

The Pennsylvania State University

The Graduate School

College of Education

**THE PERCEPTIONS OF PRINCIPALS TOWARDS THE ACADEMIC
ACHIEVEMENT OF NAVAJO HIGH SCHOOL STUDENTS**

A Thesis in

Educational Leadership

By

Tamarah Pfeiffer

© 2006 Tamarah Pfeiffer

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

May 2006

The thesis of Tamarah Pfeiffer was reviewed and approved* by the following:

John W. Tippeconnic III
Professor of Education
Thesis Adviser
Chair of Committee

Nona Prestine
Professor-In-Charge of Graduate Programs
Professor of Educational Education in Educational Leadership

Jacqueline Stefkovich
Professor of Education

Edgar P. Yoder
Professor of Agricultural and Extension Education

*Signatures are on file in the Graduate School

ABSTRACT

Purpose of Study

The purpose of this research study was to examine the perceptions of high school principals towards the academic achievement of Navajo high school students. The research questions examined how high school principals perceive the use of other measures, standardized tests, and high stakes tests as they relate to the academic achievement for Navajo high school students. The research also included principals' perceptions that were different or the same for the special education high school student in their school.

Methodology

This was a qualitative multi-case study of three high school principals at a Bureau of Indian Affairs school, a grant school, and a public school located on the Navajo Nation reservation in Arizona. The researcher conducted open-ended interviews with each high school principal, carried out daily principal observations, collected data from individual schools and lead teacher focus group interviews as one means to triangulate data.

Findings

Study resulted in the following findings: The high school principal on the Navajo reservation is influenced greatly by the federal act of No Child Left Behind. The Arizona Instrument to Measure Standards (AIMS), was identified as the high stakes test for these three schools. The AIMS is a challenge for many Navajo high school students to meet, and places many students in jeopardy of not graduating with a diploma, and schools not making Adequate Yearly Progress. Navajo language and culture in the schools is based on the school administration, communities wants and needs and is either integrated or seen as extra-curricular in relationship to the regular high school curriculum.

TABLE OF CONTENTS

Committee Page.....	ii
Abstract.....	iii
Table of Contents.....	iv
List of Tables.....	vi
Acknowledgments.....	vii
Chapter One:	
INTRODUCTION	
Overview	1
Statement of the Problem.....	2
Significance	2
Purpose and Research Questions	3
Definitions of Terms	4
Limitations	6
Summary	7
Chapter Two:	
A REVIEW OF LITERATURE	
Introduction	8
Principals	9
Instructional Leadership.....	10
Principals and Testing	18
Principals and Student Achievement	19
Testing	20
High Stakes Tests	21
Standardized Tests.....	22
Other Measures of Student Achievement	22
American Indian Students and Achievement.....	22
Culture	23
Language	24
Purpose of Literature Review.....	25
Chapter Three:	
METHODOLOGY	
Restatement of Problem	26
Qualitative Methodology	26
Qualitative Logic and Rational for Approach.....	29
Delineation and Justification for the Research Design	30
Participants of the Study	31
Site Description	31
Data Collection	33
Description of Data Collection techniques	34
Data Analysis	36
Reliability and Validity	37
Limitations to the Research	38

Chapter Four

DATA ANALYSIS

Presentation and Analysis of Data.....	38
Overview of High Schools and Principals.....	40
Lichii High School (Principal John Waters/Mark Yazzie).....	41
Ch'ilgo Dootl'izh High School (Principal Jack Smith).....	44
Litso High School (Principal Clark Nez).....	47
Overview of Findings.....	52
Research Question 1	52
Standardized Tests as a Measure of Academic Achievement	52
Similar Perceptions of Principals.....	57
Differing Perceptions of Principals.....	61
Summary	64
Research Question 2	65
High Stakes Test as a Measure of Academic Achievement....	65
Similar Perceptions of Principals.....	68
Differing Perceptions of Principals.....	77
Summary	79
Research Question 3.....	79
Other Measures as a Measure of Academic Achievement.....	79
Similar Perceptions of Principals.....	79
Differing Perceptions of Principals.....	82
Summary.....	85

Chapter 5

CONCLUSIONS, IMPLICATIONS and RECOMMENDATIONS

Conclusions.....	86
Implications.....	90
Recommendations	91
Policy.....	91
Practice.....	92
Research.....	94

Bibliography	96
---------------------------	----

Appendices

Appendix A: Enclosed Response Postcard	113
Appendix B: Letter Requesting Interview.....	115
Appendix C: Interview (Principal) Protocol.....	117
Appendix D. Adequate Yearly Progress Chart.....	119
Appendix E: PLATO Course Offerings.....	121
Appendix F: Observation Documents.....	123

TABLES

School Demographics..... 51

Acknowledgements

I have waited for the appropriate time in my life to thank so many people who have made this journey such a wonderful learning process.

Family

I would like to begin with my thanks to my son, Chad Sinclair Pfeiffer. Thank you son for believing that the journey was possible and necessary. To my parents Cam and Anita Pfeiffer who have kept my heart filled with joy and hope through this whole process. To my sister Michele, her husband Kip and their son Reed and my other sister Taasha, her husband Mike and their children Kelsey and Hunter thank you, this journey could not have happened without their support and guidance. To my extended family I wish to thank my grandmother, aunts, uncles, and cousins for their support and guidance. Their prayers and thoughts gave me hope to move forward and complete this part of the journey.

Committee Members

I will always be eternally grateful to my director of the American Indian Leadership Program, advisor and committee chair Dr. John W. Tippeconnic III, it is with his patience, guidance, time, and dedication to Indian Education that I will grow into a strong leader. This process could not have been completed without the generosity and guidance of Dr. Nona Prestine, Dr. Jackie Stefkovich and Dr. Ed Yoder who all gave of their time and expertise to challenge me to be a strong scholar and teacher.

Principals, Superintendents and Navajo Nation

To the my selfless, dedicated and dynamic principals Mark Yazzie, Clark Nez, John Waters, and Jack Smith I am forever grateful. I will always have a special place in my heart for the Navajo schools that allowed me to be apart of their school. At each of the schools, I was humbled by the Superintendents at Lichii, Ch'ilgo Doot'izh, and Litso who also were excited and challenged by the research. I am especially grateful to the superintendent at Lichii School who found me a home and made me part of the community. Thank you. Thank you to the Navajo Nation. Ah'eehe.

Friends

I have had the pleasure of having lasting and loving friends all along the way support me in this journey. To all of you, who have been by my side, thank you. Finally, to the American Indian Leadership Program and AILP Fellows that challenged me to be a strong leader, and forever commit myself to the education of American Indian students

CHAPTER ONE

Introduction

Overview

Academic success of students is based on strong instructional leadership. The principal in this case plays a key role in the building of academic success (Bredeson, 1966; Burrello & Lashley, 1987). The crucial role of principal as instructional leader is magnified today by the language of the No Child Left Behind Act of 2001. This Act has placed demands on school administrators, teachers and students to be more accountable with emphasis on standards, assessment, highly qualified teachers and meeting adequate yearly progress (AYP) benchmarks. Of all the forms of accountability state mandated high stakes tests represent the greatest frustrations for principals, teachers and students (Koretz, Linn, Dunbar, & Shepard, 1991). For Navajo students located in rural schools on the Navajo reservation high stakes tests like many norm-referenced tests place an automatic disadvantage on students due to the historical nature of cultural and linguistic biases of such tests and their euro-centric bias (Fox, 2001). High stakes tests can label both a school and the individuals that work with students as 'low or non-performing' and mandate a school district to restructure or in severe cases results in the state takeover of the school(s).

