

DISSERATATION

NATIVE AMERICAN STUDENTS: BLOOD QUANTUM, IDENTITY,  
AND EDUCATIONAL SUCCESS

Submitted by

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## ABSTRACT

### NATIVE AMERICAN STUDENTS: BLOOD QUANTUM, IDENTITY, AND EDUCATIONAL SUCCESS

Native American ancestors were fighting a war to maintain their relevance; today Natives are fighting another war, a war of self-existence. Studies of Native American identity and education are plentiful but studies of blood quantum and educational success are very scarce. This study explored whether Native American students fit in (if at all) the higher education system. In all 67 self-identified Native Americans from a U.S. university participated in the study. The analysis generated differences and correlations between blood quantum, student-identity, acculturation and place of residence and Grade Point Average (GPA) as the measure of their effects on college success. The findings suggest academic success supports Native American students who are acculturated, who do not strongly self-identify with their respective culture and were raised off the reservation. Those students who grew up on the reservation, who practice their culture and are not fully acculturated, do these students have to make a choice to maintain or put aside their identity in order to be successful in obtaining a higher education?

## DEDICATION

This paper is dedicated to all those seeking to achieve a higher education.

May you persevere and never forget where you come from.

I want to acknowledge my wife, my girls and my mom. We have all been on this journey together and I am very grateful to have had you accompany me during times when the journey seemed like it would never end. Thank you for your strength and patience.

I also want to thank Nancy, Dennis, Sherry, Ty, Irene, and Teresa who made my academic experience richer. Your support and positive encouragement helped me overcome many difficult times.

To my committee, Karen, Gene, Don and Jacque; I appreciate your wisdom, your professionalism and your dedication to your students. I am grateful our paths have crossed and now we share a story that we will carry during our own journeys. Thank You!

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## DEFINITIONS AND TERMS

*American Indian* and *Alaskan Native* can be defined in two ways:

- a) The federal government defines *American Indian* and *Alaskan Native* as “any person who has certifiable Indian blood quantum to meet the enrollment requirements of a federally recognized tribe” (Russell, 1993, p. 24). Blood quantum requirements vary from tribe to tribe as do certification procedures.
- b) “A broader definition recognizes persons having origins in any of the original peoples of North America, and who maintain cultural identifications through community and tribal affiliation as being *American Indian* and *Alaskan Native*” (MacAfee, 1997, p.31)

The operational definition of Native American for this study is all students that self-identify as Native American attending Colorado State University.

*Asian Pacific American Islanders* can be defined as:

- c) “Asian” refers to those having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. “Pacific Islander” refers to those having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. The Asian and Pacific Islander population is not a homogeneous group; rather, it comprises many groups who differ in language, culture, and length of residence in the United States. Some of the Asian groups, such as the Chinese and Japanese, have been in the United States for several generations. Others, such as the Hmong, Vietnamese, Laotians, and Cambodians, are comparatively recent immigrants. Relatively few of the Pacific

Islanders are foreign born” (Reeves and Bennett, 2002, pg. 1).

*Success* can be defined in various ways:

- d) “Student success can also be defined using traditional measures of academic achievement, such as scores on standardized college entry exams, college grades, and credit hours earned in consecutive terms, which represent progress toward the degree”(Kuh, Kinzie, Buckley, Bridges and Hayek, 2006, pg. 5). Success for this study will measure the sample population’s overall Grade Point Average, but specifically within the sample population, success pertaining to the students Grade Point Average will associate with how the student self-identifies.

*Blood Quantum* defined as:

- e) Sokolow, (2000) “The term "blood quantum" is used to refer to the fraction of Indian blood present in an individual applying for membership in a federally recognized Indian tribe. To count toward membership in a federally recognized Indian tribe, Indian blood must be that of a recognized tribe. A person can have blood from more than one Indian tribe, but most tribal constitutions and existing federal law allows a person to claim membership in only one Indian tribe. The quantum of Indian blood (from none to entirely Indian blood) necessary to be considered for membership varies from tribe to tribe” p.43. For the purpose of this study I am looking at Native American students that claim to have  $\frac{1}{4}$  (25%) or more and Native American students that tend to have less than  $\frac{1}{4}$  (24%) Indian blood.

*Acculturation* defined as:

- f) Garcia & Ahler, (1992) “the cultural change that occurs when two or more cultures are in persistent contact. In this process, change may occur in each of the cultures in



varying degrees...A particular kind of acculturation is assimilation, in which one culture changes significantly more than the other culture and, as a result, comes to resemble it. This process is often established deliberately through force to maintain control over conquered peoples, but it can occur voluntarily as well” (p. 24).

*Grade Point Average (GPA)* defined as:

- g) “An average of your course grade and the number of the credits that the course was worth” (as cited in Colorado State University Glossary of Terms, 2006).

*Enculturation* defined as:

- h) “The process by which individuals learn their home culture” (Little Solider, 1985, p. 185).

## DEFINITIONS OF VARIABLES

### Independent Variable (Nominal)

|                         |                                     |
|-------------------------|-------------------------------------|
| Blood Quantum (Q. 20)   | Interval 1-8<br>percentage of blood |
| Student Setting (Q. 11) | Interval 1-5                        |
| Self-Identity (Q. 2-18) | Interval 1-5<br>Mean average        |
| Acculturation (Q. 21)   | Interval 1-5                        |

### Dependent Variable (Scale)

|             |              |
|-------------|--------------|
| GPA (Q. 19) | Self- Report |
|-------------|--------------|

### Descriptive Statistics (Q. 22-33)

|                  |                |
|------------------|----------------|
| Sex              | Male or Female |
| Tribe enrollment | Yes No         |
| Name of Tribe    | Self-Reported  |

## CHAPTER 1: INTRODUCTION

Referred to as the ‘The Land of Opportunity’ “The United States consists of one of the most diverse populations in the world” (Garrett, 1996, p. 1). Within the United States’ vast diverse population, a small minority group, the country’s original inhabitants’ are the only minority group required to provide proof of their individuality. The “American Indians, unlike any other American ethnic group, must constantly prove their identity” (Schmidt, 2012, p. 1) and still today “historical factors continue to act as a powerful influence on the worldviews and experiences of many American Indian people” (Garrett & Pichette, 2000, p. 3). During the late 1800’s the federal government defined identity by classifying “Indianness” through the use of blood quantum and many American Indian tribes use this method for membership today (Schmidt, 2012). “Under tribal sovereignty, tribal governments are the sole authority that can determine who is or is not a member, or citizen, of a given tribal Nation” (Horse, 2005, p. 61). Individuals seeking tribal enrollment must adhere to various criteria which differ from tribe to tribe. Native American populations and specific tribal populations must adhere to certain measures like degree of Indian ‘blood’, community recognition, genealogical lines of descent, language, self-identification, cultural affiliation and place of residence (Thornton, 1997). “Once recognized as members, individuals are typically issued tribal enrollment (or registration) numbers and cards that identify their special status as members of a particular American Indian tribe” (Thornton, 1997, p. 35). In fact “indigenous identity is a truly complex and somewhat controversial topic” (Weaver, 2001, p. 240). Those who are mixed-blood (having a certain percentage of Indian blood) applying for Native American scholarships must provide proof or a “tribal enrollment card” (Bizzaro, 2004, p. 64).

In regard to the issues of identity and blood quantum, Native Americans in general face many social, economic and psychological hardships. According to Hodgkinson, (1990); the Office of Minority Health, (1990); the United States Bureau of the Census, (1991); Russell (1997) Native Americans as a people statistically have the highest suicide rate, highest rate of unemployment (80%), highest rate of poverty (24%), a median income of 50% compared to the income of Whites and an alcoholism rate that is twice the national average when compared to any other ethnic group. Additionally when it comes to education, it has been stated that “enrollment, retention, and graduation rates for American Indians are lower, proportionately, than any other ethnic group in the United States” (Hunt & Harrington, 2008, p. 3). The historical trauma bestowed upon Native Americans is an ongoing problem and very little is known about how identity and blood quantum play roles in a student’s college experience. This paper will explore the implications of blood quantum, American Indian identity, place of residence, and acculturation and how these factors may contribute to college success at a four year institution.

### **Statement of the Problem**

Several studies have been conducted with Native Americans about educational achievement, identity, blood quantum, historical trauma, relocation, boarding schools, genocide, student perception’s in higher education, retention, persistence, dropout rates and other matters (Brayboy & Castagno, 2011;Native Americans, 1998; Demmert, 2001; Adams, 1995; Horse, 2005; Wilson, 1992; Evans-Campbell, 2008; Burt, 1986; Smith, 2005; Tierney, 1992; Jackson et al, 2003; Swisher, 1991). Other studies conveyed the internal struggles Native Americans face pertaining to acculturation, enculturation, assimilation, and ethnic identity (Huffman, Dana, and Bolton, 1985; Zimmerman, Ramirez-Valles, Washienko, Walter & Dyer, 1996; Nagel, 1994). Contemporary Native Americans of today continue to face many social, economic,

psychological, and historical hardships. To further confound an already oppressed group, many who are Native American but cannot show the proper or legitimate criteria or documentation of being a “Real Indian” are left to question their true “indianness.” Today many people may carry a varying degree of Indian blood, but their enrollment depends on their respective tribes’ enrollment criteria. Individuals must first prove lineal decent, then they must provide proof of required blood quantum, where now most tribes require at least  $\frac{1}{4}$  blood quantum (Hanlin, 2010) and earlier “most tribal blood quantum requirements fall in the  $\frac{1}{4}$  to  $\frac{1}{2}$  range” (Russell, 1993, p. 24). To obtain Bureau of Indian Affairs services, an individual must (1) be an enrolled member of a tribe that is recognized by the Federal Government (2) have a percentage of one-half or more of Indian blood of tribes indigenous to the U.S. and (3) must have one fourth or more Native American ancestry (Warren, ND). Those that consider themselves to be Native American face external forces that challenge their “Indianness” and now Native Americans face internal forces that question their own identity. The focal problem of this study is that Native Americans who are more closely related with their tribes and form their identity to their tribes tend to struggle with education.

### **Purpose of the Study**

A gap exists in the literature between Native American student’s identity pertaining to blood quantum and their success or failure in higher education. The available literature has focused on Native identity, blood quantum, acculturation and Native American difficulties in higher education, but I have not found studies that have examined all three areas within a single study. This study will explore the Native American students’ perspective of how they identify along with, blood quantum, place of residence, and whether their identity plays a role in their

schooling outcome. The purpose of the study is to increase institutional effectiveness in supporting Native American students in higher education.

### **Research Question**

The overall research question is to determine whether Native American college students who self-report less than one-fourth Native American blood quantum, who have not lived on the reservation, who don't strongly identify as Native American, and are well acculturated (cultural change), will have a higher overall GPA.

Research Question 1. Is there a difference between students with a less than  $\frac{1}{4}$  blood quantum, versus students with a  $\frac{1}{4}$  blood quantum percentage or greater in regard to average GPA?

Research Question 2. Is there a difference between students who grew up on the reservation and those who did not in regard to average GPA?

Research Question 3. Is there an interaction of the student's blood quantum level and place of residence in regard to average GPA?

Research Question 4. Is there an association between students self-identity (Question 2-18) in regard to average GPA?

Research Question 5. Is there an association between the students level of acculturation (Question 21) in regard to average GPA?

Research Question 6. How well does a combination of percentage of Blood quantum, place of growing up, self-identity, and level of acculturation predict the students GPA?

## **CHAPTER 2: REVIEW OF LITERATURE**

### **Indigenous People of North America**

Scientists and historians have been trying to answer this question, “when and from where did the first Americans arrive, and what migratory routes did they follow?”(Perego et al, 2009, p.1). Historians and scientists have agreed and argued concerning the early establishment of what we now call North, Central and South America. One possible solution involves Indians crossing the Bering Straits some 25,000 years ago (Zinn, 2005). Other experts have indicted alternative measures were used to reach the Americas due to glacier cover some 11,500 years ago (Begley & Murr, 1999). It is believed Asian and Europeans reached America long before the Bering people by kayak and ice sheets (Begley & Murr, 1999). Another possibility of reaching the New World required Paleoindians to travel through the ice-free corridor of North America’s western coast (Fladmark, 1983).

