and death of those peoples whose ancient heritage these languages are.

The Aboriginal Indigenous peoples of the world have within their

languages their understanding of the nature of humanity. .... Over the past hundred years, the English-speaking peoples and their subject mixed-bloods have been systematically destroying non-Lislahk [not having origin in Western civilization] languages, trying to eliminate everything but their own hierarchical Utopian world-view and ideology. (p. 215)

Arguing that all meaning in language is essentially metaphoric, Vizenor recommended that individual American Indians counteract this attempt at political and social oppression and cultural annihilation through language by creating their own metaphors, personal metaphors, as the situation requires. These personal metaphors will become a weapon against control by others because they allow the speakers to access a level of meaning that others do not share and thus confuse their oppressors.

However, Vizenor (1993) and Vizenor and Lee (1999) disagreed with Deleuze and Guattari (1987) that lines of flight and personal metaphors have to remain individual forever because of the concern that any combination of them will invariably lead to new instances of oppression. To him, this is a conclusion that accepts Western culture as the norm and disregards alternative models from non-Western cultures. In such cultures, individual instances of meaning indeed can later be combined voluntarily to form a new communal identity (he called this identity “post-Indian” to emphasize that the current concept of Indian is a construct by the dominant society) and help communities truly take charge of their own destinies without oppressing anyone. In this context, Vizenor becomes a constructive postmodernist because in the beginning, individual needs to him are paramount, not community needs, and individual approaches are more important than ideologies. Later, however, he leaves the door open for combining these individual ways

(lines of flight, as it were) into community rules as the situation, not an ideology, requires. The needs of the people for him supersede the needs of the theory.

Vizenor's argument then creates a link to the theoretical basis of this study. As explained in Chapter 1, this study is based on pragmatist assumptions that truth is not bound by theory or ideology but by the needs of individuals in any given situation. The worth of new knowledge is based on the degree to which it can help people achieve their goals. Pragmatists do not want to accept ideas or ideologies as they are but look at their capacity to create practical results, including solutions to current problems. This description very much resembles the guidelines for constructive postmodernism, and Ford (1993) and Ochs (1993) in fact argued that pragmatism is the foundation of postmodernism and that its major thinkers like Charles Sanders Peirce or William James ought to be considered the ancestors of postmodern thought: "[H]e [James] was one of the first postmodern thinkers. In James' writings one discovers a breaking away from old categories and the establishment of new, postmodern ones. To the extent that one fails to recognize the postmodern quality of James' thought, one invariably misses his most significant contribution to Western thought" (Griffin, Cobb, Ford, Gunter, & Ochs, 1993, p. 89).

In addition, pragmatism's preference for collaborative assignments, contextual learning, projects, experimental and experiential learning, and problem-based learning retains the focus on the individual's need to resolve individual problems at particular points in time, but simultaneously, the social constructionist view is included in that problems and their solutions as well as ways to find solutions are contingent upon the social environment in which individuals operate and the interaction with others in this

environment.

However, J. Mihesuah's (2004) decision to rebuff those who do not subscribe to critical theory, decolonization, and resistance is understandable. After decades of dithering by established institutions, educational attainment of American Indian students still lags significantly behind the national average, and one certainly cannot blame Native scholars for having little patience with the way things have been and the prospect for more protracted debate. Taking matters into one's own hand and advocating radical change is an understandable reaction, but the determining factor of what students need should be students themselves, and the best way to empower students is to talk to them and ask them what they want, not to replace one canonical approach with another.

#### *Implications for Practice and Research*

This researcher argues that scholars who want to help lay the groundwork for American Indian student success consider different epistemologies and frame studies in different theoretical perspectives. This is not to say that the current focus on critical theory is misguided—quite the contrary. Each perspective may have something worthwhile to contribute to finding solutions to the continually low retention rates of American Indian students, especially when looking at the level of student acculturation.

Several studies had concluded that if American Indian students were more traditional, they could and would use their cultural background for academic and emotional support and graduated in higher numbers than non-traditional students, thus creating a positive correlation between cultural traditionalism and college success (Huffman, 2003; Huffman, Sill, & Brokenleg, 1986; Lin, 1990). On the other hand, all the participants in this study, who were successful, considered themselves to be non-

traditional. This apparent contradiction between conclusions drawn in the literature and the findings of this study raise the question of which student background is most conducive to success, a traditional background, a traditional background coupled with an ability to function in mainstream society, or a non-traditional background?

Another factor is the situation in Oklahoma. Are non-traditional American Indian students from Oklahoma possibly successful because of their being “blended” with the rest of the population as stated by Wright (1986)? Many American Indians in Oklahoma live, worship, work, and go to school with people from other ethnic groups, and marriage across cultural lines is common. What is the impact that this close cultural contact may have on the ability of students to persist in college, and how does it differ from the situation in other states?

This question is also linked to the issue of motivation. Several scholars had asserted the ability to help in the development of one’s community and tribe was a major motivational factor for American Indian students (Deloria & Wildcat, 2001; Hatch, 1992; Tippeconnic, 2000; West, 1988). None of the participants in this study, however, said anything about being driven by this particular factor. Their motivations were derived from benefiting themselves and their families. The question then becomes whether community benefit as a success factor has been overstated or whether there is a correlation between level of acculturation or traditionalism, and once more, whether the particular life contexts of Oklahoma Indians play a role here.

Empowerment can come through community activism, but the findings of this study in combination with the discussion above suggest that practitioners and researchers may want to keep their options open and investigate multiple pathways to success for

American Indian students. Critical theory appears to have applications for increasing the educational attainment of American Indian college students who are more traditional and who come from reservation communities, but constructive postmodernism may be another worthwhile theoretical approach, especially for non-traditional students and for those living in an environment like the one in Oklahoma. It may also be useful in finding the appropriate epistemological stance for non-Native allies trying to help American Indian students. The advocacy that is required in critical theory can be inappropriate for non-Indians, especially when the goal is to empower Native people, but constructive postmodernism may be the answer to the quandary of how to support students from a different culture without unduly interfering in their affairs. The options that this epistemological stance may present to non-Native educators certainly deserve further attention from scholars.

The relatively high graduation rate for American Indian students at SCIT and the propensity of technical education for pragmatic approaches suggest that finding individual meaning through interaction with professors, peers, community and tribal members, and employers while simultaneously working toward one's own goal can help American Indian students find an identity that allows them to feel empowered to contribute to the well-being of first their families and later their communities and thus to persist in their studies.

As explained by Vizenor (1993) and Vizenor and Lee (1999), this individual focus may just be necessary first if the community is to benefit later, and the focus on individual problems and solutions may be more effective in solving community problems in the long run than a systemwide ideology. Therefore, this researcher's conversations

with technical students about their experiences suggest that research must continue to explore different epistemological routes toward an improvement in American Indian education. An inquiry into constructive postmodernism appears to be one such route, and others must be identified and discussed as well.

### *Classroom Practices*

The discussion of epistemological issues above provides a segue into the second area to be discussed here, instructional practices. Of the classroom practices mentioned by the participants, enthusiasm; clear, multiple explanations; doing instead of talking; one-on-one attention; hands-on learning; showing in addition to explaining; the use of labs for practice; and a focus on transferability of knowledge, skills, and attitudes were success factors that have received little to no attention in the literature on American Indian student retention.

