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American Indian Student Motivation at a Tribal College

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DISSERTATION

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Dedication

This dissertation is dedicated to my family. They supported me in completing my education.

This dissertation is dedicated to my mom for her unconditional love and never giving up on me. I can't wait to spend more time with her.

This dissertation is dedicated to tribal colleges, American Indian faculty, American Indian students, and American Indian education research.

My faith in God made my educational journey possible.

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Abstract

The purpose of this study was to explore relationships between motivational characteristics of American Indian college students attending a tribal college. The Inventory of School Motivation (ISM) was utilized to identify motivational constructs. The literature in general continues to portray American Indian students as the lowest academically achieving subgroup as well as having a lack of persistence and high dropout rate in higher education. This study identified areas that support motivation to attend college, which then can be shared with the tribal college to develop programs and innovations to recruit and sustain American Indian students in education, as well as contribute to much-needed American Indian education literature. The study distinguished the motivational characteristics among American Indian students that supported them in attending college.

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List of Abbreviations

AIHEC   American Indian Higher Education Consortium

AI/AN   American Indian/Alaska Native

GPA   Grade Point Average

ISM   Inventory of School Motivation

ISM-R2   Inventory of School Motivation Revised 2

NACOPE   Native American Collective Orientation and Pursuits in Education

NCES   National Center of Education Statistics

NIES   National Indian Education Study

PSC   Psycho-sociocultural

SIPI   Southwest Indian Polytechnic Institute

SPSS   Statistical Package of Social Studies

TCU   Tribal College University

Chapter 1

Introduction

Rationale for the Study

My professional and personal interests have always been with the American

Indian population. I have lived and received my elementary education on the Navajo

Nation. I am one who has left the Navajo Nation to attend college and returned each time

upon receiving my degrees. I was fortunate enough to have found employment and

housing on the Navajo Nation. I also wanted my daughters to experience reservation life

and have a relationship with their grandmother by being in close proximity to her. My

roots are deeply connected to the American Indian community and family life.

During my appointment on the Navajo Institutional Research Board and

employment on the Navajo Nation, I realized that research was needed in Indigenous

communities, and even more so by Indigenous researchers themselves. Through my

work experience and education, I came to believe that there are enough researchers to

support the mainstream population and not enough researchers with skills in both

quantitative and qualitative research methods to advocate for the American Indian

population. I serve and represent the American Indian community with the utmost

beneficial interest. My heritage, work experience, and education have afforded me deep

understanding of the educational challenges facing the American Indian population.

My work experience consists of working with student demographics and

standardized assessment data of Navajo students for many years. I have seen high- and

low-performing students who came from the same school and received the same

instruction, but presented a wide range of academic performance. Some students had no

economic or family support, yet they performed as well academically as their peers who came from supportive families with ample resources. Indeed, I have seen students from dysfunctional families, low socioeconomic status, and lacking of support achieve high test scores seemingly in spite of their challenging family situations.

Despite these clear contradictions to stereotyped beliefs, the overarching noise of standardized test results most often prevails. Most studies and reports use a standardized test score, such as from the National Assessment Educational Progress and state-mandated assessments. Students had to be academically prepared to perform very well on these exams. When the averages from these standardized tests are reported, high-performing students are usually drowned-out by lower averages. These low averages are what is seen in national reports, and this is where we get the statements as American Indian students are the lowest-performing ethnic subgroup.

Knowing that there are high- and low-performing American Indian students and that many of these students face obstacles to attend and graduate from college intrigues me to find out what is the driving component that makes an American Indian student want to attend college and succeed in academia. Like many minorities, American Indian students overcome obstacles to attend colleges and universities. So what is the characteristic that we American Indians share to take the step forward to a higher education, and continue with that journey until we graduate? Although all of my experience with student assessment data has been within the realm of K-12 education, I am aware of the post-secondary struggles and success of American Indians. It is by observation and experience that I know of American Indian students who came from low

socioeconomic status, lack of academic preparedness, and lack of financial resources; yet, they persisted through college.

Research needs to be conducted to find non-traditional rationales for shortcomings and triumphs that can provide a path to ensure students achieve success in college. My research can help in moving from the mindset of the deficiencies of American Indian students to the development of initiatives to recruit and sustain students in education. Efforts must be made to develop more effective means of retaining American Indian students in the educational system to eliminate the cycle of American Indians being at risk for poor academic performance (Fore & Chaney, 1998). While traditional measures of academic success such as grade point average (GPA) and standardized test scores continue to be the main predictors, they are not sufficient to predict retention and completion rates of American Indian students in higher education. Fore and Chaney (1998) supported the need to identify specific factors associated with academic success in the American Indian population. Motivation variables may be contributing factors to seek a higher education. This study looks at motivational influences that prompted American Indian people to attend a tribal college.

I brought knowledge, experience and understanding of the American Indian educational shortfalls to my research. I shared the same experiences as some of the participants in my study, including being raised on an American Indian reservation, leaving the reservation to attend college, being overwhelmed with family obligations, lacking financial resources, and lacking college academic preparation. I was familiar and felt comfortable being onsite at the tribal college to conduct my study. I had mentors and colleagues at the tribal college that helped make my study possible.

Theoretical Framework

The research purpose was to study motivational characteristics of American Indian students who attended a tribal college. The study of these motivational characteristics was to identify motivational saliency of students in regards to their persistence to attend college.

Most research regarding American Indian students in education arrives from standardized assessment results and graduation rates. This study tapped into the less-traditional variables and brought to the forefront those variables that supported characteristics of those attending and persisting through a tribal college. Fore and Chaney (1998) mentioned that a variety of variables may range from traditional psychological variables to less traditional academic measures, such as non-cognitive indicators, to sociocultural factors. This study included traditional psychological variables, non-cognitive and sociocultural indicators to help explain the picture of college persistence.

Furthermore, the findings from Fore and Chaney (1998) suggested that students pursuing a higher education have insight into their academic abilities and reflect on their academic performance. This study was unique by means of administering a motivational inventory instrument, which gathered information about the inner person, in areas of self-determination, self-efficacy, future value and leadership, to name a few. Whereas, the collection and prediction of traditional variables, such as grade point average, test scores and social economic status do not fully represent the inner characteristics of students and how these characteristics impact education persistence.

Statement of the Problem

American Indian students have long been studied in the negative sense. Studies have depicted them as low academic performing with mental health issues, social problems and low socioeconomic status. Studies about American Indian students seldom provide innovations, resolutions, or recommendations. Indeed, research looking at American Indian achievement at the post-secondary level tends to focus on statistics indicating low academic performance, high dropout rates, and low graduation rates.

Literature about American Indian students persisting toward their goals is scarce. Some American Indian students are very self-determined to achieve. These students make choices and believe in themselves to press forward given the hurdles before them such as family and ceremonial obligations, financial constraints, and limited academic readiness. Most of the literature resides in the external reasons why American Indian students fail. Not many studies focus on the internal reasons why American Indian students succeed.

This study presents an opportunity to explore the topic of what motivates American Indian students to attempt and achieve in college no matter what obstacles are before them. As such, it adds to the much-needed American Indian education research and presents a view of inner motivational characteristics that are within an American Indian student attending a tribal college.

Research Questions

The goal of this research study was to answer the following questions: 1) why do students choose a tribal college, 2) what is the demographic makeup of these students, and 3) which specific motivation constructs were salient for American Indian students at

a tribal college. In addition, the purpose of this study was to explore relationships of

motivational constructs and demographics of the study participants. An outcome to this

study was to find common motivational constructs of the study participants that play an

influential role in their decision to pursue a college education.

Chapter 2

Literature Review

Student Motivation

The objective of the study was to explore motivational characteristics of the

participants enrolled at a tribal college. Motivation had to be the driving force that

pushed American Indian students to reach their ambitions in attending college and to

succeed academically. Researchers describe motivation as having many facets, in both

extrinsic and intrinsic properties, personal needs, and learning.

Motivation energizes and directs behavior in accomplishing a particular goal

(Sansone & Harackiewicz, 2000). Early research in psychology focused on two types of

behavior explanations: the basic biological need connected to survival, and extrinsic

rewards or punishments (Sansone & Harackiewicz, 2000). Both behavior types imply the

need to achieve a particular outcome, which motivates behavior (Sansone &

Harackiewicz, 2000). Motivation is one of the most highly researched topics in

education (Shell, Brooks, Trainin, Wilson, Kauffman, & Herr, 2010). Although

motivation is studied abundantly in the mainstream population, research is lacking with

American Indian students in higher education.

Ford (1992) described motivation as having three psychological functions: a)

activating behavior–what gets students involved; b) directing behavior–why one chooses

a certain action; and c) regulating persistence of behavior–why students persist toward

goals. Regulating persistence of behavior is aligned with the intention of this study. Why

does an American Indian student without a scholarship or transportation continue to

attend college?

The knowledge base of motivation that addressed these functions has expanded from theories to a spectrum of motivational topics (Weiner, 1990). Given this, need theories and social-cognitive models are mentioned as two current perspectives (Pintrich, 2003). Need theories address the basic needs with which we are born, and direct our motivation to fulfill those needs (Alderman, 2008). There are two need theories: self-determination and self-worth (Alderman, 2008). These two theories provide an understanding of motivation and combine needs and social cognitive constructs (Alderman, 2008). Self-determination (Deci & Ryan, 1985) assumes the psychological needs of autonomy, relatedness, and competence are basic human needs and create the foundation of intrinsic motivation.

Social-cognitive perspectives have been a key focus of recent motivation research as well, especially as it connects to school achievement, role of teachers, and student beliefs as learners (Pintrich, 2003). Social cognitive theories emphasize beliefs, cognition, behavior, and environmental factors that impact achievement (Bandura, 1997; Weiner 1990). This approach includes causal attributions, self-efficacy, learned helplessness, goals, and self-worth. The interrelations of the following factors make up the perspective of social-cognitive theory (Bandura 1986, Dweck & Leggett, 1988): a) personal beliefs, cognitive abilities and beliefs; b) environmental, such as support of family and friends; and c) behavior, such as social interactions, verbal and motor responses.

Bandura (1986) coined the term "reciprocal determinism" to encompass the interaction of the three factors above and how each component affects the other two. The

variables in each of the three components of the reciprocal model are similar to the

variables in this study, which captures self-efficacy, parental support and social goals.

Motivation not only plays an important role in deciding to go to school, but is a

contributing factor in learning as well. In Shell et al. (2010), the unified learning model

was described as having three components: working memory, knowledge, and

motivation. Interest, self-confidence, self-esteem, rewards, or goals make up the

structure of motivation. Within learning, motivation is the stimulus for directing working

memory to the task of learning (Shell et al., 2010). The motivation to learn was also a

viable piece in this study because students actually need some level of motivation to learn

to continue and succeed in higher education.

Self-determination theory (Ryan and Deci, 2000) describes three types of

motivation: intrinsic, extrinsic, and amotivation. The basic distinction between intrinsic

and extrinsic motivation is that intrinsic motivation is defined as doing something for

innate satisfaction, a sense of competence, interest, learning and challenge in which is

provided through an activity (Ryan & Deci, 2000). Extrinsic motivation is doing

something for praise or money, special privileges, and rewards as a separate outcome

(Ryan & Deci, 2000). Amotivation is a lack of motivation or lack of perceived

connectedness between the task and an outcome (Alderman, 2008). In addition to

extrinsic versus intrinsic forms of motivation, actions may emerge from feelings of

obligation, guilt, or pride as representing the inner values of ones' self (Corno &

Anderman, 2016).

Through extensive research, intrinsic motivation of students and other

autonomous forms of motivation are found to be related to adaptive academic outcomes

such as creativity, academic engagement, abstract learning strategies, and academic achievement (Corpus, McClintic-Gilbert & Hayenga, 2009; Lepper, Corpus & Iyengar, 2005; Otis, Grouzet, & Pelletier, 2005; Walker, Greene & Mansell, 2006). In contrast, extrinsic motivation foresees negative outcomes, such as inadequate learning strategies and attitudes, anxiety, inability to cope with challenges, poor academic achievement, and even dropping out of school, as insinuated by many studies (Lepper et al., 2005; Walker et al., 2006). On a positive note for extrinsic motivation, a few studies suggest that extrinsic motivation at times may see beneficial outcomes such as self-regulation and academic adjustment (Miller, Greene, Montalvo, Ravindran, & Nichols, 1996; Otis et al., 2005).

Another prominent motivation theory in education psychology is achievement goal theory (Corno & Anderman, 2016). Achievement goal theory proposes that mastery and performance are two underlying purposes or reasons related to engagement in achievement-related activities by an individual (Ames, 1992). Achievement goal theory has been expanded by research to include social goals and the study of how social goal orientations connect to both social and academic outcomes (Rodkin, Ryan, Jamison & Wilson, 2013).

Inventory of School Motivation

The Inventory of School Motivation as motivation data collection instrument has been used in several studies. One study by McInerney and Swisher (1995), was administered with Navajo students. The motivational constructs drawn from the Inventory of School Motivation were useful for predicting the range of criterion variables included in the study such as school confidence, affect to school, intent to complete

school, and perceived value of school (McInerney & Swisher, 1995). The Navajo study

arrived at the key predictor variables as sense of competence, sense of purpose for

schooling and striving for excellence in schoolwork, with each holding significance

(McInerney & Swisher, 1995). The McInerney and Swisher (1995) study consisted of 12

predictors for intention to complete schooling and the best predictors were sense of

purpose for future, sense of purpose for schooling, recognition, and social concern.

Sense of purpose for the future was significantly related to perceived value of school and

the intention to complete school (McInerney & Swisher, 1995, p. 44). The more

successful students, as defined by McInerney and Swisher (1995), were those who set

goals and saw a purpose in their education.

  In addition, striving for excellence in schoolwork was an important predictor in

McInerney and Swisher (1995). Their study indicated Navajo children can be

achievement-oriented, and that the orientation is connected to school confidence, positive

outlook of school and less absenteeism. Social concern was another significant variable

related to students liking school, and intention to complete school (McInerney & Swisher,

1995). Not only are sense of competence, sense of purpose and striving for excellent

important to Navajo students, they are universally important to all students regardless

their cultural background (McInerney & Swisher, 1995). The ISM was useful in

profiling motivation of Navajo students within a school setting through the work of

McInerney and Swisher (1995).

  Another study using the Inventory of Study Motivation was by Brickman,

McInerney and Martin (2009), who studied 203 American Indian students. The results of

their study indicated task (interest), effort (mastery), and social concern (social goals)

were high outcomes. Affiliation, praise, and token were moderately high outcomes (Brickman et al., 2009). Social power (leadership) was not endorsed by students as an outcome (Brickman et al., 2009). The strongest finding of Brickman et al. (2009) was that valuing school for the future was a predictor of GPA. In addition, a sense of purpose of school (instrumentality) was a predictor for intentions to attend a university, valuing of school (subgoal to the future), positive affect, and GPA.

Task and effort orientation were motivational aspects of successful American Indian students (Brickman et al., 2009). The students perceived their present school tasks in relationship to the future (Brickman et al., 2009). The students valued motivation for achieving at school and emphasized the importance of teacher and peer support (Brickman et al., 2009, p. 49). High general academic self concepts may have helped the students with continued motivation as indicated by Brickman et al. (2009).

Another study using the ISM was by Ali, McInerney, Craven, Yeung and King (2014) aimed at exploring the relationships of performance and social dimensions of school motivation with academic achievement cross-culturally for 2,285 Navajo and Anglo students. The study showed when compared with social dimension, performance dimension was a stronger predictor of GPA and socially oriented factors were similar between the two groups.