These state and federal threats to principals define then what should or should not be included in school curriculum under their rational of student academic achievement. High stakes tests can open more doors to opportunity or close doors depending on how school leadership defines the purpose of the tests in relationship to the achievement of their particular students, and to what degree they promote other forms of assessment to more accurately measure achievement of their particular student population (Friedman et

al., 2003). The idea of schooling is not to close doors on students but to open doors and allow students to realize the possibilities of choice, whether it may be to attend an institution of higher education, entry to a traditional apprenticeship program, military duty, or family enterprise beyond high school.

Statement of the Problem

High stakes testing has controlled the curricula and design of schooling and is having a significant impact on American Indian education (Banks, 1997). Standardized nationally normed-tests have been criticized for their overuse and assessment of learning and school success (Guerin & Maier, 1983; Shepard, 1989; Sperling, 1994). The problems with high stakes and other standardized testing is that it is further complicated by the diversity of languages and, cultures, of over 500 federally recognized American Indian tribes (Bordeaux, 1995). Nichols (1991), in his review of the Indian Nations at Risk Task Force report concluded that public school reliance on standardized testing may in fact hurt Native American students. Indicators that some educators have found to be more useful in assessing student achievement are skill mastery, student portfolios and attitudinal measures (Bordeaux, 1995).

Significance

This study is built upon key philosophical understandings of American Indian educators, and explores new systematic language that better addresses student achievement and high stakes testing from the perspective of the high school principals of schools serving predominately Navajo students. Further, this study argues that the principal continues to play a crucial role in school leadership, culture, language, and mission as it relates to the teaching and learning of students (Swisher & Tippeconnic,

1999). It is imperative that educators understand their own levels of influence in order to change the perceptions and expectations of what students can and want to achieve (Havigurst & Fuchs, 1972; Havigurst & Levine, 1979). Those perceptions that administrators have about student achievement show up in a greater inequality among the American Indian students in special education, resulting in exaggerated numbers of students being classified as either learning disabled or having emotional disorders (Brand, 1987; Yates, 1987). This research study adds to the literature that defines sound educational practice, educational leadership, and how high stakes testing promotes or interferes with student learning.

Purpose and Research Questions

The purpose of this study is to examine the perceptions of high school principals toward the academic achievement of Navajo high school students. Role emphasis was placed on the high school principals' perceptions of standardized tests, high stakes tests, and other measures of academic success.

Research Questions

1. How do high school principals perceive the use of standardized tests a measure of academic achievement for Navajo students?
 - a.) Is this perception different for the special education student?
2. How do high school principals perceive the use of high stakes tests as a measure of academic achievement for Navajo students?
 - a.) Is this perception different for the special education student?

3. What other measures do high school principals use to determine academic success for Navajo students?
 - a.) Are these measures the same or different for the special education students?

Definition of Terms

Adequate Yearly Progress (AYP): A measure of school performance as mandated by the federal government in the 2001 No Child Left Behind Act. Adequate Yearly Progress (AYP) holds schools accountable for the performance of subgroups, as well as all students. Academic Yearly Progress measures school performance towards the goal of having 100 percent of all students proficient in state standards for reading and math by the school year 2013-2014.

Arizona Instrument to Measure Standards (AIMS): The Arizona state mandated tests given to students in grades 3, 5, 8, 10 in areas of math, reading, and writing. The class of 2006 is currently mandated to pass these sets of tests to receive a graduation diploma.

Bureau of Indian Affairs School: Federally funded and operated schools serving American Indian students in consultation with an advisory school board.

Culture: The values, beliefs, practices, customs of a community that researchers need to be familiar with in order to carry out their research; integral parts to the overall picture of what has been investigated and learned (Smith, 1999).

Dine- The use of Dine in the paper refers to the Navajo word for themselves.

Grant/Contract School: Federally funded schools operated by an incorporated school board representative of the American Indian students it serves, under PL 93-638 or PL 100-297.

High Stakes Tests: State mandated examinations that specifically address, reading, writing and mathematics.

Instructional Leadership: Leaders focus on behavior of teachers as they engage in activities directly affecting students. It is not the principal alone that directs instructional leadership, but rather it is a partnership with teachers as they together influence student learning and school culture (Leithwood, Jantzi and Steinbach, 1999).

Leadership: the mobilization of people to adapt to a school's practices and beliefs so that it more fully achieves its mission with all children (Donaldson, 2001, p.2)

Manager: An individual that is limited to the maintenance of existing means and ends.

Navajo: An enrolled member of the Navajo tribe, requiring at least ¼ degree Navajo blood quantum.

PLATO learning Inc.: Is a computer based and e-learning program that assists students from K-adult with content driven lessons (www.plato.com).

Public School: State funded and governed schools located on trust lands and serving predominantly Navajo students.

Principal: The school principal is "the individual charged with the task of directing and coordinating a group of activities necessary to achieve or change goals;" creates shared values and purposefulness for a school (Sergiovanni, 1980).

Standardized Tests: A systematic process for assigning numerical values to behavior, such that all test takers are administered equally weighted testing times and that the test is then given with a set of directions and a scoring method (Brescia & Fortune, 1988).

Limitations

The population from which the sample for this study was drawn was limited to a specific geographical region of the Navajo Nation. The sample size was also limited to three high school sites on the Navajo reservation. Therefore the conclusions reached as a result of this study are not generalizable (Creswell, 2003). The research focused on a multi-site analysis of data that identified major patterns across all three high schools.

The interviewing procedure, which was employed, placed a restriction on the amount of time that could be devoted to each interview. Though this was viewed as a practical cost advantage (visiting each site), there existed the possibility that subjects might experience a sense of urgency. Therefore, tape recording the interviews, transcribing on site, and reviewing the tapes in an ongoing manner provided the investigator with the ability to code and streamline follow up interviews with principals and develop focus group interview questions for teachers necessary in the triangulation of data.

For the purpose of this research case study of three unique schools on the Navajo reservation the names of each principal has a pseudonym as well as each school site has been given a respective Navajo place name to individually identify the communities without giving the specificities of the actual schools and thus maintaining confidentiality. Finally, the obtained data represents the perceptions of willing participants. This fact

affects the conclusions reached as differences even between the willing participants could vary widely (Kvale, 1996).

Summary

This qualitative research study of three schools on the sovereign Navajo Nation reservation examined the perceptions of principals toward standardized testing, high stakes testing, and other measures of Navajo high school student success.

Principal leadership makes a difference in schools (Sergiovanni, 1980; Leithwood, 1994). That difference manifests itself in how principals have defined academic achievement and articulated the purpose behind high stakes tests reverberating into the classroom and into the culture of the school. High stakes tests are a burden on American schools (Kohn, 2003). The purpose of high stakes tests is not always synonymous with academic achievement. This study also determined other measures that high school principals perceived as having had a direct bearing on the academic achievement of Navajo students other than standardized testing or high stakes tests.

CHAPTER TWO

A Review of Literature

Introduction

The purpose of the following review of literature was to collect, report and critically analyze the research literature on the impact of instructional leadership of high school principals on Navajo student achievement as it relates to testing. The review includes the complexity of defining instructional leadership, the achievement of Navajo students, with or without disabilities, and how standardized and high stakes tests accurately reflect the uniqueness of the Navajo students' culture and language.

An initial literature search included all four parameters: 1) high school principal; 2) instructional leadership; 3) American Indian; 4) Navajo student, including student achievement, data on standardized tests and high stakes testing. This search included the ERIC, ProQuest, Cambridge Scientific Abstracts, Wilson Social Science Index, and other related reports which included American Indian student data as well as data of other minority students.