The common thread in these practices is their connection to pragmatism and social constructionism. They embody student-centered learning, experimental and experiential learning, problem-based learning, project work, the practical aspect of learning, the instructor as guide and consultant, and the student as a self-directed partner in the learning process who acquires knowledge, skills, and attitudes not in isolation but in context. The fact that these practices were specifically mentioned by participants as contributors to their success strengthens the recommendation that pragmatism and social constructionism and, by extension, constructive postmodernism be given serious consideration as possible theoretical frameworks for American Indian pedagogy by researchers trying to identify success factors and build programs to enhance American Indian educational attainment.

Showing in addition to explaining, doing instead of talking, hands-on learning, one-on-one attention, the use of labs for practice, and a focus on the transferability of knowledge, skills, and attitudes are all success factors that show clear links to technical education. Demonstrations by the instructor are common in technical education so that students do not hurt themselves or needlessly damage equipment or waste material. Hands-on learning is an emic phrase coined by participants that is typical for technical students at SCIT, many of whom find academic subject matter and an emphasis on cognitive skills insufferable and learn best by exploring course content using their hands. Participants were ambivalent about collaborative activities, but that feeling in itself does not suggest the inappropriateness of such a method, only that group work may not have been carefully enough planned. Research on good collaborative practices can be invaluable here.

Hands-on experiential learning is easily done in a lab setting, and many technical courses are indeed located in classrooms with relevant equipment that students manipulate with individual support from their instructors as needed. Finally, articulation between courses, i.e. seeing the connection of how something learned in one course is needed to be able to learn the material in another course, is often quite self-evident in technical education. Students may have difficulty seeing how their writing courses or public speaking courses help them in their technical coursework or their future careers, but they do understand that someone needs to learn how to mix automotive paint before learning how to apply it.

### *Implications for Practice and Research*

To which degree the success factors mentioned by participants are factors for American Indian students in particular or might apply to all technical students will have to be explored through further research. More research will also be needed to determine if good instructional practice in technical education is truly an ethnic or cultural issue. Will students from different cultural backgrounds require different instructional methods, or is there a core of good classroom practice that can help anyone be successful regardless of background? Technical education pedagogy appears to be well received by students who struggle in traditional mainstream classrooms. What exactly is the correlation between student background and instructional design and methods?

At this point, there are some clear connections between technical education pedagogy and the traditional American Indian learning style of observation, reflection, further observation, private practice, and finally performance (James, 1992; Swisher, 1994). Technical education appears to support this learning style with its focus on demonstration at first, even multiple times as needed, and an opportunity for students to think through their learning and practice at their own pace in a lab setting where the instructor functions as a resource person and students decide when they are ready to prove competence.

Instructors with American Indian students in any discipline might thus consider adopting some of the practices identified as success factors. Can instructors find more opportunities to demonstrate competencies or provide examples for students? Is there a way to organize some class periods as workshops where students work on their skills with help from their instructor as needed? Is there a possibility for collaboration among

instructors from different departments to show students how the knowledge, skills, or attitudes they acquire in one course help them manage another, seemingly unrelated course better? Can instructors give consideration to practices derived from pragmatism in their classes? Is it possible to take a constructionist stance and allow some flexibility in course outcomes based on students' backgrounds and needs as long as certain competencies are met? Based on the responses from this study's participants, all these questions deserve some serious consideration if faculty members are truly dedicated to the success of their American Indian students

### *Summary*

Success factors for American Indian students can be quite personal. For the participants of this study, social experiences and individual goals are strongly correlated with their desire to finish their studies and graduate from college. Individual goals seem to play a dominant role and were cited more frequently than communal ones. Nonetheless, the interaction with others, be they people on or off campus, appears to have had the strongest influence on participants' success. What is needed, therefore, is better insight into how the interaction of friends, family members, campus staff members, instructors, and others with their American Indian students can help these students toward their individual goals. Based on the responses of the participants in this study, some of the answers may be found in the instructional methods that are part of the technical education field and in a consideration of different epistemological approaches to learning.

## REFERENCES

- Adams, D.W. (1997). *Education for extinction: American Indians and the boarding school experience 1875-1928*. Lawrence: University of Kansas Press.
- Adams, E.C. (1946). *American Indian education: Government schools and economic progress*. Morningside Heights, NY: King's Crown Press.
- Alfred, T. (2004). Warrior scholarship: Seeing the university as a ground of contention. In D.A. Mihesuah and A.C. Wilson (Eds.), *Indigenizing the academy: Transforming scholarship and empowering communities* (pp. 88-99). Lincoln: University of Nebraska Press.
- American Indian Higher Education Consortium. (2007). *Tribal college roster*. Retrieved October 7, 2007, from [http://www.aihec.org/tribal\\_college\\_roster.cfm](http://www.aihec.org/tribal_college_roster.cfm)
- American Psychological Association. (1999, May 26). *Suicide: A crisis within the American Indian and Alaskan Native community*. Retrieved June 3, 2007, from <http://www.apa.org/ppo/issues/psuicnat.html>
- Appleman, D. (2003). "Are you makin' me famous or makin' me a fool?" Responsibility and respect in representation. In S. Greene & D. Abt-Perkins (Eds.), *Making race visible: Literacy research for cultural understanding* (pp. 71-85). New York: Teachers College Press.

- Aragon, S.R. (2002). An investigation of factors influencing classroom motivation for postsecondary American Indian/Alaska Native students. *Journal of American Indian Education, 41*(1), 1-18.
- Aronowitz, S., & Giroux, S.A. (1991). *Postmodern education: Politics, culture, and social criticism*. Minneapolis: University of Minnesota Press.
- Astin, A.W. (1977). *Four critical years: Effects of college on beliefs, attitudes, and knowledge*. San Francisco: Jossey-Bass.
- Astin, A.W. (1991). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. Westport, CT: Oryx Press.
- Bailey, T., Jenkins, D., & Leinbach, T. (2005, January). *Community college low-income and minority student completion study: Descriptive statistics from the 1992 high school cohort*. New York: Community College Research Center, Teachers College, Columbia University.
- Benally, S. (2004, March). *Serving American Indian students: Participation in accelerated learning opportunities*. (Report No. 2A349) Boulder, CO: Western Interstate Commission for Higher Education.
- Benham, Maenette K.P.A., & Stein, W. J. (Eds.). (2002). *The renaissance of American Indian higher education: Capturing the dream*. Mahwah, NJ: Erlbaum.
- Benjamin, D.-P., Chambers, S., & Reiterman, G. (1993). A focus on American Indian college persistence. *Journal of American Indian Education, 32*(2), 24-40.
- Berger, P.L., & Luckman, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Doubleday.

- Billy, C.L. (2002). Moving toward the circle of prosperity: The cyber-journey. *Tribal College, 14*(2), 46-49.
- Bowman, N.R. (2003). Cultural differences of teaching and learning: A Native American perspective of participating in educational systems and organizations. *American Indian Quarterly, 27*, 91-102.
- Bressler, C.E. (1999). *Literary criticism: An introduction to theory and practice* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- Brown, L.L., & Robinson Kurpius, S.E. (1997). Psychosocial factors influencing academic persistence of American Indian college students. *Journal of College Student Development, 38*, 3-12.
- Burns, S. (2006, September 6). Mohawk immersion program gaining acceptance. *Indian Country Today*. Retrieved March 3, 2008, from <http://www.indiancountry.com>
- Cajete, G.A. (1994). *Look to the mountain: An ecology of indigenous education*. Durango, CO: Kivakí Press.
- Calsoyas, K. (2005). Considerations in the educational process relative to Native Americans. *Cambridge Journal of Education, 35*, 301-310.
- Camp, W.G. (2001). Formulating and evaluating theoretical frameworks for career and technical education research. *Journal of Vocational Education Research, 26*(1), 4-25.
- Carnegie Foundation. (1999). Tribal colleges: Shaping the future of Native America. In C.G. Calloway (Ed.), *First peoples: A documentary survey of American Indian history* (pp. 509-524). Boston: Bedford/St. Martin's.