Regardless of the approximate time of colonization of the Americas, remains of skeletons, tools, and ornaments of the “First Americans” were discovered dating back to about 30,000 B.C. (Nash, 1974). Remarkably, the health and life expectancies of American Indians seem to be about the same as it is in contemporary Europe (Thornton, 1987). It may seem as if, “their longevity might have been due to the weeding-out process when humans first came, via the frozen Alaska-Siberian land bridge” (Rubinstein, 2004, p. 49). Unearthing remnants of these remains has provided anthropologists a glimpse of America’s first inhabitants. It is theorized that these people were looking for a better, more suitable environment with a bounty of vegetation and animal life. The game that existed during this time consisted of small animals, elk, caribou,

bison and the mammoth (Grayson, 1984) and vegetation included nuts, seeds, roots, and berries which were easily acquired (Kelly and Todd, 1988, p. 233).

During this time the environment was undergoing dramatic changes as humans entered North America (Haynes 1980). Through this change the “climate was becoming more continental, with more pronounced differences in seasons” (Kelly and Todd, 1988, p. 233). As the environment changed, “Paleoindians could have coped with the periodic resource stress in two ways: switch to different resource in the same territory, or switch territories” (Kelly and Todd, 1988, p. 233). Due to the environmental changes, life-sustaining resources became increasingly limited which prompted migration of these people. This immigration spanned into parts of North and South America. Group movement of the colonizing populations favored resource patches and forging adaptations which is described as “high technology” (Kelly and Todd, 1988). Through this movement, information was being gained and shared.

As a result of migration, “the first Americans became widely dispersed over an immense land mass” (Nash, 1974, p.8), making it, “clear that large numbers of people could be scattered over appreciable parts of the New World” (Anderson and Gillam, 2000, p. 56). As travels continued, the bands split giving way to many different cultures spanning over a period of a thousand years (Nash, 1974).

## **Historical Eras**

### **The Pre-Colonial Era (Prior 1492).**

Robert Berkhofer’s asserts in Nancy Shoemakers (2001)

The first resident of the Americas were by modern estimates divided into at least two thousand cultures and more societies, practiced a multiplicity of customs and lifestyles, held an enormous variety of values and beliefs, spoke numerous languages mutually unintelligible to the many speakers, and did not conceive of themselves as single people (p. 14).



Prior to the establishment of the U.S., there were approximately 400 independent Indigenous nations flourishing before the American Indian-European wars (Pevar, 1992). Another approximation by Waldman and Braun (1985) indicates prior to European contact, Indigenous people were estimated to be about ten to fifteen million within the U.S. These resilient people were “responding to the different environments of soil and climate, they developed hundreds of different tribal cultures, perhaps two thousand different languages” (Zinn, 2005, p. 19). The people of North America were thriving, they governed themselves; they lived in harmony and balance with all living creatures. The relationship among animals, plants, and inert objects was inseparable to respectful and holistic people (Cameron & Turtle-Song, 2003).

The indigenous peoples of North American prior to Western Colonization lived hard, but simple lives and lived in harmony prior to the influx of Europeans following 1492.

### **The Post-Colonial Era (Post 1492)**

It can be stated “The year 1492 dramatically brought the peoples of two semi-isolated hemispheres into confrontation, creating new realities, the moral implications of which cannot be ignored indefinitely” (Butzer, 1992, p. 346). Unfortunately soon after contact, the population of the native peoples of North America greatly diminished and “could not withstand new European diseases such as smallpox”(Beckles, 2000, p. 3) “The Indian population of 10 million that lived north of Mexico when Columbus came would ultimately be reduced to less than a million”(Zinn, 2005, p17) and others have indicated, “up to 95 percent of Indians living in the Americas perished over the century after the coming of the white man”(Rubinstein, 2004, p. 3). Other factors contributing to the demise of Native Americans after European colonization were forced relocation, loss of traditional ways, depletion of food sources, and alcoholism (Rubinstein, 2004). Through these events the stage was set for Native Americans who were seen as

“savages” or “subhuman” to endure the unthinkable and now gone “was the dream of Englishmen and Indian living side by side in peace and liberty” (Morgan, 2003, p. 12).

### **The Pre-Constitution Era (1533 to 1789)**

Involved treaties negotiated between Indian tribes, and the British and Spanish colonies, allowed these nations to obtain land while providing Indian tribes a status equivalent to colonial governments (Unger, Soto and Thomas, 2008). Many Alaskan Indians/Native American (AI/NA) tribes were forced from their lands and diseases such as smallpox and measles were introduced by European colonization (Unger, et al, 2008).

### **The Formative Years (1789 to 1871)**

Saw treaties made between the newly established U.S Government and Indian tribes (Unger et al., 2008). Contention arose between the Indians and the United States due to the government’s push to acquire more land and “during the 1820s the idea became common that the Indians were dying out and when they did, there would no longer be an Indian problem” (Osborn, 2000, p. 10). To further assist with the “Indian Problem” the federal government was responsible for protecting AI/NA lands, the tribe’s tribal sovereignty, and the educational, medical, and social services due in part by the U.S. Supreme Court decision (Chambers, 1975).

### **The Era of Allotment and Assimilation (1871 to 1928)**

Brought a policy encouraged by the U.S. government to assimilate Indians into white society. “Congress passed the Dawes Act or General Allotment Act on Feb 8, 1887. This law, “allowed for the president to break up reservation land, which was held in common by the members of a tribe, into small allotments to be parceled out to individuals” (Kelly, 1990, p.1). It was the hope of the United States government, “that if a person adopted white clothing and ways, and was responsible for his own farm, he would gradually drop his Indianess and assimilate into the population” (Kelly, 1990, p.1) and in the end the “land allotted to the Indians included desert

or near-desert lands unsuitable for farming”(Kelly, 1990, p.1). Another way to acclimate AI/AN into mainstream white society was to send their children to mandatory boarding schools (Adam, 1995).

### **Reorganization Era (1928 to 1945)**

Reorganization Era called for Congress to increase Indian self-government and responsibility; while limiting the federal government’s control of American Indian affairs (Indian Reorganization Act, 2011) and through this act the allotment program was terminated in response to the “gratitude for the Indians’ service to the country in World War 1” (Indian Reorganization Act, 2011, p. 1). “In 1935, the U.S. government established “blood quantum” laws to measure Native ancestry and define who was considered Native” (Tayac, 2009, p. 73). Today many tribes use this method to indicate who could be considered for enrollment.

### **Termination Era (1945 to 1961)**

“The federal government revoked its recognition of more than 50 AI/AN nations, resulting in the termination of their tribal governments” (Unger, 2008, p. 127). The removal of tribal self-government was intended to encourage AI/NA to engage in the larger society and not to seclude themselves to the reservations, but through this process a poor urban Indian population emerged lacking the resources to succeed in the white culture (Fixico, 1986).

### **Self-determination Era (1961 to present)**

The self- determination Era characterized a will by tribal governments to express the recognition of their powers as sovereign nations (Nagel, 1996) and for a long time the Native American people had no voice but their strength, in the era of civil rights movement, provided the Native American people the needed fortitude to create the American Indian Movement (AIM). Additionally during this time the American Indian population had shown an increase in

people identifying as Native American. “The Indian population of North America is again rapidly increasing, and now probably numbers around 4 million” (Rubinstein, 2004, p. 51). The movement allowed for increased AI/NA awareness, development of tribal organizations, the establishment of tribal colleges, and engagement in political activism (Nagel, 1996).

In essence “This brief history illustrates some of the ways in which European settlers and the U.S. government threatened the well-being of AI/NA cultures” (Unger, 2008, p. 129). The historical hardship of the Native people may never be truly understood but descendants (from these resilient people) carry the long after scars close to their hearts.

Many authors have describe the United States’ attempts to terminate the American Indian customs, traditions, religious beliefs and practices, family and tribal structure by instituting churches, schools and governmental agencies (Deloria, 1988; Heinrich, Corbine, & Thomas, 1990; Locust, 1988; Reyhner & Eder, 1992). Many treaties and wars have erupted between American Indians and the United States government since colonization which forced many tribes to relocate to lands now called “reservations”. It wasn’t until 1924 when the Citizen Act was passed which allowed U.S. citizenship for American Indians (Deloria, 1988). The social, economic, and psychological factors that plague American Indian generations of today are in part in response to the troubled historical tension with the United States government. Today the process of acculturation and historical factors still remain in effect, affecting the lives of Indian people when it comes to choices regarding who they are and how they want to live their lives (Herring, 1989; Little Soldier, 1985; Locust, 1988; Mitchum, 1989; Reyhner & Eder, 1992; Sue & Sue, 1990).

## **The Education System: Where do Native Americans Fit in?**

In order to understand the attitudes of Native Americans regarding school and the educational system's concern for Native American students, historical context and previous studies must be considered.

### **History of Education: U.S. Government & Native Americans**

The acts of war, disease, and genocide devastated tribes of the American Indian (Cleary, 1998). Included in these acts was a strategy to assimilate Indigenous peoples into modern western ideologies which was to incorporate boarding schools to "Americanize" these people. The Native American child according to Morrison (2000) "was forced to enter the Euro-American education model and in turn received the message that their traditional method of education was inferior. Their language and culture were portrayed as "deficient" and they were forced to adopt a culture that was "superior" to theirs" (p.2).

### **Assimilation**

In 1820, Congress began to develop plans to move eastern tribes, west of the Mississippi. "In 1830 the Indian Removal Act was passed authorizing President Jackson to exchange lands in the West for those held in the eastern states" (Reyhner, 1992, p.38). Through this process began the loss of land for the Native Americans and mostly importantly their independence.

The first school established by the federal government for boarding Indian students was the Carlisle Indian School located in Carlisle, Pennsylvania in November of 1879 (Coffer, 1979). Those attending had to abide to many rules and "school attendance was enforced, students were not allowed to speak their tribal languages, and tribal traditions were labeled first "works of the devil" (Reyhner, 1992, p.33). The initial purpose for boarding schools was intended to take away the Indian mind set of Native American student's (Barrett, 1997) and also the schools were

designed to assimilate Indian youth into the dominate society by teaching them to devalue their traditional culture and religion (Reyhner, 1992). In addition, the U.S. government was motivated to be rid of the Indian problems. In 1887 the U.S. government passed the General Allotment Act. The policy was to assimilate Indigenous people into the main cultural body. The Act was a push to terminate traditional Indian tribal life and to cut the dependency on the U.S. Government (Reyhner, 1992). Herding together various Indian Tribes provided the U.S. Government a mechanism to keep track of them. Putting Native American children into boarding schools where they faced foreign ideologies and forcing tribes to reside on lands restricted for the Indian made control and tracking of Native populations easier.

The reservation system was implemented in the late 1700's and continues today in the 19th century through various treaties. Tribes confined to the reservation became reliant on the Federal Government, ultimately leading to the detriment of tribes (Ammon, 1975).

### **Native Americans in Education**

It is no coincidence Native Americans have struggled with education. Forced from living a hard but simple life style to learning new philosophies would make anyone question the purpose of what is being taught. Fifty-three percent of Native American students drop out in post-secondary education after the first year. Native Americans are less than one percent of the college student population (Cajete, 1999). Numerous related studies indicate that Native American students and other minorities are not obtaining degrees or staying in college. Arthur McDonald states in *The Schooling of Native America*, (as cited by Thompson 1978) "One of the areas of great concern regarding American Indian students is the phenomenal dropout rate. Estimates of dropout in higher education range from a low of 79 percent to a high of 93 percent...it is perfectly clear that the dropout rate of Indian students in higher education is

exceptionally alarming”( p. 73). Furthermore, eighty five percent of Native Americans who enter postsecondary institutions will not finish (Birdsell, 1984). The first American, the Native American has been forgotten socially, politically, economically and educationally as America pushes for better schooling (Meyer, 1972). Through treaties, they promised educating the Indians but yet the Indian is still struggling economically and educationally.

There is ample evidence attesting to Native Americans struggling in any type of schooling be it K-12 or in higher education institutions. A number of variables and individual reasons have been advanced for this phenomenon. Native American history reveals a long trail of hardship from treaties being broken, to communities being ignored, to loss of land and identity. To understand Native Americans in higher education it is important to understand their past (Cabrera, 1978).