This literature review is organized into three different parts: Principals, Testing and the American Indian Student. The researcher will first discuss the specific literature related to the issues of principals as instructional leaders, high school testing and then student achievement. Included within the broader topic of testing will be a literature discussion regarding high stakes testing, standardized testing and other testing measures. Finally, the American Indian student is addressed in the literature review and most specifically to assist the research in looking at the uniqueness of the Navajo culture and language.

Principals

In 1980 Sergiovanni referred to the school principal as "the individual charged with the task of directing and coordinating a group of activities necessary to achieve or change goals." In 1992 Sergiovanni went on to expand the definition to include "shared values" and "purposefulness." Likewise, it is also important to realize that school leadership must be viewed as the cumulative activity of a broad set of leaders, both formal and informal, within a school. The principal is where the buck stops at the building level, but distributive leadership in a school serves many purposes primarily the use of expertise across staff members, and deepening instructional improvement (Spillane, Halverson, & Diamond, 2001).

As a change agent the principal has the responsibility of communicating and motivating other educators to engage in making learning relevant and purposeful (Flanigan, 1994; Leithwood, 1994; Thurston, Clift & Schacht, 1993). Among other characteristics of leadership within a change-oriented process, leadership must have the ability to engage personnel in collaborative problem solving (Leithwood, 1994). As a change agent, principals must be able to see teachers as valuable sources of information and ideas (Leithwood, 1994; Thurston et al., 1993). Effective leadership builds on skills that facilitate the collaborative decision-making process and distributes leadership responsibilities and, finally, principals engage in reform activities that advocate for the needs of students, faculty and community (Thurston et al., 1993).

Giannangelo and Malone (1987) report that teachers define the principals' role as one of instructional leader. Students' do help to shape the principals' perception and

enactment of their leadership role in schools, as well as teachers having particular role expectations of principals (Parkay & Hall, pg. 230).

Instructional Leadership

Instructional leadership encompasses "those actions that a principal takes, or delegates to others, to promote growth in student learning" (DeBevoise, 1984, pp. 14-20). Those tasks comprise the following: defining the purpose of schooling, setting school-wide goals, providing the resources needed for learning to occur, supervising and evaluating teachers, coordinating staff development programs, and creating collegial relationships with and among teachers (Wildy & Dimmock, 1993).

The term instructional leader clearly describes the primary role of the principal in the quest for excellence in education. To achieve this goal, it takes more than a strong principal with concrete ideas. According to Richardson et al. (1989), he or she must lead toward educational achievement, must be a person who makes instructional quality the top priority of the school, and must be able to bring that vision to realization.

Most writers acknowledge there is no single definition of instructional leadership nor specific guidelines or direction universally inclusive as to what an instructional leader does (Flath, 1989). They do, however, create their own definition and, as a result, meanings vary considerably from one practitioner to another and from one researcher to another. This lack of consistency in definition then becomes part of the problem. As Cuban (1984) expresses, "Road signs exist, but no maps are yet for sale" (p. 132). However, to enlarge our understanding, the discussion now turns to examine the role of an effective instructional leader in today's schools.

As instructional leader, the principal is pivotal within the school affecting the quality of individual teacher instruction, the height of student achievement, and the degree of efficiency in school functioning. If principals as instructional leaders are to assume responsibility and hold students accountable under the law of the 2001 No Child Left Behind Act they must have the credentials as a principal to dissect and analyze the data at their school sites especially when it comes to testing (Elford, 2002).

Findley and Findley (1992) state, "if a school is to be an effective one, it will be because of the instructional leadership of the principal" (p. 102). Flath (1989) concurs, "Research on effective schools indicates that the principal is pivotal in bringing about the conditions that characterize effective schools" (p. 20). Ubben and Hughes (cited in Findley & Findley, 1992) claim that "although the principal must address certain managerial tasks to ensure an efficient school, the task of the principal must be to keep focused on activities which pave the way for high student achievement" (p. 102). If our goal is to have effective schools, then we must look at ways to emphasize instructional leadership. The issues that high school principals face today regarding leadership is when to be or not to be the primary focus of instructional initiatives. To encompass all the intricate facets of daily operation of a high school, principals must acknowledge that the greatest resource to sustaining a culture of a school is through teachers taking ownership, thus expanding instructional leadership to encompass a more distributive leadership perspective (Spillane, Halverson, & Diamond; 2001). Effective instructional leadership before focusing on testing (standardized or high stakes) is encouraged to build learning communities, develop professional development relevant to the culture and organization of the school, align curricula, and place students first (Hargreaves & Fink, 2000; Rodrick

& Engel 2001).

In respect to the No Child Left Behind Act of 2001, principals have had to take on greater responsibilities of daily, weekly, and yearly accountability relevant to student achievement (Moss, 2002). In order to facilitate best practices they may include data-driven decision making, professional development, curriculum alignment to standards, principals have then to define what they mean when they address student achievement and take on the instructional leadership role (Armein & Berliner, 2002). When principals align their school goals and resources, make strong staff and curriculum decisions there is a sense of direction and from that direction the articulated goal of student achievement through assessment is best achieved (Christie, 2002). How, then, do we change what is, to what should be? Initially there must be an understanding of the meaning of the term instructional leader and, secondly, there must be an examination of what leadership qualities are needed and what actions are necessary to fulfill this role.

Understanding the meaning of the term instructional leadership presents a problem. Many writers acknowledge there is no succinct definition of instructional leadership, nor are there any specific guidelines or direction as to what an instructional leader does. Thus, writers may piece together their own definitions and, as a result, meanings may vary considerably from one practitioner or researcher to another (Flath, 1989).

Bird and Little (1985) do distinguish between educational leadership and instructional leadership. They state that, "educational leadership describes those initiations that attempt or tend to preserve or produce a favorable educational ethos within the school, while instructional leadership refers to the specific branch or

educational leadership that addresses curriculum and instruction." (p. 19)

According to Leithwood and Reihl (2003) an instructional leader is an administrator who promotes a vision and goals, ensures resources and processes are in place, emphasizes the process of instruction and facilitates the interaction of teachers who influence student learning and curriculum (p. 20). Mendez (cited in Flath, 1989) describes it yet another way

There are three major forces that serve to shape and describe a school--the public, the staff and the students--and these forces interact through the curriculum. The role of the instructional leader is to manipulate these forces in order to maximize the quality of instruction. (p. 20)

In examining instructional leadership qualities, one finds that, here also, the research varies. Duke (cited in Flath, 1989) concluded from his research on instructional leadership qualities that "there is no single leadership skill or set of skills presumed to be appropriate for all schools or all instructional situations" (p. 20). On the other hand, Kroeze (cited in Flath, 1989) found that certain instructional leadership activities could be grouped together and they are presented in the following four categories:

1. Goal emphasis. Sets instructional goals, high expectations and focus on student achievement.
2. Coordination and organization. Work toward effectiveness and efficiency.
3. Power and discretionary decision-making. Secures resources, generates alternatives, assists, and facilitates to improve the instructional program.
4. Human relations. Deals effectively with staff, parents, community, and students. (p. 20)

However, throughout the literature there have been recurring themes on instructional leadership qualities and a perusal of the research of several well-known authors in this field follows. Baskett and Miklos (1992) present a person-centered leadership approach that emphasizes sensitivity to working with teachers, peers, subordinates and members of the public. Also, there is the work of Rutherford, (cited in Anderson & Pigford, 1987) who mentions five general effective leadership qualities:

1. Have a vision. Work toward a shared understanding of the goals, progress toward their achievement and coordinate curriculum, instruction and assessment.
2. Translate the vision into action. Work as a team, emphasizing school wide goals and expectations.
3. Create a supportive environment. Promote an academically oriented, orderly, and purposeful school climate.
4. Know what's going on in the school. Find out what teachers and students are doing and how well.
5. Act on knowledge. Intervene as necessary accommodating different teacher personalities, styles, and teaching strategies. (pp. 67-68)

In addition to these leadership qualities aforementioned, Fullan (1991) found in his research that "schools operated by principals who were perceived by their teachers to be strong instructional leaders exhibited significantly greater gain scores in achievement in reading and mathematics than did schools operated by average and weak instructional leaders" (p. 156). Thus, 'perception' may be included as a strong determinant of effectiveness.