- Center for Diné Teacher Education. (n.d.). *Navajo children's multimedia literature books*. Retrieved March 3, 2008, from <http://cdte.dinecollege.edu/TSF/multimediabooks.htm>
- Charon, J.M. (2004). *Symbolic interactionism: An introduction, an interpretation, an integration* (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Cherokee Nation. (2008). *Official site*. Retrieved March 3, 2008, from <http://www.cherokee.org/home.aspx>
- Cohn, J. (1997). The effects of racial and ethnic discrimination on the career development of minority persons. In H.S. Farmer and Associates (Eds.), *Diversity & women's career development: From adolescence to adulthood* (pp. 161-171). Thousand Oaks, CA: Sage.
- Cole, J.S., & Denzine, G.M. (2002). Comparing the academic engagement of American Indian and white college students. *Journal of American Indian Education*, 41(1), 19-34.
- Conti, G. (n.d.). *Assessing the learning strategies of adults*. Retrieved January 18, 2007, from <http://www.conti-creations.com/atlas.html>
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. London: Sage.
- Danziger, E.J., Jr. (1978). *The Chippewa of Lake Superior*. Norman: University of Oklahoma Press.

- David, J. (2004, November 26). *Aboriginal language broadcasting in Canada: An overview and recommendations to the Task Force on Aboriginal Languages and Cultures*. Ottawa, Ontario, Canada: Debwe Communications, Inc. Retrieved March 3, 2008, from [http://www.aptn.ca/images/stories/corporatepdfs/aboriginal\\_language\\_and\\_broadcasting\\_report\\_final\\_nov\\_26\\_04.pdf](http://www.aptn.ca/images/stories/corporatepdfs/aboriginal_language_and_broadcasting_report_final_nov_26_04.pdf)
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. (B. Massumi, Trans.) Minneapolis: University of Minnesota Press.
- Deloria, P.J. (1998). *Playing Indian*. New Haven: Yale University Press.
- Deloria, V., Jr. (1970). *We talk, you listen: New tribes, new turf*. New York: Dell Publishing Company.
- Deloria, V., Jr., & Wildcat, D.R. (2001). *Power and place: Indian education in America*. Golden, CO: Fulcrum Resources.
- Demmert, W. (1997). Education is survival. In L. Crozier-Hogle and D.B. Wilson (Eds.), *Surviving in two worlds: Contemporary Native American voices* (pp. 167-176). Austin: University of Texas Press.
- DeNavas-Walt, C., Proctor, B.D., & Lee, C.H. (2006). *Income, poverty, and health insurance coverage in the United States: 2005*. (Report No. P60-231) Washington, DC: Government Printing Office.
- Densmore, F. (1979). *Chippewa customs*. St. Paul: Minnesota Historical Society Press. (Original work published in 1929)
- Dodd, J.M., Garcia, F.M., Meccage, C., & Nelson, J.R. (1995). American Indian student retention. *NASPA Journal*, 33(1), 72-78.

- Eastman, C.A. (1971). *Indian boyhood*. New York: Dover Publications. (Original work published in 1902)
- Edington, E.D., & Willey, D.S. (1971). Occupational training for America's forgotten minority. *Journal of American Indian Education*, 10(2), 15-20.
- Elias, J.A., & Merriam, S.B. (2005). *Philosophical foundations of adult education* (3rd ed.). Malabar, FL: Krieger Publishing Company.
- Falk, D.R., & Aitken, L.P. (1984). Promoting retention among American Indian college students. *Journal of American Indian Education*, 23(2), 24-31.
- Flick, U. (2002). *Qualitative Sozialforschung: Eine Einführung* [Qualitative research in the social sciences: An introduction.] (2nd ed.). Hamburg, Germany: Rowohlt.
- Freeman, C., & Fox, M.A. (2005). *Status and trends in the education of American Indians and Alaska Natives*. (Report No. NCES 2005-108). Washington, DC: US Department of Education, National Center for Education Statistics.
- Freire, P. (1993). *Pedagogy of the oppressed*. (M.B. Ramos, Trans.) New York: Continuum. (Original work published in 1970)
- Fuchs, E., & Havighurst, R.J. (1983). *To live on this earth: American Indian education* (2nd ed.). Albuquerque: University of New Mexico Press.
- Garrett, M.T. (1996). "Two people": An American Indian narrative of bicultural identity. *Journal of American Indian Education*, 36(1), 1-21.
- Gilbert, W.S. (2000). Bridging the gap between high school and college. *Journal of American Indian Education*, 39(3), 1-21.
- Gilliland, H., & Reyhner, J. (1988). *Teaching the Native American*. Dubuque, IA: Kendall/Hunt.

- Goddard, I. (Ed.). (1997). *Handbook of North American Indians: Languages* (Vol. 17). Washington, D.C.: Smithsonian Institution.
- Grande, S. (2004). *Red pedagogy: Native American social and political thought*. Lanham, MD: Rowman & Littlefield.
- Gray, K.C. (1997). The gatekeepers. *Techniques*, 71(9), 24-27.
- Gray, K.C., & Herr, E.L. (1998). *Workforce education: The basics*. Needham Heights, MA: Allyn & Bacon.
- Griffin, D.R., Cobb, J.B., Jr., Ford, M.P., Gunter, P.A.Y., & Ochs, P. (1993). *Founders of constructive postmodern philosophy: Peirce, James, Bergson, Whitehead, and Hartshorne*. Albany: State University of New York Press.
- Grim, J.A. (1983). *The shaman: Patterns of religious healing among the Ojibway Indians*. Norman: University of Oklahoma Press.
- Guillory, R.M. (2002). Factors related to Native American students' persistence in higher education: A comparative analysis of student and state and university officials' perceptions. *Dissertation Abstracts International*, 67 (04), 2457A. (UMI No. 3058782)
- Haig-Brown, C., & Archibald, J.-A. (1996). Transforming First Nations research with respect and power. *International Journal of Qualitative Studies in Education*, 9, 245-267.
- Hamill, J. (2006). *Going Indian*. Urbana and Chicago: University of Illinois Press.
- Hampton, E. (1993). Toward a redefinition of American Indian/Alaska Native education. *Canadian Journal of Native Education*, 20, 261-310.

- Hatch, J. (1992). *American Indian and Alaska Native adult education and vocational training programs: Historical beginnings, present conditions and future directions*. (Report No. RC-018-632). Arlington, VA: United States Department of Education Office of Educational Research and Improvement. (ERIC Document Reproduction No. ED 343 773)
- HeavyRunner, I., & DeCelles, R. (2002). Family education model: Meeting the student retention challenge. *Journal of American Indian Education, 41*(2), 29-37.
- HeavyRunner, I., & Marshall, K. (2003). "Miracle Survivors": Promoting resilience in Indian students. *Tribal College, 14*(4), 15-17.
- Herring, R.D. (1990). Attacking career myths among Native Americans: Implications for counseling. *School Counselor, 38*(1), 13-18.
- Hoover, J.J., & Jacobs, C.C. (1992). A survey of American Indian college students: perceptions toward their study skills/college life. *Journal of American Indian Education, 32*(1), 21-29.
- Hornett, D. (1989). The role of faculty in cultural awareness and retention of American Indian college students. *Journal of American Indian Education, 29*(1), 12-18.
- Huffman, T.E., Sill, M.L., & Brokenleg, M. (1986). College achievement among Sioux and white South Dakota students. *Journal of American Indian Education, 25*(2), 32-38.
- Huffman, T.E. (1990). The transculturation of Native American college students. *Proteus, 7*(1), 8-14.