Native American students come from various settings, some are urban others are rural and many of their situations vary. The background of Indian students indicated by Thompson (1960), Chief of the Branch of Education stated, “Some children come from homes and communities that give support and positive direction to their lives, and supply the affection needed to nourish their emotional and educational growth; a few come from homes and communities that give the wrong example, directives are negative, and affections is absent” (p.1). The lack of support is often provided by adults who themselves have little or no education. Thompson (1960), Chief of the Branch of Education continues saying, “A few come from homes where parents have had a college or high school education; another few come from homes where parents have an elementary education; but the parents of most have had less than eighth grade or no education” (p.1).

Despite having parents with little to no education Native American students struggle with various aspects both internally and externally. According to Ward (2005), “Having a family with only one adult present has a very significant effect on dropping out: Indian students with only one adult at home are much more likely to drop out of high school” (p.153). The very essence of guidance is lost when parents’ divorce and often the youth look for direction elsewhere rather than in the house. There is a growing trend occurring in Indian country due to the lack of leadership and guidance in Indian country. This trend is resulting in young Native American students severally falling behind when it comes to education.

The rapid change of life style has sent a ripple effect throughout the generations of Native Americans. Thompson (1978) stated when, “Two eras emerge; the period of missionary domination from the sixteenth to the nineteenth century, and the period of federal government domination from the late nineteenth until the mid-twentieth century” (p.4) you are left with a people looking for their identity and their purpose.

### **Student Perceptions**

Arthur McDonald (as stated in Thompson 1978) conducted interviews with Indian Students and obtained dropout causes from the students. The list points out (1) the previous education of the student; (2) personal assets (finances); (3) racism and discrimination; (4) role models were absent; (5) student and institutional cultural differences (p. 74). The cause for dropouts of Native American students raises concern for the future of its people.

“The reservation students felt the transition from high school to a university was extremely difficult in that the total environment and attitude were alien. On the other hand, white students from larger communities complained that the university was nothing more than an extension of their high school experience” (Thompson, 1978 p.74). The transition to an



institution of higher education can be difficult, but also the support system at the institution may be lacking. Native Americans struggle to find their identity at a cost keeping many from achieving great things in life.

Ward (2005) states, “Many students struggled to come to terms with their identity, being Indian and coming from homes with a number of social and emotional problems. The social status of the family within the reservation community most likely suffers due to such problems” (p. 198). Struggling to find themselves in this world, they also face resistance from non-natives.

“Students all over the country have demonstrated their concern and displeasure over faculty and administration attitudes towards them as inferior beings. Their words are seldom listened to and virtually never heard” (Thompson, 1978, p.77). An institution’s support system is vital for all students. Native American students eventually leave if the support system is not present. Another aspect is, “The lack of models certainly contributes to the weaker motivation of Indian students and makes them potential dropouts” (Thompson, 1978, p.80).

### **Dropping Out**

Native American students may question the point of schooling. The value of Euro-American higher education was seen as having no value which may contribute to Native American failure in education (Tippeconnic, 2005). Furthermore, Indian students saw little relevance for the education they received (Reyhner, 1992, p. 46). A teacher (as cited by Reyher, 1992) reported, Few of the pupils had any desire to learn to read; there seemed little incentive to learn English; there seemed to be nothing gained through knowing “c-a-t” spells cat (p. 46). Additionally, another teacher (as cited by Reyher, 1992) found the Indians she worked with to have a universal dislike of English, “the tongue of their despised conquerors” (p. 46). Despite the

undesirable facets of schooling and its points, there are other underlying issues that also affect Native American students from dropping out.

So why do Native American students leave. “What accounts for this failure? One reason may be that the founders of colonial colleges were more interested in the appeal of a mission of educating Native Americans in fundraising than they were in actually advancing the education of Native American students” (Carney, 1999, p. 6).

The mission of a college institution should be to provide a quality education to its students, thus providing their students the needed resources to be successful. In doing so these actions could potentially effect the students overall success. Research has found that Native student’s college GPA is influenced by the following matters, “class subject liked in high school, connection to culture, academic GPA in high school, whether or not the student graduated or earned a GED and the use of multicultural affairs in college” (Payment, 2011, p. 3).

### **American Colleges & University Adaptation**

Accommodating Native Americans by creating a college environment applicable for degree completion has plagued institutions and universities (Guillory, 2008) and “Developing new strategies to increase the success of Native American students in college is an important challenge” (Kleinfeld, 1987, p. 7). There have been positive steps geared toward Native Americans in higher education during the era of self-determination where Acts like the Navajo Community College Act of 1971, the Indian Education Act of 1972, the Indian Self-Determination Act of 1975 and the Morrill Act of tribal colleges in 1994 helped provided the emergence of tribal colleges in the 1960’s. Resistance to assimilation in Euro-American higher education reflects failure of universities and institutions to educate Native Americans rather than the lack of interest (AIHEC, 2000).

## **Indian Identity**

A “No more knotty issue preoccupies Indian American than that of identity” (Wilson, 1992, p. 109) and “No other ethnic or racial groups are required by the U.S. government to prove their ancestry and become listed on a tribal roll, thus gaining an enrollment number and card to legitimize their assertion of identity” (Bizzaro, 2004, pp. 62-63). At one point in time, Native American peoples were simply identified according to their respective tribe, clanship, community and territory. Throughout the course of history and presently, identity specifically for Native Americans has evolved into a mesh of a political, biological, legal, social and economic ambiguous system (Garrouette, 2003). Native American self-identity although very complex and sensitive could potentially encumber those who identify as American Indian, which in fact leads to a question of “Who is a Real Indian”?

## **Blood Quantum**

“During the late 1800s, tribes still controlled nearly 135 million acres of land” (Garret and Pichette, 2000, p. 5), but by 1934 nearly 90 million acres of Native American land was lost (Deloria, 1998). The Dawes Act of 1887 or also known as the General Allotment Act policy was the driving force behind this great loss of land. The Dawes Act was designed to grant any Indian ownership of 160 acres (Hirschfelder and Kreipe de Montano, 1993) while assimilating Native Americans into White America. The passing of this policy resulted in forcing Native Americans to succumb to “White America by disrupting the traditional Native approach of communal landholding” (Garret and Eugene, 2000, p. 5) and allowed settlers to purchase land from this policy. Additionally through this policy identification standards were established for those seeking allotments of land on reservations and thus blood quantum was a way to recognize the “Indianness” of persons (Davis, 1996). Through this process “Blood quantum was established during the General Allotment Act or Dawes Act of 1887” (Hill, 2009, p. 68). This new

identification standard was a way to not only eliminate tribes but to resolve the so called “Indian problem” for the federal government (Biolsi, 2005) by keeping “the numbers of enrolled Native Americans low, allowing the federal government to maintain tighter control over indigenous nations’ claims for justice and adherence to treaty agreements” (Bizzaro, 2004, p. 65).

### **Ethnic Fraud**

With the depletion of state funding and “the rising cost of college tuition, more and more students are exploring ways to fund their way through college” (Pewewardy & Frey, 2004, p. 40) by claiming to identify as “American Indian” on college applications in hopes of receiving scholarships when in all actuality students are freely open to self-identity and to discreetly decide how to classify themselves (Pewewardy & Frey, 2004), “thus, a person’s race is whatever he or she says it is. This means that personal reports based on self-perceptions are the main source of most data on racial and ethnic groups” (Snipp, 1986, p. 237). Pewewardy & Frey (2004, p.40) indicate:

Most higher education institutions have not established guidelines as to who may be recognized as an American Indian...this lack of criteria and guidelines leave self-identification as an American Indian open for abuse and misuse.

Grande (2000) emphasized that:

Claiming one’s ancestral background is not, in and of itself, problematic, but when such claims are opportunistically used to cash in on scholarships, jobs, set-aside programs and other affirmative economic incentives, it becomes a highly questionable practice-particularly when such ‘fraudulent Indians’ quickly discard their new identity as soon as it no longer serves them (p. 352).

Take for example, a report from the Detroit News and Free Press which stated 40 Native American Indian students from the University of Michigan were contacted and of the 40 students

eight were actually enrolled in tribes, 10 indicated to have some tie to American Indian/Alaska Native communities, 20 did not know much about their American Indian/Alaska communities and the remaining could not state their respective tribe's name (Pewewardy & Frey, 2004). This is a major issue and the "failure to verify American Indian and Alaskan Native heritage suggests that most institutions overlook the violation of their code of ethics instructing students to provide true statements during the application process" (Pewewardy & Frey, 2004, pg. 41). Furthermore the number of students seeking advantages to obtaining scholarships tend to self-identify as Native American is a growing problem; thus this abuse and misuse is labeled as "ethnic fraud" (The American Indian and Alaska Native Professor's Association, 2002).

Today many tribes are actively using blood quantum as a way to identify with tribal membership. This leaves mixed-bloods in a position of questioning how one should identify. It may seem that those that strongly identify as Native American are likely to have a negative outcome in higher education. Therefore, it is clear that a next logical step in the research process is to examine these potential factors with Native American college students.

## CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

This section describes the methodology that supports the research being conducted. The section includes the study setting, proposed research design, study sample, and proposed data collection methods, procedures, and analysis plans. Native American identity, GPA, acculturation and where the student was raised have been studied but not all four have been studied with Native American college students as a whole. The purpose of this study is to examine the relationship between these variables by conducting research that has not been done.

### Study Questions

Research Question 1. Is there a difference between students with a less than  $\frac{1}{4}$  blood quantum, versus students with a  $\frac{1}{4}$  blood quantum percentage or greater in regard to average GPA? (Currently there are 542 self-identified Native students attending CSU. With the population being as so, the average blood quantum would be a ratio of 70% being less than  $\frac{1}{4}$  and 30% being  $\frac{1}{4}$  or more. In this case there is no  $\frac{1}{2}$  and  $\frac{1}{2}$  for this group).

Research Question 2. Is there a difference between students who grew up on the reservation and those who did not in regard to average GPA?

Research Question 3. Is there an interaction of the students' blood quantum and place of residence in regard to average GPA?

Research Question 4. Is there an association between students self-identity (Question 1-17) in regard to average GPA?

Research Question 5. Is there an association between the students level of acculturation (Question 18) in regard to average GPA?

Research Question 6. How well does a combination of percentage of blood quantum, self-identity, and level acculturation predict the students' GPA?

## **Study Setting**

This study focuses on the population of Native American students at a particular four year institution. This population, although small (when compared to United States population) in comparison to the total student population creates for the researcher a limited sample group. Hence, it is important to acknowledge the setting in which the research is taking place.

The setting for this study consists of all Native American students that are currently enrolled at a particular four year institution. The total student population for the fall 2013 academic year consisted of over 27,000 students. The Native American student (students that self-identified as Native American) population during the fall 2013 comprised of 542 (0.2%) of the entire student body. This encompasses all undergraduates, graduates and professional students. The Native American Cultural Center (NACC) is one of many diversity offices the institution provided for the student body. NACC's mission is to provide support and services to all students to ensure their educational experience related to recruitment, retention, graduation, and community outreach. This study may provide information to educators, college institutions, and social scientists to better understand Native American students and their needs.

## **Research Design**

“The construct of success and the path to its achievement for Native students represents a highly complex and dynamic phenomenon” (Inglebret and Krebill-Prather, 2011). The research conducted was a quantitative design that explored the relationship between variables in a non-experimental (attribute independent variable) approach. The traditional quantitative approach to social and educational research for assessing methodologies is a positivist method (Creswell & Miller, 1997). The specific approach was associational to find associations and make predictions that relate to the variables. This research process conceptual framework revolves around Astin's

1985 Student Development Theory that focuses on the student's participation while in college. The theory is based upon three elements pertaining to Input-Environment- Output or the I-E-O Model. According to Astin's (1991) I-E-O Model, Input pertains to what a person brings to a given environment i.e., their demographics, previous experiences and circumstances. Environment pertains to the student college experience. Output encompasses the students overall viewpoint, ethics, knowledge, and individualities. In this setting of higher education academic success can be a measurement of output.