Inventory of School Motivation constructs

Ten key motivational constructs are represented in the Inventory of School Motivation. The first motivational construct is self-determination. Alderman (2008) describes self-determination along with self-agency, self-motivation, and empowerment as personal capabilities that enable students to be independent learners and develop a core

of resiliency (p.134). Self-determination theory is a macro theory of motivation and development and has a relevance to education (Deci & Ryan, 1985; Ryan & Deci, 2000). Ryan & Deci (2000) described self-determination theory encompassing the innate psychological needs for autonomy, competence, and relatedness and these needs as the underlying tendencies of natural growth and psychological functioning. Furthermore, Deci & Ryan (2000) shared that intrinsic motivation is enhanced by support or satisfaction of these needs as well as moving from external to internal forms of regulation. Several questions of the ISM gathered information about self-determination as a motivational construct.

The second motivational construct is performance and/or competition. Performance goal orientation places emphasis on ability rather than effort as attributes of success (Alderman, 2008). The expansion of performance goal orientation includes approach and avoidance goals (Alderman, 2008). They both involve the judgment of competence in comparison to performance of others (Pintrich, 2000a). Performance approach is the appearance of how competent the student appears to others, such as looking smart amongst his peers (Alderman, 2008). Whereas, the student in performance avoidance orientation avoids low ability perception by others and protects their self-worth (Alderman, 2008).

The third motivational construct is social goals. With school being as much a social community as is an academic setting (Shell et al., 2010), social goals are very much a part of motivation therefore included in the ISM. Shell et al. (2010) indicates that studies have shown students are likely to be pursuing social goals in school as much as learning goals. The social aspect of school plays a significant piece of education. When

social goals are not met, this can have a negative personal and academic effect on

students who are socially isolated (Shell et al., 2010).

The fourth motivational construct is interest. Alderman (2008) describes interest

as intrinsic or interest value and is the enjoyment or satisfaction that one gets from a task;

for instance, a student may enjoy problem solving and therefore he goes to math class.

Shell et al. (2010) breaks interest in two: situational and personal. Personal interest

relates to what it is that we do and derives from experience (Shell et al., 2010). Personal

interest directs attention and sustains motivation toward long-term goals (Shell et al.,

2010, p.80). In relation to an academic setting, an interest can develop with various

subjects and disciplines (Shell et al., 2010). Interest is reversed when one loses interest in

certain pursuits and interest is shifted elsewhere.

The next motivational construct is praise. Praise, which can be in forms of

messages can influence how students view their own capabilities (Corno & Anderman,

2016). Feedback can benefit a student's belief of their capabilities and even more so,

depending on where they are in their stage of learning and level of success (Corno &

Anderman, 2016). Alderman (2008) mentioned that when used appropriately, verbal

praise and positive feedback enhances students' intrinsic interest. Researchers identified

effort and ability as two types of feedback that influence student outcomes. For

improving persistence, enjoyment and performance, Dweck (2006) indicates that effort

feedback–for example, you worked hard on that problem–is more effective than ability

feedback–for example, you are very good at this–when students experience failure.

Following praise is self-efficacy as a motivational construct. Shell et al. (2010)

indicates that Bandura identifies self-efficacy as ones' competence to perform actions.

Self-efficacy is ones' belief of being able to effectively perform (Shell et al., 2010).

Furthermore, Bandura refers to self-efficacy as one's belief in their capabilities to

organize and execute the courses of action required to produce given attainments

(Bandura, 1997, p.3). Our attention to procedures is motivated by self-efficacy (Shell et

al., 2010). Shell et al. (2010) explains that self-efficacy comes from numerous factors,

primarily from procedures of our past successes and failures. Influences of self-efficacy

can be from comparisons with others, it can decrease when we see someone else do

something better, even though we performed the action just as well (Shell et al., 2010).

Our emotional state can drive our self-efficacy; at times, we believe it's our time to go for

the gold (Shell et al., 2010, p.75).

The next motivational construct is mastery. Mastery is a focus of developing

competence (Corno & Anderman, 2016). Alderman (2008) aligns mastery with

achievement and defines it as demonstrating competence, showing likableness, or

showing smartness. Sansone and Harackiewicz (2000) follow with the concept that when

pursuing mastery goals, an individual's reasoning is to develop competence in the

activity. Dweck and Leggett (1988) add that mastery goals are more likely to promote

and keep a pattern of achievement.

Future value was included as a motivational construct. Alderman (2008) labels

future value as utility value that refers to the usefulness of the task in relation to future

goals; for example, a student may have an interest in advanced math for advancement in

the engineering field.

Further on the motivation construct is affiliation. Characteristics of affiliation are:

wanting to belong to a group; wanting to be liked, and often willing to go along with the

rest of the group to be liked; favoring collaboration over competition; and disliking

uncertainty (www.mindtools.com). David McClelland identified three motivators: a need

for achievement, a need for affiliation, and a need for power (www.mindtools.com).

These motivators are developed through culture and life experiences and are not inherent

(www.mindtools.com).

Lastly, leadership is included on the motivational construct. Leadership

characteristics include skills such as communication, interpersonal, decision making,

problem solving, and the ability to be flexible (www.educational-business.com). One of

the most important leadership characteristics is having confidence (www.educational-

business.com).

American Indian student motivation and achievement

As American Indian students move from elementary to secondary then onto post-

secondary, the percentage of students who stay in school decreases. Some students

perceive college as a distant dream that will never come true due to ones' lack of self-

belief to do the school work required, lack of financial resources, and isolation in a new

place. Yet some students persist in education through their own self-belief, self-esteem,

and self-efficacy. The literature offers some research in self-esteem, self-efficacy,

motivation, family support, community connections, and alienation. The literature also

offers various culturally developed instruments to gather information about variables

related to American Indian students' achievement or persistence in higher education. The

literature also documents failures and negatives of American Indian education in all

levels of education.

It is well documented in the literature that American Indians in college have academic difficulties and display non-persistence (Steward, 1993; U.S. Department of Education, 1998). Black and White achievement gaps have been extensively studied, while achievement of American Indians receive way less attention, especially by economists (Fischer & Stoddard, 2013, p.135). Fischer and Stoddard (2013) share that American Indians represent approximately 1% of the United States student population and are one of the most disadvantaged groups with the lowest employment rates and have the highest poverty rate of other ethnic groups in the United States, as reported by the U.S. Census data in 2012. Using 2008 data, 11.5% of American Indians hold baccalaureate degrees (Aud, Fox & Kewalramani, 2010). American Indians also have the lowest college enrollment rates among any cultural group in the United States along with increased attrition rates each year (Freeman & Fox, 2005; U.S. Department of Education, 2008). Deyhle and Swisher (1997) noted that although higher education has historically been used as means for cultural extinguishment, American Indians endorse higher education to facilitate societal improvement, as well (Brown & Lavish, 2006).

Although American Indians have the academic ability, the postsecondary dropout rates are higher for American Indians than for any other minority (Reddy, 1993). There are indications from the census data that the enrollment in higher education of American Indians and Alaska Native students has doubled over the past 30 years (U.S. Department of Education, 2008a). As a relatively new trend of American Indians attending college, just over half are enrolled in a four-year institution, whereas in the mid-1970s there was a higher proportion of American Indian and Alaskan Native students gravitating toward two-year institutions (Bosse, Duncan, Gapp, & Newland, 2011). Despite the positive

trends in the number of American Indians pursuing college degrees, they are still less

likely to pursue a college education than any other ethnic group (Bosse et al., 2011).

As the need for an educated workforce continues to be a demand throughout the

United States, the low rate of American Indian enrollment in higher education is also of

particular concern (Kelly, 2005). Jackson, Smith, and Hill (2003) provided a list of

factors, such as: lack of financial resources, inadequate academic preparation, a

contradiction between home and higher education cultures, and lack of access and

resources in rural and impoverished environments, which attribute to the differences

between matriculation and completion rates of American Indian and White learners.

These external factors are commonly identified as factors that hinder American Indian

students.

There is a low number of American Indian students in undergraduate programs,

and they are also underrepresented in graduate programs (LaFromboise & Low, 1989;

U.S. Department of Education, 1998). While deficiencies such as these have been clearly

stated, studies providing innovations to support American Indian students in seeking and

completing a higher education are lacking in the literature. Innovations can only be

identified through studying the factors contributing to psychological indicators such as

motivation, self-determination and self-efficacy that support persistence.

Previous research on academics has identified confidence and several related self-

perception and motivation variables as likely predictors (Brown & Kurpius, 1997; Kerbo,

1981; McInerney & Swisher, 1995; Rindone, 1988). The findings from the Jackson et al.

(2003) study offer general support for the idea that confidence and self-efficacy based on

experiences lead to more independent and assertive attitudes that were related to academic persistence.

From Fore and Chaney's (1998) study, the results suggest that non-cognitive academic factors play an influential role in the pursuit of higher education of American Indian students. Fore and Chaney (1998) recommend that future studies gather a larger number of subjects that will provide a detailed view of the psychological and sociocultural processes that influence academic interests of American Indians. They further suggest these factors should be evaluated with a wider range of American Indian students, including middle school, high school, and college students from different tribes and geographic regions of the country.

The shortcomings of academic preparation and achievement in Indian education have been written in publications, reports, and legislative documents. These resources provide awareness and establish a movement toward addressing such shortcomings. The literature tends to publicize shortcomings with no recommended solutions or appropriate methods of data analysis and interpretations. The lack of data on American Indians is one reason that spurred the National Indian Education Study (NIES). The NIES was authorized under Executive Order 13592, Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities, which was issued in 2011 to improve education efforts for American Indian and Alaska Native students nationwide. Although the NIES started before the Executive Order 13592, the Executive Order implied that recent studies showed American Indian and Alaska Native (AI/AN) students are dropping out of school at an alarming rate, that our Nation has made little or no progress in closing the achievement gap between AI/AN students and

their non-AI/AN student counterparts, and that many Native languages are on the verge

of extinction (EO 13592,§ 1.Policy). The Executive Order implies that there is a need for

research to better educational opportunities and close the achievement gap between

AI/AN students and the mainstream population.

Furthermore, the Executive Order includes the following excerpts:

*Section 1 (2) In order to help expand educational opportunities and
improve education outcomes for AI/AN students, the Initiative shall
promote, encourage, and undertake efforts, consistent with applicable law,
to meet the following objectives:*

*(iv) reducing the AI/AN student dropout rate and helping a greater
number and percentage of those students who stay in high school to be
ready for college and careers by the time of their graduation and college
completion, in part by promoting a positive school climate and supporting
successful and innovative dropout prevention and recovery strategies that
better engage AI/AN youths in their learning and help them catch up
academically;*
*(vi) increasing college access and completion for AI/AN students through
strategies to strengthen the capacity of postsecondary institutions,
particularly Tribal Colleges and Universities (TCUs);*

*Section 4. Study. In carrying out this order, the Secretaries of Education
and the Interior shall study and collect information on the education of
AI/AN students.*

 The launch of such an Executive Order conveys that research is needed from

early childhood, K-12, to college. In order to facilitate a smoother transition from the

primary and secondary levels into higher education, academic support and expectations

should be congruent (Bosse, 2011). Additionally, orientation of life skills aimed at

promoting resilience, career awareness and exploration, and goal setting in elementary

through middle school can prove beneficial for students (Bosse, 2011).

Thompson, Johnson-Jennings, and Nitzarim (2013) note that when it comes to

higher education it is critical to increase our attention on cultural identity factors in

relation to persistency among American Indian students. The ability to navigate in one's

home culture and dominant society has been highlighted as a key factor related to

academic persistence among American Indians (LaFromboise, Coleman & Gerton, 1993).

When American Indian students navigate successfully in both their tribal culture and the

higher education system, this is often as "walking in two worlds" or "living between two

worlds," in a metaphoric sense (Junetunen, Barreclough, Broneck, Seibel, Winrow &

Morin (2001).

Within the last several decades, the research focus of college student persistence

has shifted from an exclusive emphasis on cognitive factors relevant to persistence (i.e.,

measures of academic ability and achievement) to include non-cognitive factors (i.e.,

self-beliefs, comfort in the university environment, social support) as essential variables

for underrepresented students (Brown & Kurprius, 1997; Gloria & Rodriguez, 2000;

Sedlacek & Brooks, 1976; Tinto, 1982). Several studies found the importance of non-

cognitive factors, such as social connectedness, as a motivation in predicting college

performance and persistence among college students from a variety of racial/ethnic

backgrounds (Robbin, Lauver, Le, Davis, Langley, & Carlstrom (2004).

In 2000, Gloria and Rodriguez introduced a psycho-sociocultural (PSC) model as

a framework to conceptualize non-cognitive factors that predict academic persistence

intentions among underrepresented students on college and university campuses

(Thompson et al., 2013). The PSC model intended to provide a holistic, culturally

relevant, and contextual approach to understanding underrepresented college students'

educational experiences and subsequent persistence (Gloria & Rodriguez, 2000). The

model consisted of three dimensions of psychological, social, and cultural/environmental

influences. Another study examined persistence among a sample of 83 American Indian students (Gloria & Robinson Kurpius, 2001). The results showed that psychological self-beliefs such as self-efficacy and self-esteem, and social support such as perceived social support from family and friends, and comfort in the university, for instance, perceptions of the university environment, and access to academic mentoring predicted academic persistence decisions.

In additional study, Thompson et al. (2013) examined psychological factors of collective self-esteem, self-efficacy for coping with educational barriers and motivational influences as impacters of persistence for American Indian students. The study had 156 American Indian students representing 64 tribes. As the measurement instrument, the Native American Collective Orientation and Pursuits in Education (NACOPE) construct was developed to understand experiences in higher education institutions (Thompson et al., 2013). The instrument had five constructs: 1) support from family/community/faculty on campus and spiritual beliefs; 2) tap structural barriers related to alienation and separation on campus; 3) living between two worlds; 4) sense of collective identity and support to ones' community; and 5) assessment of success according to the individual and collective orientations.

In summary for the NACOPE results, self-efficacy for coping with educational barriers (psychological dimension), community connections (social support dimension), and separation and alienation (cultural dimension) uniquely predicted persistence (Thompson et al., 2013). The cultural dimension showed that the higher levels of perceived separation and alienation was related to lower persistent intentions. The results from NACOPE also confirmed the usefulness of the PSC framework from Gloria and

Rodriquez (2000) in considering the importance of non-cognitive factors for samples of

American Indian students (Thompson et al., 2013).

Tribal college context

The location of this study was Southwest Indian Polytechnic Institute (SIPI), a

tribal college in Albuquerque, New Mexico. I choose to conduct the study at SIPI

because of the access to American Indian student enrollment. SIPI students represent

traditional and nontraditional students and students with generally a record of lower

academic performance than those who would go to a mainstream university after high

school. There are many tribes represented among the SIPI student body, as well.

Southwest Indian Polytechnic Institute is a National Indian Community College

and a Land Grant Institution serving American Indian and Alaskan Native students

(http://www.sipi.edu/). A land-grant university (also called land-grant college or land-

grant institution) is an institution of higher education in the United States designated by a

state to receive the benefits of the Morrill Act of 1862 and 1890

(https://en.wikipedia.org/wiki/). The Morrill Acts funded educational institutions by

granting federally controlled land to the states for them to sell, to raise funds, to establish

and endow "land-grant" colleges (https://en.wikipedia.org/wiki/). The mission of these

institutions as set forth in the 1862 Act is to focus on the teaching of practical agriculture,

science, military science and engineering as a response to the industrial revolution and

changing social class (https://en.wikipedia.org/wiki/).

SIPI was created to serve higher education needs of American Indians and

generally serve geographically isolated populations who do not have access to higher

education (https://en.wikipedia.org/wiki/). American Indian leaders in the 1960s and

during the time of the momentum of the civil rights movement conceived higher

education as tribally controlled institutions that would support Indian self-determination

efforts and strengthen tribal culture without assimilation (Boyer, 1997). In 1960, the All

Indian Pueblo Council began to prod the Bureau of Indian Affairs (BIA) to create a

federally operated post-secondary institution in the Southwest (Khachadoorian, 2010).