- Huffman, T.E. (1991). The experiences, perceptions, and consequences of campus racism among Northern Plains Indians. *Journal of American Indian Education*, 30(2), 25-34.
- Huffman, T.E. (2001). Resistance theory and the transculturation hypothesis as explanations of college attrition and persistence among culturally traditional American Indian students. *Journal of American Indian Education*, 40(3), 1-23.
- Huffman, T.E. (2003). A comparison of personal assessment of the college experience among reservation and nonreservation American Indian students. *Journal of American Indian Education*, 42(2), 1-16.
- Indian Arts and Crafts Act of 1990, Pub. L. No. 101-644, Sec. 1159, 25 USC 305 (1990).
- Indian Health Care Resource Center of Tulsa. (2008). *Circles of care*. Retrieved March 3, 2008, from <http://www.ihcrc.org/CirclesOfCare/index.html>
- Jackson, A.P., & Smith, S.A. (2001). Postsecondary transitions among Navajo Indians. *Journal of American Indian Education*, 40(2), 28-47.
- James, K. (2001). There are doorways in these huts: An empirical study of educational programs, Native Canadian student needs, and institutional effectiveness in British Columbia and Ontario, Canada. *Journal of American Indian Education*, 40(3), 24-37.
- James, P. (1992). Native Americans and higher education. *College Student Affairs Journal*, 12(1), 56-62.

- Johnson, M.J., Swartz, J.L., & Martin, W.E., Jr. (1995). Applications of psychological theories for career development with Native Americans. In F.T.L. Leong (Ed.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 103-133). Mahwah, NJ: Erlbaum.
- Johnston, B. (1976). *Ojibway heritage*. Toronto: McClelland and Stewart.
- Juntunen, C.L., Barraclough, D.J., Broneck, C.L., Seibel, G.A., Winrow, S.A., & Morin, P.M. (2001). American Indian perspectives on the career journey. *Journal of Counseling Psychology, 48*, 274-285.
- KINI FM Radio. (2004). *KINI program schedule*. Retrieved March 3, 2008, from <http://www.gwtc.net/~kinifm/sched.htm>
- Kirkness, V.J., & Barnhardt, R. (1991). First Nations and higher education: The four Rs—respect, relevance, reciprocity, responsibility. *Journal of American Indian Education, 30*(3), 1-15.
- Kleinfeld, J., Cooper, J., & Kyle, N. (1987). Postsecondary counselors: A model for increasing Native Americans' college success. *Journal of American Indian Education, 27*(1), 9-16.
- Kuh, G.D., Kinzie, J., Buckley, J.A., Bridges, B.K., & Hayek, J.C. (2006, July). *What matters to student success: A review of the literature*. Washington, DC: National Postsecondary Education Cooperative.
- LaFromboise, T.D., Trimble, J.E., & Mohatt, G.V. (1990). Counseling intervention and American Indian tradition: An integrative approach. *The Counseling Psychologist, 18*, 628-654.

- Landry, C.C. (2002). Retention of women and people of color: Unique challenges and institutional responses. *College Student Retention*, 4(1), 1-13.
- Leong, F.T.L., & Serafica, F.C. (2001). Cross-cultural perspectives on Super's career development theory: Career maturity and cultural accommodation. In F.T.L. Leong & A. Barak (Eds.), *Contemporary models in vocational psychology: A volume in honor of Samuel H. Osipow* (pp. 167-205). Mahwah, NJ: Erlbaum.
- Lin, R.-L., LaCounte, D., & Eder, J. (1988). A study of Native American students in a predominantly white college. *Journal of American Indian Education*, 27(3), 8-15.
- Lin, R.-L. (1990). Perception of family background and personal characteristics among Indian college students. *Journal of American Indian Education*, 29(3), 19-28.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.
- Littlefield, A. (1993). Learning to labor: Native American education in the United States, 1880-1930. In J.H. Moore (Ed.), *Political economy of North American Indians* (pp. 43-59). Norman: University of Oklahoma Press.
- Lomawaima, K.T. (1994). *They called it Prairie Light: The story of Chilocco Indian School*. Lincoln: University of Nebraska Press.
- Lomawaima, K.T. (1996). Estelle Reel, superintendent of Indian schools, 1898-1910: Politics, curriculum, and land. *Journal of American Indian Education*, 35(3). 5-32.
- Marshall, J., III. (1995). *On behalf of the wolf and the first peoples*. Santa Fe, NM: Red Crane Books.

- Martin, W.E., Jr. (1991). Career development and American Indians living on reservations: Cross-cultural factors to consider. *Career Development Quarterly*, 39, 273-284.
- Martin, W.E., Jr. (1995). Career development assessment and intervention strategies with American Indians. In F.T.L. Leong (Ed.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 227-248). Mahwah, NJ: Erlbaum.
- Mayring, P. (2007). *Qualitative Inhaltsanalyse: Grundlagen und Techniken* [Qualitative content analysis: Foundations and techniques] (9th ed.). Weinheim, Germany: Beltz Verlag.
- McCormick, R.M., & Amundson, N.E. (1997). A career-life planning model for First Nations people. *Journal of Employment Counseling*, 34, 171-179.
- Meriam, L., Brown, R.A., Cloud, H.R., Dale, E.E., Duke, E., Edwards, H.R., et al. (1928). *The problem of Indian administration*. Washington, DC: The Institute for Government Research Studies in Administration.
- Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Mihesuah, D.A. (2005). *So you want to write about American Indians?* Lincoln: University of Nebraska Press.
- Mihesuah, J.K. (2004). Graduating indigenous students by confronting the academic environment. In D.A. Mihesuah & A.C. Wilson (Eds.), *Indigenizing the academy: Transforming scholarship and empowering communities* (pp. 191-199). Lincoln: University of Nebraska Press.

- Minear, L.P. (1969). Some new approaches in meeting the occupational education needs of the American Indian. *Journal of American Indian Education*, 9(1), 18-22.
- National Center for Health Statistics. (2007). *Health, United States, 2007*. Hyattsville, MD: United States Government Printing Office. Retrieved February 26, 2008, from <http://www.cdc.gov/nchs/data/hus/hus07.pdf>
- National Center for Injury Prevention and Control. (n.d.) *10 leading causes of death: American Indian and Alaskan Native (both sexes, males or females) 1995-1997*. Retrieved January 19, 2008, from <http://www.cdc.gov/ncipc/osp/indian/indians.htm>
- Newcomb, F.J. (1964). *Hosteen Klah: Navaho medicine man and sand painter*. Norman: University of Oklahoma Press.
- Nunavut Arctic College. (2005). *Nunavut Arctic College calendar of courses 2005-2007*. Retrieved March 3, 2008, from <http://nac.nu.ca/files/Academic%20Calendar%202005-07%20INUK.pdf>
- O'Brien, E.M. (1990). A foot in each world: American Indians striving to succeed in higher education. *Black Issues in Higher Education*, 7, 27-31.
- Ohio Department of Education. (n.d.) *Ohio's educator externships*. Retrieved on February 12, 2008, from <http://www.ohiocareerdev.org/Externship.htm>
- Ortiz, A.M., & HeavyRunner, I. (2003). Student access, retention, and success: Models of inclusion and support. In M.K.P. Ah Nee-Benham & W.J. Stein (Eds.), *The renaissance of American Indian higher education: Capturing the dream* (pp. 215- 240). Mahwah, NJ: Erlbaum.