### **Population and Sampling Plan**

The population consisted of a convenience sample pertaining to a diverse group of Native American students. It was determined that 542 students who self-identified as Native American were attending this particular institution. Access to the proposed target group was gained via the school's Native American Cultural Center (Native American student center). The center's director maintains a list of student email addresses and the survey was forwarded to the students on the NACC email list. The electronic survey provided the message and label that research was being conducted (Appendix A). Those opening the electronic survey saw the research cover letter which disclosed details of the research (Appendix B). The assumption was made that participants willing to take the survey read the cover letter and clicking on the live link at the bottom of the cover letter was considered as consent. Upon giving consent the participant was redirected to another domain in "Student Voice." Here the student was asked to fill out the survey (Appendix C). The approximate time to finish the survey was 5-8 minutes. Participants were given two weeks to complete the survey and a reminder was sent out once more to participants asking them to complete the survey (Appendix D). Upon completion of retrieving the survey responses, all data was stored on "Student Voice" and only the primary researcher has



access to the data. For completion purposes the original survey emulated for this study can be found at the end of the research paper (Appendix E).

### **Validity and Reliability**

A previous study utilized the Native American Acculturation Scale (NAAS). The scale consists of 20 multiple-choice questions which covered language, identity, friendship, behaviors, generational/geographical background and attitudes. A mean score was calculated and divided by the total value of 20 questions. An alpha coefficient of 0.91 for the (NAAS) consisted of 139 high school students and 10 panel judges.

### **Data Collection Procedures**

For the purpose of this research, a semi-structured closed-ended questionnaire was utilized. The structured questionnaire was used to capture the participants overall self-identity and acculturation levels on a scaled instrument along with descriptive questions. An advantage of using a survey questionnaire is the ability to maintain participant confidentiality, receive higher feedback, reliability, and convenience in terms of time for the participants. A few questions were prepared to help with the overall research objectives being conducted. (Please refer to Appendix C).

### **Measures**

The survey instrument (Appendix C) consisted of 33 multiple-choice questions. The Native American Acculturation Scale (NAAS) consisted of 17 multiple-choice questions (2-18) covering language (3 items), identity (3 items), generational/geographical background (4 items), behavior (3 items), attitude (2 items), and friends (2 items) with a score range from a low of 1 (indicates low acculturation), a score of 3 (bicultural) and high of 5 (or high mainstream American identity). The Acculturation Level (1 item) question consists of Traditional, Marginal,

Bicultural, Assimilated and Pantraditional which was modified by LaFromboise, Trimble, & Mohatt (1990, p.638) and Herring (1996) which was changed formerly by Loye and Robert Ryan (1982) as cited in LaFromboise et al., (1990) which was consider the Spindler & Spindler (1958) scheme. General Demographic questions (19-33) covered GPA, gender, blood quantum, tribal enrollment, residential setting, and school major/year. The model was developed by Cuellar, Harris, & Jasso (1980) Acculturation Rating Scale for Mexican Americans (ARSMA) and adapted by Suinn, Rickard-Figueroa, Lew and Vigil (1987) Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA). Each took in account the multidimensionality of acculturation and the issues of bicultural development which assessed cognitive, behavioral, and attitudinal areas (Atkinson et al., 1995; Cuellar et al., 1980; Suinn et al., 1992). The original survey (Appendix E) consists of 20 questions. In my modified survey (Appendix C); Questions 1-8, 11-13, 15-18 are from the original survey. I removed questions 9, 10, 14 from the original and added 16 specific questions related to blood quantum and acculturation level.

### **Data Analysis**

The first analysis provided descriptive data on blood quantum, residential setting, self-identity, acculturation and GPA with the means, range, and standard deviations. Secondly the relationships between these variables of blood quantum, residential setting, self-identity, acculturation and GPA from the NAAS scale and student survey were analyzed to find any correlations between the variables by using scatterplots to check for the assumptions. Third an independent t-test is conducted when comparing two groups to determine if there are differences in any of the variables (Morgan, Leech, Gloeckner, Barrett, 2007). Forth a Mann-Whitney test was used to further determine difference among the variable being studied. A fifth analysis was

multiple regressions, due to so many variables. This finds any relationship between the predictor variable and the dependent variables.

### **Significance**

This study may contribute to the importance of how Native American students self-identify and how this may contribute to their success at a four year institution or university. As Native Americans reside in various setting it is important for institutions to not only welcome these student but to help them in their educational journey.

### **Limitations**

A limitation is the population sample, although the Native American population is considerably smaller, so are the Native American students attending main stream universities and colleges. This study only took a small sample from such a diverse group. Additionally the researcher cannot say with certainty that the sample will accurately represent the population, due to the convenience sample being used in the quantitative phase of the study (Creswell, 2002). Another limitation is the aspect of the time constraints that surveys may impose. Respondents may not have completed the survey if they felt overworked and they didn't have time (Delva, Kirby, Knapper, & Birthwhistle 2002). Other limitations include External Validity (selection and setting).

### **Delimitations**

The first delimitation would be Native American student population at Colorado State University. The researched population under study encompasses all Native American students that self-identify as Native American. A second delimitation is the  $\frac{1}{4}$  (25%) percentage of blood quantum utilized for the study. On average various tribes utilize the mark of  $\frac{1}{4}$  blood quantum or

more to establish tribal enrollment and any less than  $\frac{1}{4}$  blood quantum are not considered for tribal enrollment (but this differs from tribe to tribe).

### **Summary**

Upon completion of the analysis the researcher addressed findings and identified other areas of research that may be needed.

## CHAPTER 4: RESULTS

The purpose of this study was to examine the difference and association of Native American students' blood quantum percentage, self-identity, and acculturation level on GPA. This study utilized a quantitative methods design allowing for independent gathering and analysis of the data. Presented in this chapter are the data analysis results in response to the research questions presented in Chapter one. The collection of data and subsequent data was compelled to develop a premise of knowledge about Native American students in higher education, assessing GPA, self-identity, and level of acculturation and utilizing data to better inform college and university institutions. The organizational structure for this chapter is based on the premise of the research questions. This chapter reports the results of the quantitative data, focusing on positive and negative differences and associations of Native American student's blood quantum percentage, self-identity, acculturation level and GPA.

### Quantitative Research Questions

The quantitative component of this study is to examine any differences or associations between the variables being studied.

#### Research Question One – *Blood Quantum vs GPA*

Question one asked: Is there a difference between students with a less than  $\frac{1}{4}$  blood quantum versus students with  $\frac{1}{4}$  blood quantum or greater in regard to average GPA?

In response of the survey instrument (see Appendix C) the respondents were asked to provide blood quantum percentages and GPAs. The respondents were asked (q. 20) to *indicate your self-rating percentage of Indian Blood (Blood Quantum)*, wherein 1 = Full (100%), 2 = three fourths ( $\frac{3}{4}$ ), 3 = Half ( $\frac{1}{2}$ ), 4 = one fourth ( $\frac{1}{4}$ ), 5 = one eighth ( $\frac{1}{8}$ ), 6 = one sixteenth

(1/16), 7 = one thirty seconds (1/32) 8 = other and to self-disclose (q. 19) *what is your approximate cumulative Grade Point Average.*

The average GPA for the 67 participants was ( $M = 3.26$ ,  $SD = .581$ ). GPA was normally distributed, with a skewness of  $-.736$  ( $SE = .581$ ). The average blood quantum for the 65 participants was ( $M = 1.58$ ,  $SD = .496$ ), with a skewness of  $-.352$  ( $SE = .297$ ). There were 27 students with less than  $\frac{1}{4}$  blood quantum and 38 students with more than  $\frac{1}{4}$  blood quantum. Students with less than  $\frac{1}{4}$  blood quantum had a higher GPA ( $M = 3.41$ ,  $SD = .442$ ) than students with a blood quantum of  $\frac{1}{4}$  or more ( $M = 3.14$ ,  $SD = .652$ ). A box plot was conducted and there were no outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Figure 1 shows students who self-indicated of having  $\frac{1}{4}$  or more blood quantum had a lower GPA than those students who self-indicated of having less than  $\frac{1}{4}$  blood quantum. An independent t-test was run to determine if there were differences in GPA scores between Native American student blood quantum, as assessed by visual inspection. Table 1 shows that students who have less than  $\frac{1}{4}$  blood quantum had no significant difference from students who have  $\frac{1}{4}$  blood quantum or more on GPA ( $p = .056$ ), however this is very close and the  $p$  is an estimate used in education. Review of the two group means indicates that the average GPA scores for students who have less than  $\frac{1}{4}$  blood quantum ( $M = 3.41$ ) is not significantly different from students who have  $\frac{1}{4}$  blood quantum or more ( $M = 3.14$ ). The difference in means indicates there could be no difference. However for completion purpose, the effect size  $d$  pertaining to *blood quantum* and *GPA* had a strength of relationship at  $d = .5$  which indicates a medium to typical magnitude of difference. In reference a small or smaller effect size of  $d = .20$  would be difficult to notice but a medium to typical  $d$  would be visible.

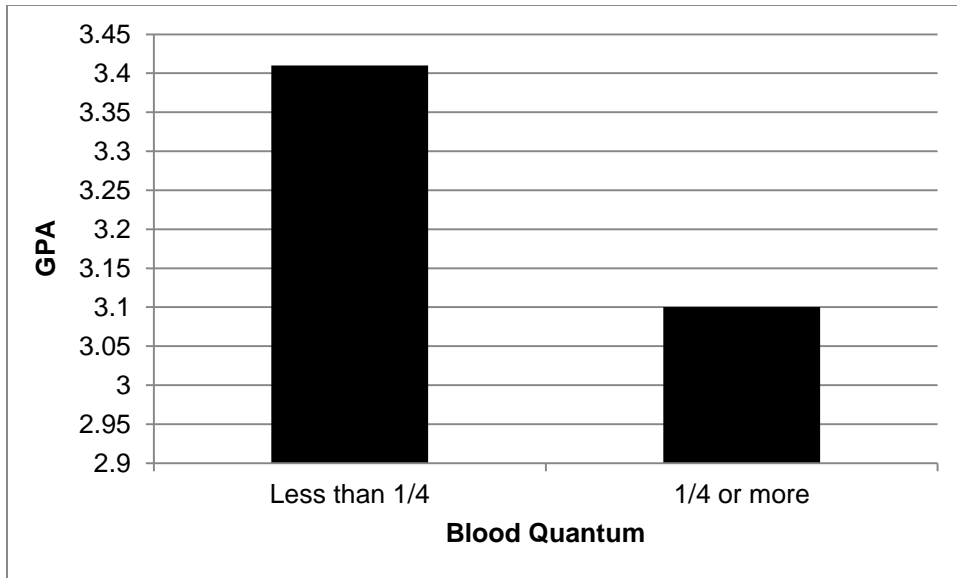


Figure 1. Results GPA and Blood Quantum

Table 1

*Comparison of Students Blood quantum on GPA (n = 67 Native Students GPA and n = 65 Native Students Blood Quantum)*

| Variable                     | <i>M</i> | <i>SD</i> | <i>t</i> | <i>df</i> | <i>p</i> | <i>d</i> |
|------------------------------|----------|-----------|----------|-----------|----------|----------|
| GPA                          |          |           | 1.94     | 63.0      | .056     | .5       |
| Less than ¼<br>Blood Quantum | 3.41     | .443      |          |           |          |          |
| ¼ Blood Quantum<br>or more   | 3.14     | .652      |          |           |          |          |

The *t* and *df* were adjusted because variance were not equal.

The effect size *d* is approximately .5 which is a medium or typical size.

### Research Question Two – *Where were you raised vs GPA*

Research question two asked: Is there a difference between students who grew up on the reservation than those who did not in regard to average GPA?

