

# The Role of Academic Student Services in the Retention of American Indian Students at a Sub-Baccalaureate Technical College

Carsten Schmidtke, Ph.D.  
University of Arkansas

## Abstract

*Perceptions of graduating American Indian students at a mainstream sub-baccalaureate technical college about how support from academic student services had helped them learn and persist in their studies were solicited. Bean's (2005) themes of college student retention served as the framework for the inquiry. Findings indicate that (1) academic student services contribute to institutional fit and the development of key attitudes in students, and (2) academic student services are seen as a service to students, meaning that students want help to be easy to find and always available and employees to function less as university employees and more as their advocates in navigating university bureaucracy and program requirements.*

## Introduction

The long-standing practice of American Indian education by outsiders, often strictly for the benefit of white mainstream society (Fuchs & Havighurst, 1983) rather than students or their communities, has led many American Indian students to experience schools as hostile toward their cultures and to resist by being frequently absent and dropping out (Reyhner & Eder, 2004). As a result, American Indians have the lowest level of overall educational attainment of all minority groups, are the least likely of all minority groups to enroll in college (DeVoe, Darling-Churchill, & Snyder, 2008; Pewewardy & Frey, 2004), and finish educational programs at much lower rates than other students (Aud, Hussar, Kena, Bianco, Frohlich, et al., 2011).

Between 33% and 64% of American Indian high school graduates enroll in college, predominantly in mainstream (i.e., non-tribal) colleges as tribal colleges currently serve only 8.7% of American Indian students (White House Initiative, 2015), and are more likely than other ethnic groups to choose two-year colleges (Aud et al., 2011; Cole & Denzine, 2002; Tierney, 1993, 1995). Despite the doubling of enrollment numbers between 1976 and 2006 and a 54% gain in enrollment in the 1990s, American Indians still account for only 1% of all college students, and their gain in numbers was the smallest of all groups (Aud et al., 2011; Cole & Denzine, 2002; Freeman & Fox, 2005; NCES, 2007; Pewewardy & Frey, 2004).

A number of reasons have been offered for the high non-completion rates: lack of academic preparation and college readiness, financial and economic circumstances, family background and demands, lack of culturally appropriate support, relationships with professors, and the ability to deal with cultural differences and feelings of alienation, isolation, and hostility (Benjamin, Chambers, & Reiterman, 1993; Burk, 2007; Campbell, 2007; Dodd, Garcia, Meccage, & Nelson, 1995; Flynn, Duncan, & Jorgensen, 2012; Gilbert, 2000; Jackson & Smith, 2001; James, 1992; Shotton, Oohsawe, & Cintrón, 2007; West, 1988; Wilson, 1998). González (2013) and Hampton (1993), on the other hand, found that extensive support is positively correlated with increased graduation rates. Student success research in general, therefore, 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 (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006).

American Indian student success is contingent upon several complex factors about which much is still unknown despite many years of research (James, 2001). Research has focused largely on public schools (Klug & Whitfield, 2002; Reyhner, 1992; Swisher & Tippeconnic, 1999) and on baccalaureate, graduate, or professional education (Huffman, 2008; Shotton, Lowe, & Waterman, 2013; Tierney, 1992). If the research involved two-year colleges, it has tended to be about the role tribal colleges play in community building and economic development (Benham & Stein, 2002; Warner & Gipp, 2009). Post-secondary education for American Indian students at two-year mainstream (i.e., non-tribal) institutions (much less technical education) has received little to no attention from researchers. In fact, the most recent article in the *Journal of American Indian Education* devoted entirely to career and technical education dates back over 40 years (Edington & Willey, 1971).

### **Purpose and Research Question**

Given the complexity of American Indian student retention, the focus of the current study was one aspect of American Indian student success, academic student services, in an environment (two-year mainstream technical colleges) that has experienced a lack of research. The purpose was to garner and analyze the perceptions of graduating American Indian students at one mainstream sub-baccalaureate (two-year) technical college about how support from academic student services had helped them persist to graduation. To address the purpose of the study, the following question underlined the inquiry: What are the perceptions of some American Indian students enrolled in technical programs at a mainstream sub-baccalaureate technical college about how academic student services helped them persist in college and complete their degrees?

### **Theoretical Framework**

The theoretical framework was taken from Bean's (2005) nine themes of college student retention, which are subdivided into two major groups as follows:

- A Intentions and Attitudes
  - 1. Intentions
  - 2. Institutional fit and institutional commitment
  - 3. Psychological processes and key attitudes
- B Students interacting with the institution and the external environment
  - 4. Academics
  - 5. Social factors
  - 6. Bureaucratic factors
  - 7. The external environment
  - 8. The student's background
  - 9. Money and finance

This study investigated themes four through six as they are directly influenced by academic student services and are common themes mentioned in the literature on student retention. Themes one through three are also included because, to use Bean's (2005) terminology, they are "by-products" (p. 219) of students' interaction with people on campus. The theme of *Intentions* deals with the reasons why students intend to leave an institution or stay. *Institutional commitment* is described as a student's feelings about belonging at a certain university and fitting in with other students. *Psychological processes* include self-efficacy, that is, students' belief in their ability and agency and coping skills to deal with environmental stresses. *Key attitudes* refer to students' enjoying being a student, feeling competent in dealing with life and academia, and having confidence in being able to complete college successfully. Additional attitudes are a belief in finding good employment after graduation and the perceived quality of the education and training received, both of which are pertinent to technical education.

*Academics* are about student interaction with the academic aspects of their college lives through courses, faculty members, academic advising, and GPA. As far as retention is concerned, Bean (2005) postulated a mutually reinforcing relationship between academics and psychological processes and key attitudes. *Social factors* speak to students' relationships with family, friends, and classmates. *Bureaucratic factors* refer to all the formal and organizational requirements students must follow and the campus services that help them enter and navigate the college environment successfully. Bean's themes inform this study in that they are relevant to the work of academic student service professionals. They helped shape the focus of this study, the development of interview questions, and the recommendations issuing from the results of this research.

## Literature Review

Few truly new solutions to improve American Indian college retention have emerged over the past two decades. Instead, it appears that the same problems are being discussed and the same remedies proffered over and over. Brayboy, Fann, Castagno, and Solyom (2012) asserted that the problem of issues that do not seem to vanish is structural. Instead of providing culturally appropriate support, colleges expect students to give up or suppress their cultures to be academically successful. This sacrifice is too great for many students, who would rather drop out (Huffman, 2001; Klasky, 2013; Wentzlaff & Brewer, 1996). Instead of more integration, it has been argued, American Indian students need more empowerment (Yang, Byers, & Fenton, 2006).

## Academic Student Services and College Student Retention

Student social and academic integration have been two major themes in student retention. Astin (1977) emphasized the importance of students' involvement in their college experience and urged administrators to provide opportunities for student-faculty interaction and academic counselors to focus on helping students improve their performance. Pascarella and Terenzini (2005) built on such notions by insisting that colleges regard learning as a skill developed through social interaction and provide opportunities for such interaction with people from different backgrounds. Helping students make their learning meaningful is the single most important retention task institutions can perform.