- Oswalt, W.H. (2006). *This land was theirs: A study of native North Americans* (8th ed.). New York: Oxford University Press.
- Pascarella, E.T. (1985). College environmental influences on learning and cognitive development: A critical review and synthesis. In J.C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 1, pp. 1-64). New York: Agathon.
- Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pavel, D.M., & Padilla, R.V. (1993). American Indian and Alaska Native postsecondary departure: An example of assessing a mainstream model using national longitudinal data. *Journal of American Indian Education*, 32(2), 1-23.
- Pavel, D.M., Skinner, R.R., Cahalan, M., Tippeconnic, J., & Stein, W. (1998). *American Indians and Alaska Natives in Postsecondary Education*. (Report No. NCES 98-291). Washington, DC: United States Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.
- Peavy, R.V. (1998). *Career counseling with Native clients: Understanding the context*. (Report No. EDO-CG-95-45). Greensboro, NC: ERIC Clearinghouse on Counseling and Student Services. (ERIC Document Reproduction No. ED399485)

- Pevar, S.L. (2002). *The rights of Indians and tribes: The authoritative ACLU guide to Indian and tribal rights* (3rd ed.). Carbondale, IL: Southern Illinois University Press.
- Pewewardy, C., & Frey, B. (2004). American Indian students' perceptions of racial climate, multicultural support services, and ethnic fraud at a predominantly white university. *Journal of American Indian Education*, 43(1), 32-60.
- Pewewardy, C. (2005). Ideology, power, and the miseducation of indigenous peoples in the United States. In W.A. Wilson & M. Yellow Bird (Eds.), *For indigenous eyes only: A decolonization handbook* (pp. 139-156). Santa Fe, NM: School of American Research Press.
- Phinney, J. (2000). Identity formation across cultures: The interaction of personal, societal, and historical change. *Human Development*, 43, 27-31.
- Pottinger, R. (1990). Disjunction to higher education: American Indian students in the Southwest. *Journal of Navajo Education*, 7(2), 37-45.
- Powers, W.R. (2005). *Transcription techniques for the spoken word*. Lanham, MD: AltaMira Press.
- Price, M. (2006, June 23). Oklahoma near top in American Indian-owned businesses. *The Journal Record*. Retrieved March 3, 2008, from <http://www.aicco.org/newsDirectory.asp>
- Reagan, T. (2005). *Non-western educational traditions: Indigenous approaches to educational thought and practice* (3rd ed.). Mahwah, NJ: Erlbaum.
- Reddy, M. A. (Ed.). (1993). *Statistical record of native North Americans*. Washington, DC: Gale Research.

- Regnier, R. (1995). Bridging Western and First Nations thought: Balanced education in Whitehead's philosophy of organism and the sacred circle. *Interchange*, 26, 383-415.
- Reyhner, J. (1992). American Indians out of school: A review of school-based causes and solutions. *Journal of American Indian Education*, 31(3), 37-56.
- Reyhner, J., & Dodd, J. (1995, January). *Factors affecting the retention of American Indian and Alaska Native students in higher education*. Paper presented at the first annual Expanding Minority Opportunities national conference, Tempe, AZ.
- Reyhner, J., & Eder, J. (2004). *American Indian education: A history*. Norman: University of Oklahoma Press.
- Reynolds, L.T. (1993). *Interactionism: Exposition and critique* (3rd ed.). Dix Hills, NY: General Hall, Inc.
- Riney, S. (1999). *The Rapid City Indian School 1898-1933*. Norman: University of Oklahoma Press.
- Rosenau, P.M. (1992). *Post-modernism and the social sciences: Insights, inroads, and intrusions*. Princeton, NJ: Princeton University Press.
- Rossmann, G.B., & Rallis, S.F. (2003). *Learning in the field: An introduction to qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- Rubin, H.J., & Rubin, I.S. (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Ryan, G.W., & Bernard, H.R. (2003). Techniques to identify themes. *Field Methods*, 15, 85-109.

- Scott, J.L., & Sarkees-Wircenski, M. (2004). *Overview of career and technical education* (3rd ed.). Homewood, IL: American Technical Publishers.
- Scott, W.J. (1986). Attachment to Indian culture and the “difficult situation”: A study of American Indian college students. *Youth & Society, 17*, 381-385.
- Seidman, A. (2005a). Minority student retention: Resources for practitioners. In G.H. Gaither (Ed.), *Minority retention: What works?* (pp. 7-24). San Francisco: Jossey-Bass.
- Seidman, A. (2005b). *College student retention: Formula for student success*. Westport, CT: Praeger Publishers.
- Selden, R. (2000, June 28). Immersion programs ensure cultural survival. *Indian Country Today*. Retrieved March 3, 2008, from <http://www.indiancountry.com>
- Silver, S., & Miller, W.R. (1997). *American Indian languages: Cultural and social contexts*. Tuscon: The University of Arizona Press.
- Smith, E.J. (1983). Issues in racial minorities’ career behavior. In W.B. Walsh & S.H. Osipow (Eds.), *Handbook of vocational psychology: Vol 1. Foundations* (pp. 185-218). Hillsdale, NJ: Erlbaum.
- Smith, L.T. (1999). *Decolonizing methodologies: Research and indigenous peoples*. London and New York: Zed Books.
- Smith/Grayson Campaign and Media Office. (2007). *Re-Elect Principal Chief Chadwick "Corntassel" Smith and Principal Deputy Chief Joe Grayson, Jr.* Retrieved March 3, 2008, from <http://www.chadsmith.com>
- South Central Institute of Technology. (2007). *Strategic plan*. [Place withheld]: Author.

- Standing Bear, L. (1988). *My Indian boyhood*. Lincoln and London: University of Nebraska Press. (Original work published in 1931)
- Strickland, R. (1994). Native peoples of Oklahoma. In D. Champagne (Ed.), *Native America: Portrait of the peoples* (pp. 237-262). Detroit, MI: Visible Ink Press.
- Subich, L.M. (1996). Addressing diversity in the process of career assessment. In M.L. Savickas & W.B. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 277-287). Palo Alto, CA: Davies-Black.
- Swail, W.S., & Holmes, D. (2000). Minority student persistence: A model for colleges and universities. In S.T. Gregory (Ed.), *The academic achievement of minority students* (pp. 391-433). Lanham, MD: University Press of America.
- Swisher, K. (1994). American Indian learning styles survey: An assessment of teachers' knowledge. *The Journal of Educational Issues of Language Minority Students*, 13, 59-77.
- Swisher, K. (1998). Why Indian people should be the ones writing about Indian education. In D. Mihesuah (Ed.), *Natives and academics: Researching and writing about American Indians* (pp. 190-199). Lincoln and London: University of Nebraska Press.
- Swisher, K.G., & Tippeconnic, J.W., III. (Eds.). (1999). *Next steps: Research and practice to advance Indian education*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
- Szasz, M.C. (1977). *Education and the American Indian: The road to self-determination since 1928* (2nd ed.). Albuquerque: University of New Mexico Press.