In response of the survey instrument (see Appendix C) the respondents were asked (q. 11) to provide *where were you raised* wherein 1 = Urban and Rural area, away from Native

American Community, 2 = Urban and Rural area, near Native American community, 3 = Urban area, Native American community, 4 = Rural area, Native American community and 5 = Reservation, Native American community and to self-disclose (q. 19) *what is your approximate cumulative Grade Point Average.*

The average GPA for the 67 participants was ( $M = 3.26$ ,  $SD = .581$ ). GPA was normally distributed, with a skewness of  $-.736$  ( $SE = .581$ ). The average for where were you raised from the 65 participants was ( $M = 1.17$ ,  $SD = .386$ ), with a skewness of  $1.712$  ( $SE = .293$ ). There were 52 students raised urban or rural either away or near a Native American community and 15 were students raised in a Native American community either urban, rural or reservation. Students raised urban and rural community either away or near Native American community had a higher GPA ( $M = 3.37$ ,  $SD = .503$ ), with a skewness of  $-.431$  ( $SE = .330$ ) than students raised in a Native American community either urban, rural or reservation ( $M = 2.90$ ,  $SD = .697$ ), with a skewness of  $-.613$  ( $SE = .580$ ). A box plot was conducted and there were outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Figure 2 shows students raised on a Native American community either urban, rural or a reservation had a lower GPA than those students raised in an urban or, rural setting either away from or near a Native American community.



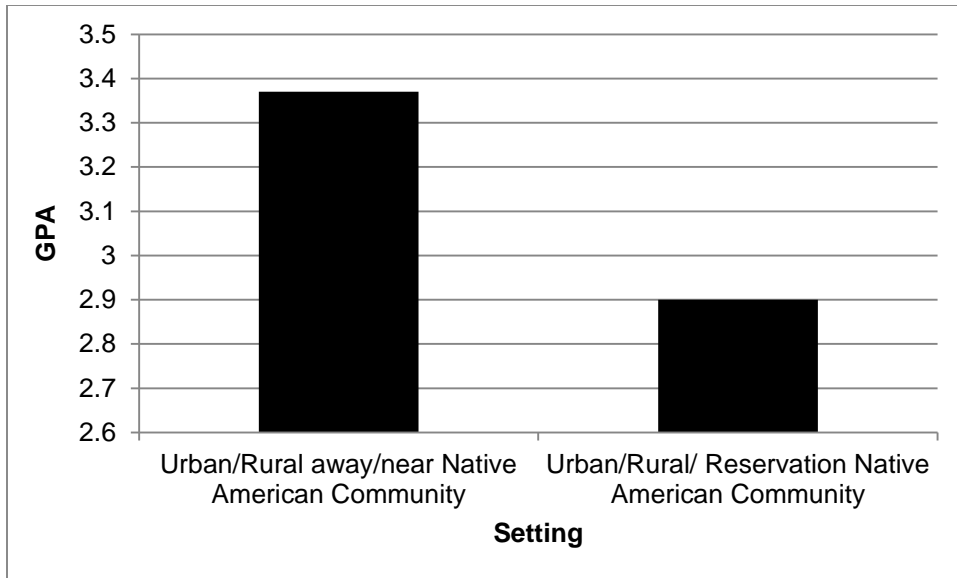


Figure 2. Results GPA and Where were you raised

A Mann-Whitney U Test was run to determine if there were differences in GPA scores between Native American students raised in an urban or rural area either away or near a Native American community and Native American students raised either urban, rural or on a reservation, as assessed by visual inspection. Table 2 shows there was a significant difference between students raised in an urban and rural community either away or near Native American community in the mean rank of (37.10) than students raised in a Native American community with a mean rank of (23.27),  $U = 229$ ,  $p = .015$ ,  $r = -.40$ , which, according to Cohen (1988), is between a larger than typical or typical effect size.

Table 2

*Comparison of Where were you raised on GPA (n =67Native Students GPA and n = 65 Native Students Blood Quantum)*

| Variable  | <i>M</i> | <i>SD</i> | Median | Mean Rank | <i>p</i> | <i>r</i> |
|---|----------|-----------|--------|-----------|----------|----------|
| GPA   |          |           |        |           | .015     | -.20     |
| Urban or Rural away or near Native American Community | 3.37     | .503      | 3.41   | 37.10     |          |          |
| Rural area Native American community, Reservation     | 2.90     | .697      | 2.90   | 23.27     |          |          |

**Research Question Three – *Blood Quantum & Where were you raised vs GPA***

Research question three asked: Is there an interaction of the student’s blood quantum and where were you raised in regard to average GPA?

In response of the survey instrument (see Appendix C) the respondents were asked to provide blood quantum percentages, where were you raised and GPAs. The respondents were asked (q. 20) to *indicate your self-rating percentage of Indian Blood (Blood Quantum)*, wherein 1 = Full (100%), 2 = three fourths (3/4), 3 = Half (1/2), 4 = one fourth (1/4), 5 = one eighth (1/8), 6 = one sixteenth (1/16), 7 = one thirty seconds (1/32) 8 = other; and participants we asked (q. 11) to provide *where were you raised*, wherein 1 = Urban and Rural area, away from Native American Community, 2 = Urban and Rural area, near Native American community, 3 = Urban area, Native American community, 4 = Rural area, Native American community and 5 = Reservation, Native American community and to self-disclose (q. 19) *what is your approximate cumulative Grade Point Average*. The research question in response to participant input seeks to

find an interaction among the three variables (blood quantum percentages, where were you raised and GPA).

The average GPA for the 67 participants was ( $M = 3.26$ ,  $SD = .581$ ). GPA was normally distributed, with a skewness of  $-.736$  ( $SE = .581$ ). The average for where were you raised from the 65 participants was ( $M = 1.17$ ,  $SD = .386$ ), with a skewness of  $1.712$  ( $SE = .293$ ) and average blood quantum for the 65 participants was ( $M = 1.58$ ,  $SD = .496$ ), with a skewness of  $-.352$  ( $SE = .297$ ). To assess whether blood quantum and where were you raised might have an effect on GPA, a two-way factorial ANOVA was conducted. Table 3.a shows the means and standard deviations for blood quantum, where were you raised and GPA. Table 3.b shows that there was not a significant interaction between blood quantum and where were you raised and GPA,  $F(1, 61) = 1.91$ ,  $p = .172$ . There was not a significant main effect on blood quantum and GPA,  $F(1, 61) = 3.01$ ,  $p = .088$ . There was not a significant main effect on where were you raised and GPA,  $F(1, 61) = .914$ ,  $p = .343$ . Figure 3 portrays several interactions concerning GPA, where you were raised and blood quantum. The relationship between the variable suggestions student's raised on an urban, rural area or away and from or near a Native American community with a certain percentage of Native American blood quantum exhibited a higher GPA than those who were raised on an urban, rural and on a Native American reservation who expressed  $\frac{1}{4}$  blood quantum or more. This suggests students who express a blood quantum of  $\frac{1}{4}$  or more and live on a urban, rural and a Native American reservation or community tend to have lower GPA's than those expressing lower than  $\frac{1}{4}$  blood quantum and being raised on an urban, rural area or away and from or near a Native American community.

Table 3.a

*Mean, Standard Deviations, and n for GPA as a Function of Blood Quantum and Where Were You Raised*

| GPA                          | Urban, Rural away or near<br>Native American Community |          |           | Urban, Rural, Reservation<br>Native American Community |          |           | Total    |           |
|------------------------------|--|----------|-----------|--|----------|-----------|----------|-----------|
|                              | <i>n</i>   | <i>M</i> | <i>SD</i> | <i>n</i>   | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Blood Quantum<br>less than ¼ | 25   | 3.41     | .456      | 2  | 3.5      | .283      | 3.41     | .443      |
| Blood Quantum<br>¼ or more   | 25   | 3.33     | .560      | 13   | 2.81     | .701      | 3.15     | .652      |
| Total                        | 50   | 3.37     | .507      | 15   | 2.90     | .698      | 3.26     | .586      |

Table 3.b

*Analysis of Variance for GPA as a Function of Blood Quantum and Where Were You Raised*

| Variable and source                      | <i>df</i> | <i>MS</i> | <i>F</i> | <i>p</i> | $\eta^2$ |
|--|-----------|-----------|----------|----------|----------|
| Blood Quantum                            | 1         | .911      | 3.01     | .088     | .047     |
| Where were you raised                    | 1         | .277      | .914     | .343     | .015     |
| Blood quantum x<br>Where were you raised | 1         | .578      | 1.91     | .172     | .030     |
| Error                                    | 61        | .303      |          |          |          |

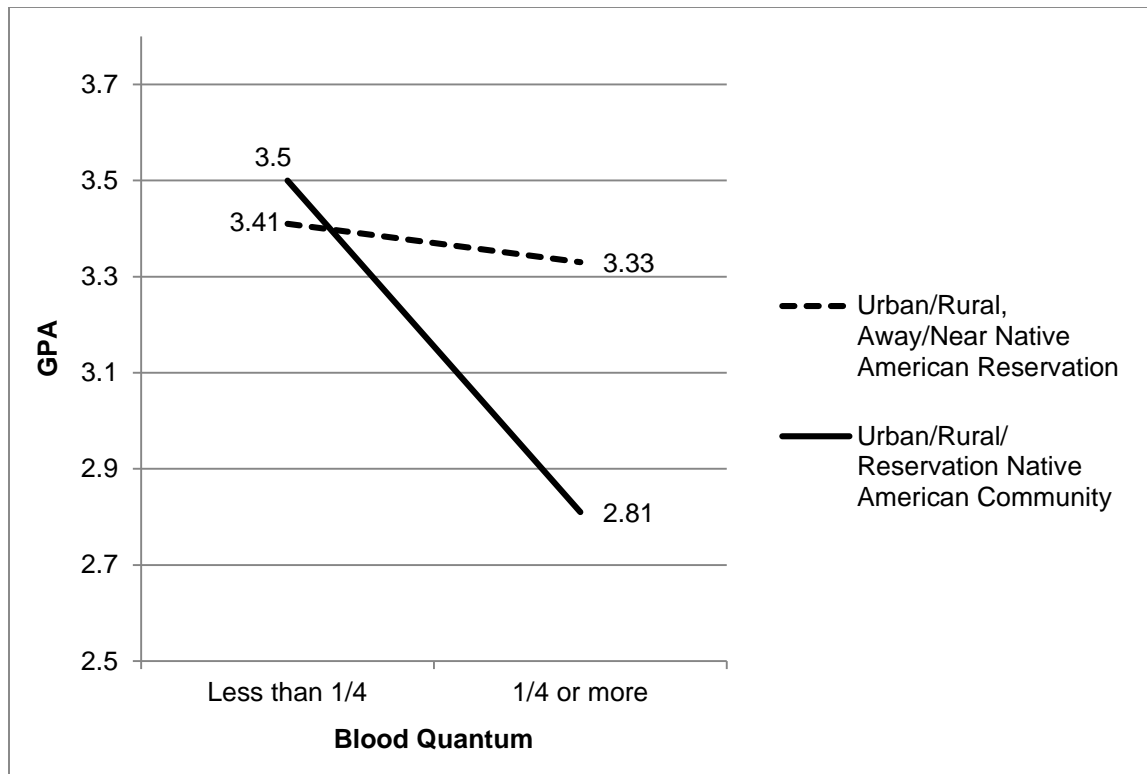


Figure 3. Blood Quantum, Where were you raised and GPA

#### Research Question Four – *Student Identity vs GPA*

Research question four asked: Is there an association between students' self-identity (question 2-18 survey) in regard to average GPA?

In response to the survey instrument (see Appendix C). The respondents were asked to provide their current GPAs (q.19) and to answer self-identity questions (2-18) which pertained to Language, Self-Identity, Community, Upbringing, Pride and Participation in cultural events. The self-identity questions asked the participant to choose one answer out of five choices (1 = lowest identification and 5 = highest identification) of which the participant most identify with. The research questions in response to participant input seek to find an association between student self-identity and GPA.

The average GPA for the 67 participants was ( $M = 3.26$ ,  $SD = .581$ ). GPA was normally distributed, with a skewness of  $-.736$  ( $SE = .581$ ). The average for student identity for all 67

participants was ( $M = 2.22, SD = .733$ ). Student identity was normally distributed, with a skewness of .866 ( $SE = .293$ ).