To support student integration, Tinto (1993) advocated initiatives such as pre-college outreach, transitional programs between high school and college, adequate assessment and placement of new students, academic support, monitoring of new students, career and academic counseling, and special programs for at-risk students and students of color. Moxley, Najor-Durack, and Dumbrigue (2001) proposed four types of academic student support: emotional (stress reduction for new students, welcoming atmosphere, help in forming emotional bonds on campus), informational (student roles, program requirements), instrumental (help solving academic problems, life skills, student advocacy), and identity (need fulfillment, self-efficacy, support groups, acknowledgement of cultural diversity). Kuh et al. (2006) added helping families and friends function as support systems and creating an understanding that student success is the responsibility of every campus employee.

Seidman (2005) attempted to unite all such recommendations into what he called the “Seidman retention formula” (p. 296). He advocated student integration into the campus community to effect greater loyalty and commitment, early and accurate problem identification, and persistent interventions and support services that continue until student behavior changes or academic issues are resolved. Learning communities and appropriate course choices based on student need and skill are important as well.

The literature on minority student retention essentially seconded these ideas but added a number of items such as offering culturally specific programs to create a campus support network, giving faculty and staff the opportunity to learn about minority needs, and helping students navigate cultural identity issues. Minority students often struggle more with campus policies and requirements because of family or community obligations that require understanding and flexibility on the part of others, but students can be empowered to adjust better to campus rules when their cultural background is presented in a positive light and when they are counseled on how to resolve unpleasant experiences (Anderson, 2004; Swail & Holmes, 2000; Treviño & Ewing, 2004).

### **Community College Retention**

Retention efforts that show particular promise with community college students have been identified as student success orientation, advisement, student integration, relevant support services, involvement of all campus employees, and what Kolenovic, Linderman, and Karp (2013) called “academic momentum” (p. 274).

A focus on student success may be supported through a required pre-semester orientation, pre-college outreach programs, summer bridge programs, and first-year courses focusing on success skills (McClenny & Waiwaiole, 2005). However, Law (2014) recommended that such programs always require individual orientation activities for students deemed at risk and more intensive advising for those who enter with low SAT or ACT scores. Kolenovic, Linderman, and Karp (2013) added that these programs may also help students make personal connections and feel more integrated into the campus. They further recommended that students maintain “academic momentum” once classes have begun, meaning that they set academic goals and try to reach them through planning their schedules more than one semester ahead of time and earning credits as quickly as possible. In fact, the number of first-semester credit hours earned appears to

be correlated with long-term persistence (Fike & Fike, 2008; Law, 2014). Additional services that help maintain momentum include tutoring, online course offerings for students with transportation problems, short-term classes, and opportunities for students to retake exams for classes they narrowly failed (McClenny & Waiwaiole, 2005).

Academic support services ought to be offered assertively, monitor student progress, and intercede even if the student does not request help. Part of such “intrusive” support (Kolenovic, Linderman, & Karp, 2013, p. 276) is a so-called “Early Alert” system where faculty members send electronic updates about student progress to academic services (Fike & Fike, 2008). Such intensive and proactive advising should include career exploration and be continued throughout a student’s stay in college. Finally, all campus employees should be trained in retention practices. Collaboration among faculty, staff, and administrators; resource coordination; and better understanding of student needs through personal contact and data collection will make retention efforts more effective and create an overall more positive campus climate (McClenny & Waiwaiole, 2005).

### **American Indian Student Retention**

Several of the above themes also appear in the literature on American Indian student retention. The most important and repeatedly stressed factor is that the institution must change, not the students (Tierney, 1993). The literature has identified focus on success, pre-college programs and services, advisement and mentoring, and relationships with others on campus as the major elements in successful academic services for American Indian students. As a result of the current state of research, however the sources cited here refer mostly to four-year colleges.

**Focus on Success.** The major step for institutions is to develop a culture of success that expects students to finish and focuses on empowerment and on students’ strengths (Flynn, Duncan, & Jorgensen, 2012; Lowe, 2005; Tierney, 1995; Yang, Byers, & Fenton, 2006). Colleges begin by identifying and understanding barriers and showing a willingness to remove them (Gilbert, 2002; Pewewardy & Frey, 2004). Campus employees must develop an awareness that American Indian students have different values, worldviews, and needs and that respecting such differences is strongly related to retention (Austin, 2005; Brown & Robinson Kurpius, 1997; Gilbert, 2000; HeavyRunner & DeCelles, 2002; Martin, 2005).

Institutional support has been tied to retention to help students not feel overwhelmed by the college experience (Brown & Robinson Kurpius, 1997; Dodd, Garcia, Meccage, & Nelson, 1995; Tierney, 1995). Campuses are often welcoming at first but then pull back, not realizing that support must be continuous (Yang, Byers, & Fenton, 2006). Specific practices mentioned were partnerships with public schools, tribal colleges, tribal communities, and tribal administrations to improve transitions into college (Belgrade & Loré, 2003; Brayboy, Fann, Castagno, & Solyom, 2012; Brown, 2005; González, 2013; Martin, 2005; Tachine & Francis-Begay, 2013). In addition, special programs such as teaching students strategies to deal with the campus bureaucracy will help them be better equipped to focus on their learning (Belgrade & Loré, 2003; Tierney, 1993).

**Pre-College Programs and Services.** Pre-college and bridging programs help prepare students for the college experience. Counseling services at the local high school and workshops right before the start of the first semester can help potential students to think about a college education, develop career goals, and acquire academic and social skills needed to be successful (González, 2013; Guillory & Wolverton, 2008; James, 1992; Lowe, 2005; Pavel & Padilla, 1993; Reyhner & Dodd, 1995). Summer orientation programs on their part help familiarize students with expectations and with campus policies and procedures (Waterman, Shotton, Lowe, & Brown, 2013).

Support services and programs like study skills courses, tutoring services, and study groups need to re-emphasize the benefits of college periodically (Brown & Robinson Kurpius, 1997; Flynn, Duncan, & Jorgenson, 2012; Jackson & Smith, 2001; Pewewardy & Frey, 2004; Reyhner & Dodd, 1995). In addition, colleges must include family support to help students' families understand the demands of college, teach family members how to support their college-going children, and mediate if conflicts between college and family obligations arise (Brayboy et al., 2012; Flynn et al., 2012; Martin, 2005).

**Advisement and Mentoring.** By far the most important aspect of advisement is respect for and awareness of the unique cultural characteristics of American Indian students and their cultures (Austin, 2005; Martin, 2005; Martin & Thunder, 2013; McClellan, Fox, & Lowe, 2005; Waterman, Shotton, Lowe, & Brown, 2013). Appropriately trained advisors can encourage students to become active participants in their own education (Huffman, 2008; James, 1992; Lowe, 2005; Pavel & Padilla, 1993; Tierney, 1995; Waterman, Shotton, Lowe, & Brown, 2013; Yang et al., 2013). 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). Colleges should consider using American Indian faculty and staff members within a formal mentoring program so that people on campus can assist students and provide help (Hampton, 1993; Lowe, 2005; Pavel & Padilla, 1993; Reyhner & Dodd, 1995; Wentzlaff & Brewer, 1996).

**Relationships with Others on Campus.** Personal, warm relationships with others help American Indian students feel more at home, create a sense of belonging, and contribute to retention (Guillory & Wolverton, 2008; HeavyRunner & DeCelles, 2002; Lowe, 2005). It is especially important that American Indian students develop professional relationships with faculty and staff members willing to encourage them and help them realize that the demands of college are not antithetical to their tribal culture (Brown and Robinson Kurpius, 1997; Ortiz & HeavyRunner, 2003; Pavel & Padilla, 1993; Tierney, 1993, 1995). If students feel that they do not have to hide or deny their cultural identity, they will be able to take advantage of the opportunities on campus and will graduate at higher rates (Tierney, 1999).