After Native American leaders advocated to BIA to fund and build a vocational-technical

school for Native American students, SIPI was opened for enrollment in 1971

(Khachadoorian, 2010). Technical training and job placement services were the original

intention of SIPI (Khachadoorian, 2010). The initial focus group of SIPI consisted of

Native American students who were either not ready for or not interested in a standard

college education (Khachadoorian, 2010).

   In 1968, Diné College (former Navajo Community College) opened its doors as

the first tribally controlled post-secondary institution, marking a new era of self-

determination for Native American students (Stull, Spyridakis, Gasman, Samayoa &

Booker, 2015). By the time SIPI emerged, tribal colleges and Native American studies

programs were being founded all over the United States (Reyher & Eder, 2004, p. 305).

Other tribal nations across the United States followed with their own tribal colleges to

currently make 37 institutions serving over 28,000 students (Stull et al., 2015). These

institutions serve to revitalize Native languages and culture, promote tribal sovereignty

and further economic growth aligned with tribal community values (Stull et al., 2015). In

2012, Tribally Controlled Universities (TCUs) awarded 1,292 associate degrees to

American Indian or Alaska Native peoples (National Center of Education Statistics,

2014).

In 1973, the first six American Indian tribally controlled colleges established the American Indian Higher Education Consortium (AIHEC) to provide a support network as they worked to influence federal policies on American Indian higher education (http://www.aihec.org/). Furthermore, AIHEC was formed as a collaboration between TCUs to represent their interests in Washington, D.C. (Stull et al., 2015). AIHEC is a unifying voice for the nation's TCUs (Stull et al., 2015). It provides leadership and influences public policy through advocacy and research, and promotes and strengthens Indigenous languages, cultures, and tribal nations (Stull et al., 2015). SIPI is a member of AIHEC.

SIPI offers associate degrees in areas of study such as early childhood education, accounting, business administration and culinary arts. Certificates in computer-aided drafting, and geospatial information technology are offered as well. SIPI student enrollment was 367 (Fall 2016) and demographics are 100% American Indian or Alaskan Native ethnicity (http://nces.ed.gov/).

SIPI has agreements with the University of New Mexico, New Mexico State University, and New Mexico Highlands University to ensure better recruitment, transfer, and retention rates for Native American students to easily transfer to four-year programs and graduate work. Public institutions in the region of New Mexico also have established agreements with SIPI (https://en.wikipedia.org/wiki/).

Tribal colleges and universities provide a postsecondary education to American Indian students who might not otherwise get a choice at a higher education (Fann, 2002). Tribal colleges and universities are unique and important to the educational opportunity for American Indian students in that they combine personal attention with cultural

relevance, especially to those living on reservations to overcome the barriers they face in

higher education (http://www.aihec.org/). Stull et al. (2015) points out that these

institutions contribute in various means to support tribal communities, academia, and

student success, such as:

- TCUs contribute to Nation Building and Indigenous Knowledge Systems.

- TCUs keep college affordable for low-income students.

- TCUs foster economic development and workforce training.

- TCUs hire more diverse faculty than Predominantly White Institutions.

- TCUs produce research on American Indian issues from an AIAN perspective.

    Furthermore, TCUs provide educational, cultural, emotional, and monetary

support for students while at the same time strengthening community efforts for cultural

revitalization, health and social needs, and economic development (Fann, 2002). Other

than culturally relevant curricula, they often provide other services such as childcare,

health centers, libraries, GED tutoring and testing and computer centers (Stull et al.,

2015). While TCUs share many characteristics with mainstream community colleges,

they are distinguished by a dual mission to carry on traditional tribal culture and provide

certificates or two-year degrees that will enhance students' employment opportunities and

facilitate transfers to four-year institutions (Fann, 2002).

    Shreve (2015) adds:

    TCUs are about much more than statistics or conferring degrees, they are
    about people. They are about cultural preservation, self-determination,
    community, and an unrelenting desire to uplift nations that continue to
    reel from centuries of colonialism.

    Despite the roadblocks that prevent American Indians from entering colleges or

universities, which are well in place before students graduate from high school, TCUs are

able to help students with their educational goals and attain successful employment

(Crazybull, 2014). Financial circumstances are always mentioned in the literature as one

of the most prevalent barriers for American Indians to enter a higher education

institution. According to AIHEC, the average cost of a TCU education was $14,566 for

2013-14 (Crazybull, 2014). With these figures, the possibility of earning a college

education without financial assistance is a distant dream (Crazybull, 2014). Any

interruption of financial or life's situation in which to most people would be a slight

setback, such as a medical emergency, can force Native students to give up plans of

entering college or leave school to never return, making their dream of a higher education

unobtainable (Crazybull, 2014). Data from the American Indian College Fund shows that

only one in 20 of their scholarship applicants can afford to attend college without

financial assistance, thus reinforcing the financial need of American Indian students

(Crazybull, 2014).

Despite the prevailing lack of financial assistance, some American Indian students

are still determined to attend and continue a college education. The literature of

American Indian higher education continues to state the lack of financial resources as one

of the main reasons for not seeking, or quitting a higher education. Nevertheless, many

American Indian students still continue the journey. What makes them persist through

financial obstacles to continue to seek a higher education?

Other than financial difficulty, American Indians must overcome other challenges

in succeeding in higher education (Crazybull, 2014). Long commutes are one of those

challenges, with the average one-way commute for a TCU student being 30-100 miles,

with little or no public transportation available in remote reservation areas. In addition,

52% of first-time entering students are first-generation students, who come to higher

education with a background of social issues such as low self-esteem and high rates of

suicide on reservations due to unresolved historical trauma (Crazybull, 2014).

Crazybull, as the President of the American Indian College Fund, shared:

Native communities and students clearly value a higher education and TCUs are heavily invested in and dedicated to the students and communities they serve.

Despite the overwhelming financial obstacles to obtaining a higher education, Native student enrollment has grown by 23% over the past five years according to AIHEC, as more students see a higher education as a path to self-sufficiency, a better life, and a way to help their communities (Crazybull, 2014).

Chapter 3

Methodology

Overview

The intention of this research was to study: 1) why do students choose a tribal college; 2) what demographic make-up do these students have; and 3) which specific motivation constructs are salient for American Indian students at a tribal college. The purpose of this study was to explore the association of motivational constructs held by American Indian college students attending a tribal college.

Participants

The participants were students enrolled in at SIPI, a tribal college. All participants were of American Indian descent and represented many American Indian tribal groups across the United States. The participants ranged from full-time, part-time, residential, commuter, traditional, and nontraditional students. Students represented various fields of study.

Procedures

Recruitment

I completed the University of New Mexico Institutional Review Board and the SIPI Institutional Review Board (IRB) approval process. I started the data collection process by being physically present on the SIPI campus for four days. I met with the department of administrator of the Liberal Arts department and asked for permission to meet with the Liberal Arts instructors. Upon getting permission from the department administrator, I met with SIPI instructors from the Liberal Arts, Business and Engineering departments. I presented my study to them individually and asked if I could be present at the beginning of their classes. The instructors were very supportive of my

study and granted permission for me to be in their classroom. The classes from the

Liberal Arts department were chosen due to these courses, such as English, Math and

Psychology, having more students in them. This allowed me to gather more student

participants per class. In addition to my study, the instructors wanted me to share my

undergraduate and doctoral journey with the students.

I visited the classrooms either at the beginning or at the end of classes depending

on the schedule due to some classes starting at the same time and on the same days of the

week. When I arrived at the classrooms, I presented my study by explaining the purpose

and proposed outcomes of the study. I explained in great length the benefits of the study

in relation to American Indian students and post-secondary education. I shared my own

college experiences and my own obstacles that I overcame. I shared how at the

beginning of my college journey, my relatives frowned upon me going to college due to

my parents' divorce and how they thought I should be home helping my mother instead

of being away at college. I shared that once I received my college education, I was able

to help my mother financially and in so many other ways. I mentioned my obstacles

were the same as their obstacles today such as I had lack of college preparedness, and

lack of finances.

I emphasized to the participants to answer in the best way they could to describe

themselves, how they feel, what they believe, what they have experienced, why they have

made the choices they have made, and their future outlook of themselves. In addition, I

provided how the study was different than other traditional studies and how it will add to

American Indian education research. Lastly, I explained the importance of the Informed

Consent Form. In previous discussions with the classroom instructors, they wanted the

students to complete the surveys in class at the same time I presented the study. After I handed out the surveys, the students/participants took their time in completing the instruments. Some students took extra time in responding in narrative form and really shared their experiences in great length.

I distributed 182 survey packets consisting of the Student Demographic Sheet, Inventory of School Motivation-R, Education Questionnaire, and Informed Consent Form. Of the 182 surveys, eight surveys were not returned. Five surveys were returned but not included in the analysis due to being blank, missing informed consent, and answering the same Likert construct number all the way throughout the Instrument for School Motivation. The total number of the surveys used for the analysis was 169.

Instruments

My instruments consisted of: 1) Student Demographic Sheet; 2) Inventory of School Motivation survey; 3) Why Education Questionnaire; and 4) participant informed consent form.

A. Student demographic sheet

The first instrument was the student demographic sheet. This was a student self-report instrument. I designed the questions on the instrument. The instrument gathered student demographics, such as gender, age range, year in school, program of study, grade point average, tribal affiliation, tribal language fluency, and participation in tribal cultural activities. In addition, the demographic sheet included questions of why the participant chose the tribal college, if they plan on returning to their community, and why they were seeking a college education. The student demographic sheet was provided to the participants along with the other instruments. The data from the demographic sheet

provided a glimpse of student backgrounds, reasons of tribal college choice, significance

of a college education, and an essence of their American Indian values. This was

important because it gave a picture of student needs and depicted what aspects were used

to choose SIPI. The demographic sheet was administered to all participants. The

demographic sheet contained 24 questions ranging from topics of gender to tribal

affiliation to proudness of being a Native American. The questions consisted of check

boxes, fill-in the blank, and Likert-type responses. The Student Demographic Sheet is

attached as Appendix A.

B. Inventory of School Motivation Revised 2

The second data collection instrument was the Inventory of School Motivation

Revised 2 (ISM-R2). The Inventory of School Motivation Revised (ISM-R) was an

instrument based on a theory of personal investment model. The derived ISM factor

scales are used as predictors of student motivation to continue with schooling (McInerney

& Sinclair, 1991, p.123). The ISM scales were created to reflect the components of

Maehr's Personal Investment model and to investigate the nature of school motivation in

cross-cultural settings (McInerney & Swisher, 1995, p.33). McInerney and Swisher

(1995) believed the instrument was broad enough to reflect the model in global cultural

settings. In McInerney and Sinclair (1991), they described the construction and

validation of the Inventory of School Motivation as developed constructs to: a) test

empirically the "sense of self" and "personal incentives" dimensions of the Maehr model;

b) test the applicability of the model and instrument in cross-cultural settings; and c)

provide an instrument for measuring dimensions of motivation in classroom settings

(McInerney & Sinclair, 1991, p.125). The original ISM items were developed to measure

eleven dimensions of the Maehr model. The eleven dimensions were: self-reliance, self-esteem, goal-directed, competitiveness, power, recognition, token rewards, social concern, affiliation, task involvement, and striking for excellence (McInerney & Sinclair, 1991).

McInerney and Sinclair (1991) surveyed 2,152 subjects comprised of 492 aboriginal, 1,173 Anglo and 487 migrant-background students. In the conclusion of their study, they stated exploratory factor analyses of the Inventory of School Motivation offered considerable empirical support to Maehr's Personal Investment Model. Also, cross-cultural testing of the ISM indicated its validity for use in a range of cultural and social settings (McInerney & Sinclair, 1991). Furthermore, the combined set of culturally determined predictor variables developed from the personal investment theoretical framework were found to be significantly related to expectations about continuing with or leaving school. In addition, the combination of factors involved varied between cultural groups. The 1991 study used a discriminant analysis and found that variables from the construct were able to discriminate between those students who returned to school and those who did not return (McInerney & Sinclair, 1991). Furthermore, McInerney and Sinclair (1991) validation helped support the ISM usefulness in an assortment of cultural and social settings; in which, coincided with this study with American Indian college students and in a tribal college setting which captures a cultural social setting.

Since 1991, the ISM has been used in various research studies with diverse populations and cultural backgrounds. In regards to American Indian population, the ISM was used with 529 Navajo high school students (McInerney & Swisher, 1995), 203

American Indian high school students (Brickman et al., 2009) and 1,482 Navajo high

school students (Ali et al., 2014). The findings from McInerney, D.M., Young, A.S., and

McInerney, V. (2001) showed the ISM constructs were applicable to students of different

cultural backgrounds. In addition to American Indian populations, the ISM had been

used in motivational research studies with the Aboriginal people of Australia, Hong

Kong, Nepal and South Africa.

Since 1991, McInerney revised the ISM in respect to the diversity of the

participants and toward the objective of the studies. The Inventory of School Motivation

was revised to twelve constructs relating to motivational goals and sense of self values

influencing learning. Through several analyses and revisions of the ISM, negative

phrased items in the original ISM were used to check for response bias. These items

were potentially confusing to students and eventually removed from the ISM. Through

several more revisions, the ISM resulted in ten ISM motivational constructs. The ISM

used for this study was changed to the ISM-R2 due to using eleven constructs, including

a new construct called community responsibility. The eleven constructs are: self-

determination; performance/competition; social goals; interest; praise; self-efficacy;

mastery; future-value; affiliation; leadership; competence; and community responsibility.

The definitions of each motivational construct and an example of a question are provided:

1. Self-determination (six items): the ability to make a decision for oneself. An
    example of this construct is, "I often try new things on my own."

2. Performance/Competition (six items): the notion of wanting to be better than
    others and trying hard. Example: "Having the best grades in class is important to
    me."

3. Social goals (six items): the concern and willingness to help others with their schoolwork. Example: "It is important for students to help each other at school."

4. Interest (six items): the desire to learn more due to interest in task. Example: "I try harder with interesting schoolwork."

5. Praise (six items): the aspiration to seek praise and recognition for schoolwork. Example: "Praise from my instructors for my good schoolwork is important to me."

6. Self-efficacy (six items): the belief of ability to succeed in accomplishing a specific goal. Example: "It is important for me to believe I can do well at school."

7. Mastery (six items): the ambition to master the subject area, and devote effort to improve schoolwork. Example: "I like to see that I am improving in my schoolwork."

8. Future-value (six items): the understanding that schoolwork, and hard work will pay off later. Example: " I try hard to do well at school so I can get a good job."

9. Affiliation (six items): the interest to belong to a group when at school or doing schoolwork. Example: " I like working with other people at school."

10. Leadership (six items): the interest of seeking a leadership role at school. Example: "I like to have leadership roles at school."

11. Community Responsibility (six items): the belief of returning back to one's tribal community due to the sense of obligation to assist their community. Example: "I want to use what I learn at school to help my community."

The ISM-R2 had 66 questions, six questions per eleven motivational constructs. The ISM-R2 was a five-point Likert-type scale instrument. The Likert scale response options ranged from (1) strongly disagree, (2) disagree, (3) sometimes agree/disagree, (4) agree, and (5) strongly agree.

Participants answered embedded questions representing each of the motivational constructs. The ISM gathered information to assist with identifying motivation indicators that gave support to pursuing a higher education. The Inventory of School Motivation-R2 is attached as Appendix B.

C. Why Education Questionnaire

The third data collection instrument was a five-item open-ended questionnaire. The Why Education Questionnaire gathered information on individual motives of seeking a higher education, in areas of why they chose the tribal college, challenges as a college student, what would make it easier in getting an education, and what preparation in need to attend a higher education institute. The responses were in narrative form which allowed for the participant to express their views and insights in their own words. The Why Education Questionnaire consisted of five questions:

1. What motivated you to seek a higher education?
2. Tell me about how you came to be a student at SIPI?
3. What specific challenges do you face as a college student?
4. What has been helpful to you as a student at SIPI?
5. What advice would you give to other students in preparing for a higher education?

The Why Education Questionnaire is attached as Appendix C.