Sixty seven Native American students were surveyed about their average GPA ( $M = 3.26, SD = .581$ ) and student identity ( $M = 2.23, SD = .775$ ). The mean average for students who chose student identity 1 had a mean GPA of ( $M = 3.62, SD = .595$ ). Those who chose student identity 2 had a mean GPA of ( $M = 3.40, SD = .434$ ). Students who chose student identity 3 had a mean GPA of ( $M = 2.68, SD = .800$ ). Students who chose student identity 4 had a mean GPA of ( $M = 3.01, SD = .260$ ). No students answered 5 on the survey for any results. A Pearson’s correlation shown a  $p = .001$ . Table 4 shows A Pearson’s  $r$  data analysis that revealed a medium to large negative correlation,  $r = -.41$ , according to Cohen (1988) effect size. The result indicates as student identity goes up, GPA goes down.

Table 4

*Intercorrelations, Means, and Standard Deviations for Two Variable (N = 67)*

| Variable        | 1  | 2       | <i>M</i> | <i>SD</i> |
|-----------------|----|---------|----------|-----------|
| 1. GPA          | -- | -.407** | 3.26     | .581      |
| 2. Stu Identity | -- | --      | 2.30     | .775      |

\* $p < .05$  \*\* $p < .01$

### **Research Question Five – Acculturation vs GPA**

Research question five asked: Is there an association between students level of acculturation in regard to average GPA?

In response of the survey instrument (see Appendix C) the respondents were asked to (q. 21) provide what acculturation level do you identify most wherein 1 = Pan traditional, 2 =

Assimilated, 3 = Bicultural, 4 = Marginal, 5 = Traditional and to self-disclose (q. 19) what is your approximate cumulative Grade Point Average.

The average GPA for the 67 participants was ( $M = 3.26$ ,  $SD = .581$ ). GPA was normally distributed, with a skewness of  $-.736$  ( $SE = .581$ ). The average for acculturation level for all 67 participants was ( $M = 2.40$ ,  $SD = .906$ ). Student acculturation level was normally distributed, with a skewness of  $.488$  ( $SE = .293$ ).

Sixty seven Native American students were surveyed about their average GPA ( $M = 3.26$ ,  $SD = .581$ ) and student acculturation level ( $M = 2.40$ ,  $SD = .906$ ). The mean average for students who chose student acculturation 1 had mean GPA ( $M = 3.54$ ,  $SD = .428$ ). Those who chose student acculturation 2 had a mean GPA of ( $M = 3.40$ ,  $SD = .500$ ). Students who chose student acculturation 3 had a mean GPA of ( $M = 3.14$ ,  $SD = .527$ ). Students who chose student acculturation 4 had a mean GPA of ( $M = 2.38$ ,  $SD = 1.26$ ). Students answered acculturation 5 had a mean GPA of ( $M = 2.87$ ,  $SD = .184$ ). A Pearson's correlation shown a  $p = .001$ . Table 5 shows A Pearson's  $r$  data analysis that revealed a medium to large negative correlation,  $r = -.39$ , according to Cohen (1988) effect size. The result indicates as student acculturation goes up, GPA goes down.

Table 5

*Intercorrelations, Means, and Standard Deviations for Two Variable (N = 67)*

| Variable         | 1  | 2       | <i>M</i> | <i>SD</i> |
|------------------|----|---------|----------|-----------|
| 1. GPA           | -- | -.386** | 3.26     | .581      |
| 2. Acculturation | -- | --      | 2.40     | .906      |

\* $p < .05$  \*\* $p < .01$

### **Research Question six – *Multiple Regression***

Research question six asked: How well does a combination of blood quantum, self-identity, and level of acculturation predict the students GPA?

In Research question 6 in response to the survey instrument (see Appendix C) the respondents were asked to provide (q. 21) what acculturation level do you identify most wherein 1 = Pan traditional, 2 = Assimilated, 3 = Bicultural, 4 = Marginal, 5 = Traditional and to self-disclose (q. 19) what is your approximate cumulative Grade Point Average. The respondents were also asked to answer self-identity questions (2-18) which pertained to Language, Self-Identity, Community, Upbringing, Pride and Participation in cultural/traditional events. The self-identity questions asked the participant to choose one answer out of five choices (1 = lowest identification and 5 = highest identification) of which the participant most identify with, furthermore the participants were asked to indicate your self-rating percentage of Indian Blood (Blood Quantum), wherein 1 = Full (100%), 2 = three fourths (3/4), 3 = Half (1/2), 4 = one fourth (1/4), 5 = one eighth (1/8), 6 = one sixteenth (1/16), 7 = one thirty seconds (1/32) 8 = other.

The average GPA for the 67 participants was ( $M = 3.26$ ,  $SD = .581$ ). GPA was normally distributed, with a skewness of  $-.736$  ( $SE = .581$ ) and kurtosis of  $.257$  ( $SE = .578$ ). The average for acculturation level for all 67 participants was ( $M = 2.40$ ,  $SD = .906$ ). Student acculturation level was normally distributed, with a skewness of  $.488$  ( $SE = .293$ ) and kurtosis of  $.638$  ( $SE = .578$ ). The average for student identity for all 67 participants was ( $M = 2.22$ ,  $SD = .733$ ). Student identity was normally distributed, with a skewness of  $.866$  ( $SE = .293$ ) and average blood quantum for the 65 participants was ( $M = 1.58$ ,  $SD = .496$ ), with a skewness of  $-.352$  ( $SE = .297$ ).

Multiple regression was conducted to explore the best predictors of GPA achievement. The means, standard deviations, and intercorrelations can be found in Table 6a. The combination



of variables to predict GPA from blood quantum, student self-identity, and level of acculturation was statistically significant,  $F(3, 61) = 5.50, p < .002$ . Table 6b shows the beta coefficients. Note that student self-identity predict GPA when all 3 variables are included. The adjusted  $R^2$  value was .173. This indicates that 17% of the variance regarding GPA was explained by the model. According to Cohen (1988), this is a small effect.

Table 6.a

*Means, Stand Deviations, and Intercorrelations for GPA and Predictors Variables (N = 65)*

| Variable            | <i>M</i> | <i>SD</i> | <i>Blood quantum</i> | <i>Student ID</i> | <i>Acculturation</i> |
|---------------------|----------|-----------|----------------------|-------------------|----------------------|
| GPA                 | 3.26     | .586      | -.224                | -.409             | -.387                |
| Predictor variables |          |           |                      |                   |                      |
| Blood Quantum       | 1.58     | .497      | --                   | .477              | .385                 |
| Student Identity    | 2.30     | .785      |                      | --                | .502                 |
| Acculturation level | 2.42     | .917      |                      |                   | --                   |

\* $p < .05$ ; \* $p < .01$ .

Table 6.b

*Simultaneous Multiple Regression Analysis Summary for Blood Quantum, Student Identity, and Acculturation Predicting GPA (N = 65)*

| Variable            | <i>B</i> | <i>SE B</i> | $\beta$ | <i>t</i> | <i>p</i> |
|---------------------|----------|-------------|---------|----------|----------|
| Blood Quantum       | .010     | .155        | .009    | .07      | .949     |
| Student Identity    | -2.16    | .105        | -.290   | -2.06    | .043     |
| Acculturation level | -.156    | .086        | -.245   | -1.83    | .072     |
| Constant            | 4.12     | .255        |         |          |          |

*Note.*  $R^2 = .17, F(3, 61) = 5.50, p < .002$ .

## Extra Analysis

A descriptive frequency was run to provide the means for the student identity questionnaire (q. 2- 18) and for student acculturation (q. 21). As the researcher I wanted to see if students participating in the survey answered truthfully when it came to how they self-identified (primary language spoken, practice traditions and customs, where they were raised, etc) and in correspondence with their level of acculturation (pan traditional, assimilated, bicultural, marginal traditional). Figure 4 provides a visual of where students identified most with their level of Native American identity. Figure 5 also provides a visual of where students identified with their acculturation levels. The analysis for student identity (q. 2-18) had a mean of ( $M = 2.3$ ,  $SD = .775$ ) and acculturation (q. 21) had a mean average of ( $M = 2.4$ ,  $SD = .906$ ). My overall interpretation is the students were consistent with their responses and most importantly they answered truthfully. The scale consists of 17 multiple-choice questions which covered language, identity, friendship, behaviors, generational/geographical background and attitudes. A mean score was calculated and divided by the total value of the 17 questions.

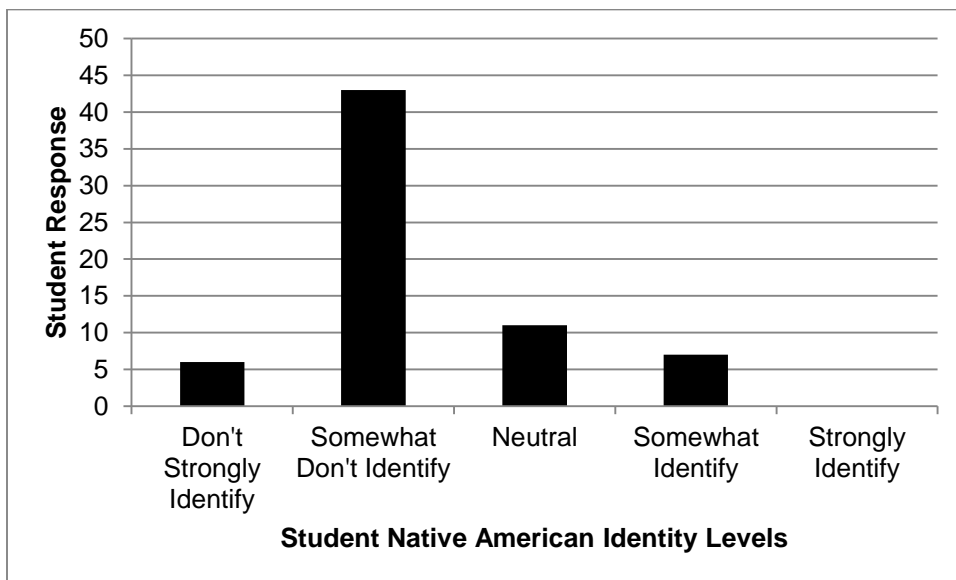


Figure 4. Student Identity Levels

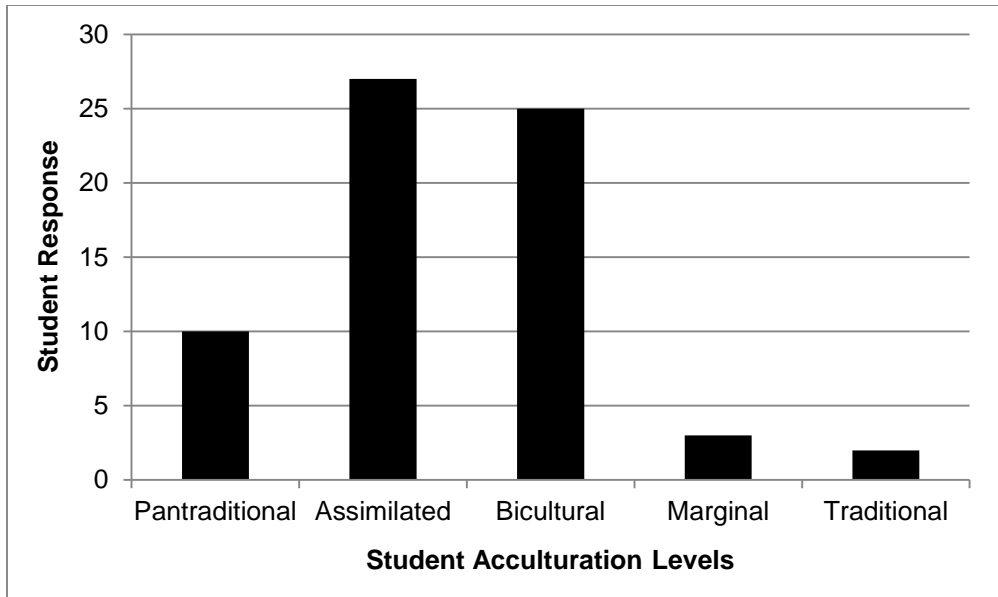


Figure 5. Student Acculturation Levels

Additionally for this study the alpha coefficient for this study was 0.91 with three of the original twenty survey questions removed. These questions included, (q. 9) *what music do you prefer*, (q. 10) *what movies do you prefer* and (q. 14) *what foods do you prefer*.