Support from peers also helps American Indian students deal with conflict, improve their feelings of belonging, clarify their cultural identity, and understand how their beliefs and values and their cognitive styles are not a burden but an asset (Hoover & Jacobs, 1992; Lowe, 2005; Tate & Schwartz, 1993). Learning communities such as study groups, living communities in dormitories, student cultural centers, and student organizations can all offer a social outlet. These groups create an environment that can help students deal with feelings of isolation and alienation

and can offer specific advice or guidance on personal and academic development (Brown & Robinson Kurpius, 1997; Cole & Denzine, 2002; Ecklund & Terrance, 2013; Flynn et al., 2012; Shotton, Oosahwe, & Cintrón, 2007; Tachine & Francis-Begay, 2013; Wentzlaff & Brewer, 1996).

As for American Indian students in mainstream community colleges in particular, Pavel and Colby (1992) advocated concurrent enrollment and pre-college counseling to help students develop a college mindset and establish career goals. A special on-campus program for American Indian students could help with course scheduling and opportunities for social interaction. Careful advisement is needed lest students be placed into courses that are too challenging for them and drop out. Pavel and Colby argued that community colleges are best equipped to respond to the needs of American Indian students and play an important role in the survival of American Indian cultures.

### **Career and Technical Education's Role in Student Retention**

It has been known for several decades that students' plans after graduation can make a significant difference in retention (Tinto, 1975). As a result, Hirschy, Bremer, and Castellano (2011) recommended adding career integration, that is, the inclusion of career-focused activities and assignments into non-occupational coursework, to social and academic integration as a third retention theme. Jacobs and Archie (2008) further asserted that experiential learning tends to be positively correlated with student satisfaction and a sense of belonging, and Risley (2010) found that dual enrollment in occupational courses has a positive effect on retention and Associate degree completion. At the high school level, the focus on career goals in combination with experiential learning has increased student retention (Draeger, 2006; Reese, 2005; Stout & Christensen, 2009). For example, Moody (2015) reported that in 2014, certain schools in upstate New York had a graduation rate of 95.15% for those students who had participated in CTE, and the Mississippi Statewide Longitudinal Data System showed 2013-14 fourth-year graduation rates at 79.96% for students with CTE participation compared to 61.71% for those students who had not participated (Mississippi Lifetracks, 2015).

On the other hand, Van Houtte and Van Maele (2012) cautioned that occupational programs can actually have a detrimental effect on student integration. Majoring in an occupational field can increase aversion to academic learning and foster feelings of inadequacy as a result of being on a supposedly less-valued career path, leading to an even worse attitude toward academics. Silverberg, Warner, Fong, and Goodwin (2004) for their part concluded that CTE participation is unlikely to show a marked effect on outcomes. Considering these mixed results, Crisp (2010) stated that there has been little research on how and why some students tend to be more successful in technical education and even less research on post-secondary retention relative to participation in career and technical majors.

### **Research Methodology and Setting**

Tall Grass Technical College (TGTC—the name is a pseudonym) is a sub-baccalaureate (two-year) technical institution that offers predominantly Associate of Applied Science degrees in areas such as automotive, construction, heavy equipment, air conditioning, engineering,

information, and health and environmental technologies. Total student enrollment at TGTC was 2,403 for Spring 2007, 23.9% of whom had self-identified as American Indian. The following reasons led to TGTC's being chosen as the site for this research:

1. TGTC's average Associate degree graduation rate for American Indian students of 33.8% as compared to the reported nationwide rate of 6.2% (Bailey, Jenkins, & Leinbach, 2005).
2. The location of TGTC as a mainstream institution in Indian Country with an American Indian student enrollment of around 20% of the total enrollment.
3. Statements by West (1988), Tierney (1995), and Tippeconnic (2000) about the potential benefits of technical education for tribal development and student motivation and retention.

Both 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) was convinced 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.

The decision to conduct a qualitative study in the first place is the result of suggestions about the capacity inherent in qualitative research to uncover new findings on success factors and retention strategies (Deloria & Wildcat, 2001; Huffmann, 2001, 2003; Jackson & Smith, 2001). Such information is best collected through qualitative interviews as described by Weiss (1994): "We can learn also, through interviewing, about people's interior experiences. We can learn what people perceived and how they interpreted their perceptions. We can learn how events affected their thoughts and feelings" (p. 1).

### Population and Sample

The participants for this study were students in their final semester before graduation who had self-identified as American Indian because they were assumed to have reflected on where academic student services had been helpful. TGTC's Registrar's Office provided a list of all graduating students in the semester when this research was conducted, and TGTC's enrollment management system helped identify those who were American Indian. The sampling procedure was "criterion sampling" (Patton, 2002). Students meeting the criterion were invited to participate in an interview of 45-60 minutes, and seventeen of them eventually did (for a participation rate of 80.95%). The majority of students were from the Cherokee Nation and the Muscogee (Creek) Nation (see table below).

Table 1. Participant Information

Name	Age	Tribal Affiliation	Major
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	Business
Jasmine Crenshaw	21	Muscogee (Creek)	Pre-Education
Greg Densmore	25	Muscogee (Creek)	Engineering Technologies
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	Electronics Technology
Benjamin Posey	20	Muscogee (Creek), Cherokee	Engineering Technologies
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)	Shoes, Boots, and Saddle Making
Mary West	44	Muscogee (Creek)	Business

## Instrumentation

Every participant was asked the same set of questions, which 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, 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. All questions asked for personal impressions, not for what participants considered to be true.

Interview questions were designed to explore Bean's themes. They touched on how social and academic integration, college choice and institutional fit, use of student services, relationship with faculty members and advisors, curricular and extracurricular activities, campus bureaucracy, and the institutional culture all contributed to retention. Since the participants were American Indian, questions about their backgrounds and cultures, their involvement in their culture, their self-image as being Indian, and racism and discrimination on campus were added to understand social integration and to see if and how being Native influenced integration. A pilot study was conducted to test the interview protocol and check for and biases and assumptions in the study design and the questions. After the pilot study, several interview questions were edited for clarity, and the decision was made to conduct interviews in terms of a *conversational partnership* (Rubin & Rubin, 1995).

## Data Analysis

Data analysis was conducted as “content analysis” (Rossmann and Rallis, 2004, p. 198), i.e., 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.

In the first coding step, *open coding* (Flick, 2002; Patton, 2002), this researcher immersed himself in the data by reading the transcripts line by line several times and jotting down first codes representing interesting and emerging ideas, unexpected information, and possible items that might indicate patterns and themes. A second round of open coding was conducted to see if any of the codes could be grouped together.

In the next step, interview transcripts with codes and categories clearly applied were refined and expanded in *focused coding* (Patton, 2002; Rossman & Rallis, 2004). 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. The final step, *selective coding*, is used to develop core categories or themes from the categories at hand (Flick, 2002). 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 two indigenous themes around which the categories could be grouped.

## Trustworthiness and Rigor

Lincoln and Guba (1985) suggested that the criteria of credibility, transferability, and dependability be used to establish trustworthiness and rigor of a qualitative study.