Informed consent

At the time of administering the data instruments, an informed consent was provided. The consent form explained the purpose of the study, participant privileges, and study contact information. The consent form was approved by both University of New Mexico and Southwest Indian Polytechnic Institute IRBs. The consent form was returned along with completed data collection instruments by the participants.

After reading and signing the consent form, students needed approximately 40 minutes to complete the data collection instruments. All of the data instruments were in paper form. Student names were not collected on any of the data collection instruments. When the participant returned the signed consent form and completed the survey instruments, an incentive (gift card or school supplies) was offered to them.

The data collected from all of the instruments assisted in two-fold for both the tribal college and my study. The tribal college will benefit in knowing who their students are, why they chose their college, and what the college could do to make a smoother transition into higher education.

Data Analysis

The study was a mixed methods approach of both qualitative and quantitative methods. This study was a non-experimental exploratory study. All three of the data collection instruments were used to provide information regarding the three research questions.

Dataset formation and analysis

The data from the three instruments were hand-entered into Microsoft Excel. Categorical variables were created for the demographic sheet for questions about gender

(Male = 1, Female = 2), and first-generation college student (Yes = 1, No = 2) as

examples. Part of the demographic sheet and all of the ISM-R2 had Likert-type

questions, the answers from these Likert-type questions were entered as 1 through 5.

Once the dataset in Microsoft Excel was final, the data was imported into the Statistical

Package of Social Studies (SPSS) for further analyses. The narratives from the Why

Education Questionnaire were entered as written from the participants.

For the first research question of why do students choose a tribal college? The

data for this question came from the Student Demographic Sheet and the Why Education

Questionnaire. Common themes were created and analyzed. Themes were generated

from these narratives.

The second question asked about the demographic make-up of the students. The

data to answer this question came from the Student Demographic Sheet. All of the

answers to the questions were analyzed. Further analyses were done through SPSS

crosstabs for the demographic variables.

 The third question of which specific motivational constructs were salient for

American Indian students at a tribal college came from the Inventory of School

Motivation Revised-2 (ISM-R2). This question was the center of the study and required

an in-depth analysis. Motivational scale scores were calculated through SPSS for each of

the eleven motivational constructs. To describe and summarize the data from the ISM-

R2, descriptive statistics were calculated. A comparison of an estimated Cronbach's

alpha reliability coefficient from previously studies was examined for reliability of the

ISM-R2. In addition to reliability, a correlational matrix was created to check for

validity. The motivational constructs were correlated with several of the demographic

variables as well. Distribution and frequency of the motivational construct scores were

examined to answer the saliency of each motivational construct. Table 1 below provides

an outline of the various analyses conducted to address the research questions.

Table 1.

Data Analyses to Describe American Indian Student Motivation at a Tribal College

Analysis	Evaluation	Question
Correlational Matrix	Construct Validity	How valid is the ISM-R2 when administered to American Indian students?
Estimated Cronbach's Alpha Reliability Coefficient	Reliability-instrument internal consistency	How reliable is the ISM-R2 with the American Indian population? How sound is the internal consistency of the ISM-R2 in relation to previous administrations of the ISM?
Qualitative analysis of open-ended questions	Themes	Why do students choose a tribal college?
Crosstabs	Participant profiles	What demographic make-up do these students have?
Descriptive Statistics	Participant responses	What is the descriptive summary of participant responses from the ISM-R2?
Spearman Correlation	Participant profiles with motivational constructs	Which participant profiles are correlated with motivational constructs?
Frequencies	Commonalities of motivational constructs	Which specific motivation constructs are salient for American Indian student at a tribal college?

Validity

Validity and reliability are customary areas to investigate in research studies. Aspects of validity were checked to ensure the instrument was measuring what it intended to measure, such as did the questions identify the specific motivational scale as represented in the questions. Validity pertains to the relevance and appropriateness of the research instrument and the research design with the research question in mind so accurate conclusions can be made from the study (Vogt, 2007). A valid research design reveals answers for researchers from questions such as does the study really test the variables intended for the study, does the instrument questions grasp the information intended for the study, and are the results relevant to the study (Vogt, 2007). Questions such as these are examples of internal validity as they align to the relevance of the study's results and the research question (Vogt, 2007). In educational research, validity is possibly the utmost important aspect of designing a measurement instrument (Muijs, 2011).

Data-gathering instruments are not basically valid or invalid as a stand-alone. Validity is established by means of how the instrument is used (Vogt, 2007). Validity has three components: content validity, criterion validity and construct validity. Content validity addresses the question "is the instrument measuring what is it intended to measure?" Criterion validity addresses how closely the measurement is related to something, given if it were valid, it ought to relate to the criterion variable (Vogt, 2007). Although the ISM has been administered to Indigenous populations, the instrument has not been used at a tribal college with American Indian students. However, based on prior studies and publications, the instrument was valid for use with the population in which

this study intended to study. Content and criterion validity were addressed through

several studies using the ISM with a similar study design and with similar participants.

Previous studies were McInerney and Swisher (1995), Brickman et al. (2009), and Ali et

al. (2014) and had correlation coefficients close to or above .70 and coefficients were

quite similar across studies per motivational construct. as indicated in Table 3. Criterion

validity includes predictive and concurrent validity. This study was not a predictive

study. Concurrent validity was covered through analyses of previous studies, the

reliability coefficients being above .70 and having similar coefficients.

Construct validity addresses how well the measurement instrument measures the

concept of interest (Vogt, 2007, p. 119). The estimated correlation matrix in Table 2

provided evidence about the degree to which the motivational constructs converge.

Table 2.

Estimated Correlation Matrix for 11 Motivational Constructs on the ISM-R2

	MS1	MS2	MS3	MS4	MS5	MS6	MS7	MS8	MS9	MS10	MS11
MS1	1.000										
MS2	.374**	1.000									
MS3	.361**	.803**	1.000								
MS4	.472**	.439**	.408**	1.000							
MS5	.203**	.548**	.453**	.284**	1.000						
MS6	.416**	.563**	.501**	.566**	.496**	1.000					
MS7	.452**	.512**	.462**	.515**	.354**	.753**	1.000				
MS8	.411**	.493**	.423**	.521**	.463**	.705**	.730**	1.000			
MS9	.242**	.585**	.617**	.287**	.466**	.398**	.439**	.425**	1.000		
MS10	.449**	.490**	.501**	.382**	.334**	.466**	.589**	.471**	.485**	1.000	
MS11	.497**	.588**	.622**	.477**	.337**	.557**	.622**	.501**	.521**	.669**	1.000

**Correlation is significant at the 0.01 level (2-tailed)

The estimated Correlation Matrix in Table 2 describes the correlations between the motivational constructs. All of the motivational constructs had a significant correlation with each other. Competition (MS2) and social goals (MS3) had the highest correlation at .803, which is a solid and acceptable correlation. Self-efficacy (MS6) and Mastery (MS7) were next at .753. Third, Mastery (MS7) and Future Value (MS8) had a correlation coefficient of .730. At the lower end were Self-determination (MS1) and Praise (MS4) at .203 and Self-determination (MS1) and Affiliation (MS9) at .242. The correlation matrix provided evidence of inter-item correlations for the motivational constructs and thus, met aspects of construct validity.

Reliability

Given that the ISM-R2 was a survey, reliability coefficients need to be calculated to test for consistency of the participant responses or scores (Vogt, 2007). This procedure will evaluate the quality of the instrument (Vogt, 2007). To test for internal consistency of the ISM-R2, estimates of Cronbach's alpha were calculated. Cronbach's alpha coefficient is the measure researchers typically use when they want to see whether several items that they think measure the same thing are correlated (Vogt, 2007 p. 115). For example, the interest motivational scale has six questions relating to interest and should all be generating a similar response if the questions are written to tightly define interest and the six questions overall portrays a good indication of school interest as intended for the study. Cronbach's alpha is the most widely used and reported reliability statistic (Vogt, 2007)

Accuracy of the measurement is supported by the reliability or consistency test (Vogt, 2007). Unreliable measurement generates error in variables (i.e., motivation

constructs) which then produces underestimates or error in associations or relationships

between variables (Vogt, 2007). Invalid claims are made from unreliable measurements

of variables and unclear definitions (Vogt, 2007). Therefore, it was important to test for

reliability of instrument constructs so claims from this study could be valid.

Reliability of internal consistency was explored and analyzed by checking how

homogeneous the questions were and how well they measured the same motivational

construct (Muijs, 2011). To test the internal consistency reliability of the constructs, the

estimation of Cronbach's alpha reliability coefficient were calculated for each scale. The

results of the estimation of Cronbach's alpha reliability coefficient are presented in Table

3.

Table 3.

Comparison of Estimates of Cronbach's Alpha Reliability Coefficient for 11 Motivational Constructs on the ISM

Motivational Constructs	1995 McInerney & Swisher Navajo High School students N=529	2009 Brickman, et al. American Indian High School students N=203	2014 Ali, et al. Navajo High School students N= 1,482	2015 Izzo American Indian Tribal College students Pilot Study N=76	2016 Izzo American Indian Tribal College students N=169
Self-Determination		.67		.56	.67
Competition	.77	.75	.68	.63	.75
Social Goals	.69	.61	.70	.63	.84
Interest	.51	.79		.68	.77
Praise	.83	.71		.44	.87
Self-Efficacy		.69		.75	.86
Mastery	.82	.82		.74	.83
Future Value	.75	.82		.64	.81
Affiliation	.65	.68	.67	.73	.87
Leadership	.78	.81	.79	.74	.88
Community Responsibility					.92

For this study all of the motivational constructs (competition, social goals, interest, praise, self-efficacy, mastery, future value, affiliation, leadership and community responsibility), except self-determination, had Cronbach's alpha reliability coefficients greater than .70 estimates, in which were in the acceptable range. An alpha of .70 or higher distinguishes the test to be internally consistent or at a satisfactory range of internal consistency (Mujis, 2011, Vogt, 2007). Community responsibility (.92) had the highest reliability coefficient estimate, meaning that the questions on the instrument

relating to community responsibility received similar responses; thus, the questions were structured tightly and grasping the similar responses in relation to community responsibility. Self-determination (.67) was very close to .70.

In comparison to previously studies using the ISM with American Indian participants, a majority of the reliability coefficients were above .70. The competition, praise, and future value constructs had reliability coefficients above .70 for three studies. The mastery scale had reliability coefficients above .70 for four studies. The leadership scale had reliability coefficients above .70 for all five studies. This study was the first time for community responsibility to be a part of the ISM; therefore, no comparisons were available for this motivational scale. The Cronbach alpha reliability coefficients forthis study had the highest estimates above .80 in comparison to previously studies. The pilot study conducted in 2015 had the lowest overall coefficients, more exploration is needed to explain reasons for the lower coefficients. The results of the Cronbach alpha reliability coefficients supports the notion that the motivational constructs of the ISM-R2 are reliable and are consistent internally, along with being similar with other studies using the ISM.

Generalizability

The study sample was collected through attending classes to recruit study participants. The sampling method consisted of a non-probability purposive sampling. With the purposive sampling, the ability to generalize to the population or meet external validity would not be possible (Garger, 2010). The tribal college was purposefully selected to gather data from American Indian college students as a predetermined criterion. Given that the motivational constructs were measured with American Indian

students, as an individualistic cultural group, and to generalize to the collective culture

would not be appropriate or would yield misleading results (Cozby, 2009).

Chapter 4

Results

Research Question #1: Why do students choose a tribal college?

The answer to the question of "Why do students choose a tribal college?" was gathered from the Student Demographic Sheet and the Why Education Questionnaire. Two questions were used to support in answering the question. One question was Question #8 (Why did you choose SIPI?) from the Student Demographic Sheet. The question had eight answer options to select from. The options were Tribal College, Cost of Tuition, American Indian Population, Program of Study, Funding Opportunities, Location, Childcare, and Other. The question included "check all that apply" so that participants could select more than one option if it applied to them.

Eighty-nine percent of the participants identified the cost of tuition as a prominent factor in deciding to attend SIPI. Being a tribal college, SIPI's programs of study and location were equally identified as other strong factors in the decision to attend SIPI with 52-55% of the participants identifying these three areas. Twenty-three percent of the participants noted that SIPI's American Indian student population as a reason to attend SIPI. Next, 22% of the participants selected funding opportunities as a rationale for attending SIPI. Lastly, 5% identified Childcare as a reason of influence in deciding to attend SIPI. Figure 1 shows the complete results to the question of "Why did you choose SIPI?"
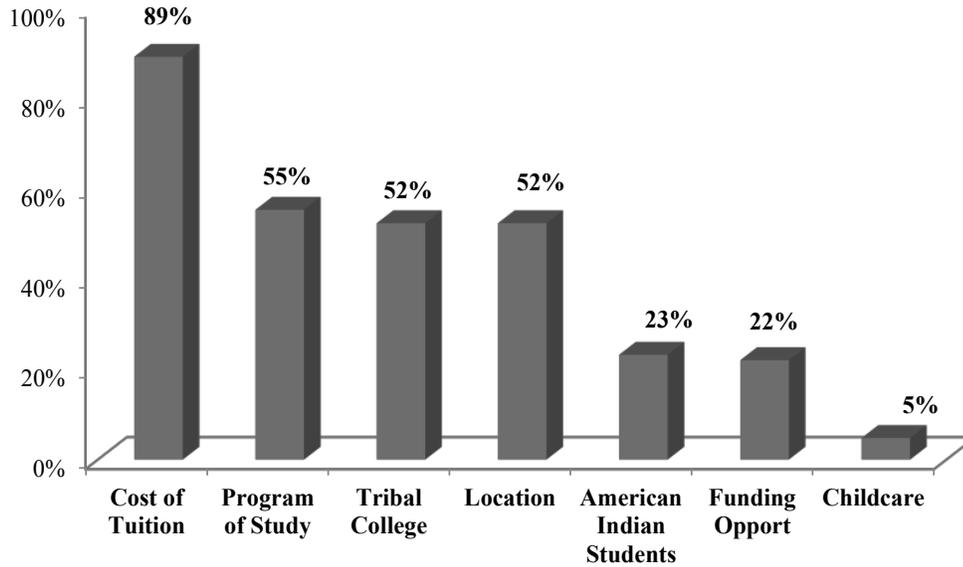
Figure 1. Why did you choose SIPI?

The question also included the choice of other. Twenty-four students answered the choice of other and provided a short explanation to their reason for choosing SIPI. Thirty percent of the twenty-four students shared that family and friends were the reason for their choice. Students shared the following motives: they knew people who graduated from SIPI, their mother wanted them to go to school at SIPI, a close family member (mother and sister) graduated from SIPI, and a friend who graduated from SIPI convinced them to go there.

Furthermore, students noted they selected SIPI because it was a place for a second chance to go back to school. Students shared how SIPI was a place to get their education rolling again, it was a chance to correct their grade point average, it was the last choice

after a mishap at University of New Mexico, and after being unemployed, it was a place to go back to school.

Reasonable tuition, location and convenience were other reasons gathered from the other selection within the question of why they chose to attend SIPI. Next, students noted smaller classes, up-skilling, and a place to complete basic classes as other purposes that influenced their decision. Other student remarks consisted of being familiar with SIPI staff, wanting to get off the reservation, it is a place to live, Native students, tribal job placement after graduation and for fun.

The second question supporting Why Do Students Chose a Tribal College came from the Why Education Questionnaire, Question #2 (Tell me about how you came to be a student at SIPI?). The answers were in narrative form. Thirty-one themes were generated from the narratives. Themes ranged from SIPI alumni family member, tuition, location, program of study, financial convenience, starting point, ready to learn, American Indian population, continuing education, life issues, and wanted to go to college.