Some authors (Glickman, 1985; Smyth, 1988; Wiles & Bondi, 1986 [all authors cited in Haughey & MacElwain, 1992]) emphasized instructional supervision as a fundamental component of instructional leadership, viewing this role as imperative to improved instruction and student achievement. Haughey and MacElwain (1992) point out that there is a general agreement among writers that albeit instructional supervision was focused on the enhancement of student learning but it was in the practice of instructional supervision that they differed. (p. 106) These authors point out some of the areas in which researchers differ on the subject of instructional supervision.

Wiles and Bondi (1986) defined supervision as a "general leadership function that coordinates and manages those school activities concerned with learning" (p. 10). Other writers, Glickman(1985) and Smyth, (1988) stress the importance of the involvement of the teachers in the process. Sergiovanni (1987) presented a reflective model of supervision in which he proposed that since teachers vary in their goals and learning styles, supervisors should be responsive to these differences in the ways teachers are supervised. Further, Morris, Crowson, Porter-Gehru, and Heurwitz (1984) conclude, "the principals influence, though, may be more indirect, creating a favorable climate for learning; the most effective role may be supportive rather than supervisory or evaluative" (pp. 106) .

The issues of both instructional improvement and accountability have been addressed in an interesting supervision model developed by Dagley and Orso (1991). Their two-part model works in a cyclical fashion. One part is a summative evaluation to determine if minimal standards of accountability have been met; the other a formative evaluation which focuses on growth and improvement. The two parts operate cyclically,

such that if minimal accountability standards are met, teachers move immediately to the formative stage of the model where they focus on improving a targeted teaching area. Once completed, teachers can return to the formative side to work on another target area or move to the summative side to begin a new cycle. If accountability standards are not met, teachers either enter an intensive assistance state mandated course of study for certification) or terminated (fired). Once intensive assistance is successfully completed, they can re-enter the cycle at the formative stage.

An integral area within all instructional leadership or supervision models is that of planning in-service training and staff development. Well-recognized models include the work of Joyce and Showers' (cited in Dagley & Orso, 1991, p. 72) theory, practice, feedback and coaching to application, as well as Goldhammer's (cited in Dagley & Orso, 1991, p. 75) five steps of clinical supervision that include: pre-observation conference, analysis of observation, post-observation conference, and planning for improvement.

An additional criterion for instructional leaders often mentioned in research is that the principal should also be a practicing teacher. Weindling (1990) states that head teachers in the United Kingdom indicated that "the most important thing contributing to instructional leadership was the fact that all continued to teach for an average of about 20 percent of the week" (p. 42). Harden's (1988) research outlines why this is important. To have credibility, principals need to work closely with students, developing teaching techniques and methods as a means for understanding teacher perspectives and for establishing a base on which to make curricular decisions. Also, a teaching principal strengthens the belief that "the sole purpose of the school is to serve the educational needs of students" (p. 88).

Squires, Huitt and Segars (1984) research on effective schools strongly suggests that instructionally effective schools have principals who are viewed by their teachers as the primary instructional leader in the school. They developed an operational definition of instructional leadership behaviors. The behaviors were found to be a set of strategic interactions that Bamburg and Andrews (1990) grouped as:

1. A resource provider that: (a) marshals personnel and resources to achieve a school's mission and goals, and (b) is knowledgeable about curriculum and instruction.
2. An instructional resource that: (a) sets expectations for continual improvement of the instructional program and actively engages in staff development, and (b) encourages the use of different instructional strategies.
3. An effective communicator that: (a) models commitment to school goals, (b) articulates a vision of instructional goals and the means for integrating instructional planning and goal attainment, and (c) sets and adheres to clear performance standards for instruction and teacher behavior.
4. A visible presence that: visits classrooms, attends departmental or grade-level meetings, is accessible to discuss matters dealing with instruction, is an active participant in staff development (pp.17-19).

Principals play a key role in instructional change in their schools. The direct involvement of principals correlates to the success of instruction (Roirdan, 2003). Collins and Porras (1997) define leaders as individuals who “display high levels of persistence, overcome significant obstacles, attract dedicated people, influence groups or people

toward achievement of goals, and play key roles in teaching and learning.”

Over the last 60 years much has been written to define leadership of individuals who hold principal positions and what it means. This literature review will focus on the effective school research of the mid 1970s to the mid 1980s which identified eight key variables including:

- (1) Safe and orderly environments
- (2) High expectations for success
- (3) Clear focused mission
- (4) Instructional leadership
- (5) Opportunities to learn, time on learning
- (6) Frequent monitoring of student progress
- (7) Home school relations
- (8) Effective teaching

The personal, functional and contextual roles of a principal are always in flux. The principal today must not only realize that these roles are in flux, but be willing to embrace this reality. The principal models the behavior he/she wishes teachers to emulate (Blumberg, & Greenfield, 1980, pg.59).

Principalship and Testing

Reeves (2003) offers that there are six principles of effective accountability. First, accountability must be the unifying theme that draws on strategy, reward, recognition, and personnel evaluations together. Second, accountability is not about generalities; administrators must know what works. Third, principals must investigate which strategies in their own communities improve student achievement. Fourth, there should be a direct

relationship between the strategies employed and the anticipated improvements in student learning. Fifth, once a year feedback is not enough and principals must build a system that gives feedback every month to students, teachers, and community to build on making better the instructional systems. Finally, the bell curve is an inappropriate instrument to measure student achievement. What matters becomes “are students meeting the expectations of instruction and not who beat who” (Pierce & Stapleton, 2003). High school principals must be held accountable for test scores and other performance indicators such as graduation rates and student attendance (MCREL, 2000). Tying assessments like testing to student graduation can prompt students to drop out or increase the number of years necessary to graduate (Kohn, 1999). Tests are often used as a means to determine whether a student graduates, or is promoted from one grade to the next (Shepard & Smith, 1986). The issue that principals often don’t see is that alignment of curriculum is just one key factor in how students perform on tests with two overarching dimensions content match and depth match (LaMarca, Redfield, & Winter, 2000). Retaining students does not boost test scores and only increases the chances of drop out. (Heubert & Hauser, 1999; Robrick, 1993).

Principals and Student Achievement

For principals to be effective in their mission to bring about a more holistic vision of student achievement there must be assessments tied directly to instruction, improvement of practice and the knowledge shared by students across the whole school (Leiberman, 1991; Clark & Clark, 2001). Hallinger and Murphy (1985) had three broad categories of leadership practice: defining the school mission, managing the instructional program, and promoting school climate (Leithwood et al., 1999, p. 8). Much research has

found that high-stakes tests--particularly when they use limited measures of achievement--can narrow the curriculum, pushing instruction toward lower order cognitive skills and distorting the meaning of scores (Klein, Hamilton, McCaffrey & Stetcher, 2000; Koretz and Barron, 1998; Koretz, Linn, Dunbar, & Shepard, 1991; Linn, 2000; Linn, Graue, & Sanders, 1990; Stetcher, Baron, Kaganoff, & Goodwin, 1998). Implementing assessments to measure progress toward goals to inform practice (Black & Williams, 1998; Darling-Hammond, Aness & Falk, 1995; Stiggins, 2002) provides descriptive feedback (a primary responsibility of the instructional leader) of teaching effectiveness while building student's learning and use it to change instruction (Cotton, 2000). Principals who made adjustments in collaborative structures of teachers that allowed for instructional improvement in classrooms, common planning time, heterogeneous grouping of students and flexible scheduling (Flowers et al., 2000; Miles & Darling-Hammond, 1998). Principals developed strong professional development as needed by teachers to gain skills necessary for improvement process, teaching, implementation of assessments, and data- driven decision-making (Wenglinsky, 2002). It is attention to these details that principals see as necessary to positively influence student achievement especially in regards to special populations (King, 1999; Stiggins, 2002).