Of significances from the analysis conducted, the following variables, *where were you raised*, *self-identity questions (q. 2-18)*, *acculturation level* and *GPA*. The variable pertaining to *blood quantum* had no significant importance. I will discuss what this means in chapter 5.

## CHAPTER 5: DISCUSSIONS

The purpose of this study was to investigate factors that influence Native American success in higher education. The relationship between *blood quantum*, *student identity*, *where were you raised*, *acculturation* and *GPA* of college students was analyzed.

### Implications of the Findings

Test results of significance occurred with *where were you raised*, *student identity*, *acculturation* and *GPA*. It has previously been identified that Native American students who come from a broken home, a less than average academic setting, a single parent home, a poverty stricken environment, high crime and suicidal rates tend to struggle in an educational setting. Furthermore, Native American students struggle with self-identity, which pertains to how they see themselves and how others view them. Many are faced with having to prove their ancestry or lineage to enroll with their respective tribes.

Acculturation is another factor to add to an already complex state of elements. Native American students who are closely connected to their culture and values, while speaking their language and practicing their traditions are considered *Traditional* versus other Native Americans who do not. As the literature suggests, Native American students struggle in higher education and many face challenges that hinder their success. The literature indicates, “academic achievement among urban Indians is similar to what is found on the reservation, that is, low academic achievement” (Shutiva, 1991, paragraph 28). Other studies have found that rural students’ academic achievement was significantly lower (Singh, 1970) and according to Roscigno and Crowley (2001) academic achievement lags behind for rural children than for those who come from an urban or suburban setting. These studies suggest more factors are contributing to the students’ overall academic performance and they all vary greatly. Particularly,

Native American students face an array of factors like financial difficulties, personal/social difficulties, and transition to college, cultural conflict, and lack of college preparedness. The findings propose students coming from a rural or reservation setting may potentially have a lower GPA than those coming from a non-rural reservation setting.

Due to findings in this study of a negative correlation between *student identity* and *acculturation* in regard to *GPA*, we may need to ask ourselves, how should Native American students balance their Native American identity and academic success and how the University programs might help them do that. The data suggests that programs should focus on students coming from reservations and urban native communities. According to Kuh and Pike (2005) student's actively engaged in campus co-curricular organizations exhibit a positive correlation with academics and retention. If previous research indicates students who are involved with their respective institution do well, how do institutions enhance the academic achievement of Native American students? How are universities trying to address this? What about peer mentoring programs or culturally specific counselors? What about faculty outreach programs? These are questions that should be addressed in future research.

Test results that indicated no significances occurred with *Blood quantum*, along with a combination of *student identity*, *acculturation*, *place of growing up* and *GPA*. Blood quantum, which has been identified as a potential factor that may contribute to college achievement, has not been overtly considered in studies. It is important to note with blood there is the genetic aspect, but for this study the environmental components e.g, self-percentage of Indian blood, tribal enrollment and self-identity were examined. The test results between *blood quantum* and *GPA* revealed no difference and did not support the hypothesis of blood quantum having an effect on GPA. The sample size of participants could have contributed to the results not

supporting the projected hypothesis. Little has been done with *blood quantum* and *GPA* to find if a certain percentage of Native American blood quantum may potentially contribute to a student's overall GPA. I did find one study conducted to examine if American Indian blood quantum had an effect on whether or not students graduated or dropped out of school. The findings suggested that blood quantum had no effect on whether a student graduated or dropped out. The findings of neither this nor the later study did not support the stereotype that intelligence is directly related to Indian blood quantum (Jeanotte, 1982). Another study involving the retention of Native Hawaiian college students examined various factors including Hawaiian blood quantum and its relationship to college completion. The results indicated that college completion was not predicated on blood quantum levels (Hagedorn, 2003). Due to previous studies results mentioned, the examining of blood quantum appears to have no importance or bearing when it comes to college achievement.

“What does this mean?”

When working with Native American students, advisors and faculty should consider where the student was raised, the student's identity and acculturation. Having an understanding of the student's background could very well be the needed support Native American students need to find success at higher academic institution. As mentioned before, this study was not concerned with the genetic aspects pertaining to blood quantum in terms of suggesting Native American students are incompetent or incapable of being successful in higher education. In fact this study was looking at environmental aspects like cultural/traditional and self-identity that can interfere with classroom success. There are some considerations to be aware of when working with Native American students (general and does not imply all Native American students). In general values and behaviors for traditional Native American include and are not limited to:

quietness, avoidance of eye contact, and more flexibility with regard to time. These qualities can easily be misinterpreted in an academic setting as disinterest, disengagement, or even lack of respect. In fact, listening to those in positions of authority, not interrupting, and showing humility are meant to be signs of respect. A respectful traditional Native might also not cut off a conversation with one professor or supervisor to be on time to another class. Another disadvantage for many Native American students is speaking their traditional language. Often many grow up speaking or hearing their language from parents, family and community members. It can be easy for faculty to assume English is the first language for anyone in the U.S., but this many not be the case for Native American students born on the reservation.

### **My Experience**

As a Native American; I too struggled with certain behaviors and values along with learning the English language. My parents both speak their Native language fluently and I was able to obtain some knowledge but I have seen the next younger generations drawing further from their Native languages. It has been indicated that today's youth do not speak their language and let alone do not understand it. This adds to the already complex struggles that Native American's in general face.

My transition to a four year institution was chaos. The overall campus feeling was of a fast paced, competitive, high achieving and expensive atmosphere. During schooling I often struggled with grasping the idea of obtaining a degree. In fact I questioned its legitimacy or value and how this would pertain to my Native American background. Needless to say, I can truly say that I felt as if I was a foreigner visiting a foreign land. I knew quickly that in order to survive I had to adapt. For me adapting was taking what was provided and utilizing whatever resources were present, while all the while never forgetting who I was and where I came from. Many of

our Native peoples would say that this is our center or our balance. If you keep your center or balance in harmony then you can function in the outside world. Life on the reservation, especially the culture, traditions and customs has a pace and rhythm that answers to nature. Things will happen in due time, and we tend not to worry about it, why worry about stuff that you cannot control. Moving from one extreme setting to another certainly has its conflicts of interest for Native American student both internally and externally.

My college experience certainly had its fair share of conflicts; I recall a defining moment during my academic career where I visited a professor to explain my struggles in their class. I was told by my professor that “college is not for everyone”. Now I had two choices, either accept the fact that I wasn’t college material or use this as motivation. I had to make a choice and I chose to fight through such barriers as they arose. Now it is up to you, you have choices which direction do you want to take.

### **Additional Research**

In finishing, blood quantum while not significant, the  $p$  value was very close to having significances and it is very much tied to one’s tribal membership and this can have an effect on how one see’s themselves both internally and externally from a psychological, environmental and physical view. With these elements in mind these certainly can impact a student’s overall unique individual identity and will hold bar on how they make connection to their traditions and overall culture. With the ever growing complexity of Native American identity, I believe blood quantum is an important piece of Native American identity. Therefore, additional studies should be conducted in this area. Additionally the GPA in this study was self-reported, in future studies actual GPA should be investigated. This study was limited to a certain targeted group at a particular four year institution; therefore future research is needed at institutions that have a high



Native American student presence. Other research suggestions may include comparing Native American student services pertaining to student engagement in regard to students who do not engage in such campus services or programs. Furthermore academic institutions with a high Native American student population may support Native Student offices or centers by creating and establishing peer mentoring programs, culturally specific councilors or providing faculty outreach programs. By doing so Native American students families will be drawn to such an institution's dedication of supporting not only its students but its Native American students. This sends a firm message that the institution is doing what it can so that students can succeed. These are a few questions that should be addressed in ongoing future research.

### **Conclusion**

This study and its findings were intended to inform administrators, faculty, and professors at various institutions about their students; most importantly about their Native American students. More specifically this study is an attempt to bring to the surface the ever growing challenges Native American students face as a people. They bring with them circumstance that define them and in more ways than one shape who they are. How Native American student's self- identify certainly encompasses the student's environment, the student's psychological and physical aspects. With these elements, Native American students who enter into higher education may certainly face factors that could deny them success in college. Therefore it is vital and understood that institutions from administrators, faculty, staff and professors be aware of their student's demographic makeup and that students are provided the necessary services and amenities to help them reach academic success.

### **A Final Message**

From our people's long legacy of oppression, a trail was created, a trail full of sorrow, suffering, and pain. This is a path many would not want to take but our ancestors before us knew we would continue this journey. We carry heavy burdens from the past, today and into the future and we are reminded every day like a scar left on our hearts about the issues plaguing our Native people. Let us as Native people find our strength, our courage, and our laughter. This is not a trail for everyone but I am glad that I am here to walk with you.

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## APPENDIX A

Dear Students,

Please take the time to fill out this very important survey. A Native American student is conducting research pertaining to Native American college students. Your input is not only vital but you are helping future Native American students. More information about the research can be read below in the research cover letter.

Thank you

## APPENDIX B

Date

Dear Participant,

My name is Goldlin Wall and I am a researcher from Colorado State University in the Education department. We are conducting a research study on Native American students' identity (pertaining to blood quantum) and their academic success in higher education. The title of our project is Native American students: Blood Quantum, Identity and Educational Success. The Principal Investigator is Goldlin Wall Education department and the Co-Principal Investigator is Dr. Karen Kaminski Education department.

Participants will be provided the opportunity to take an online survey. Participation will take approximately 5-8 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participation at any time without penalty.

Participants will receive the survey in the privacy of their personnel email. Those who participate will remain anonymous meaning their response will have no name or any identifier that could link them to their participation. Those having access to the data will be Goldlin Wall (Principal Investigator) and Dr. Karen Kaminski (Co-Principal Investigator). While there are no direct benefits to you, we hope to gain more knowledge on how Native Americans students self-identity and if this may have an effect on their schooling in higher education. Those who consent to taking the survey will be given the opportunity to enter into a prize drawing. Participants will be asked to provide their names if they want to enter the prize drawing.

It is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

If you have any questions, please contact Dr. Karen Kaminski at 970-491-3713 or Goldlin Wall at 970-217-2755. If you have any questions about your rights as a volunteer in this research, contact Janell Barker, Human Research Administrator, at 970-491-1655.

Continuing on to the survey signifies consent to participation. Please use the following link to access the survey..... [link here!](#)

Sincerely,

Goldlin Wall

Dr. Karen Kaminski

PhD Student

Student Advisor

(Depending on the nature of the study, additional information may need to be added to the cover letter. See the “Model Cover letter Requirements” document on our Forms website.)



## APPENDIX C

*Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. Please choose the *one* answer that best describes you by filling in the blank and by filling in the proper spaces.

\_\_1. Please check the institution you currently attend?

- Colorado State University
- University of Northern Colorado
- Greeley
- University of Colorado Boulder

\_\_2. What language can you speak?

- 1. English only
- 2. Mostly English, some tribal language
- 3. Tribal language and English about equally well (bilingual).
- 4. Mostly tribal language, some English
- 5. Tribal language only (eg., Cherokee, Navajo, Lakota, Apache, etc)

\_\_3. What language do you prefer?

- 1. English only
- 2. Mostly English, some tribal language
- 3. Tribal language and English about equally well (bilingual)
- 4. Mostly tribal language, some English
- 5. Tribal language only (e.g., Cherokee, Navajo, Lakota, Apache, etc)

\_\_4. How do you identify yourself?

- 1. Non-Native American (e.g., White, African American, Latino, and Asian American)
- 2. Non-Native American and some Native American
- 3. Native American and non-Native American (bicultural)
- 4. Native American and some non-Native American (e.g, White, African American, Latino, and Asian American)
- 5. Native American

\_5. Which identification does (did) your mother use?

- 1. Non-Native American (e.g., White, African American, Latino, and Asian American)
- 2. Non-Native American and some Native American
- 3. Native American and non-Native American (bicultural)
- 4. Native American and some non-Native American (e.g, White, African American, Latino, and Asian American)
- 5. Native American

*Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. Please choose the *one* answer that best describes you by filling in the blank and by filling in the proper spaces.