Many students associated family members telling them about SIPI. Of the 169 participants, fifty-four of them said a family member told them about SIPI. Twenty-six participants specifically mentioned a family attended and/or graduated from SIPI. Family members proved to be of great influence in deciding which school to attend and why to attend. Many students looked up to these family members and decided SIPI was the educational path to take. Participants shared comments in regards to how family members encouraged them to attend SIPI. One participant shared, "My sister before me came to SIPI and she encouraged me to come back to school and get a degree for what I

really wanted to do in the future as a job. She graduated with her liberal arts." Another

participant shared, "I became a student at SIPI because my little brother and his girlfriend

graduated from here. The tuition is very exceptional compared to other institutions."

Next, a participant expressed, "My Family. Most of my relatives are SIPI Alumni and

some even work at SIPI."

Some participants shared how relatives told them about SIPI; for example, one

participant noted, "My grandmother had told me about SIPI. I never knew a tribal

college had existed." And another participant revealed, "My mom and dad told me to

attend SIPI." Another participant said, "My aunt encouraged me to attend this school and

once I saw there was a culinary program, I applied."

The next theme that evolved from the participants was financial convenience and

the low cost of tuition. Thirty-two student participants mentioned the affordability of

SIPI and the ability to save money at SIPI, as an example, one participant commented,

"due to the tuition fees it was more affordable for my family." Fifteen students stated

tuition as a reason for going to SIPI. For instance, one participant replied, "The tuition is

really affordable is the main reason." Participants shared their rationale in regards to

SIPI being more affordable then going to school elsewhere and how the lower cost of

tuition really influenced their decision as one participant pointed out, "I came to SIPI

because it was cheaper than other schools and is a tribal college."

Another prominent theme emerged from the student participants was the program

of study. The following passages from participants supported how the program of study

was a significant feature in choosing to start a college education at SIPI, for instance,

"because they had a pretty great pre-engineering class plus it was cheap" and "I am a

transfer from Dine College because SIPI has my program of interest." Within the program of study theme, several students identified with a program of study that carried their interests and carried a connectedness with them, such as helping the Navajo people as one participant conveyed, "I wanted to go to school for natural resources and sustainable food and water systems to help my people on Navajo."

In addition to family, friends were associated to how the participants became students at SIPI. Sixteen of the 176 participants associated friends as having an influential part on their decision to attend SIPI. Hearing about SIPI from friends played an aspiring role in leading the participants to SIPI as one participant remarked, "I heard about SIPI from a friend. She told me about the cost of tuition and I decided to look into it. I filled out an application and the rest was smooth sailing." Another participant shared, "I became a student at SIPI when friends who came to school told me about SIPI, so I was curious and applied for SIPI then I was accepted." Having friends knowledgeable about SIPI and the application process eased the step to attend SIPI by way of one participant adding, "I had an experience which led me to a series of revelations that left me with a desire for understanding. This desire was hindered by a severe lack of funding; however, I remembered that and friend of mine had attended SIPI, so I asked him about how to apply.."

Another prominent theme that emerged from the participants was the desire to continue their education. Participants expressed their need to return to school after stopping from a previous higher education experience. For instance, "I made the choice to attend school again and finish what I started, reapplied, passed my courses, and continue my education." One participant specifically shared their hunger of obtaining

knowledge and how this hunger helped in getting good grades. By the means of an

education was a way to make more money as one participant shared, "I was tired of

living pay check to pay check and one day decided to go back to school to get a better

education along with a better paying job."

Location was another important factor in the student's decision to choose SIPI.

Students asserted to the location of SIPI being an attributing indicator of attending SIPI.

"It is close to home and affordable" and "the tuition and it's closer to home (my son). But

to my surprise, the programs are excellent" were conveyed by a couple of participants;

hence, providing embedded reasons of financial convenience along with location.

Research Question #2: What demographic make-up do these students have?

Student demographics

The data for this question came from the Student Demographic Sheet survey

instrument. The responses to each question were analyzed. The data for each question

was placed into tables and graphs.

There were more female participants involved in the study, with 55% identified as

female and 45% percent identified as male. The survey asked the participant their ages,

with five age categories to choose from. The categories were less than 20 years old, 21-

25, 26-30, 30-40, and 50+ years old. The age question was asked to get an idea of the

age group most likely to attend SIPI and the age group of my participants. The study

participants mostly consisted of ages less than 25 years old (39%), and ages 21-25 years

(34%). Together, the study participants who were 25 years old and younger represented

73% of the total participants. The data in regards to age of students are represented in

Figure 2.

Percentage of Students per Age Category

| | 0% | 10% | 20% | 30% | 40% | 50% |

less than 20 — 39%

21-25 — 34%

26-30 — 13%

31-40 — 13%

50+ — 1%

Age Categories
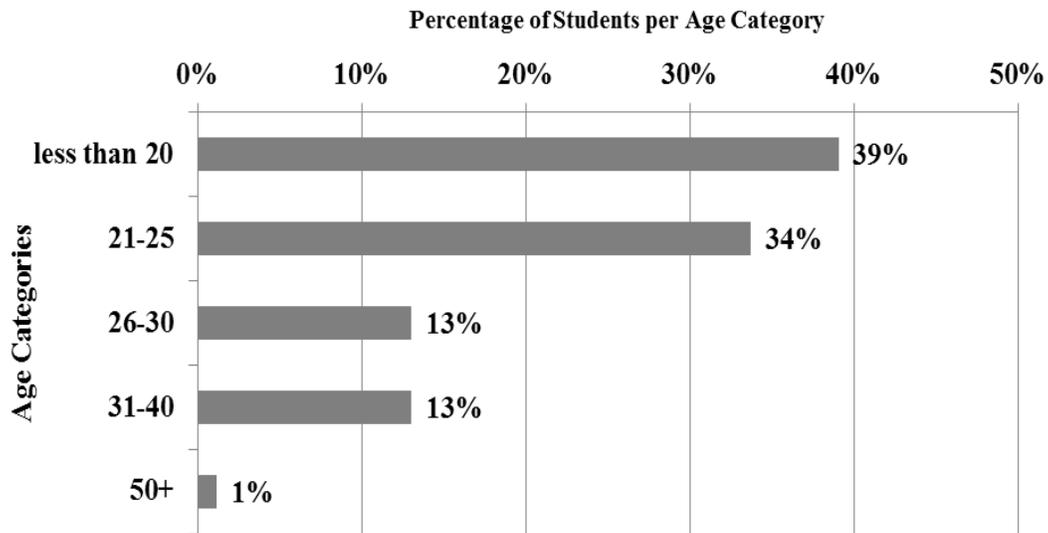
Figure 2. **Age of s**t**udents** participating in the s**tudy.**

The student year in school question consisted of three options of first, second and third year of school at SIPI. Approximately, half of the study participants were in their first year of being at SIPI, and 41% of the participants were second-year students. Ten percent of the participants were in their third year at SIPI.

Thirty-two percent of the participants listed liberal arts as their program of study. Next, 15% of the participants said pre-engineering was their programs of study. The program of study data is displayed as Figure 3. The question was a fill-in the blank, so participants wrote in their own program of study. Please note that the liberal arts department was the one in which classes were the most attended for the administration of the survey instruments.
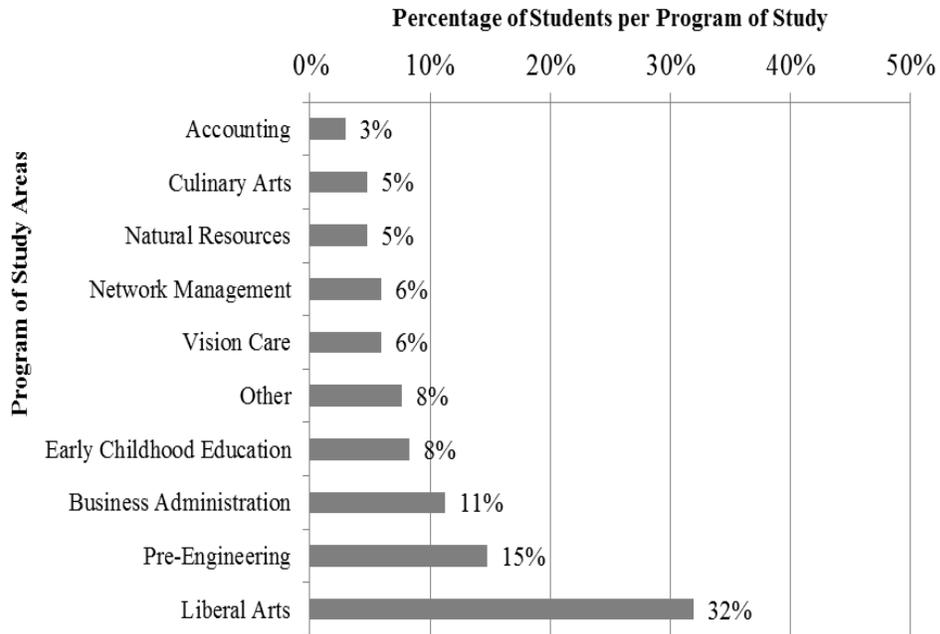
Figure 3. Student programs of study.

The students who participated in the study had high grade point averages. The

ranges of grade point averages were evenly dispersed from 14% at 2.0 to 2.5 and to 26%

at 3.1 to 3.5. There were forty-four students at 26% in the range of 3.1-3.5 grade point

average. The second highest number of students was in the grade point averages of 2.6 to

3.0 at 21% of the participants. Only 1% of the participants indicated they had grade point

averages of 1.0 to 1.9. Twenty-four students did not share their grade point average. The

grade point averages were self-reported and the question was a fill-in the blank. The

distribution of grade point average is shown in Table 4.

Table 4.

Grade Point Average

	Grade Point Range	Percentage of Participants
	1.0-1.9	1%
	2.0-2.5	19%
	2.6-3.0	21%
	3.1-3.5	26%
	3.6-4.0	18%
	Unknown	14%
Overall Grade Point Average	3.06	

The demographics sheet included a question of if the student was first in their family to attend college. There was a high percentage (70%) of participants indicated they were not the first in their family to attend college. The question only asked if they are first in their family to attend college, but not necessarily graduating from college. The percentage of participants first in their family to attend college is illustrated as Figure 4.
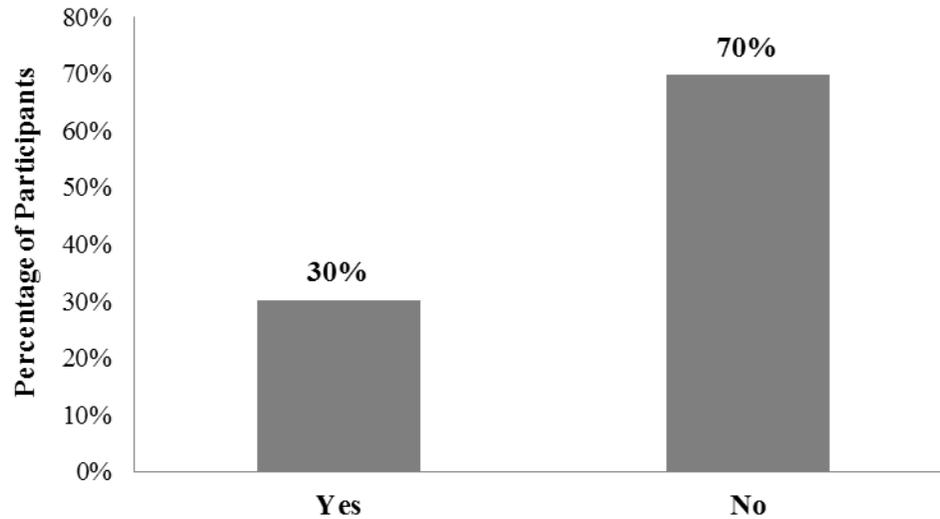
Figure 4. Participants who were **f**irst in **f**amily to **a**ttend **c**ollege.

Eighty-eight percent of the survey participants indicated they were single and not married. Only 5% of the participants noted they were married. Seven percent of the participants identified with the marital status of other. Other was not defined on the survey instrument. Most of the survey participants (78%) indicated they did not have children. Over half at 61% of the study participants were dorm students and 39% were commuter students.

A majority (89%) of the participants were affiliated with tribes from the southwest region of the United States. Tribes such as Navajo, and various Pueblos were the majority within the southwest region. Next, participants identified tribal groups of the Great Plains, such as Dakotas, Crow, Comanche, and Mandan Hidatsa Arikara Nation. The participants sparsely identified with tribal groups of the Eastern Woodlands located in the northeast portion of the United States such as the Ho Chunk Nation and Mohawk; Great Basin located in western United States such as the Goshute; Plateau

located in the northwest United States such as the Confederated Salish & Kootenai; and

Southeast located in the southeastern United States such as the Mississippi Band of

Choctaw Indians. The question about tribal affiliation was a fill-in-the-blank question.

The participants openly identified with the tribal group they were identified with. With

SIPI being a tribal college in the Southwest, more participants from Southwest tribal

groups attended SIPI. Table 5 illustrates the geographic locations of tribal groups

representing the study participants.

Table 5.

Geographic Tribal Groups.

Geographical Tribal Groups	Percentage of students in each geographic tribal region
Southwest	89%
Great Plains	7%
Eastern Woodlands	1%
Great Basin	1%
Plateau	1%
Southeast	1%

In regards to Native language, more of the participants noted they only speak their

Native language sometimes, seldom and almost never. A small percentage of 24% of the

participants stated they speak their Native language often and almost always. Of the five

Likert-type choices, 31% of the participants indicated they speak their Native language

sometimes.

Twenty-seven percent of the participants implied they understand their Native

language sometimes. Fourteen percent almost never understand their Native language

and 21% almost always understand their Native language.

Almost half (47%) of the study participants declared they almost never write in their Native language. Only 13% of the participants shared they write in their Native language often and almost always. More of the participants understand their Native language than speaking and writing. The Native language data is illustrated as Figure 5.
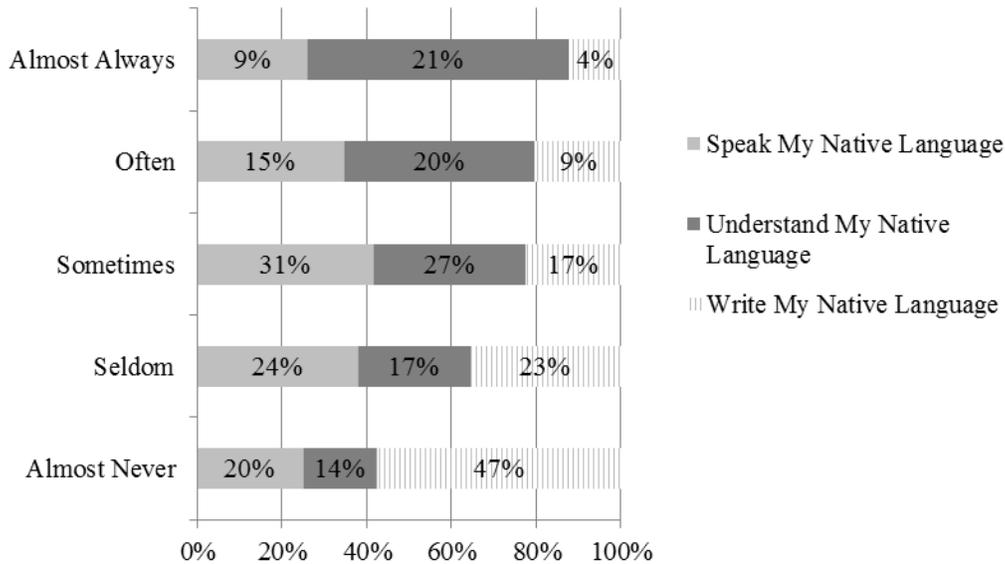
Figure 5. Study participants' use and understanding of their Native languages.