Testing

There is no one-on-one relationship between testing and learning (Mclaughlin, 1991). If instructionally sound tests were built they would have a positive impact on instruction, but if the tests are unsound they will have a negative impact on instruction (Popham, 1998). This implication of tests influencing instruction is strongest in the state

of Arizona, where policymakers have pushed aside innovative assessments only to return to norm-referenced tests (Candell, 2004).

High Stakes Tests

High stakes testing dates back to the 15th century where in Treviso, Italy teacher salaries were tied to student performance (Madaus, & O'Dwyer, 1999). Sometimes high stakes tests produce undesirable and unintended consequences, such as teaching to the test and excluding what is needed by the student (Furman, 1999). In Arizona more than 110 out of 230 schools did not make Annual Yearly Progress due to the Arizona Instrument of Measurement the state's high stake test (Kossan, 2004). When states and school districts evaluate their accountability system, it is not only important to look at the positive outcomes but also the negative (Linn, 1998). The positive implication of high stakes tests is that they allow for schools, administrators, teachers and students to be equally accountable for learning. Brown (2002) describes 18 funding areas in NCLB to improve achievement. The access to these funding opportunities by schools and districts may well provide for schools to raise the achievement of their students. Now, more than ever with the No Child Left Behind Act all schools are mandated to address the needs of subgroups that may in the fact slipped under the radar of academic achievement (Brown, 2000). What occurs, on the negative side of this equation is that high stakes tests scores often influence what is taught, how it is taught, what people study, how they study and what they learn (Darling-Hammond, 2004). The high stakes approach to change widens the gap between those that have and those that have nothing and increases rate of failure and drop-outs (Wagner, 2003).

Standardized Tests

The most effective way to achieve success with students who are considered low-achievers, or non-traditional students is through instruction that concentrates on concepts, discussions, and fosters an active student role in learning, rather than a pedantic approach emphasized by fact and memorization and the passive student role (Mclaughlin, 1991). Standardized tests do not measure what the American Indian student knows, but rather what the American Indian student doesn't know. As a result many American Indian students do not do well on standardized tests (Tippeconnic, 2003). Standardized testing has failed when addressing the needs and concerns of Navajo students (McCarty, 2002).

Other Measures of Student Achievement

Testing has been used to widen the achievement gap between white students and minority students as well as between those that come from higher income and those from lower SES (Lieberman, 1991). We need other measures and high standards tied to local needs; they must be flexible, situational, and standardized. These measures must be tied to instruction (Lieberman, 1991). Learning goals that focus on performance based assessment increase student learning (Cotton, 2000). Effective teacher practices offer challenging requirements that raise the bar and promote quality student work (Black & Williams, 1998). Involving students in higher level order thinking that incorporates culture and language has a significant effect on motivation and achievement (Waxman & Huang, 1996; Tippeconnic, 2003).

American Indian Student Achievement

Standardized norm-referenced testing is no longer accepted as the best measure for deciding learner success (Bordeaux, 1995). Success of students is often tied to both

environmental and educational factors. For the U.S. Department of Education (1999) found that students who came to school from high poverty stricken areas in the United States, including students from American Indian reservations, entered school with approximately a 3,000 word English vocabulary, while their affluent peers entered with a 20,000 word vocabulary. The report went on to suggest that those with approximately a 20,000 word vocabulary have an easier time learning the standard curriculum and performing well on standardized assessments (Fox, 2001). This type of reporting is just one part of the ongoing urgency that is felt in American Indian communities. The challenges are present and pressuring students, teachers, communities, and administrators to focus closer than ever on accountability, standards and student assessment (Tippeconnic, 2003). Administrators in schools must be willing to address and confront the incompatibility of cultural values that the American Indian student has as part of themselves and the forced acculturation that these same students are having to adapt to as a definition of achievement under high stakes tests (Giles, 1985; Luftig, 1983; Wilson & Black, 1978, Tippeconnic, 2003).

Culture

Klug and Whitfield (2003), acknowledge a socio-cultural approach to education that suggests that academic expectations, knowledge and way of knowing are all situated in the culture and history of individual American Indian communities. This socio-cultural approach of knowing and understanding forms the cultural backdrop for the academic success of the American Indian student (Youngman & Sadongei, 1974; Phillips, 1983). Klug and Whitfield (2003) further discussed the importance to practice ‘culturally responsive pedagogy’ to assist teachers on capitalizing on the advantage of American

Indian cultural heritage as it relates to and with the euro-centric school curricula. What is important is those teachers and administrators not lose their focus and their mission to guide students into success (Talbert & McLaughlin, 1996; Ogbu, 1987). Since the institution of schooling of American Indian students there has been a deficit perspective approach that has viewed the American Indian student as being less than the dominant white student, as a result the tests (standardized and high stakes) have rarely given a true picture of the uniqueness of the American Indian student (Jones et al., 2003).

Language

American Indian people since the 1700s have been placed in schooling environments that forbid the use of the native language (Deyhle & Swisher, 1997). This forbidding of native language has crippled the native student today. The language of American Indian students has been greatly ignored, standardized testing has ignored both cultural and linguistically bias in test (Lomawaima & McCarty, 2002). What must be integrated are the very things that have been ignored. Success will only come with the integration of culture and language, parental involvement, and quality administrators and teachers (Tippeconnic, 2003). Language minority children face greater obstacles in acquiring school literacy in a second language when they do not have an opportunity to develop literacy in their home language (August & Hakuta, 1997; Baker, 2001; Garcia, 2001).

Federal policy for language-minority students learning English has changed dramatically with the passage of No Child Left Behind Act in 2001, a reauthorization of the Elementary and Secondary Act of 2002. The term bilingual completely vanished from the federal law. Instead the Bilingual Education Act (Title VII) was replaced with the

Language Instruction for Limited English Proficient and Immigrant students also known as Title III (Wiley & Wright, 2004).

Purpose of Literature Review

The review of literature suggests that instructional leadership must not only be cognizant of one's own organizational processes, but of the educational processes of the American Indian student as it relates to achievement defined by NCLB. The principal as instructional leader must understand their role in deciphering what high stakes tests say or don't say in tandem with the uniqueness of the culture and language of the American Indian student. The purpose of the study examines the principals' perceptions of student achievement and how those reported perceptions of the principal facilitates learning in Navajo schools.

CHAPTER THREE

Methodology

Research Questions.

This study explored the perceptions that high school principals have toward the academic achievement of Navajo high school students. The study emphasized the principals' perceptions of standardized tests, high stakes tests and other measures of academic success as it relates to the Navajo high school student, with and without disabilities. The three research questions were:

1. How do high school principals perceive the use of standardized tests as a measure of academic achievement?
 - a. Is this perception different for the special education student?
2. How do high school principals perceive the use of high stakes tests as a measure of academic achievement?
 - a. Is this perception different for the special education student?
3. What are the other measures that high school principals use to determine academic success for Navajo students?
 - a. Is this perception different for the special education student?