- Tate, D.S., & Schwartz, C.L. (1993). Increasing the retention of American Indian students in professional programs in higher education. *Journal of American Indian Education, 33*(1), 21-31.
- The Coeur d'Alene Tribe. (2006). *Language department*. Retrieved March 3, 2008, from [http://http://www.cdatribe-nsn.gov/lang.shtml](http://www.cdatribe-nsn.gov/lang.shtml)
- Tierney, W.G. (1992). *Official encouragement, institutional discouragement: Minorities in academe—the Native American experience*. Norwood, NJ: Ablex.
- Tierney, W.G. (1993). The college experience of Native Americans: A critical analysis. In L. Weis & M. Fine (Eds.), *Beyond silenced voices: Class, race, and gender in United States schools* (pp. 309-323). New York: SUNY Press.
- Tierney, W.G. (1995). Addressing failure: Factors affecting Native American college student retention. *Journal of Navajo Education, 13*(1), 3-7.
- Tierney, W.G. (1999). Models of minority college-going and retention: Cultural integrity versus cultural suicide. *Journal of Negro Education, 68*(1), 80-91.
- Tinto, V. (1975). Dropout from higher education. *Review of Educational Research, 45*, 89-125.
- Tinto, V. (1994). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.
- Tippeconnic, J., III. (2000). Reflecting on the past: Some important aspects of Indian education to consider as we look toward the future. *Journal of American Indian Education, 39*(2), 39-48.

- Toensing, G.C. (2007, December 26). Seminoles enjoy a year of dazzling growth abroad and at home. *Indian Country Today*. Retrieved March 3, 2008, from <http://www.indiancountry.com>
- Trennert, R.A., Jr. (1988). *The Phoenix Indian School: Forced assimilation in Arizona, 1891-1935*. Norman: University of Oklahoma Press.
- United States Census Bureau. (2002). *2000 census of population and housing: Summary population and housing characteristics*. (Report No. PHC-1-1). Washington, DC: U.S. Government Printing Office. Retrieved May 14, 2007, from <http://www.census.gov/prod/cen2000/phc-1-1-pt1.pdf>
- United States Census Bureau. (2007). *Facts for features: American Indian and Alaska Native heritage*. Retrieved June 16, 2007, from [http://www.census.gov/Press-Release/www/releases/archives/facts\\_for\\_features\\_special\\_editions/007489.html](http://www.census.gov/Press-Release/www/releases/archives/facts_for_features_special_editions/007489.html)
- United States Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. (1999). *American Indians and Crime*. Washington, DC: Government Printing Office. Retrieved August 12, 2007, from <http://www.ojp.usdoj.gov/bjs/pub/pdf/aic.pdf>
- United States Senate, Committee on Labor and Public Welfare, Special Subcommittee on Indian Education. (1969). *Indian education: A national tragedy—a national challenge* (United States Senate Report No. 91-501). Washington, DC: U.S. Government Printing Office.
- University of Illinois Extension. (2008). Learning styles. In *Helping children succeed in school*. Retrieved January 6, 2008, from <http://www.urbanext.uiuc.edu/succeed/04-learningstyles.html>

- University of Minnesota. (2006). *Undergraduate catalogue Twin Cities 2006-2008*.  
Minneapolis: Author.
- University of Oklahoma, Office of Academic Bulletins. (2006, September). *Course descriptions 2006-2008*. Norman, OK: Author.
- Vaala, L. (1993). Native students in a community college: Perceptions of upgrading and career students. *Canadian Journal of Native Education*, 20(1), 77-86.
- Vizenor, G. (1981). *Earthdivers: Tribal narratives on mixed descent*. Minneapolis: University of Minnesota Press.
- Vizenor, G. (1993). Trickster discourse: Comic holotropes and language games. In G. Vizenor (Ed.), *Narrative chance: Postmodern discourse on Native American literatures* (pp. 187-211). Norman: University of Oklahoma Press.
- Vizenor, G., & Lee, A.R. (1999). *Postindian conversations*. Lincoln: University of Nebraska Press.
- Wallace, R.A., & Wolf, A. (2006). *Contemporary sociological theory: Expanding the classical tradition* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Weidman, J. (1989). Undergraduate socialization: A conceptual approach. In J.C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 5, pp. 289-322). New York: Agathon.
- Weiss, R.S. (1994). *Learning from strangers: The art and method of qualitative interview studies*. New York: The Free Press.
- Wentling, R.M., & Waight, C. (2000). *Initiatives that assist and barriers that hinder the successful transition of minority youth into the workplace*. Berkeley, CA: National Center for Research in Vocational Education

- Wentzlaff, T.L., & Brewer, A. (1996). Native American students define factors for success. *Tribal College*, 7(4), 40-44.
- West, D.K. (1988). Comparisons of career maturity and its relationship with academic performance. *Journal of American Indian Education*, 27(3), 1-7.
- Wilkins, D.E. (2002). *American Indian politics and the American political system*. Lanham, MD: Rowman & Littlefield.
- Wilson, A.C. (2004). Reclaiming our humanity: Decolonization and the recovery of indigenous knowledge. In D.A. Mihesuah and A.C. Wilson (Eds.), *Indigenizing the academy: Transforming scholarship and empowering communities* (pp. 69-87). Lincoln: University of Nebraska Press.
- Wilson, P. (1998). Key factors in the performance and achievement of minority students at the University of Alaska, Fairbanks. *American Indian Quarterly*, 21, 535-544.
- Wollock, J. (2001). Protagonist emergent: Indians and higher education. In S. Lobo & S. Talbot (Eds.), *Native American voices: A reader* (pp. 267-280). Upper Saddle River, NJ: Prentice-Hall.
- Wright, M.H. (1986). *A guide to the Indian tribes of Oklahoma*. Norman: University of Oklahoma Press.
- Wub-e-ke-niew. (1995). *We have the right to exist: A translation of aboriginal indigenous thought. The first book ever published from an Ahnishinahbæó'jibway perspective*. New York: Black Thistle Press.

APPENDIX A  
INTERVIEW SCRIPT

## Appendix A

### Interview Script

The taped portion of the interview will begin with a reading of the Informed Consent Document. After each section of this document, participants will be asked, “Do you have any questions about this information? Is there anything I can explain?” Once the entire document has been read, the participant and the researcher will sign the form.

After the form has been signed, basic demographic information about the student will be collected: name, age, hometown, marital status, children, current residence, parents’ educational background). After this information has been provided, the questions below will be asked.

1. What is your tribal affiliation? Are you an enrolled member? What about your parents and grandparents?
2. Tell me a little about the community you grew up in.
  - a. Which people were you close to (close relatives, extended family)?
  - b. Which backgrounds were your friends from (American Indian or other ethnic groups)?
  - c. When you were growing up, which tribal traditions and ceremonies were part of your life? (food, family responsibilities, speaking tribal language, dancing and artwork, participation in religious ceremonies, etc.)
  - d. Which tribal ceremonies or affairs are you involved in now? Could you tell me something about your responsibilities or participation in these? Do you go back home often for such events?
  - e. Which values are important to you?
  - f. What are the differences between your values and those of other American Indians or non-Indians you know?
3. Tell me about your experiences in high school
  - a. Which classes did you take? Were they challenging?
  - b. How did you get along with classmates? Were there any problems with your being American Indian?
  - c. How did your high school prepare you for college?
4. Why did you choose [College Name] (other than that it is close to home)?
  - a. How did you learn about the university?
  - b. Did you receive any information on programs of study and how to apply? Was any of it helpful?