Several figures in the appendices illustrate the demographic variables taken from the demographic sheet. Percentages of participation in cultural activities are displayed as Figure 6. Family support data can be found on Figure 7. The percentage of participants having a strong Native identity, returning to their tribal community and having pride in attending a tribal college are presented on Figure 8. A large percentage (86%) of the participants was almost always proud to be Native American.
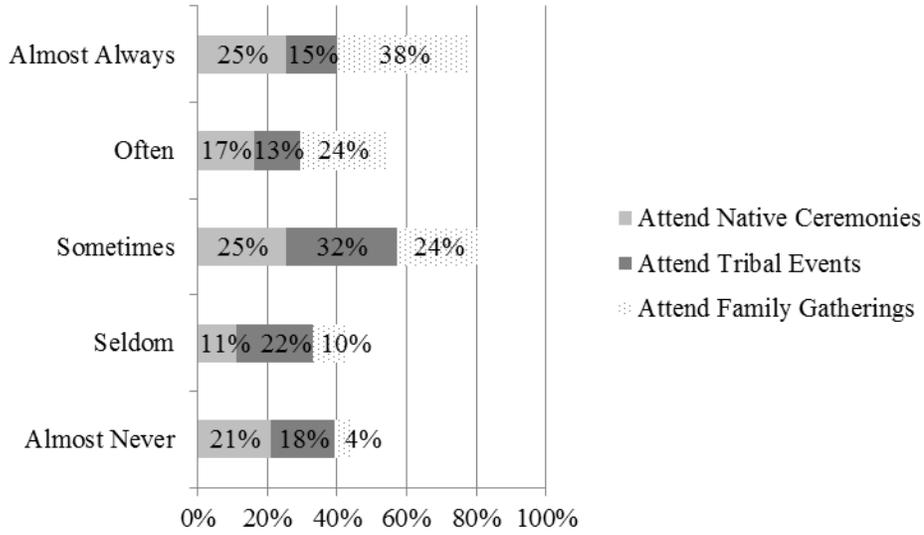
Figure 6. **Participation in cultural activities.**
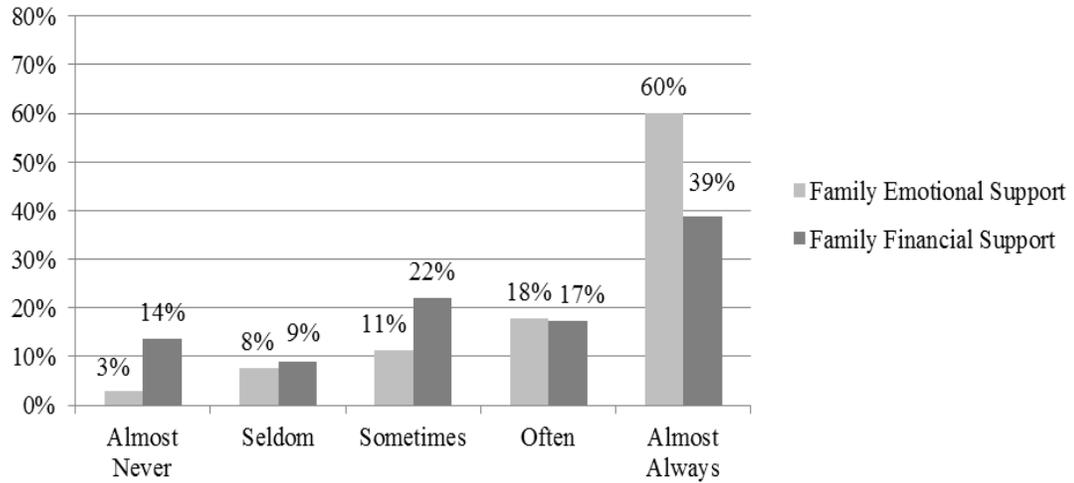
Figure 7. **Amount of family support indicated by respondents.**
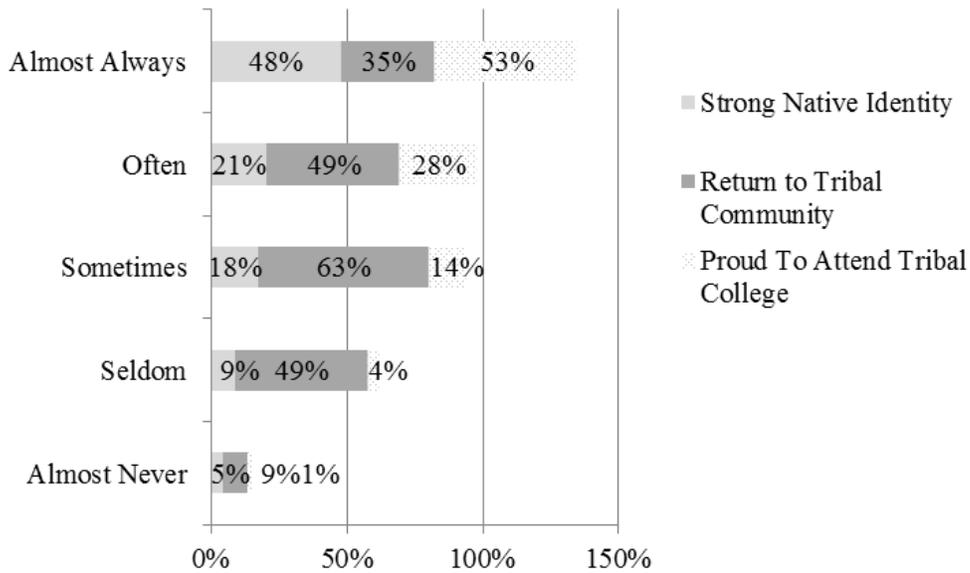
Figure 8. Levels of Native identity reported by respondents.

Non-traditional demographics

There were more females as first-generation college students (65%). Gender differences were evenly distributed among the non-first-generation students. First-generation and non-first-generation college participants almost always receive family emotional support equally at 59 and 60%, respectively. The percentage distribution was greater for non-first-generation college students in almost always receiving family financial support (42%), whereas 29% of first-generation college students received financial support. First-generation college students indicated they are more likely to return to their tribal community (41%) upon completion of their education.

Thirty-two percent of non-first-generation college students shared they are almost always going to return to their tribal community. Other Likert-type choices of seldom, sometimes, and often were fairly evenly distributed from 16 to 22%. More females

(46%) than males (21%) expressed they are almost always planning to return to their

tribal community. Of the five age categories, 42% of the participants less than 20 years

of age shared they almost always will return to their tribal community.

Thirty-five percent of participants who almost always attend their Native

ceremonies indicated they almost always will return to their tribal community. This

group of participants who almost always attend their Native ceremonies perceive

themselves as returning to their tribal communities on in almost always level upon

completion of their education. The distributions between participants who almost never

and almost always attend Native ceremonies were the same (44%) for those who were

less than 20 years of age. Forty-eight of the participants who identified with having a

strong Native identity also indicated almost always attending Native ceremonies.

The percentage of participants who speak their Native language and attend Native

ceremonies sometimes and almost always was equally the same (25%). Twenty-eight

percent of participants who seldom and sometimes speak their Native language are first-

generation college students. Meanwhile, non-first-generation college students sometimes

(33%), seldom (23%), and almost never (21%) speak their Native language.

Research Question #3: Which specific motivation constructs are salient for

American Indian students at a tribal college?

Descriptives of motivational constructs

The data from the Inventory of School Motivation was used to answer the

question of which specific motivation constructs are salient for American Indian students

at a tribal college. The motivational constructs were examined as motivational

characteristics of the participant. These motivational constructs were analyzed for

commonalities of characteristics related to attending college. The study entailed seeking

which motivational constructs were aligned and supported attending college. A summary

description of the participant responses in relation to each motivational construct is

presented in Table 6 below.

Table 6.

Descriptive Statistics for 11 Motivational Constructs on the ISM-R2 (n=169)

Motivational Constructs	N	Minimum	Maximum	Mean	Standard Deviation
Self-Determination	169	13.00	30.00	23.85	3.14
Competition	169	8.00	30.00	22.51	3.65
Social Goals	169	8.00	30.00	23.16	4.27
Interest	169	12.00	30.00	26.55	3.00
Praise	169	6.00	30.00	22.04	4.91
Self-Efficacy	169	7.00	30.00	26.64	3.25
Mastery	169	10.00	30.00	26.25	3.20
Future Value	169	10.00	30.00	27.24	2.99
Affiliation	169	7.00	30.00	21.07	4.59
Leadership	169	7.00	30.00	21.74	4.92
Community Responsibility	169	7.00	30.00	24.49	4.81

Given the ISM-R2 was a Likert-type instrument with six questions pertaining to

each motivational construct. The Likert-type questions had scales ranging from 1 to 5.

The lowest score possible was 6 per motivational construct (6*1=6). The maximum

score for each construct was 30 (a response of 5 for strongly-agree for all 6 questions,

6*5=30). Praise had the minimum score of 6, meaning one or more participants

answered 1 for strongly-disagree for all six questions. Future value had the highest mean

score (27.24) and the lowest standard deviation (2.99); thus, the participant responses

were more likely to agree and strongly agree with the future value questions and the responses were closer together in agreement with the questions. The study participants coincided with the future value of getting a college education. Furthermore, the study participants were affiliated with the future value questions as a motivational indicator.

Affiliation received the lowest mean score of 21.07. Responses to the leadership scale varied the most with the highest standard deviation of 4.92. In regards to the Likert-scale ratings of 1 (Strongly Disagree) to 5 (Strongly Agree), the average mean for all the motivational constructs was 4.0. With this, on average the participants agreed with the questions describing most of the motivational constructs.

Motivational constructs and student demographics

To test bivariate relationships between motivational constructs and demographic variables, an estimated correlational matrix was conducted. Table 7 represents the correlational matrix.

Table 7.

Bivariate Estimated Correlation Matrix of Motivational Constructs and Demographic Variables
(Spearsman's rho, N=169)

Motivational Constructs	Gender	Speak Native Language	Have Strong Native Identity	Return to Tribal Community	Proud to Attend Tribal College	Proud to be Native American
Self-Determination	.053	.083	.191	.205**	.196	.089
Competition	.090	.177*	.287**	.381**	.351**	.197*
Social Goals	.038	.164*	.314**	.435**	.408**	.232**
Interest	.112	.004	.255**	.168*	.290**	.255**
Praise	.112	.198**	.178*	.305**	.182*	.115
Self-Efficacy	.279**	.130	.258**	.258**	.329**	.216**
Mastery	.229**	.238**	.334**	.286**	.435**	.313**
Future Value	.296**	.104	.234**	.189*	.296**	.234**
Affiliation	.030	.250**	.270**	.295**	.428**	.280**
Leadership	.089	.183*	.260**	.369**	.475**	.240**
Community Responsibility	.184*	.262**	.418**	.518**	.500**	.328**

*p<.05, **p<.001

There were several statistically significant correlations between the motivational constructs and the demographic variables. Gender had a significant relationship with self-efficacy (r = .279, p = .000), mastery (r = .229, p = .003), future value (r = .296, p = .000), and community responsibility (r = .184, p = .017). Per Muijs (2011), the ranges of correlation coefficient effect sizes are <+/-.1 weak, <+/-.3 modest, <+/-.5 moderate, <+/-.8 strong and >=+/-.8 very strong. Given this, these correlations would be described as weak to modest relationships, yet, they are nevertheless significant relationships.

Females were more inclined to agree with self-efficacy, mastery, future value, and community responsibility constructs. Females, in general, identified positively with the motivational characteristics of self-efficacy, mastery, future value and community responsibility. The motivational constructs of self-efficacy, mastery, future value and community responsibility were motivational characteristics elevated with the female participants.

Participants who identified themselves as speaking their Native language often or almost always had significant correlational relationships with competition, social goals, praise, mastery, affiliation, leadership and community responsibility. Participants who have a strong Native identity, are proud to attend a tribal college, and are proud to be Native American had significant correlations with ten of the motivational constructs. Self-determination was a motivational scale not significant with the three mentioned demographics.

Participants with intentions of returning to their tribal community upon completion of the education had significant correlations with all eleven motivational constructs. Community responsibility as a motivational construct had significant correlations with all of the demographics in Table 7. First-generation students were tested as well and did not have any significance with the motivation constructs.

Saliency of motivational constructs

To find out which specific motivation constructs were salient for American Indian students at a tribal college, a frequency distribution analysis was done. Frequencies were calculated for each motivational construct. The frequencies per motivational construct are illustrated in Table 8.

Table 8.

Percentage Frequency of each Motivational Construct

Motivational Constructs	Percentage Agree
Future Value	90.0
Self-Efficacy	88.0
Interest	86.0
Mastery	82.0
Community Responsibility	65.0
Self-Determination	56.0
Social Goals	49.0
Competition	44.0
Praise	43.0
Leadership	41.0
Affiliation	30.0

Percentage frequencies were calculated for each of the motivational constructs. Twenty-four or greater was the cut score per motivational construct because the Likert type scale of 4 means "agree", and each motivational construct has six questions (4*6=24). A score of 30 (5*6=30) was the highest score possible per construct. The scores 13 to 23 were not used due to the fluidity of sometimes agree and disagree (score of 18). Table 8 represents the calculations. The motivational construct with the greatest percentage was future value (90%). The next highest motivation construct percentages were self-efficacy (88%), interest (86%), and mastery (82%).

This study revealed the most salient motivational characteristic (construct) was future value. Ninety percent of the study participants identified (agreed) with the future value questions (construct). Thus, showing identification with future value as a

motivational characteristic to attend a tribal college. Of the eleven motivational

constructs, future value had greatest percentage of participants identifying with it as a

motivational construct. Self-efficacy, interest, and mastery were motivational constructs

not far behind future value as prominent motivational constructs identified by the study

participants.

The least salient motivational characteristic was affiliation (30%). The study

participants least identified with affiliation as an indicator to attend a tribal college.

Chapter 5

Discussion

The intention of my research was to study 1) why do students choose a tribal college, 2) what demographic make-up do these students have, and 3) which specific motivation constructs are salient for American Indian students at a tribal college. The purpose of this study was to explore the association of motivational constructs held by American Indian college students attending a tribal college. The aimed outcome of the study was to elevate variables that play an influential role in supporting American Indian students as they pursue a college education.

Choosing a Tribal College

The influence and inspiration of family weighs heavily on one's decision about where to attend college. Given the participant responses there was a sense of connectedness and trustworthiness felt from recommendations of family members about where to go to college. Being acquainted with the college campus brings some sense of safety. The advice of family members seemed to be taken with the best interests in mind for the student/family member. There may be a sense of "if they can do it, I can do it too" from the student about relatives who attended and graduated from SIPI. Seeing how other family members have used their SIPI education may be a factor as well.

With the cost of tuition at SIPI being lower than the local community college and the mainstream colleges, the lower cost of tuition was an influential factor in the decision for students to attend SIPI. Students were financially more comfortable with the SIPI cost of tuition, given their family financial circumstances. The program of study that SIPI offered was a contributing aspect to the student's decision to attend SIPI. There

appeared to be a trust in knowing that friends attended SIPI so it must be an okay place to go. Friends guiding friends through the application process and knowledge of programs of study influenced and eased the path of the participants to attend SIPI. The aspiration to continue their education pushed them toward seeking a college education at SIPI. Participants recognized their own need to go on with a college education, some expressed they were in jobs that needed a college education, and with a college education they would be able to receive a higher-paying job. Participants recognized their own need to go forward with a college education and how this continuance of education would assist them in getting jobs with higher pay and making a better living. The realization of these issues was of significance in making the move to attend SIPI.

The results of the questions of why did you choose SIPI and tell me about how you came to be a student at SIPI coincided with one another in several areas. The first aligned area that was brought to light was how family members influenced the participants' decision to attend SIPI. These family members were SIPI alumni or someone familiar with SIPI. Secondly, participants also brought forth the cost of tuition and financial conveniences in narrative form to the question of tell me about how you came to be a student a SIPI. Thirdly, the two questions uplifted the SIPI program of study as a contributing factor for the study participants in deciding to attend SIPI. Along with the three themes mentioned above, the two questions brought forth themes of continuing education, and location as determinants for a being a student at SIPI.