Qualitative Methodology

The advantage of qualitative methodology offers the opportunity for social scientists to obtain first-hand knowledge about the empirical social world in question. “[It] allows the researcher to get close to the data.” thereby developing the analytical, conceptual, and categorical components from the data itself (Filstead, 1970, p. 60). This relationship according to Van Mannen (1979) allows, in the qualitative mode "to reduce the distance between theory and data, between context and action [by relying on data] . . .

. close to the point of origin” (p.520). Qualitative research helps to delve into the complexities of a phenomena and explore the nuances of why policy and practice are at odds (Marshall & Rossmann, 1999).

The disadvantages of qualitative methodology are numerous. Including difficulty in the analysis of data. As Miles (1979) stated it may become an “attractive nuisance” (p. 590). Data in not easily generated while analysis can be tedious and complicated. Another disadvantage, specifically to interviewing, is the problem of “interviewer variance” which Freeman and Butler (1976) state may have a definite effect on the type and quality of responses obtained (p. 79).

Despite the challenges discussed above, a qualitative methodology was employed in this study. The intent of this case study was consistent with previous studies for which qualitative methodologies have been deemed appropriate and useful. The purpose of this case study was to understand the factors that high school principals perceive related to Navajo students’ academic achievement in relationship to both standardized and high stakes tests. According to Yin (1994), the purpose of a case study is an empirical inquiry that investigates real-life phenomenon especially when the evidence between the phenomenon and context are not clear or evident.

The researcher evaluated and collected necessary information for the research of high school principals by initiating a focus interview (Merton et al., 1990), followed by observations, document analysis and a teacher focus group interview. In the research process the researcher both utilized data triangulation and methodological triangulation specific within each principal and school setting and across all three principal perceptions as to insure validity and reliability across the entire case study (Yin,1994).

The justification for adopting a qualitative methodology in spite of its numerous disadvantages is found in a statement made by Homans (1949),

People who write about methodology often forget that it is a matter of strategy, not of morals. There are neither good nor bad methods, but only methods that are more or less effective under particular circumstances in reaching objectives on the way to a distant goal. (p. 330)

Homans goes on to argue that flexibility in the choice of research strategies must be in the focus of the study, not in the relationship or preconceived notion of what constitutes good research; flexibility will then determine the methodology used.

Kerlinger (1979) states the main advantage of utilizing qualitative methodology was the ability to gather in-depth and detailed information about the research participants. The tendency to favor the qualitative approach is that the descriptive data obtained is from the participants themselves. It is as Bogdan and Taylor (1975) suggested, it is the “peoples own written or spoken words and observable behavior” (p. 4).

The events under investigation here were principals at work and their perceptions about the academic achievement of Navajo high school students. The primary sources of data for this study were the high school principals representing BIA, grant and public schools. The methodology chosen was a multi-sight-case study whereby principals were interviewed using a structured protocol consisting of open-ended questions. Qualitative researchers often rely quite extensively on in-depth interviewing. Kahn and Cannell, (1957) describe interviewing as “a conversation with a purpose” (p. 149).

This study examines information from high school principals and the perceptions they hold regarding academic achievement of Navajo high school students. The qualitative methodology selected provided the means to this end. The result of this choice

in methodology was the production of data that were, as Miles (1979) said, “rich, full, earthy, holistic, real” (p. 590).

Qualitative Logic and Rational for approach

The qualitative approach chosen is explanatory in nature, namely a particular phenomenon is explained, and there follows an identification of patterns and plausible relationships that the foreseen pattern have on the phenomenon. In this case study the phenomenon is how principals impact achievement of Navajo high school students (Marshall & Rossman, 1999).

The contextual or visual representation within qualitative research is based here on Miles and Huberman's (1984) explanation of a conceptual framework as something that aids the qualitative design to “explain, either graphically or in narrative form, the main things to be studied--the key factors, concepts, and relationships among them” (p.18). Relevant and not separate from the conceptual framework is the idea that Glasser and Strauss (1967) refer to as *grounded theory*. This does not refer to a particular theory but rather refers to the idea that a good qualitative study will find its theory inductively, developed during the study, and that grounded theory refers back to the constructs and iterative interaction of data collected in the field. This purely is in contrast to the theory that proposes a theory is developed conceptually or of a purely theoretical nature, and is then tested against empirical data. In this study grounded theory examined particular perceptions principals hold in respect to his/her role as principal in promoting academic achievement among Navajo high school students.

Delineation and Justification for the research design

Referring back to the research question the qualitative approach was employed using a case study method. A case study is meant to first explain the casual links of real life, then employ multiple sources of data in that setting, bounded in place and time (McMillian & Schumacher, 2001). Secondly a case study describes how intervention and the real life context has come to occur. Third, case studies can illustrate certain topics within an evaluation, again in a descriptive mode that brings about a researcher's analysis that is based on assertion or interpretations (Guba & Lincoln, 1989). Fourth, the case study strategy must be used to explain those situations in which the intervention being evaluated has no clear, single set of outcomes (Yin, 1994). Finally, the uniqueness of the case study may be one that focuses on one entity or a multi-site study.

This multiple-case study involves three high school principals in three separate Navajo Nation schools located in rural settings. According to Yin (1994) the purpose of the case study approach is to look at rising and declining trends, dual patterns across time, explanation of complex patterning, a comparison with the outcomes, and a closer look at the how's and why's relative to the research questions (p. 115). In this case study approach the investigator looked specifically at the defining role of the principal and the perceptions those closest to the principal have in regards to the role the principal plays in academic achievement of students. Academic achievement of students as defined by State mandated test results and how the role of the principal as instructional leader addressed achievement within the school setting.

Integral to this case study was that it could be altered and refined after the initial stages of the study. Specific and necessary refinement occurred when the investigator

returned to the initial research problem and questions and found that the study needed refinement in order to fit the questions when those alterations occurred. This iterative process was part of the process of qualitative research in this instance of a multiple-case study.

Participants of the Study

This study was conducted at high schools on the Navajo Nation reservation in Arizona. One school serving secondary students from each of the following types of schools that serve Navajo students were selected for the study. They are a Bureau of Indian Affairs (BIA) School, a grant school and an Arizona public school. The samples include a high school principal from each school and no more than seven teachers from each school site. The high school principal was the focus of the study, and the high school teachers were one way to triangulate data. The other means of triangulating the data included collections of principal observations, and hard data from each site (See Appendix F). The teachers were randomly drawn to participate in a focus group at each school site staff meeting based on their willingness to sign letters of consent. Each teacher will have taught no less than one year at the particular school site. Depending on the pool of teacher's that volunteered the focus group range did not exceed anymore than seven participants at each given site.

Site Description

The research sites were selected based on whether they served a four-year high school student body that is primarily comprised of Navajo students. The research site also needed to have a high school program that had a high school principal. There was a

proximity and convenience of each high school to one another so that the investigator could collect data on more than one principal and school site daily if necessary.

Within the three school communities, data was collected from three high school principals. The consenting teachers included certified individuals, each having at least one year's experience working with Navajo students in grades 9-12. The investigator conducted an open-ended interview with each principal, in relationship to the perceptions each principal had related to academic achievement. The interviews with principals were taped. To verify the principals' perceptions the investigator interviewed a random sample of high school teachers. The focus groups consisted of seven voluntary high school teachers at each school site. The total number of teachers within each school varied Lichii High School with 22 teachers, Chilgo Dootl'iizh High School with 76 teachers and Litso High School with 89 teachers (See Table 1). The teachers came from a variety of educational backgrounds that included some teachers being members of the community surrounding the school site. Other teachers came to their school from communities far from the Navajo Nation. The teachers had at least one year of experience working with Navajo students at their individual schools. The teachers also had at least one year's experience working with the principal at their high school. Finally the investigator collected the last two years of documentation regarding state mandated high stakes tests as reported to the state on the Arizona Instrument of Measurement in the content areas of reading, math, and writing.