**Credibility.** This researcher wrote detailed field notes with particular emphasis on context and participant comments. During the analysis step, thematic memos were composed, and all documents created during this process were kept for further reference. Data were organized in different ways to see if alternative themes and categories could be supported. All coding schemes were kept and periodically rechecked to see if any new interpretations may have arisen. Furthermore, this researcher checked across categories to make sure no possible connections had been overlooked. Once the interview transcripts had been prepared, copies were sent to participants for a member check. Care was taken to develop emic codes and themes that were truly reflective of participant responses.

A stance that Patton (2002) called “empathic neutrality” (p. 50) was assumed, that is, researchers show caring and warmth toward their participants while remaining neutral toward the content. Credibility also requires a belief in qualitative inquiry. The idea of a qualitative study arose from discussions in the literature that qualitative inquiry was needed to fill existing knowledge gaps. This researcher believes strongly that if we want a deeper understanding of American Indian students’ experiences, we must actually talk to them.

**Transferability.** Applicability to other contexts refers to what Patton (2002) called “fittingness” (p. 584), the perception that if two contexts share sufficient characteristics, assumptions derived from findings in one context may be applicable to the other one. 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.

**Dependability.** Merriam (1998) offered three techniques that can make qualitative research more dependable: the researcher’s position, triangulation, and the audit trail. Triangulation could not be performed because observation and document data were not available, so in its place a careful check of data sources was used to ensure dependability. To create an audit trail, the process this researcher followed from collecting data to writing the narrative has been described step by step.

**Researcher Positionality.** The relationship between the researcher and the study participants can lead to complications to achieve Patton’s (2002) *empathic neutrality*. This researcher was a faculty member at TGTC at the time of the research, so he assured participants that no one on campus would have access to interview recordings and transcripts. In addition, he was careful not to let his own classroom perceptions of American Indian students cloud participant responses. The relationship between a researcher from a dominant culture and a participant from a minority culture can be fraught with issues of power and cultural misunderstanding. Swisher (1998), for example, claimed that non-Native researchers cannot possibly understand the intricacies of Native cultures and contemporary life issues of tribal people. Therefore, this researcher made sure that his data analysis consisted of a very close reading and that all findings could be supported with participant statements.

## **Limitations**

The first limitation of this study is geographic. As a result of the location of TGTC, the majority of participants were members of two major tribes. Second, the study limits potential participants to graduating students from a narrow range of majors at one two-year technical college. The sampling procedure chose participants based on their willingness to participate and did not attempt to control for certain factors (gender, level of acculturation, tribal affiliation, etc.) although such data were collected to see if patterns emerged that may be tied to these factors.

Third, statements made by students were taken in good faith. Jackson and Smith (2001) claimed that cultural mores may prevent many American Indian students from ever telling outside researchers their true perceptions and compel them to withhold information or say what they think the researchers want to hear. Interviewing students with a carefully selected and tested interview protocol helped minimize the possibility that students gave responses they thought they were supposed to give, and rigorous data analysis with a focus on indigenous or emic codes and cross-category checking helped to select categories and themes that emerged from the data.

## Findings

The level of agreement among participants about which factors had had the greatest influence on their retention was quite surprising. In some cases, there was even unanimity although not all participants made comments for every sub-theme that crystallized from the analysis. Overall, responses could be grouped into two major emic themes, which are divided into a number of emic sub-themes: Success Mindset and Finding Help.

### Success Mindset

The name of this theme was poignantly expressed by one participant: “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.” Other 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 notions that came up repeatedly. One participant stated the need for determination clearly: “I think in order to be a successful student, you also have to be determined.” A second participant concurred: “It’s the desire to do it that is important for success.” A third participant added that she had by sheer force of will decided to attend TGTC: “I just made it in my mind that I’m coming back to school, coming back to college.” Yet another participant showed her determination when her mother had raised doubts: “Oh yeah, I’m going to make it. No matter what I got to do, I’m going to make it.” Participants also emphasized the need for determination and desire to overcome challenges: “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.” Another participant likewise connected overcoming challenges to being determined: “If they want to be successful, they’ll work hard enough to do it.”

**“I think family is really important”** Participants touted the importance of family support for not only creating but also sustaining determination and desire. The importance of parental support was best expressed by one participant: “Without their help in some ways, I probably wouldn’t have graduated.” Comments also referred 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.” Participants related how their families told them not to quit a difficult trigonometry course, how they could rely on support and encouragement after an accident that resulted in multiple fractures, how their parents had always supported their interests, and how parents encouraged them to continue with their education when they encountered financial problems. The effects of parental support were summarized by one participant as follows: “I guess it [parental support] made me feel good. . . . Made me want to stay in and not quit.”

**“We should be here and ready to learn”** An attitude of readiness went along with determination and desire. Love of learning was part of this readiness. Participants expressed that they had come to college because they wanted to learn new things: “I like to learn things I have always wondered about.” “I like and want to learn everything.” One participant was rather

expressive and stated that she was “elated” to be in college and described her attitude as “excited,” “energized,” and “enthused.”

Fit with educational opportunities was another aspect of readiness: “I came to TGTC because they had what I wanted to work on.” “I came to TGTC because I like technical stuff.” A certain career pipeline effect was also present: “I studied the same thing at CareerTech that I studied at TGTC.” The first information about TGTC and its programs often came from high school counselors rather than college recruiters. Those counselors’ ability to provide behind-the-scenes information about TGTC had made a difference: “So they [the high school counselors] tried to help us out a lot, and ... one of my counselors had said, ‘This college would be the perfect college for you because some of the teachers there care, and if you need more time on a test or something, they try to give it to you.’”

Touring the campus before enrolling and having a chance to see classrooms and equipment added greatly to students’ perception of fit. Participants valued the willingness of program faculty and administrators to talk to them, show them around classrooms and labs, and simply converse with them to make them feel welcome: “Yeah, I visited the campus. I talked with [division chair], ... and he looked over my transcript and told me what he could do as far as waiving, like, the intro to this and that, ... and I ended up enrolled that same day. ... It was like, ‘That’s cool. I like that.’”

Finally, participants realized that readiness for college success required a change in attitude about themselves and about learning: “College requires a different attitude about doing things on one’s own.” “I realized I would have to change my attitude from what it was in high school to be successful in college.” This change seemed to be further galvanized by positive learning experiences as well as undesirable career prospects: “I improved my attitude by seeing my GPA rise every semester.” “I changed my attitude because I could not imagine having my job for the rest of my life.”

**“My main objective right now is finding a good job”** Goals were mentioned as important elements in retention: “I had a goal before I went through all this stuff.” Another participant 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.” The need to have a goal was taken so much for granted that when told that many new students had none, one participant was downright incredulous: “That’s weird because I thought that’s what you were supposed to do.”

Life goals were also important: “I wanted to be successful with my life.” Finishing one’s education and earning a degree was such a life goal: “My other goal is finish school and be happy and be done with this.” Earning a degree was also a deeply personal matter: “I just needed that personal satisfaction I guess is what you could say.” Another participant wanted to break out of family history: “My pretty much number one goal is to be the first one of my immediate family to graduate from college.”