Participant Demographics

Gathering of participant demographics provided a depiction of who my study participants are. The study took a sample of the SIPI student body. There were more

females than males in the study. Seventy-three percent of the participants were 25 years

or younger. Half of the study participants were in their first year of school at SIPI. The

study participants were academically sound students, with 26% of them reporting grade

point averages of 3.1 to 3.5. An astonishing 70% of the participants were non-first-

generation students to attend college. This high percentage was surprising due to the

literature indicating low percentages of the American Indian college graduates. This

result corresponded with the study participants having family members as former SIPI

alumni and how these family members influenced the study participants to attend SIPI.

Most of the participants did not have children (78%). The demographics of the

participants were directed toward being a traditional college student (younger and no

children) than being a nontraditional college student. With the Southwest location of the

college, a majority of the participants (89%) had tribal affiliations of the Southwest

region of the United States. Twenty-four percent of the participants shared they speak

their Native language often and almost always. Participants equally indicated they

almost never, sometimes, and almost always attend Native ceremonies. Family financial

support was received more than emotional support from family.

There were more females as first-generation college students (65%). Non-first-

generation college students received more financial support (42%) from family than first-

generation college students (29%). These could be a reflection of the economic benefits

of a college education within the family. More first-generation college students

identified with returning to their tribal community (41%) upon completion of their

education versus 32% of non-first-generation college students. With this, the first-

generation college students are identifying more than non-first-generation college students in regards to their tribal community.

Thirty-five percent of the participants who shared they almost always attend Native ceremonies are also planning to return to their tribal community. Sixty-five percent of the participants who attend Native ceremonies are not planning to return to their tribal community. This was rather interesting given that Native ceremonies are usually tied to the tribal people and community. Those participants who indicated they attend Native ceremonies do not perceive themselves as returning to their tribal communities upon completion of their education. This leads to the question of where would they continue to participate in their Native ceremonies? Would they be able to continue their Native ceremonies off the reservation? Or will this group of people travel back to their tribal community to participate in the Native ceremony but not fully return back to their tribal community? Study participants identifying with participation of Native ceremonies and not planning to return to their tribal communities is a rather large percentage at 65%.

Twenty-eight percent of the participants who seldom and sometimes speak their Native language are first-generation college students, whereas the percentage of non-first-generation college students who speak their Native language sometimes was 33%, seldom (23%), and almost never (21%). First-generation college students are more likely to speak their Native language than non-first-generation college students.

Motivational Construct Saliency

The motivational construct of future value had the highest mean of 27.24, followed by self-efficacy (26.62), and interest (26.55). The frequency calculations also

revealed the same order. Future value as a motivation construct or motivation

characteristics was the most salient for American Indian students (study participants) at

SIPI. The study participants are relating a college education with a future value of a job,

economic benefits, and or learning, as examples.

Through analyses of crosstabs, future value also had significant relationships with

participants who are female, have a strong Native identity, plan on returning to their tribal

community, have pride in attending a tribal college and have pride in being Native

American. Self-efficacy was also a strong feature of motivation. The participants

believed in their abilities to pursue a college education. Next, interest was a prominent

motivation characteristic. The participants had a strong interest in attending college,

learning and exhibiting what they are doing because it interests them.

Community responsibility faired in the middle of the distribution of the

motivation constructs, yet it correlated with many demographics. Community

responsibility had significant correlations with female participants. Participants who

speak their Native language have strong Native identity, plan on returning to their tribal

community, have pride in attending a tribal college, and have pride in being Native

American.

In comparison with McInerney and Swisher (1995), they found strong support in

the sense of self components: sense of competence and sense of purpose as major

detriments of school confidence, affect to school, grade point average, desired occupation

after leaving school and absenteeism. This study found similar findings with future value

(sense of purpose) and self-efficacy (sense of competence) being more salient than other

motivational constructs. Among the variables not found by McInerney and Swisher

(1995) were affiliation and competition as influencing factors in school motivation and achievement. Of the eleven constructs, this study revealed affiliation as the least relevant motivational construct. Competition was also not as prominent in the line up of ISM-R2 motivational constructs.

Affiliation may have been not as relevant to the study participants due to the participants not having a high interest in working with others on schoolwork. Several questions, as examples, representing affiliation are, "I like working with other people at school, I try to work with friends as much as possible, and when I work in groups at school, I do my best." The study participants did not strongly acknowledge working with and the sense of doing better work while working with others as a prominent characteristic of themselves. Therefore, the study participants did not associate themselves with affiliation as a motivating indicator in attending college.

Competition as a motivational construct was a medium indicator gathered from the ISM. This finding aligned with McInerney and Swisher (1995). Competition was expressed as being the best student in class, and comparing schoolwork with others as important motivational characteristics. American Indian students are generally stereotyped as not being competitive in academics and in classroom settings. The results of this study coincide with this said stereotype of competition not being a leading motivational characteristic of the study participants.

The Brickman et al. (2009) study found that American Indian students, using the ISM, achieve in school when they shared their belief of school being important to their future. Furthermore, students who have been socialized to believe that school is important to reaching future goals, such as getting a job, are more likely to achieve at

school (Brickman et al., 2009, p. 48). These findings coincide with the findings of this study with future value being a salient motivational variable among the study participants.

Ali et al. (2014) found that Navajo students had higher social concern goals than the Anglo students in the sample. The Ali et al (2014) study created the motivational dimensions of performance goals and social goals by combining motivational constructs. In addition, the Ali et al. (2014, p. 134) study determined students' performance goals (competition and social power) tended to have a stronger impact than social goals (affiliation and social concern) on GPA and the patterns were similar across the Navajo and Anglo groups. The study found the Navajo students had lower competition goals (Ali et al., 2009).

This study in comparison with Ali et al. (2009) had some outcome variations. Competition, social power (leadership), social concerns (social goals) and affiliation were at lower end of the spectrum in comparison to the other motivation constructs in this current study. The Ali et al. (2009) study focused more on social goal orientation of motivation among Navajo students. With the Ali et al (2009) study combining motivational constructs into motivations dimensions and focusing on social goal orientation has made the comparison of outcomes slightly imprecise.

Although moderately strong, self-determination was the lowest reliability correlation coefficient (.67) for this study. The self-determination construct for the pilot and the Brickman (2009) study was one of the lower correlation coefficients as well. This may imply that the self-determination questions were not as cohesive in defining

self-determination. Therefore, there was variation of the answers by the study

participants in regards to self-determination.

Summary

The study examined and uplifted successful attributes of American Indian

students in higher education at one tribal college. The study will contribute positively to

American Indian education literature. With the need to generate more research studies on

American Indian students, this study uplifts the subject of student motivation in obtaining

a higher education. The study examined the extent to which specific motivational

constructs were salient for American Indian students at a tribal college. These

motivational constructs were non-cognitive variables, which describe the inner

characteristics of a person. These inner characteristics distinguished future value, self-

efficacy, interest, and need for praise as motivational attributes. With the identification

these motivational variables, they can assist in promoting positive student retention in

higher education, which will lead to higher graduation rates, employment, and positive

economic well-being for American Indian students.

With the findings of future value, self-efficacy, and interest as motivational

attributes, we know that these attributes exist within the study participants across the

study. Other than focusing on the mainstream variables of lack of financial resources,

and lack of academic preparation of why American Indian students don't attend college

or drop out before graduation; this study focused on the inner-attributes of a person and

how these attributes are common among these participants who are in college. These

study participants may have the lack of financial resources and lack of academic

preparedness, yet they have the motivation to attend college and perceive future value as

a motivational factor to attend college, have the self-belief (self-efficacy) that they can do college work, and have enough interest in their studies to continue with college.

The other motivational constructs of mastery, community responsibility, and self-determination were not far behind as a motivational characteristic. These motivational constructs could be just as influential as the others. For the sake of this study, the top three (future value, self-efficacy and interest) were centered upon.

The outcomes from this study can provide an awareness of the psychological and sociocultural variables that have contributed to the journey of the American Indian student seeking a higher education and achieving academically. The tribal college purpose is positive and American Indian students can use a tribal college as a stepping stone into the mainstream universities for advanced degrees. Tribal colleges are a great place to start for American Indian students; they can ease their way into the college courses, take advantage of the low tuition costs, be surrounded by other American Indians, and in some instances be close to home and attend college at the same time. This study captured this group of students who are determined to move forward for an education with obstacles behind and before them.

Limitations

The study was not a random sample, and the ability to generalize to a wider American Indian population and other tribal college is not a possible with these results. As McInerney and Swisher (1995) stated a major limitation in their study, from a psychometric and educational point of view, was that their research did not tell enough about what were culturally relevant and irrelevant motivational characteristics of the Indigenous minority group. This holds true with this study as well. Although the study

has some components to seek a cultural aspect, it did not reveal the effects of culture on the motivational characteristics of the study participants.

Whereas many tribal colleges are located on American Indian reservations and near tribal communities, the tribal college in this study was located in an urban setting away from tribal communities. Therefore, the ability to generalize or compare results is limited to only one other urban off-reservation tribal college in the United States. A study with a tribal college on or near an American Indian reservation may bring another wealth of information and may be comparable to other tribal colleges with the same demographics.

Conclusion

The influence of family is a prominent contributing factor in deciding where to attend college. Secondly, financial concern affects the decision of where to go for a higher education. Thirdly, the program of study was another factor in deciding to attend this tribal college. Students attending SIPI represent the profile of being traditional college students than non-traditional college students. The study participants exhibited future value as a prominent motivational construct or characteristics in attending college. The participants foresee future value as a motive to attend college.

With the prominent finding of family influences, tribal colleges should take note of the power of family as alumni and their effect on the next generation in regards to educational choice. Given the impact of family advice and connections, tribal colleges should be aware and capitalize on family connections to increase enrollment and graduation rates. Creation of strong alumni programs could be an initiative to gather

more students, sustain student enrollment, develop more programs of study, increase funding resources and strengthen the graduation rate.

Finding common motivational constructs among the study participants was important so tribal colleges can use this knowledge to work with students in areas of student recruitment, funding sources, and programs of study. In addition, tribal colleges can build programs to assist American Indian students in attending and staying in college. These programs can be programs that promote education in the sense of future value, self-efficacy and interest. With the finding of future value as a prominent motivational indicator, the future value of education should be an emphasis by educational institutions.

I believe sharing my own personal experience of my educational journey with the study participants was one influential part in making this study a success. A connection was made between me as a researcher, and them as study participants. I shared that I came to college with the lack of academic preparedness and lack of financial resources and that I have the same background and demographics as many of them; yet, I overcame these situations and now, I am pursuing a doctoral degree. Sharing this short scenario helped make a connection with them. They shared their own experiences and beliefs openly with me through writing long paragraphs and taking their time in completing the data collection instruments. This approach of data collection could not have been possible with an online survey, mail survey, or standing at a table trying to get passersby to participate in the study.

Just as a positive connection was made with the study participants for this study to be a success, a positive connection has to be made between the educational institution and the American Indian student for success to be achieved. The study brought to light

motivational characteristics, reasons in selecting the college, and demographics of the study participants which can be used to capture and sustain more American Indian students in higher education institutions.

Future Research

The study provides a platform for more research questions from the same study to be asked and answered. There are enough other data variables and information collected in this study to ask more questions and answer with the data collected. Studies about the differences between first- and non-first-generation students and the motivational constructs, demographic differences of community responsibilities, differences of those who participant in Native ceremonies, and receive family support could be initiated from this study as well.

The addition of other tribal colleges, both urban and non-urban, could be another research prospect to this study. Using the same research methods and including American Indian students from a mainstream university could be another possible study. The data collected in this study is rich and has depth. The data collected encompasses both quantitative and qualitative data, which can be expanded into further research questions and studies.

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Appendix A: Student Demographic Sheet

Provide your answers by checking the boxes and/or filling in the blank.

1. **Gender: Male☐   Female☐**

2. **Age: ≤ 20☐   21-25☐   26-30☐   31-40☐   40+☐**

3. **Year in School: 1☐   2 ☐   3 ☐**

4. **Major/Program of Study: _____**

5. **Grade Point Average: _____**

6. **Why did you choose SIPI? Check <u>all</u> that apply:**

    a. Tribal College ☐   **e. Funding Opportunities ☐**
    b. Cost of Tuition☐   **f. Location ☐**
    c. American Indian population ☐   **g. Childcare ☐**
    d. Program of Study☐   **h. Other:**

                                      _____
                                      _____
                                      _____

7. **Are you first in your family to attend college? Yes   ☐   No   ☐**

8. **Marital Status: Single☐   Married☐   Other ☐**

9. **Do you have children?   Yes ☐   No ☐**

10. **Are you a dorm student? Yes ☐   No ☐**

11. **Are you a commuter student?   ☐ Yes   ☐ No**

12. **Tribal Affiliation: _____**

Questions 13-24: Read each item and indicate how often you feel or do the activities.

	Almost Never	Seldom	Sometimes	Often	Almost Always
13. I am able to speak my Native language……………………………	1	2	3	4	5
14. I am able to understand my Native language…………………..	1	2	3	4	5
15. I am able to write my Native language……………………………	1	2	3	4	5
16. I attend Native ceremonies.……………………………	1	2	3	4	5
17. I attend tribal events………………………………………	1	2	3	4	5
I8. I attend family gatherings……………………………..	1	2	3	4	5
19. My family gives me emotional support while I attend college……………………………	1	2	3	4	5
20. My family gives me financial support while I attend college……………………………..	1	2	3	4	5
21. I have strong Native identity……………………………	1	2	3	4	5
22. I will return to my tribal community upon completing my education………………………	1	2	3	4	5
23. I am proud to attend a tribal college……………………………	1	2	3	4	5
24. I am proud to be a Native American…………………………	1	2	3	4	5

Appendix B: Inventory of School Motivation-R

**Think about yourself as a student. What motivates you? What is important to you?
Read each item and indicate how much you agree or disagree.**

Please circle best selection:

	Strongly Disagree	Disagree	Sometimes Agree or Disagree	Agree	Strongly Agree
1. I often try new things on my own………………	1	2	3	4	5
2. Comparing my work to others' lets me know how I am doing……………………………	1	2	3.	4	5
3. It is very important for students to help each other at school………………………………	1	2	3	4	5
4. I try harder with interesting schoolwork…….	1	2	3	4	5
5. Praise from my instructors for my good schoolwork is important to me………………….	1	2	3	4	5
6. It is important for me to believe I can do well at school…………………………………….	1	2	3	4	5
7. I like to see that I am improving in my schoolwork…………………………………………….	1	2	3	4	5
8. I need to know that there is a purpose for my schoolwork………………………………………	1	2	3	4	5
9. I like working with other people at school…	1	2	3	4	5
10. I like to have leadership roles at school……..	1	2	3	4	5
11. I like to help my community with what I learn at school ……………………………………….	1	2	3	4	5
12. I don't need anyone to tell me to work hard at school………………………………………….	1	2	3	4	5
13. Having the best grades in class is important to me…………………………………………………	1	2	3	4	5
14. I care about other people at school……………	1	2	3	4	5
15. I don't mind working a long time at schoolwork that is interesting……………………	1	2	3	4	5
16. Praise from my friends for good schoolwork is important to me………………….	1	2	3	4	5
17. It is important to feel successful at school..	1	2	3	4	5