- c. How did you decide to major in (program of study)?
  - d. Who or what had the biggest influence on your decision to come here?
5. When you came to [College Name], did you feel ready for college?
- a. What was most challenging for you? How did it make you feel? How did you deal with it?
  - b. How did the campus environment feel to you when you came here? Was it welcoming? Hostile? Indifferent? How does it feel now?
  - c. Do you feel that you could be yourself on campus, or did you have to change to be successful? If you had to change, how did that make you feel?
  - d. Looking back, is there any help you wish had been available when you first came to [College Name]?
6. Which kind of financial aid do you receive? (You do not have to answer this question if it is too personal.)
- a. How has financial aid been helpful to you?
  - b. How do you feel about the advisement you received before you applied and while you were receiving aid?
  - c. Tell me about a time when you needed more money than financial aid provided? What did you do? Whom did you ask for money? What did they say?
  - d. If you did not get financial aid, how did you pay for college?
    - i. What were the challenges?
    - ii. How did you make things work?
7. Which student services did you take advantage of?
- a. Tell me about a time when you needed help. Where did you go? (instructor, advisor, division chair, administrator, tribal counselor, family members) How have these persons helped you?
  - b. Tell me about a time when the help you needed was not available. How did you manage?
  - c. Have you lived on or off campus? Has housing had any effect on your ability to stay in school?
8. Thinking about your instructors, tell me about some of the things they did or said that you found most helpful.
- a. What was your relationship with your instructors? Which kinds of relationships did you enjoy, and which ones were not how you would have liked them?
  - b. How do you wish instructors had acted differently toward you?
  - c. Which kinds of methods or activities that your instructors used in class

- helped you learn best? Which ones were most challenging? How did you adjust?
- d. What was your most successful learning experience? What made that “work” for you?
  - e. How did your instructors help you outside of class, e.g. during office hours?
9. Which of your classes did you enjoy the most?
- a. Did you feel prepared for your classes? Which ones were hardest? What could have helped you be better prepared?
  - b. Which content or lessons did you like to learn the most? Why?
  - c. Is there anything you wish had been covered or talked about in your classes that wasn't?
10. How do you feel about your tests and your grades?
- a. Which kinds of grading methods do you prefer? (A-F or percentage,
  - b. Which kind of feedback do you prefer? (little or a lot of feedback, pointing out what was wrong or suggestions for improvement)
  - c. Which kinds of tests did you like best or least? (multiple choice, short answers, longer answers, papers, in-class/take home, demonstrations, practical applications, group projects) Why?
  - d. Can you think of a class where you wish the testing had been different? Why is that? How did you adjust?
11. What did you do for fun?
- a. Which campus activities or organizations have you participated in? Why did you choose those?
  - b. What did you and your friends do for fun on your own?
  - c. Tell me about what you usually did when you felt bored.
12. How did you get along with your classmates?
- a. Who were your best friends while you attended [College Name]?
  - b. How much did you enjoy being around your classmates/the students in your cohort?
  - c. How much time did you spend with your classmates outside of class? Was this for fun or to study?
  - d. Which classmates did you enjoy the most?
  - e. How did your classmates react to your being American Indian?
13. Tell me about a time when you felt like quitting.
- a. What kept you going? What made you stay?
  - b. If you never felt like quitting, why do you think that was?

14. What are you planning to do with your degree after graduation?
  - a. How has this plan helped you make it to graduation?

Probing and follow-up questions will be asked as needed to clarify responses.

APPENDIX B  
INFORMED CONSENT DOCUMENT

## Appendix B

### Informed Consent Document

#### INFORMED CONSENT DOCUMENT

Project Title:

*Success Factors for American Indian Students at a Sub-Baccalaureate Technical College*

Investigator:

*Carsten Schmidtke  
Division of Arts & Sciences  
[College Name]  
[College Street Address]  
[Town Name], OK [ZIP Code]  
[Office Phone Number]  
carsten.schmidtke@okstate.edu*

Purpose:

*The purpose of this study is to research the campus and classroom experiences as they relate to retention of self-identified American Indian students enrolled in technical programs of study at [College Name] who are in the second half of their final semester. You are being asked to participate because as an American Indian student in his/her last semester before graduation, you can provide information on which factors were most important for you to finish college. The study wants to find out how financial aid, recruitment, academic services, student services, instruction, or any other factors may have played a role in your college success.*

Procedures:

*You are invited to participate in one interview of approximately 45 to 60 minutes in length on the [College Name] campus. Interview questions will cover topics such as your personal background, your reasons for choosing [College Name], your financial aid, your use of campus services, your classes and your instructors, your classmates and friends, your leisure time activities, and any problems you may have encountered in college. Your interview will be audio taped with a digital voice recorder with your permission and transcribed for the purpose of accuracy. You will receive a copy of the transcript so that you may verify that your words have been captured correctly. The interviewer will also take written notes during the interview. If you agree, you may be asked to participate in a second interview at a later time.*

Risks of Participation:

*There are no known risks associated with this project that are greater than those ordinarily encountered in daily life.*

Benefits:

*No direct benefits are associated with this research. However, the results may have long-term implications on policies and student services at [College Name] and other colleges and universities and may contribute to raising graduation rates for American Indian students.*

#### Confidentiality:

*Names of participants, places where participants currently reside and have resided in the past, and the names of any persons mentioned in the conversation will be changed to protect participant identity and maintain confidentiality. Original recordings will be stored on Mr. Schmidtke's computer hard drive, which is password protected, and on a CR-RW kept in a locked file cabinet in Mr. Schmidtke's office.*

*The responses and their analysis will be distributed in several ways:*

- 1. Responses will become part of Mr. Schmidtke's dissertation.*
- 2. Responses will be used for presentations at conferences, workshops, and other public forums.*
- 3. Responses will be published with the results of this study in scholarly journals.*

*As a result of the plans for distribution, the original recordings will be kept for a minimum of five years. There are no foreseeable risks in maintaining confidentiality. After the transfer of files to the computer hard drive and the CD-RW, they will be erased from the digital voice recorder. At the end of the five-year time period, sound files will be erased from the computer hard drive and the CD-RW. In addition, the CD-RW will be physically destroyed. Interview transcripts will also be kept in a locked file cabinet in Mr. Schmidtke's office. At the end of the five-year time period, these transcripts will be shredded.*

*No interview transcripts, sound files, or other information identifying students will be made available to [College Name] administrators, faculty, or staff.*

*The Oklahoma State University Institutional Review Board has the authority to inspect consent records and data files to assure compliance with approved procedures.*

#### Compensation:

*No compensation will be offered for participation in this study.*

#### Contacts:

*For questions about this research, you may contact the following persons:*

*For questions about this study, contact Carsten Schmidtke, Division of Arts & Sciences, [College Name], [College Street Address], [Town Name], OK [ZIP Code], Tel. [Office Phone Number], carsten.schmidtke@okstate.edu.*

*For concerns about this study, contact Dr. Mary Jo Self, Assistant Professor, College of Education, 207 Willard, Oklahoma State University, Stillwater, OK 74078, Tel. 405-744-9191, maryjo.self@okstate.edu.*

*For information on subjects' rights, contact Dr. Sue Jacobs, IRB Chair, Oklahoma State University, 219 Cordell North, Stillwater, OK 74078, Tel. 405-744-1676.*

#### Participant Rights:

*As a participant in this research, you are entitled to know the nature of my research. You are free to decline to participate, and you are free to stop the interview or withdraw from the study at any time. No penalty or risks are associated with withdrawing your participation. Feel free to ask any questions at any time about the nature of the research activity and the methods I am using.*

Signatures:

*I have read and fully understand the consent form. I sign it freely and voluntarily. A copy of this form has been given to me.*

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

*I certify that I have personally explained this document before requesting that the participant sign it.*

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

APPENDIX C  
STUDENT CONTACT SCRIPT

## Appendix C

### Student Contact Script

#### Success Factors for American Indian Students at a Sub-Baccalaureate Technical College Script for Issuing Personal Invitations to Potential Participants Carsten Schmidtke

My name is Mr. Schmidtke, and I am a doctoral student in Occupational Education at Oklahoma State University in Stillwater and an English instructor on this campus. I am conducting dissertation research on how American Indian students stay in college. Past research has revealed that graduation rates for American Indians are much lower than for other groups, but they have usually looked at why people drop out, not why they succeed.