Career goals further helped participants with retention: “Well, it’s pretty much your objective. ... I think I’ve always had that in my head.” In fact, the phrase “good job” was

mentioned numerous times: “Probably just the fact that you got to have a degree now to get a good job.” “That was my goal—get a good job, buy a house.” TGTC played a direct role here in terms high graduate placement rates: “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.”

A major motivator for male participants was money. Over and over, male participants stated that not having to worry about money and being able to buy things as desired were clearly of major importance: “I just like to have more money than to get by. I don’t like to scrape by from week to week.” “I want to be able to live easily and not have to worry about living paycheck to paycheck.” “I need to make a good living and everything and not live paycheck to paycheck.” “Not living paycheck to paycheck. Having money.” The desire for money also included financial security for their families: “That’s ultimately my goal, to be able to support my family.” Four of the female participants, on the other hand, admitted to a goal of being financially independent 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.” This attitude was not exclusive to married women: “[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.”

**“The campus environment made it easy to come back”** Familiarity with the campus helped many students develop positive feelings: “I’d already been here for a year before I actually enrolled, and I already knew where everything was.” Four participants had participated in the concurrent enrollment option at TGTC and felt like they were returning to familiar territory: “My first day of school, it was just like coming back.” Another aspect of familiarity was friends. Knowing people from their hometowns and their high schools allowed participants to feel less isolated: “That [having former high school classmates on campus] made it a lot easier, that I knew people.”

Besides familiarity, participants stated time and again that they liked the campus environment: “I liked that environment a lot.” “I didn’t have any bad experiences.” Adjectives used to describe the environment were “comfortable,” “quiet,” “laid back,” “super friendly,” and “kind and friendly.” As for the people in this environment, the most frequently used terms were “nice” and “friendly.” Participants mentioned the fact that people talked with one another: “Everybody knows everybody, and you can make friends in different departments.”

As for participants’ perception of prejudice, 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.” “I never had to deal with prejudice.” “My classmates showed no prejudice toward me.” Two major reasons were offered. One participant thought that the absence of prejudice was related to the number of American Indians living in the state, so people were used to seeing them, and another argued that people on campus simply saw others who also wanted to better themselves.

## **Finding Help**

TGTC must have excelled in matters of offering help based on the responses given: “I could always get help.” “Every time I needed help with something, I could find somebody that

could help me out.” “I cannot think of any time [when I could not find help].” “I never had a problem finding help.” Three aspects of help appeared to be important: Help was easy to find, people on campus were always willing to help, 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.” 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.

**“She was willing to help me out every time”**. Campus academic counselors were 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.” These counselors were often the first line of help for students who had non-class-related questions: “Pretty much every time I walked in with a problem, she had an answer for me.” Having one specific person who knew them to go to was a significant means of support: “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.” Counselors were extremely versatile. They suggested possible programs of study, arranged class schedules, helped resolve financial aid issues, helped choose the right classes for transfer, and even helped find an internship.

Academic advisors played another important role in student retention. Students went to advisors when they had specific problems with program 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.” 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.”

**“I don’t think without them, I probably couldn’t finish”** Participants mentioned that they found working with others motivating and invigorating and could not have graduated without study group and classroom team support: “I’m pretty social, so I can’t imagine not working with other people. I think it would get boring.” “One gets down . . . we support that one. Then the other gets down, we support that one. Then when I got down, they supported me.” Classmates in some cases could help to reassure struggling students: “They were getting frustrated, too, but, well, I guess with all of our support telling each other that we can do it, we did it.” Classmates were used as study buddies, project partners, and collaborators on homework assignments.

In addition, participants tended to approach classmates and members of their program cohorts with routine questions and requests for class notes, deadlines, project guidelines, etc., especially if instructors were not at hand: “If, say, I were to get stuck, I could know that if I didn’t know how to do it, and I couldn’t contact the instructor, I could call a classmate.” “[T]here’s times you might not be able to be in class, and you miss a day, and there’s notes or something. Well, you can always ask that friend, too.”

## **Discussion and Recommendations**

The following discussion is based on the specific context of this study, American Indian students in technical education at a mainstream two-year college. Findings will be discussed as they relate to Bean's (2005) themes of college retention. As Bean himself postulated a relationship between psychological processes and key attitude with academics, discussion of the latter will be subsumed under these headings. While many participant responses buttress previous discussions in the literature, other comments add useful new insights. Some retention factors strongly emphasized by the literature were absent from this study's participant comments. As a result, this study contributes to the knowledge base in three ways: (1) It identifies success factors for a specific group of American Indian college students about whom next to nothing is known; (2) its findings reveal that American Indian college students as a group are much less homogeneous than the literature implies and that some of the commonly cited success factors may not apply or not apply equally to all students; and (3) it suggests that in technical education, matters of career goals, quality of education, and faculty and staff competence can supersede ethnic and cultural considerations.

### **Institutional Commitment**

Participants made it abundantly clear that at a technical college, the ability to tour facilities is a major factor in creating a desire to attend, evidenced by the fact that five participants had applied or even enrolled on the day of their campus visits. Especially the role that faculty members and department administrators play in welcoming potential students and showing them around contributed to fit and a sense of belonging. The campus visit experience can be improved through increased awareness on the part of faculty, staff, and administrators as to the role of institutional and individual commitment in fostering determination and desire. Campus visits further provide an opportunity to develop key attitudes by emphasizing the benefits of college, especially jobs and money, that successful graduates will be able to reap.

At the same time, the unanimity in denying any racism or prejudice on campus is noteworthy. Even when asked directly, participants responded that they never felt they had to change in order to fit in and be successful contrary to claims in the literature about institutional racism and pressure to conform (Brayboy et al., 2012; Huffman, 2001; Klasky, 2013; Wentzloff & Brewer, 1996). Additionally, participants showed a distinct lack of interest in more American Indian culture on campus such as cultural events or a cultural center. Several reasons may account for this attitude. First, although TGTC is in Indian Country, the Native population in the area does not live on reservations or in separate communities but largely among the majority white population. As a result, these Native students may not experience the same identity struggles as other American Indians (Hamill, 2006). Second, TGTC prides itself in being a student-centered institution and may simply have lived up to its aspiration by showing exemplary institutional commitment. Third, the focus on technology and skills development may have presented a culturally more neutral environment and thus had an impact on how students related to one another.

Research can extend the study by investigating the root causes of participants' perception that prejudice was absent on campus. Did campus administrators and staff develop policies or



conduct guidelines that curbed expressions of prejudice? Did participants have a different attitude toward prejudice owing to their backgrounds? Does technical education play a role in whether prejudice is expressed or perceived? Answering these questions will provide guidance to other colleges who working on eliminating prejudice in their educational environments.

## **Psychological Processes**

Familiarity with the campus layout was other important retention factor and spoke to coping strategies, self-efficacy, and a belief in one's agency. Specifically, the ability to enroll in concurrent classes while still in high school, as mentioned by Pavel and Colby (1992), was identified as a contributor to a feeling of familiarity and a way to reduce stress and create a feeling of agency. At the same time, the usefulness of pre-college programs, often touted in the literature (González, 2013; Guillory & Wolverton, 2008; James, 1992; Lowe, 2005; Pavel & Padilla, 1993; Reyhner & Dodd, 1995; Waterman, Shotton, Lowe, & Brown, 2013), rated no mention at all. However, this absence can likely be explained by the fact that TGTC did not offer pre-college or bridge programs, so it can be assumed that participants were not even aware of their existence, much less their usefulness.