The first part of the study focused on the perceptions the high school principal related to academic achievement of Navajo students. The study examined the factors that the principal perceived as having as instructional leaders in regards to student

achievement. Included in the second part of the study was the random sample focus group interview of high school teachers at each site. The focus group was one part of a three-part process to triangulate the perceptions of the high school principal at each particular school site. The focus group members were invited to be part of the study and it was at the time of the focus group interview that each member was given an explanation of the human subject protocol as well as an overview of the research study.

Data Collection

The data was collected from three Navajo high schools representative of Bureau of Indian Affairs (BIA), grant and public four-year high school programs. The first request was to call the superintendent at each site. With their initial interest the investigator was then directed to contact a particular principal. Initially, a postcard and a follow up phone call served as the investigators first contact with each principal to convey the purpose of the study, length, and desired outcomes driving the research study (see Appendix A). The investigator then mailed out letters attaching a draft of the initial proposal, with a letter of consent seeking the principals' willingness to participate (see Appendix B). Upon written notification of approval, the investigator visited with each participant to reassure them of sincere interest in their participation and consent to the study. The investigator contacted not only the principal, but also the superintendent as well with the offer to provide some assistance to the district in grant writing or other issues of research in return for research study participation.

It is always important in Navajo communities to come with a suggestion of how one can contribute to a school in exchange for services. In this case the investigator was willing to put on mini-workshops for teachers on a variety of topics in trade for some

time with the principal, curriculum director and teachers. Prior to the investigator even stepping foot onto the Navajo Nation, permission had to be extended by the principal, the superintendent and school board, and said documentation attached to an IRB application. The application was then submitted separately to the Navajo Nation Division of Health/ Navajo Human Research Program Review Board (NNHRRB) outlining the purpose of the study and particulars as to what implications the study might have for the school or tribe. The Navajo Nation human subject application was formatted three months prior to the investigator entering the school site.

Description of Data Collection Techniques

A general biography of each principal was developed as a result of two in-depth interviews. The interviews covered general questions of position, title, years of service, ethnic representation of individual principals and relationships if any to the community, place of origin, kinship and clanship relationships in the school district, educational background, community demographics, policies developed while in the position of principal, organizational philosophy, teacher perceptions of the leadership of the principal (see Appendix C). The key areas of interests that are described in greater detail include the principals' perceptions on 1) standardized tests, 2) high stakes tests, and 3) any other measures of academic success they have determined as relevant to the Navajo high school student.

An open-ended interview was administered to a focus group of voluntary teachers representative of each high school in the case study (Merton et al., 1990) the interview addressed specific perceptions that teachers have about the principals' perceptions of student achievement. The focus group was just one manner in which the data from the

principals was triangulated (Patton, 1987). In the interview the primary grouping of questions were grouped and matched the research questions relevant to the perceptions that teachers had about the perceptions of the principal. Pattern coding was then implemented to assist in the triangulation of data. Pattern coding according to Kaplan (1964) took into account patterns, reoccurrences and the why's? In the process of pattern coding the researcher first worked in isolation and then chose an impartial individual unrelated to the research to assist in validity and reliability of the pattern coding and "counts" consistent with all three principals and all three focus groups (Miles, 1979). All were intricate parts of qualitative research process of this multi-case study approach.

The interview protocol for the one-on-one interview was divided into two one-hour sessions. The teacher focus group interview includes follow-up questions to assist in the triangulation of data. The investigator developed a coding system after the initial transcription of each of the high school principals' interview. The construction of coding from the narrative is divided into three main parts:

1. Making the text manageable and examining research concerns, and selection of relevant text for analysis.
2. Hearing what is said--recording of the repeating ideas, and organizing by themes or coherent categories.
3. Developing a theory--using theoretical constructs grouping concepts into more abstract themes and creating a retelling of the participants story (Auerbach & Silverstein, 2003).

Also, all coding is an iterative process. This coding system was further refined or enlarged both by the teacher focus group and school documents such as: school report

card, fiscal reports, federal program reports, consolidated school reform reports, school mission statement and other documents relevant to the study (see Appendix F).

Data Analysis

Miles and Huberman (1984) acknowledge that there are no real formulas to case study analysis. Instead much depends on the investigator's own thinking and style coupled with sufficient evidence. One suggestion is that in looking at data from case studies one can code based on some embedded unit of analysis or there could be a use of analytic techniques such as putting information into different arrays, making matrixes of categories and placing the information within a matrix, tabulation of frequent and different events, tabulations of relationships, and finally, creating some form of chronological scheme for placing information (Miles & Huberman, p. 135).

The best strategy again will depend on the investigator and their analytical thinking to develop a general analytic strategy. One element will begin with what is referred to as the descriptive approach and the other as the theoretical propositions. In the case study the perceptions of the principal and their role in relationship to academic achievement of students will fall primarily on using two dominant modes of analysis. The first will be pattern-matching and the other explanation building. Separate but intricate to this pattern matching and explanation building is the unit of analysis. It is the unit of analysis within this analytic strategy that will narrow the particulars of the study and find a general theme that can then be overarching in a broader sense to other aspects of the study. This analysis also included interviews, reviewing document analysis of standardized tests, high stakes tests, graduation and dropout rates, and student attendance.

In pattern-matching Yin (1994) suggested that this comparison should have empirical based patterns with a predicted pattern to assist in internal validity (p.107).

The second analytic strategy is explanation building--to explain phenomenon within a case that allows the researcher to see causal linkage. Key to explanation building according to Yin is that iterative nature of returning or turning back to the study and respecting different patterns that may have emerged due to new evidence. The difficulty that one may have as an investigator is the drifting away from the original topic of interest. In this case as chief investigator the ambiguity of achievement being defined by test results vs. perceived academic achievement due to graduation rates may cross into murky ground and create complex matrixes as to defining what constitutes achievement. Guba and Lincoln (1981) stress that qualitative data analysis as an art and an intuitive process in combination with refined instrumentation.

Reliability and Validity

This is not a replication of an already existing case study so the reliability issues within the particulars of this case study are minimized only by the errors and bias implicit within the study. This is not highly generalizable, but rather this case study addresses the particulars of three Navajo high schools and the principal leadership within each particular school site. One manner in which this case study will look at eliminating bias and error is to confirm, challenge and extend the conceptual theory across all three studies using the same instrumentation and the same investigatory techniques. By using peer-review, focus group survey, in depth one-on-one interviews, data collection of academic achievement and observation there will be systematic triangulation of data cross-checked and confirmed within the multiple case design. Yin (1994) addresses

multiple-case study being reliable if the research includes predictions of similar results and produces contrasting results but for predictable reasons (pp.46).

Validity for this multiple-case study addresses the causal (or explanatory) case study in which the investigator will determine if perceptions of and by the principal regarding academic achievement actually did lead to student academic achievement by students. In the case of internal validity the investigator must “infer” that the two domains did lead to one another (Yin, 1994). In this study the investigator inferred that principals’ perceptions about student achievement are evident by the aptitude one sees through testing or other measures in the school. In order to achieve some understanding of this inference the investigator returned to the research questions and conceptual framework. In this study pattern matching was used as one technique to explain and address internal validity.