	Strongly Disagree	Disagree	Sometimes Agree or Disagree	Agree	Strongly Agree
18. When I am improving in my schoolwork I try even harder…………………………………	1	2	3	4	5
19. I try hard to do well at school so I can get a good job……………………………………	1	2	3	4	5
20. I do my best work at school when I am working with others………………………………	1	2	3	4	5
21. I want to be a leader at school……………………	1	2	3	4	5
22. I try harder at school when I learn things that are important to my community…………	1	2	3	4	5
23. I like to be in charge of my own work…………	1	2	3	4	5
24. I like to compare my schoolwork with others'…………………………………………………	1	2	3	4	5
25. It makes me unhappy if my friends aren't doing well at school………………………………	1	2	3	4	5
26. I try hard at school when I am interested in my work……………………………………………	1	2	3	4	5
27. At school I work best when I am praised…..	1	2	3	4	5
28. It is important for me to think I can do my schoolwork well………………………………………	1	2	3	4	5
29. The harder the problem the harder I try…..	1	2	3	4	5
30. I work hard at school so that I am prepared for future courses………………………	1	2	3	4	5
31. I try to work with friends as much as possible……………………………………………	1	2	3	4	5
32. It is important for me to learn to be a group leader………………………………………	1	2	3	4	5
33. I want to use what I learn at school to help my community…………………………………	1	2	3	4	5
34. I do best when I have control over my own learning……………………………………………	1	2	3	4	5
35. Knowing I have the best grade in class makes me happy ………………………………	1	2	3	4	5
36. I like to help other students do well at school……………………………………………	1	2	3	4	5
37. I want to study things that interest me………	1	2	3	4	5

	Strongly Disagree	Disagree	Sometimes Agree or Disagree	Agree	Strongly Agree
38. I want to be acknowledged for my good schoolwork……………………………………..	1	2	3	4	5
39. It is important that I feel confident at school………………………………………………..	1	2	3	4	5
40. I work hard to try to understand new things at school…………………………………….	1	2	3	4	5
41. I want to do well at school so that I can have a good future…………………………….	1	2	3	4	5
42. When I work in groups at school, I do my best……………………………………………….	1	2	3	4	5
43. I work hard at school because I want to be a good role model……………………………	1	2	3	4	5
44. I want to show my community that I am good at school……………………………………	1	2	3	4	5
45. I want to be given choices at school…………..	1	2	3	4	5
46. I am only happy when I am one of the best in class……………………………………………	1	2	3	4	5
47. I am happy when I can help other people at school……………………………………………	1	2	3	4	5
48. I think schoolwork should be interesting ……	1	2	3	4	5
49. Praise from my family for good schoolwork is important to me……………………………	1	2	3	4	5
50. It is important for me to believe in my ability to learn……………………………………	1	2	3	4	5
51. I am always trying to do better in my school work………………………………………………	1	2	3	4	5
52. Doing well on schoolwork this year will help me do better next year ……………………….	1	2	3	4	5
53. I like to work with friends at school……………	1	2	3	4	5
54. I want to develop leadership skills at school…………………………………………………..	1	2	3	4	5
55. I try hard at school so I learn things to help my community ……………………………………	1	2	3	4	5
56. I like to make decisions about what to learn……………………………………………………	1	2	3	4	5
57. I like to be the best student in class…………..	1	2	3	4	5

	Strongly Disagree	Disagree	Sometimes Agree or Disagree	Agree	Strongly Agree
58. It really matters if students care about each other ……………………………………………………	1	2	3	4	5
59. If I am interested in a topic, I learn more……	1	2	3	4	5
60. I like to have the instructor praise me when I do good work ………………………………………	1	2	3	4	5
61. It is important for me to believe I can do well on an assignment ………………………………	1	2	3	4	5
62. I like to learn about new things even if is hard to understand at first ……………………….	1	2	3	4	5
63. Doing well in school will help me reach my goals………………………………………………….…	1	2	3	4	5
64. I like to work with other people at school rather than alone …………………………………….	1	2	3	4	5
65. I am willing to be in leadership positions at school ……………………………………………………	1	2	3	4	5
66. It is important to learn skills at school that I can use later to help my community…………	1	2	3	4	5

Appendix C: Why Questionnaire

1. What motivated you to seek a higher education?

2. Tell me about how you came to be a student at SIPI?

3. What specific challenges do you face as a college student?

4. What has been helpful to you as a student at SIPI?

5. What advice would you give to other students in preparing for a higher education?

Appendix D: Inventory of School Motivation-R2 Questions
per Motivation Construct

Domain	Question Number	Questions
1. Self-Determination	Q1, 12, 23, 34, 45, 56	1. I often try new things on my own. 12. I don't need anyone to tell me to work hard at school. 23. I like to be in charge of my own work. 34. I do best when I have control over my own learning. 45. I want to be given choices at school. 56. I like to make decisions about what to learn.
2. Competition	Q2, 13, 24, 35, 46, 57	2. My work to others lets me know how I am doing. 13. Having the best grades in class is important to me. 24. I like to compare my schoolwork with others'. 35. Knowing I have the best grade in class makes me happy. 46. I am only happy when I am one of the best in class. 57. I like to be the best student in class.
3. Social Goals	Q3, 14, 25, 36, 47, 58	3. It is very important for students to help each other at school. 14. I care about other people at school. 25. It makes me unhappy if my friends aren't doing well at school. 36. I like to help other students do well at school. 47. I am happy when I can help other people at school. 58. It really matters if students care about each

Domain	Question Number	Questions
		other.
4. Interest	Q4, 15, 26, 37, 48, 59	4. I try harder with interesting schoolwork. 15. I don't mind working a long time at school work that is interesting. 26. I try hard at school when I am interested in my work. 37. I want to study things that interest me. 48. I think school work should be interesting 59. If I am interested in a topic, I learn more.
5. Praise	Q5, 16, 27, 38, 49, 60	5. Praise from my instructors for my good schoolwork is important to me. 16. Praise from my friends for good schoolwork is important to me. 27. At school I work best when I am praised. 38. I want to be acknowledged for my good schoolwork. 49. Praise from my family for good schoolwork is important to me. 60. I like to have the instructor praise me when I do good work.
6. Self-Efficacy	Q6, 17, 28, 39, 50,61	6. It is important for me to believe I can do well at school. 17. It is important to feel successful at school. 28. It is important for me to think I can do my schoolwork well. 39. It is important that I feel confident at school. 50. It is important for me to believe in my ability to learn.

Domain	Question Number	Questions
		61. It is important for me to believe I can do well on an assignment.
7. Mastery	Q7, 18, 29, 40, 51, 62	7. I like to see that I am improving in my schoolwork. 18. When I am improving in my schoolwork I try even harder. 29. The harder the problem the harder I try. 40. I work hard to try to understand new things at school. 51. I am always trying to do better in my school work. 62. I like to learn about new things even it is hard to understand at first.
8. Future Value	Q8, 19,30, 41, 52, 63	8. I need to know that there is a purpose for my schoolwork. 19. I try hard to do well at school so I can get a good job. 30. I work hard at school so that I am prepared for future courses. 41. I want to do well at school so that I can have a good future. 52. Doing well on schoolwork this year will help me do better next year. 63. Doing well in school will help me reach my goals.
9. Affiliation	Q9, 20, 31, 42, 53, 64	9. I like working with other people at school. 20. I do my best work at school when I am working with others. 31. I try to work with friends as much as possible.

Domain	Question Number	Questions
		42. When I work in groups at school, I do my best.
		53. I like to work with friends at school.
		64. I like to work with other people at school rather than alone.
10. Leadership	Q10, 21, 32, 43,54, 65	10. I like to have leadership roles at school.
		21. I want to be a leader at school.
		32. It is important for me to learn to be a group leader.
		43. I work hard at school because I want to be a good role model.
		54. I want to develop leadership skills at school.
		65. I am willing to be in leadership positions at school.
11. Community Responsibility	Q11, 22, 33, 44, 55, 66	11. I like to help my community with what I learn at school.
		22. I try harder at school when I learn things that are important to my community.
		33. I want to use what I learn at school to help my community.
		44. I want to show my community that I am good at school.
		55. I try hard at school so I learn things to help my community.
		66. It is important to learn skills at school that I can use later to help my community.

**Appendix E: Codebook: Student Demographic Sheet
and Inventory of School Motivation-R2**

Variable Number	Variable Name	Label	Measure
1	E1	Participant ID number	1-169
2	E2	Participant's questionnaire number	1-181
3	Gender	Gender	Male=1 Female=2
4	Age	Age	≤20=1 21-25=2 26-30=3 31-40=4 40+=5
5	Yrsch	Year in School	1-3
6	Major	Major	Accounting=1 Auto CADD=2 Business Administration=3 Computer Science=4 Culinary Arts=5 Early Childhood Education=6 Environmental Science=7 Geospatial Information System=8 Law=9 Liberal Arts=10 Natural Resources=11 Network Management=12 Nursing=13 Mechanical Engineering=14

			Pre-Engineering=15 Welding=16 Vision Care=17 Fire Science=18 Blank=99
7	GPA	GPA	1.0-4.0
8	TRIBCOL	Tribal College	Blank 1
9	COST	Cost tuition	Blank 1
10	AIPOP	American Indian population	Blank 1
11	PROGSTUDY	Program of Study	Blank 1
12	FUNDING	Funding Opportunities	Blank 1
13	LOC	Location	Blank 1
14	CHILDCARE	Childcare	Blank 1
15	OTHER	Other	Narrative
16	FGEN	First Generation	Yes=1 No=2
17	MARITAL	Marital Status	Single=1 Married=2 Other=3
18	CHILDREN	Children	Yes=1

			No=2
19	DORM	Dorm	Yes=1 No=2
20	COMMUTE	Commuter	Yes=1 No=2
21	TRIBE	Tribal Affiliation	Acomo Pueblo=1 Blackfeet=2 Cheyanne=3 Comanche=4 Confederated Salish & Kootenai=5 Crow= 6 Dakota=7 Fort Still Apache=8 Gila River=9 Goshute=10 Ho Chunk Nation=11 Hopi=12 Isleta Pueblo= 13 Jemez Pueblo=14 Jicarilla Apache=15 Kickapoo=16 Laguna Pueblo=17 Mandan Hidatsa Arikara Nation=18 Mescalero Apache=19 Mississippi Band of Choctaw Indians=20 Mohawk=21 Navajo=22

			Northern Arapaho=23
			Oglala Nation=24
			Ohkay Owingeh=25
			San Carlos Apache Tribe=26
			Sandia Pueblo=27
			San Felipe Pueblo=28
			Santo Domingo Pueblo=29
			San Ildefonso Pueblo=30
			Taos Pueblo= 31
			Three Affiliated Tribes=32
			White Mountain Apache=33
			Zia Pueblo=34
			Zuni Pueblo=35
			Yavapai Apache Nation=36
			Hualapai=37
			Pueblo=38
			Blank= 99
22	SPNAT	Speak Native Language	Almost Never=1
			Seldom=2
			Sometimes=3
			Often= 4
			Almost Always=5
			NA=0
			Blank= 99
23	UNNAT	Understand Native Language	" "
24	WRNATIVE	Write Native Language	" "
25	CEREMONIES	Attend Native Ceremonies	" "
26	EVENTS	Attend Tribal Events	" "

27	FAMGATHER	Attend family gatherings	" "
28	FAMEMOS	Have family emotional support	" "
29	FAMFINS	Have family financial support	" "
30	NATIDEN	Native identity	" "
31	TRIBALCOMM	tribal community	" "
32	PRTRIBALCOLL	proud of tribal college	" "
33	PRNATIVE	proud to be Native	" "
34	Q1	Try new things	1 = Strongly Disagree 2 = Disagree 3 = Sometimes Agree or Disagree 4 = Agree 5 = Strongly Agree 99 = Blank
35	Q2	Comparing worl	" "
36	Q3	help each other	" "
37	Q4	try harder	" "
38	Q5	praise instructor important	" "
39	Q6	believe I can	" "
40	Q7	improving school work	" "
41	Q8	purpose school	" "
42	Q9	working with others	" "
43	Q10	leadership roles	" "
44	Q11	help community	" "
45	Q12	don't tell work hard	" "
46	Q13	best grades class	" "
47	Q14	care people	" "

48	Q15	don't mind work	" "
49	Q16	praise from friends	" "
50	Q17	feel successful	" "
51	Q18	improving school work	" "
52	Q19	try hard good job	" "
53	Q20	best work	" "
54	Q21	leader school	" "
55	Q22	important community	" "
56	Q23	charge own work	" "
57	Q24	compare school work	" "
58	Q25	unhappy friends	" "
59	Q26	try hard interested	" "
60	Q27	work best praise	" "
61	Q28	think can school	" "
62	Q29	harder problem try	" "
63	Q30	work hard school	" "
64	Q31	work friends	" "
65	Q32	group leader	" "
66	Q33	use learn community	" "
67	Q34	best control learning	" "
68	Q35	best grades	" "
69	Q36	help students well	" "
70	Q37	study things	" "
71	Q38	praised good work	" "
72	Q39	feel confident	" "
73	Q40	understand new things	" "
74	Q41	good future	" "
75	Q42	groups do best	" "

76	Q43	good role model	" "
77	Q44	show community good	" "
78	Q45	choices school	" "
79	Q46	happy best	" "
80	Q47	happy help	" "
81	Q48	schwrk interest	" "
82	Q49	Praise family	" "
83	Q50	ability learn	" "
84	Q51	better school work	" "
85	Q52	school work better next year	" "
86	Q53	like friends school	" "
87	Q54	leadership skills	" "
88	Q55	try hard learn community	" "
89	Q56	like decisions learn	" "
90	Q57	best student	" "
91	Q58	matters students care	" "
92	Q59	topic learn	" "
93	Q60	instructor praise	" "
94	Q61	important believe well	" "
95	Q62	like learn new things	" "
96	Q63	doing well reach goal	" "
97	Q64	work with other people	" "
98	Q65	leader at school	" "
99	Q66	skills use community	" "

Appendix F: Themes from the Why Education Questionnaire

	Themes	Example.	#	Ranking
1	**SIPI Almni Fam Mem**	Specifically said a family member attended SIPI.	26	1
2	**Family Member**	Family member told student about SIPI.	54	1
3	**Tuition**	Specfically mention "tuition."	19	2
4	**Location**	SIPI location, Albuquerque, close to home.	15	5
5	**Program of Study**	Had my program of study, program interest.	18	3
6	**Financial Convenience**	Mention low cost, saving money at SIPI, affordable.	32	2
7	**Reference**	Someone told them about SIPI. Heard about SIPI at a presentation, etc..	14	6
8	**Starting Point**	Wanted a starting point. SIPI was a starting point to them. Needed a refresher.	11	7
9	**Ready to Learn**	Confidence to learn, eager to learn.	6	10
10	**American Indian Population**	American Indian students, Native American population at SIPI.	11	7
11	**Core Classes**	Attending SIPI to get prereq./core classes done.	4	12
12	**Continue Education**	Need a place to continue education. Wanted to continue education. Transfer student. Previous SIPI student, returned to SIPI.	16	4
13	**Friends**	Friends referred them to SIPI. Heard about SIPI from a friend. Specifically said, "friend."	16	4
14	**Comfortable**	Felt comfortable at SIPI.	3	13
15	**Tribal College**	At SIPI because it is a Tribal College.	8	8
16	**Affordable Housing**	SIPI has affordable housing. SIPI provided a place to stay. Housing.	3	13
17	**Enrolled**	Applied and enrolled at SIPI.	11	7

18	Career Job advance	At SIPI for better job and advance career. Seeking job placement in tribal community.	7	9
19	Small College	SIPI is a small college.	2	14
20	Life Issues	Family problems. Life problems.	4	12
21	Second chance	Returning to college as a second chance/opportunity. SIPI is a second chance.	6	10
22	Wanted College	Always wanted to go to college, wanted to go to school.	11	7
23	Familiar with SIPI.	Familiar with SIPI.	5	11
24	Hands on	Wanted something hands-on.	1	15
25	Be with Peers	Wanted to be with peers.	1	15
26	Away from home	Wanted to be away from home.	1	15
27	SIPI Faculty	SIPI faculty told them about SIPI. Knew of SIPI faculty.	1	15
28	Transition University	Attending SIPI for a smooth transition to university. Credit transfer to university.	2	14
29	Something new	Wanted something new.	1	15
30	SIPI Helpful	SIPI was helpful to them.	1	15
31	Accredited	SIPI is accredited.	1	15