Recognizing the benefit of concurrent or dual enrollment for retention could improve outreach. Concurrent enrollment information can be publicized more prominently on the college website, distributed to high school and tribal counselors, and used by recruiting staff to encourage American Indian high school students to take advantage of the concurrent enrollment option because of the benefits to students. Research for its part could investigate how dual enrollment affects students' attitudes, empowerment, belief in their abilities, and expectations and contributes to retention. Is there a truly a correlation between American Indian high school students taking a few college classes and better retention as a result of the ensuing familiarity? Further, researchers can also compare the usefulness of pre-college and bridge programs at technical colleges considering that TGTC did not have such programs but still had a high graduation rate. Do these programs make a difference for technical students in general and as compared with other students? What is the role of background and culture in pre-college program effectiveness for technical students?

## **Key Attitudes**

The connection between TGTC and employers is one of the college's strengths. Helping departments create and maintain contacts with employers, bringing employers to campus (not in the form of all-campus recruiting fairs but rather in program-specific areas), and assisting students in making contacts with potential future employers are academic service functions that need to be maintained at the current level. Room for improvement exists in helping students develop job-search skills rather than just helping them establish contact. Furthermore, the employer connection can be used to develop and strengthen key attitudes among students. Periodically tapping into the prevailing student motivations of career advancement and financial benefit to acknowledge, validate, and re-emphasize the purpose of college (Brown & Robinson Kurpius, 1997; Flynn, Duncan, & Jorgenson, 2012; Jackson & Smith, 2001; Pewewardy & Frey, 2004; Reyhner & Dodd, 1995) along with showing students that industry advisory committees

ensure instructional content quality all re-state fit, give students confidence in future occupational success, and help them perceive their education as being of high quality.

Technical education may have an advantage over other fields of study in that students often come to college with well-defined career goals and informally acquired workplace skills. Colleges can then help students achieve their dreams by building on those skills and on the obvious connections between learning and the workplace, increasing fit and positive attitudes and fostering student belief in their abilities. Interesting to note in this context is another difference with the literature: None of the participants were driven by a desire to help in the development of their communities, mentioned as a factor by Shotton, Oosahwe, and Cintrón (2007). This discrepancy may also result from the fact that the participants in this study all grew up among non-Indians, which means they may be used to a different notion of family and community than that of more traditional students hailing from local reservations.

Although participants agreed with the literature that a warm relationship with advisors is desirable, they differed in that they wanted the relationship to be predominantly useful. Likely as a result of such a viewpoint, mentoring by American Indian faculty and staff was one topic often discussed in the literature (Hampton, 1993; Lowe, 2005; Pavel & Padilla, 1993; Reyhner & Dodd, 1995; Wentzlaff & Brewer, 1996) but mentioned only in passing by the participants. To them, it was more important that faculty and staff treated students as equals and with respect, were genuinely helpful, cared about their students' progress, and, since the topic was technical education, were themselves competent technicians with industry experience. Acquiring relevant skills and receiving help in finding internships and job leads were paramount concerns. Especially this latter type of support was more of an important contributor to positive attitude changes, empowerment, and a feeling of institutional commitment among participants than ethnic or cultural considerations.

Key attitudes can be supported by ensuring that new staff and especially instructors have industry backgrounds and connections that are beneficial to student learning and occupational entry and by continuing to seek the input of industry advisory committees. Student participation in such committee meetings may also serve to strengthen such attitudes. Besides affirming these findings and investigating desired faculty characteristics in detail, research can replicate the study with participants from other tribes to see if instructor background, career goals, and prior exposure to technical skills are unique retention factors for TGTC, these participants, or the region TGTC is located in or if these factors apply across regional and cultural differences.

## **Social Factors**

Participant comments correlated with previous research that family is a factor in developing the desire to attend college and the determination to stay (Brayboy et al., 2012; Flynn et al., 2012; Martin, 2005), but the importance of friends has seen comparatively little discussion. Comments were made about how friends' decisions to attend TGTC and to study a certain subject as well as the presence of friends during a campus visit encouraged some participants to make a decision in favor of TGTC. The predominant reasons given were that participants respected their friends' opinions and that the presence of a friend meant they felt less isolated as new students, underscoring the importance of fit and of psychological processes. Focusing

recruitment on groups of friends instead of targeting individual students may be a possible improvement to current practices. Families could also be involved as much as possible, not only in the pre-admission process but also during a student's enrollment. HeavyRunner & DeCelles' (2002) *family education model* that advocates campus activities for entire families and programs that taught families how to support their college-going children may be a good start for such initiatives.

Research can support colleges by testing the model with different groups of participants to see if the retention factors mentioned in this study require an adjustment of the model. Does the model need to be modified according to tribal culture or to whether students are traditional or not? Does culture play a role in how families are approached and involved in retention efforts? At the same time, the role of friends in the recruitment and decision-making process needs to be investigated further. How can recruiters capitalize on the friendship factor, and is there possibly a concomitant model that clarifies how friends can be involved in the college selection process?

Learning communities were another important social factor and contributed to positive attitudes, a sense of empowerment, and coping strategies. Participants were clearly open to learning jointly with friends and classmates to reinforce belief in their abilities and cope with stress; in fact, they appeared to thrive on the personal connections they made. In fact, six participants cited support from peers as a determining retention factor. It was important to have classmates who were knowledgeable about the course content, empathized with participants' struggles in learning the material, and helped them understand difficult concepts. The opportunity to work through difficult material as a team of classmates was particularly welcome to reinforce feelings of agency. Creating and sustaining such learning communities at the program or department level could help improve retention. Having opportunities to study with friends or classmates may increase the feeling of familiarity and the belief in one's ability to succeed. Research for its part can investigate American Indian students in a variety of learning communities (course specific, program specific, etc.) and determine how and when colleges should intervene in the creation of such communities directly or indirectly and how and when they should let students find their own study circles.

## **Bureaucratic Factors**

Presumably as a result of feeling they fit and belonged, participants did not mention that they required their advisors to be particularly astute in recognizing American Indian cultural needs as was often stated in the literature (Austin, 2005; Brown & Robinson Kurpius, 1997; Gilbert, 2000; HeavyRunner & DeCelles, 2002; Martin, 2005). Instead, the ability to find and receive help easily was a major retention factor.

Participants very much appreciated advisors who were able to help them with a range of issues, but the most important factor was the personal connection they could forge with permanently dedicated advisors, which gave them a feeling of being treated like a unique individual or, as they put it, a person rather than a number and underscored the importance of relationships. Advisors' helpfulness and flexibility along with student expectations that advisors were student advocates, people whose job was not to enforce college policies but to help students with enrollment issues, handle difficult administrative matters for them, and, yes, override

campus rules if such an action benefited the student, were important retention factors. One discrepancy between the literature and participants' statements was that whereas the literature advocated that campus employees teach students how to navigate the campus bureaucracy (Belgrade & Loré, 2003; Tierney, 1993), participants were not interested in learning such skills. Instead, they expected their advisors to remove obstacles and solve problems time and again.