\_\_\_6. Which identification does (did) your father use?

1. Non-Native American (e.g., White, African American, Latino, and Asian American)
2. Non-Native American and some Native American
3. Native American and non-Native American (bicultural)
4. Native American and some non-Native American (e.g, White, African American, Latino, and Asian American)
5. Native American

\_\_\_7. What was the ethnic origin of friends you had as a child to age 6?

1. Only non-Native Americans
2. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
3. About equally Native Americans and non-Native Americans
4. Mostly Native Americans
5. Only Native Americans

\_\_\_8. What was the ethnic origin of friends you had as a child 6 to 18?

1. Only non-Native Americans
2. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
3. About equally Native Americans and non-Native Americans
4. Mostly Native Americans
5. Only Native Americans

\_\_\_9. Who do you associate with now in your community?

1. Only non-Native Americans
2. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
3. About equally Native Americans and non-Native Americans
4. Mostly Native Americans
5. Only Native Americans

\_\_\_10. Where were you born?

1. Urban or Rural area, away from Native American community
2. Urban or Rural area, near Native American community
3. Urban area, Native American community
4. Rural area, Native American community
5. Reservation, Native American community

\_\_\_11. Where were you raised?

1. Urban or Rural area, away from Native American community
2. Urban or Rural area, near Native American community
3. Urban area, Native American community
4. Rural area, Native American community
5. Reservation, Native American community

*Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. Please choose the *one* answer that best describes you by filling in the blank and by filling in the proper spaces.

\_\_12. What contact have you had with Native American communities?

1. No exposure or communications with people on reservation or other Native American community
2. Occasional communications with people on reservation or other Native American community
3. Occasional visits to the reservation or other Native American community
4. Raised for 1 year or less on the reservation or other Native American community
5. Raised for 1 year or more on the reservation or other Native American community

\_\_13. In what language do you think?

1. English only
2. Mostly English, some tribal language
3. Tribal language and English about equally well (bilingual)
4. Mostly tribal language, some English
5. Tribal language only (e.g., Cherokee, Navajo, Lakota, etc)

\_\_14. Do you

1. Read only English
2. Read English better than a tribal language
3. Read both a tribal language and English about equally well
4. Read a tribal language better than English
5. Read only a tribal language (e.g., Cherokee, Navajo, Lakota, etc)

\_\_15. Do you

1. Write only English
2. Write English better than a tribal language
3. Write both a tribal language and English about equally well
4. Write a tribal language better than English
5. Write only a tribal language (e.g., Cherokee, Navajo, Lakota, etc)

\_\_16. How much pride do you have in Native American culture and heritage?

1. No pride, but do feel negative toward group
2. No pride, but do not feel negative toward group
3. A little pride
4. Moderately proud
5. Extremely proud

\_\_17. How would you rate yourself?

1. Very non-Native American
2. Mostly non-Native American
3. Bicultural
4. Mostly Native American
5. Very Native American

\_\_18. Do you participate in Native American traditions, ceremonies, occasions, and so on?

1. None at all
2. A few of them
3. Some of them
4. Most of them
5. All of them

*Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. Please choose the *one* answer that best describes you by filling in the blank and by filling in the proper spaces.

\_\_19. What is your approximate cumulative Grade Point Average? \_\_\_\_\_ GPA

\_\_20. Indicate your self-rating percentage of Indian Blood (Blood Quantum).

1. Full (100%)
2. Three fourths (3/4)
3. Half (1/2)
4. One quarter (1/4)
5. One eighth (1/8)
6. One sixteenths (1/16)
7. One thirty-seconds (1/32)
8. Other \_\_\_\_\_

\_\_21. What acculturation level do you identify most?

1. Pantraditional (Assimilated Native Americans who have made conscious choice to return to the "old ways." They are generally accepted by dominant society but seek to embrace previously lost traditional cultural values, beliefs, and practices of their tribal heritage.
2. Assimilated (accepted by dominant society; embrace only mainstream cultural values; behaviors, and expectations
3. Bicultural (Generally accepted by dominant society/nation; simultaneously able to know, accept, and practice both mainstream values/ behaviors and the traditional values and beliefs of their heritage)
4. Marginal (May speak both the native language and English; may not,

however, fully accept the cultural heritage and practices of their tribal group nor fully identify with Mainstream cultural values and behaviors

5. Traditional (May or may not speak English, but generally speak and think in their native language; hold only Traditional values, beliefs, and Practice only traditional tribal Customs and methods of worship

\_\_22. What is your sex?

1. Male
2. Female

\_\_23. What is your year in school?

1. 1<sup>st</sup> year undergraduate
2. 2<sup>nd</sup> year undergraduate
3. 3<sup>rd</sup> year undergraduate
4. 4<sup>th</sup> year undergraduate
5. 5<sup>th</sup> year or more undergraduate
6. Graduate or professional
7. not seeking a degree
8. Other

\_\_24. What is your current major/degree of study?

1. \_\_\_\_\_

\_\_25. What is your school enrollment status?

1. Full-time
2. Part-time
3. Other

*Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. Please choose the *one* answer that best describes you by filling in the blank and by filling in the proper spaces.

\_\_26. Indicate if you are an enrolled member of a tribe.

1. Yes
2. No
3. Not sure

\_\_27. Name of tribe (enrolled or not).

1. \_\_\_\_\_

\_\_28. What is your parents (or guardian) current marital status?

1. Single, Never Married
2. Married
3. Separated
4. Divorce
5. Widowed

\_\_29. How many hours a week do you work for pay?

1. 1-9 hours
2. 10-19 hours
3. 20-29 hours
4. 30-39 hours
5. 40 hours
6. more than 40 hours

\_\_30. How is school being paid (check all that Apply)?

1. Family support
2. Student Loans
3. Tribal Scholarship
4. Federal/State government, BIA aid
5. Pell grant/work study
6. Other \_\_\_\_\_

\_\_31. Indicate your mother's overall level of education.

1. Did not complete high school
2. High school/GED
3. Vocational or Trade school
4. Some college
5. Bachelor's degree
6. Master's degree
7. Professional/ Ph.D
8. Not sure

\_\_32. Indicate your father's overall level of education.

1. Did not complete high school
2. High school/GED
3. Vocational or Trade school
4. Some college
5. Bachelor's degree
6. Master's degree
7. Professional/ PhD
8. Not sure

\_\_33. What was your household annual income during childhood?

1. under 25,000
2. 25,000-34,999
3. 35,000-44,999
4. 45,000-54,999
5. 55,000-64,999
6. 65,000-74,999
7. 75,000-over

## APPENDIX D

### Follow-up Email

Dear Students,

If you *have* taken the survey please ignore this email.

If you have *not* taken the survey please do so. This information is vital to supporting future and current Native American students. Please read the cover letter below to get an idea of the research being conducted. By clicking on the live link at the bottom of the cover letter determines that you have read and understood the contents of the study, therefore giving consent to take the survey. Upon clicking on the link you will be taken to the “Student Voice” web domain where the survey will be available for you to take. The survey takes 5-8 minutes to complete. Once you are done all information will be stored in “Student Voice” data base and I the researcher will only have access to the information.

Thank you,

Goldlin Wall (PhD Student Investigator)



## APPENDIX E

*Original Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. For each item, choose the *one* answer that best describes you by filling in the blank.

\_\_\_1. What language can you speak?

1. Tribal language only (eg., Cherokee, Navajo, and Lakota)
2. Mostly tribal language, some English
3. Tribal language and English about equally well (bilingual).
4. Mostly English, some tribal language
5. English only

\_\_\_2. What language do you prefer?

1. Tribal language only (e.g., Cherokee, Navajo, and Lakota)
2. Mostly tribal language, some English
3. Tribal language and English about equally well (bilingual)
4. Mostly English, some tribal language
5. English only

\_\_\_3. How do you identify yourself?

1. Native American
2. Native American and some non-Native American (e.g, White, African American, Latino, and Asian American)
3. Native American and non-Native American (bicultural)
4. Non-Native American and some Native American
5. Non-Native American (e.g., White, African American, Latino, and Asian American)

\_\_\_4. Which identification does (did) your mother use?

1. Native American
2. Native American and some non-Native American (e.g, White, African American, Latino, and Asian American)
3. Native American and non-Native American (bicultural)
4. Non-Native American and some Native American
5. Non-Native American (e.g., White, African American, Latino, and Asian American)

\_\_\_5. Which identification does (did) your father use?

1. Native American
2. Native American and some non-Native American (e.g, White, African American, Latino, and Asian American)
3. Native American and non-Native American (bicultural)
4. Non-Native American and some Native American
5. Non-Native American (e.g., White, African American, Latino, and Asian American)

*Original Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. For each item, choose the *one* answer that best describes you by filling in the blank.

\_\_\_6. What was the ethnic origin of friends you had as a child to age 6?

1. Only Native Americans
2. Mostly Native Americans
3. About equally Native Americans and non-Native Americans
4. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
5. Only non-Native Americans

\_\_\_7. What was the ethnic origin of friends you had as a child 6 to 18?

1. Only Native Americans
2. Mostly Native Americans
3. About equally Native Americans and non-Native Americans
4. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
5. Only non-Native Americans

\_\_\_8. Who do you associate with now in your community?

1. Only Native Americans
2. Mostly Native Americans
3. About equally Native Americans and non-Native Americans
4. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
5. Only non-Native Americans

\_\_\_9. What music do you prefer?

1. Native American music only (e.g. pow-wow music, traditional flute, contemporary, and chant)
2. Mostly Native American music
3. Equally Native American and other music
4. Mostly other music (e.g., rock, pop, country, and rap)
5. Other music only

\_\_\_10. What movies do you prefer?

1. Native American movies only
2. Mostly Native American movies
3. Equally Native American and other movies
4. Mostly other movies
5. Other movies only

\_\_\_11. Where were you born?

1. Reservation, Native American community
2. Rural area, Native American community
3. Urban area, Native American community
4. Urban or Rural area, near Native American community
5. Urban or Rural area, away from Native American community

*Original Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. For each item, choose the *one* answer that best describes you by filling in the blank.

\_\_12. Where were you raised?

1. Reservation, Native American community
2. Rural area, Native American community
3. Urban area, Native American community
4. Urban or Rural area, near Native American community
5. Urban or Rural area, away from Native American community

\_\_13. What contact have you had with Native American communities?

1. Raised for 1 year or more on the reservation or other Native American community
2. Raised for 1 year or less on the reservation or other Native American community
3. Occasional visits to the reservation or other Native American community
4. Occasional communications with people on reservation or other Native American community
5. No exposure or communications with people on reservation or other Native American community

\_\_14. What foods do you prefer?

1. Native American foods only?
2. Mostly Native American foods and some other foods
3. About equally Native American foods and other foods
4. Mostly other foods
5. Other foods only

\_\_15. In what language do you think?

1. Tribal language only (e.g., Cherokee, Navajo, and Lakota)
2. Mostly tribal language, some English
3. Tribal language and English about equally well (bilingual)
4. Mostly English, some tribal language
5. English only

\_\_16. Do you

1. Read only a tribal language (e.g., Cherokee, Navajo, and Lakota)
2. Read a tribal language better than English
3. Read both a tribal language and English about equally well
4. Read English better than a tribal language
5. Read only English

\_\_17. Do you

1. Write only a tribal language (e.g., Cherokee, Navajo, Lakota, etc)
2. Write a tribal language better than English
3. Write both a tribal language and English about equally well
4. Write English better than a tribal language
5. Write only English

*Original Native American Acculturation Scale*

Instructions: This questionnaire will collect information about your background and cultural identity. For each item, choose the *one* answer that best describes you by filling in the blank.

- \_\_18. How much pride do you have in Native American culture and heritage?
1. Extremely proud
  2. Moderately proud
  3. A little pride
  4. No pride, but do not feel negative toward group
  5. No pride, but do feel negative toward group

- \_\_19. How would you rate yourself?
1. Very Native American
  2. Mostly Native American
  3. Bicultural
  4. Mostly non-Native American
  5. Very non-Native American

- \_\_20. Do you participate in Native American traditions, ceremonies, occasions, and so on?
1. All of them
  2. Most of them
  3. Some of them
  4. A few of them
  5. None at all