Because American Indian students at [College Name] graduate at a higher rate than students at other technical, I would like to talk to some graduating students to find out which reasons convinced them to stay in school and make it all the way through to graduation. I am hoping that the information provided by students may help [College Name] or other colleges and universities improve services or instruction to help more American Indian students graduate.

I am asking for your help because your name is on the list of students slated to graduate this semester. If you would be interested and willing to help me with this project, I would like to set up an interview time that is convenient for you. Interviews will last about 45 to 60 minutes and will be taped and later transcribed. Your participation is completely voluntary, and if you participate, you may quit at any time. To protect your identity, I will assign you a different name in all interview transcripts and notes. Your instructors will not have any access to the tapes or the interview transcripts.

I hope that you agree to take part in this project. Your participation is extremely valuable may because your insight on what helped you finish your program of study may help me and others understand American Indian student persistence better.

Do you have any questions that I could answer for you before you decide whether you would like to participate?

APPENDIX D  
FACULTY E-MAIL CONTACT SCRIPT

## Appendix D

### Faculty E-Mail Contact Script

#### Success Factors for American Indian Students at a Sub-Baccalaureate Technical College

Faculty E-Mail Contact Script  
Carsten Schmidtke

Dear \_\_\_\_\_,

in case we have not yet had a chance to meet, my name is Carsten Schmidtke, and I have been an instructor in the Arts & Sciences division since 1994.

I am currently working on a research project connected to my dissertation, and I am hoping that I can count on your help in completing part of the project.

My project consists of interviewing graduating American Indian students about the factors that have led to their success at [College Name]. According to the literature, graduation rates for American Indian students are low nationwide, but the rate at [College Name] is higher than the rates at other two-year colleges. Therefore, I'd like to find out why our students persist at a higher rate than students elsewhere.

The list of all (insert term) semester graduates shows that (insert number) student(s) slated to graduate this semester is/are enrolled in your (insert course number, prefix, and title) course on (insert MWF or TR) at (insert starting time). The student's/s' name(s) is/are (insert name) and (insert name). Would it be possible for me to come over at the beginning of your class next (insert day of week and date) and talk to those students for a few minutes to see if they might be interested in participating in my study?

What I need your help in is letting the students' know that someone wants to talk to them about participating in a project and allowing me to talk to them for maybe ten minutes at the beginning of or at some time during class. I am concerned that after class, they will just want to leave.

I would truly be grateful if you could help me with establishing contact with students who might be willing to participate in my projects. If you do not mind the intrusion, please send me a quick e-mail response, and I will then come over to your classroom on the day and time that are convenient for you.

Thank you for your help.

APPENDIX E  
TRANSCRIPTION KEY

## Appendix E

### Transcription Key

1. Three colons ::: = lengthened sound
2. Em dash --- = false start with pause
3. Two em dashes ----- = word intentionally left out by researcher
4. En dash -- = false start without pause
5. Hyphen - = stammering, words being spelled out
6. Ellipsis points ... – short pauses of three or fewer seconds
7. Square brackets [] = anything added to the original speech such as descriptive words, duration of longer pauses, indications that a word cannot be clearly heard, context comments, etc.
8. Curly braces { } = overlapping speech
9. Question mark ? = questions; in combination with square brackets, indicates words that the researcher is not sure of
10. Quotation marks “” = quoted speech by the speaker
11. Underlining = words the speaker says emphatically
12. UPPER CASE LETTERS = loud speech
13. Boldface = researcher’s statements
14. Non-standard pronunciation (kinda, wanna, goin’, ‘cause, etc.) is transcribed in only such cases where it is unmistakable on the recording

APPENDIX F  
IRB APPROVAL FORM

Appendix F  
IRB Approval Form

**Oklahoma State University Institutional Review Board**

Date: Thursday, December 14, 2006  
IRB Application No ED06210  
Proposal Title: Success Factors for American Indian Students at a Sub-Baccalaureate Technical College  
Reviewed and Processed as: Exempt

**Status Recommended by Reviewer(s): Approved Protocol Expires: 12/13/2007**

Principal Investigator(s)  
Carsten Schmidtke                      Mary Jo Self  
4221 W. Toledo St.                      207 Willard  
Broken Arrow, OK 74012                Stillwater, OK 74078

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The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Sue C. Jacobs, Chair  
Institutional Review Board

VITA

Carsten Schmidtke

Candidate for the Degree of

Doctor of Philosophy

Thesis: SUCCESS FACTORS FOR AMERICAN INDIAN STUDENTS  
AT A SUB-BACCALAUREATE TECHNICAL COLLEGE

Major Field: Occupational Education

Biographical:

Education: Graduated from Gymnasium im Bildungszentrum Mettenhof in Kiel, Germany, in May of 1981; received State Examination degree in English and French from Christian-Albrechts-Universität, Kiel, Germany, in June 1987; received additional State Examination degree in Danish in February 1988; completed the requirements for the Doctor of Philosophy in Occupational Education Studies at Oklahoma State University, Stillwater, Oklahoma, in May, 2008.

Experience: Taught high school English and French at Bismarck Grammar School and Elsa Brändström Grammar School in Elmshorn, Germany, from 1988 to 1989. Spent one year of post-graduate research at the University of Oklahoma, 1989-1990. Taught English grammar and business writing at City College, a proprietary business school in Norman, Oklahoma, from 1991-1994. Worked as adjunct instructor for Oklahoma City Community College (1991-1994) and the University of Oklahoma (1994). Currently employed as communications instructor at [South Central Institute of Technology].

Professional Memberships: Association for Career and Technical Education Research (ACTER), Comparative and International Education Society (CIED), Omicron Tau Theta Honor Society (OTT), Phi Kappa Phi Honor Society (PKP)

Name: Carsten Schmidtke

Date of Degree: May, 2008

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: SUCCESS FACTORS FOR AMERICAN INDIAN STUDENTS AT A  
SUB-BACCALAUREATE TECHNICAL COLLEGE

Pages in Study: 289

Candidate for the degree of Doctor of Philosophy

Major Field: Occupational Education

Scope and Method of Study:

The purpose of this study was to learn about the experiences of American Indian students at a sub-baccalaureate technical college as they relate to retention. Based on statistics showing that American Indian students at the South Central Institute of Technology graduated at five times the rate of students nationwide and on comments in previous scholarship that technical education may be the answer to the low graduation rates among American Indian students, this study wanted to collect the experiences of successful students to see if additional success factors could be identified. Qualitative interviewing was used as the methodology of choice because in order to obtain students' true impressions, we must actually speak with them.

Findings and Conclusions:

The most important factors in student success as expressed by the participants of this study were a personal attitude that focused on success, support and encouragement from people in the students' lives, the ability to find help on and off campus when needed, and appropriate teaching methods that took students' preferred learning styles into account. All these factors, however, were tied to people. The one factor that connected them all was the importance of the relationships students had with the people in their lives, including faculty and staff members on campus. Although many of the success factors simply reflected good teaching, technical education pedagogy appears to be able to offer suggestions to administrators and practitioners in other fields of study on how to engage their American Indian students better.

ADVISER'S APPROVAL: Dr. Mary Jo Self

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