The ease of finding help was an important success factor identified by participants. Student services should be located centrally, be easy to find, and have office hours that take student schedules into account. Employees should always be available during business hours and be knowledgeable about campus policies and about where additional help may be found. Knowing the desire on the part of students to see advisors as student advocates means that colleges can review their policies to allow their resource persons the greatest possible latitude in making decisions and helping students. As advisors will not always be able to comply with student wishes, having clear guidelines on what is and is not possible and learning enhanced verbal and non-verbal communication skills to deliver bad news in the most supportive fashion can be an improvement in student-advisor interaction.

Research for its part can explore the advocacy role of campus advisors and counselors. How would such a role be executed? Is it realistic to expect employees to fulfill all student desires, and how can such demands be mitigated in the face of campus needs and constraints? How would administrators decide which decision-making prerogatives to give up? How does advocacy for American Indian students differ from that for other students? Does technical education make a difference in how this advocacy role is carried out?

## **Conclusion**

Based on the findings of this research, American Indian students in technical education programs are more likely to be retained if they are able to change their attitudes and have clear goals, have a pleasant recruitment experience, can find help easily, and find learning communities with like-minded classmates. Academic student services are seen as a service to students, meaning that students want student service employees to function less as university employees and more as their advocates in navigating university bureaucracy and program requirements. Overall, however, the findings show that there is no panacea to American Indian student retention. In many respects, the needs of this study's participants seemed to be similar to those of other students, suggesting that American Indian student retention may indeed be as complex as has been suggested and that the complexity may be related to the chosen field of study, in this case technical education, as much as to tribal culture. Academic student services, therefore, might be most effective in their retention efforts if they reach out to students with cultural sensitivity but still regard them as individuals who need individual attention in reaching their goals. Respecting what students want and need and offering concrete assistance in helping students realize their dreams appears to be an important piece in the retention puzzle.

## **References**

Anderson, J.A. (2004). Academic and social integration: Key to first-year success for students of color. In L.I. Rendón, M. García, & D. Person, *Transforming the first year of college*

- for students of color* (pp. 77-89). Columbia, SC: University of South Carolina, National Resource Center for First-Year Experience and Students in Transition.
- Astin, A.A. (1978). *Four critical years*. San Francisco, CA: Jossey-Bass.
- Aud, S., Hussar, W., Kena, G., Bianco, K., Frohlich, L., Kemp, J., & Tahan, K. (2011). *The condition of education 2011*. (NCES 2011-033). Washington, DC: National Center for Education Statistics.
- Austin, R.J. (2005). Perspectives of American Indian nation parents and leaders. In M.J.T. Fox, S.C. Lowe, & G.S. McClellan, *Serving Native American students* (pp. 41-48). San Francisco, CA: Jossey-Bass.
- 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, NY: Community College Research Center, Teachers College, Columbia University.
- Bean, J.P. (2005). Nine themes of college student retention. In A. Seidman (Ed.), *College student retention: Formula for college student success* (pp. 215-244). Westport, CT: Praeger.
- Belgrade, M.J., & Loré, R.K. (2003). The retention/intervention study of Native American undergraduates at the University of New Mexico. *Journal of College Student Retention*, 5, 175-203.
- Benjamin, D.-P., Chambers, S., & Reiterman, G. (1993). A focus on American Indian college persistence. *Journal of American Indian Education*, 32(2), 24-40.
- Brayboy, B.K.J., Fann, A.J., Castagno, A.E., & Solyom, J.A. (2012). *Postsecondary education for American Indian and Alaska Natives: Higher education for national building and self-determination*. ASHE Higher Education Report, 37(5). San Francisco, CA: Wiley Periodicals.
- Brown, D.L. (2005). American Indian student services at UND. In M.J.T. Fox, S.C. Lowe, & G.S. McClellan, *Serving Native American students* (pp. 87-94). San Francisco, CA: Jossey-Bass.
- 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.
- Burk, N.M. (2007). Conceptualizing American Indian/Alaska native college students' class experiences: Negotiating cultural identity between faculty and students. *Journal of American Indian Education*, 46(2), 1-18.

- Campbell, A.E. (2007). Retaining American/Alaskan native students in higher education: A case study of one partnership between the Tohono O'odham Nation and Pima Community College, Tucson, AZ. *Journal of American Indian Education*, 46(2), 19-41.
- 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.
- Crisp, G. (2010). The impact of mentoring on the success of community college students. *The Review of Higher Education*, 34(1), 39-60.
- Deloria, V., Jr., & Wildcat, D.R. (2001). *Power and place: Indian education in America*. Golden, CO: Fulcrum Resources.
- DeVoe, J.F., Darling-Churchill, K.E., & Snyder, T.D. (2008). *Status and trends in the education of American Indians and Alaska Natives: 2008*. (NCES 2008-08). Washington, DC: National Center for Education Statistics.
- Dodd, J.M., Garcia, F.M., Meccage, C., & Nelson, J.R. (1995). American Indian student retention. *NASPA Journal*, 33(1), 72-78.
- Draeger, M. (2006). How students benefit from high-tech, high-wage career pathways. *New Directions for Community Colleges*, 135, 81-89.
- Ecklund, T., & Terrance, D. (2013). Extending the rafters: Cultural context for Native American students. In H.J. Shotton, S.C. Lowe, & S.J. Waterman (Eds.), *Beyond the asterisk: Understanding Native students in higher education* (pp. 53-66). Sterling, VA: Stylus.
- Edington, E.D., & Willey, D.S. (1971). Occupational training for America's forgotten minority. *Journal of American Indian Education*, 10(2), 15-20.
- Fike, D.S., & Fike, R. (2008). Predictors of first-year student retention in the community college. *Community College Review*, 36(2), 68-88. doi: 10.1177/0091552108320222
- Flick, U. (2002). *Qualitative Sozialforschung: Eine Einführung* [Qualitative research in the social sciences: An introduction.] (2nd ed.). Hamburg, Germany: Rowohlt.
- Flynn, S.V., Duncan, K., & Jorgenson, M.F. (2012). An emergent phenomenon of American Indian postsecondary transition and retention. *Journal of Counseling and Development*, 90, 437-449.
- 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.

- Fuchs, E., & Havighurst, R.J. (1983). *To live on this earth: American Indian education* (2nd ed.). Albuquerque, NM: University of New Mexico Press.
- Gilbert, W.S. (2000). Bridging the gap between high school and college. *Journal of American Indian Education*, 39(3), 1-21.
- González, J. (2012, April 13). Tribal colleges offer basic education to students “not prepared for college.” *Chronicle of Higher Education*, 58(32), A25-A26.
- Guillory, R.M., & Wolverson, M. (2008). It’s about family: Native American student persistence in higher education. *The Journal of Higher Education*, 79(1), 58-87.
- Hamill, J. (2006). *Going Indian*. Urbana and Chicago, IL: University of Illinois Press.
- Hampton, E. (1993). Toward a redefinition of American Indian/Alaska Native education. *Canadian Journal of Native Education*, 20, 261-310.
- HeavyRunner, I., & DeCelles, R. (2002). Family education model: Meeting the student retention challenge. *Journal of American Indian Education*, 41(2), 29-37.
- Hirschy, A.S., Bremer, C.D., & Castellano, M. (2011). Career and technical education (CTE) student success in community colleges: What really matters? *New Directions for Community Colleges*, 121, 5-18.
- 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.
- 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.
- Huffman, T. E. (2008). *American Indian higher educational experiences: Cultural visions and personal journeys*. New York, NY: Peter Lang.
- Jackson, A.P., & Smith, S.A. (2001). Postsecondary transitions among Navajo Indians. *Journal of American Indian Education*, 40(2), 28-47.
- Jacobs, J., & Archie, T. (2008). Investigating sense of community in first-year college students. *Journal of Experiential Education*, 30, 282-285.
- 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.
- Klasky, P.M. (2013). Making it real: An engaged approach for Native American students in higher education. *American Indian Culture and Research Journal*, 37(3), 97-106.
- Klug, B.J., & Whitfield, P.T. (2002). *Widening the circle: Culturally relevant pedagogy for American Indian children*. New York, NY: Routledge.
- Kolenovic, Z., Linderman, D., & Karp, M.M. (2013). Improving student outcomes via comprehensive supports: Three-year outcomes from CUNY's Accelerated Study in Associate Programs (ASAP). *Community College Review*, 41, 271-291.
- 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.
- Law, B. (2014). 5 strategies to improve student retention and success. *Community College Journal*, 84(6), 10- 12.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lowe, S.C. (2005). This is who I am: Experiences of Native American students. In M.J.T. Fox, S.C. Lowe, & G.S. McClellan, *Serving Native American students* (pp. 33-40). San Francisco, CA: Jossey-Bass.
- Martin, R.G. (2005). Serving American Indian students in tribal colleges: Lessons for mainstream colleges. In M.J.T. Fox, S.C. Lowe, & G.S. McClellan, *Serving Native American students* (pp. 79-86). San Francisco, CA: Jossey-Bass.
- Martin, S.C., & Thunder, A.L. (2013). Incorporating Native culture into student affairs. In H.J. Shotton, S.C. Lowe, & S.J. Waterman (Eds.), *Beyond the asterisk: Understanding Native students in higher education* (pp. 39-51). Sterling, VA: Stylus.
- McClellan, G.S., Fox, M.J.T., & Lowe, S.C. (2005). From discussion to action. In M.J.T. Fox, S.C. Lowe, & G.S. McClellan, *Serving Native American students* (pp. 95-98). San Francisco, CA: Jossey-Bass.
- McClenney, K.M., & Waiwaiole, E.N. (2005). Focus on student retention: Promising practices in community colleges. *Community College Journal*, 75(6), 36-41.
- Merriam, S.B. (1998). *Qualitative research and case study applications in education*.



San Francisco, CA: Jossey-Bass.

- Mississippi Lifetracks. (2015). *Pre-K – 12th grade: Career technical education (CTE) participants*. Retrieved from <https://lifetracks.ms.gov/PK12/SitePages/CareerTechReports.aspx>
- Moody, R. (2015, November 22). Career and tech students at NNY BOCES have high graduation rates. *Watertown Daily Times*. Retrieved from <http://www.watertowndailytimes.com/news03/career-and-tech-students-at-nny-boces-have-high-graduation-rates-20151122>
- Moxley, D., Najor-Durack, A., & Dumbridge, C. (2001). *Keeping students in higher education*. London, United Kingdom: Kogan Page.
- National Center for Education Statistics. (2007). *Postsecondary institutions in the United States: Fall 2006 and degrees and other awards conferred, 2005-06*. Washington, DC: U.S. Department of Education.
- Ortiz, A.M., & HeavyRunner, I. (2002). 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.
- 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., & Colby, A.Y. (1992). *American Indians in higher education: The community college experience*. Los Angeles, CA: ERIC Clearinghouse for Junior Colleges. (ERIC No. ED351047)
- 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.
- 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.
- Reese, S. (2005). The role of career and technical education in dropout prevention. *Techniques* 80(3), 18-23.
- 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.
- Risley, R. (2010). *Establishing a culture of completion*. Washington, DC: American Association of Community Colleges.
- Rossman, G.B., & Rallis, S.F. (2004). *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.
- Seidman, A. (2005). Where do we go from here? A retention formula for student success. In A. Seidman (Ed.), *College student retention: Formula for college student success* (pp. 295-316). Westport, CT: Praeger.
- Shotton, H.J., Oosahwe, E.S.L., & Cintrón, R. (2007). Stories of success: Experiences of American Indian students in peer-mentoring programs. *The Review of Higher Education, 31*, 81-107.
- Shotton, H.J., Lowe, S.C., & Waterman, S.J. (2013). Introduction. In H.J. Shotton, S.C. Lowe, & S.J. Waterman (Eds.), *Beyond the asterisk: Understanding Native students in higher education* (pp. 1-24). Sterling, VA: Stylus.
- Silverberg, M., Warner, E., Fong, M., & Goodwin, D. (2004). National assessment of vocational education. Washington, DC: U.S. Department of Education, Office of the Under Secretary, Policy and Program Studies Service.
- Stout, K.E., & Christenson, S.L. (2009). Staying on track for high school graduation: Promoting student engagement. *Prevention Researcher, 16*(3), 17-20.
- 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, NE, and London, United Kingdom: 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.

- Tachine, A., & Francis-Begay, K. (2013). First-year experience for Native American freshmen: The University of Arizona first-year scholars program. In H.J. Shotton, S.C. Lowe, & S.J. Waterman (Eds.), *Beyond the asterisk: Understanding Native students in higher education* (pp. 25-38). Sterling, VA: Stylus.
- 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.
- 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, NY: 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). Dropouts from higher education: A theoretical synthesis of recent literature. *Review of Educational Research*, 45, 89-125.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2<sup>nd</sup> ed.). Chicago, IL: The 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.
- Treviño, J., & Ewing, K. (2004). Fostering positive intergroup relations in the first year of college. In L.I. Rendón, M. García, & D. Person, *Transforming the first year of college for students of color* (pp. 67-75). Columbia, SC: University of South Carolina, National Resource Center for First-Year Experience and Students in Transition.
- Van Houtte, M., & Van Maele, D. (2012). Students' sense of belonging in technical/vocational schools versus academic schools: The mediating role of faculty trust in students. *Teachers College Record*, 114(7), 1-36.
- Warner, L.S., & Gipp, G.E. (Eds.). (2009). *Traditions and culture in the millennium: Tribal colleges and universities*. Charlotte, NC: Information Age Publishing.

- Waterman, S.J., Shotton, H.J., Lowe, S.C., & Brown, D. (2013). Conclusion. In H.J. Shotton, S.C. Lowe, & S.J. Waterman (Eds.), *Beyond the asterisk: Understanding Native students in higher education* (pp. 165-174). Sterling, VA: Stylus.
- Weiss, R.S. (1994). *Learning from strangers: The art and method of qualitative interview studies*. New York, NY: The Free Press.
- Wentzlaff, T.L., & Brewer, A. (1996). Native American students define factors for success. *Tribal College*, 7(4), 40-44.
- White House Initiative on American Indian and Alaska Native Education, U.S. Department of Education. (2015). *White House initiative: American Indian and Alaska Native education*. Retrieved from <http://sites.ed.gov/whiaiane/>
- 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.
- Yang, R.K., Byers, S.R., & Fenton, B. (2006). American Indian/Alaska Native students' use of a university support office. *Journal of American Indian Education*, 46(1), 35-48.

#### **AUTHOR'S NOTE**

**Carsten Schmidtke** is an Assistant Professor of Human Resource and Workforce Development in the College of Education and Health Professions, University of Arkansas. Fayetteville, AR. She can be contacted at [cswded@uark.edu](mailto:cswded@uark.edu)