Limitations to the Research

A limitation of this multi-case study is the participation of the high school principals of three Navajo Nation high schools. Due to time restraints location of the three types of schools BIA, grant and public that have a high school are also limited to only two locations on the Navajo reservation. There is no generalizability between the three sites other than the parameters of the high school principal serves Navajo students, and is either in a BIA, grant or public school setting. The findings of this study could be subject to other interpretations, but for the purpose of this study is meant to be a research study of high school principals and their perceptions (Creswell, 2003).

CHAPTER FOUR

Presentation and Analysis of Data

The multi-case study was to gather data about the principals' perception of academic achievement of Navajo high school students and address how academic achievement is perceived differently or the same for the special education students in their school. The study was included interviews, observations, and gathering of historical data relevant to the research questions.

A total of four high school principals were interviewed among three different school types: Bureau of Indian Affairs, grant, and public school settings. In addition 17 teachers were randomly chosen to participate in a focus group at each of the three schools, to assist the researcher in the verification of their principals' perceptions. The schools that were selected were chosen intentionally. This was done to insure diversity among the principals and the three types of schools on the Navajo Nation reservation.

This chapter begins with an introduction of both the school sites and a short biography of each of the participating principals. The schools and the principals each have a pseudonym and will be referred to as Lichii High School (grant school), Ch'ilgo Dootl'izh High School (BIA school), and Litso High School (public school). The multi-case study was driven by three research questions.

In researching the perceptions of high school principals at Litso, Ch'ilgo Dootl'iizh and Lichii High Schools the researcher first observed for two weeks the daily interactions of the principal with staff, teachers, students, and community (see Appendix F). The researcher then, at the convenience of each of the principals in their own school setting, sat down with each principal and had a one-hour open-ended interview. The

interview was relevant to what each principal individually perceived were the key issues and concerns of standardized tests, high stakes tests, and other measures in their school, and how those perceptions were the same or different for their special education students. The interview concluded with each principal discussing their unique perceptions about student achievement at their school and how they measured academic achievement outside of testing. The researcher continued with observations for another week and concluded the study with a volunteer teacher focus group to validate the principals' perceptions of academic achievement. The researcher first had each principal identify the types of standardized tests administered at each of their schools, and then how they perceived those standardized tests to be helpful in assisting them in perceiving academic achievement. It was from this understanding that the researcher was then able to compile data themes that addressed and answered each of the three research questions. How those perceptions are different with regards to the special education student is also addressed specific to each principal at each school. None of the principals' perceptions are meant to be generalized to any other member of the school or towards any other school on or off the reservation that may serve Navajo students. Rather the data is specific to a particular time and place of the research study (Yin, 1994).

The analysis in this chapter will re-introduce the research questions. Then using the data will extract and discuss the thematic differences in principal perceptions and the thematic similarities of the principal perceptions for each of the research questions. Finally the researcher will summarize the findings for each of the research questions.

Overview of Schools and Principals

Lichii High School

Established in the 1950s by the Bureau of Indian Affairs, Lichii High School is a funded under the Bureau of Indian affairs as a grant school. This school may be the most researched school on the Navajo Nation to date. Lichii School District serves Navajo students from communities from as far as 200 miles away. The policy of open door admissions (accepting students from across the Navajo Nation) has challenged the principal, teachers and staff to work with students who may be unable to be admitted at any other school nearer to their home or in proximity of their former school.

The elementary school at Lichii school district currently has 140 students in kindergarten through fifth grade. The middle school has approximately 100 students sixth through eighth grade. The secondary school has approximately 230 students, ninth through twelfth grade. In order to serve students from such far away communities Lichii has a residential program open to any student from first thru twelfth grades. Currently, Lichii School District has 190 students that live in the residential student dormitory during the four-day school week.

The Lichii community beyond the school site is made up of a chapter house, a family and child education program, the Americorp program, a trading post, and a Quaker house. There are approximately 469 people in the Lichii community (U.S. Bureau of Census, 2000). The Bureau of Indian Affairs housing, primarily occupied by school personnel and the HUD housing, is made available to qualifying community members not associated with the school. The Lichii school community is located about 40 minutes

from the closest grocery store and U.S. Indian Health Service facility, and 20 miles from the nearest gas station.

The Lichii high school students are primarily Navajo and over 50 percent of them are bused in daily and the remaining are residential boarding students. The Lichii Mission statement is, "Our school is to focus on the Dine fundamentals, beliefs of knowledge, planning, harmony and hope. We walk in beauty" (Running Record, April 2005). Lichii School District has a four-day week schedule Monday through Thursday and conducts classes from 7:40 a.m. to 4:15 p.m. each day. There is also an optional staff development day held once a month on a Friday. The Lichii High School gives the TERRA-NOVA test in ninth grade and the Arizona Instrument to Measure Standards (AIMS) test in the tenth grade. Other standardized tests optionally given to students are the ACT and Armed Forces Vocational Aptitude Battery (ASVAB).

Course offerings at Lichii High School include pre-algebra, algebra II, biology, chemistry, physical education, Navajo studies, government and philosophy, English, composition, yearbook, film, Arizona and U.S. history, world history, art, drama, ceramics and painting. Lichii High School offers vocational education courses in carpentry, technology foundations, informational foundations, and administrative services.

Lichii High School alternative education programs are offered on computer assisted instruction on PLATO. The PLATO learning program helps meet the needs of state and federal accountability, using state standards and curriculum needs relevant to each school site (see Appendix E) (Plato Learning Software and Service Guide, 2004).

Students have the opportunity to join both traditional competitive school sports like cross-country, wrestling, softball, football, basketball and rodeo or use time after school for academic assistance in core areas or within special projects they may be working on in other classes (Field Notes, 2005). Lichii High School also put on programs specifically addressing Navajo culture and language where by students had to prepare for special cultural events using time both in class and after school.

Lichii High School Principals : John Waters/Mark Yazzie

Each principal from the three high schools has a personal biography. Principal John Waters, a non-Navajo was the first high school principal interviewed. He is the principal at Lichii High School. Principal Waters was newly appointed to the position in early March of 2005. In addition to his appointment as an interim principal, Principal Waters also serves the Director of Education for the Lichii School District. He states, "I've been involved in education for over 30 years and am currently a retired school superintendent from the public sector, and currently in the BIA sector and in the second year of this operation (here at Lichii school)." (J. Waters, personal communication, April 4, 2005)

Mark Yazzie, was the former high school principal at the Lichii High School, up until just a week before the researcher visited the school. Mr. Yazzie is a fluent reader, writer and speaker of the Navajo language and member of the Navajo tribe. Mr. Yazzie was reassigned to another administrative duty in March of 2005 and comes from a unique background of working first as a drama teacher and then working his way up to principal. His home community was two hours driving distance from Lichii High School and he often commuted on a daily basis. Mr Yazzie states

I went to all 'rez' schools K-12, really 13 years in a BIA system. I was in middle management for 11 years, federal projects. Then that's when I started looking at principals and said, "Is he a principal? I can do that." I wanted to get in and out, so this is ending my 12th year as a principal. It has been a good run. (M. Yazzie, personal communication, April 20, 2005.

Both Principal Waters and Mr. Yazzie contributed their perspectives on how they individually perceived the academic achievement of the Navajo high school student at Lichii High School, as a means of producing a more holistic view of this particular school.

Ch'ilgo Dootl'izh High School

The Bureau of Indian Affairs operates Ch'ilgo Dootl'izh High School. The school balances the educational regulations of the Navajo tribe, State of Arizona, and federal government for the purposes of accountability and funding. One of only five BIA operated schools that serve Navajo students on or near the Navajo reservation, Ch'ilgo Dootl'izh is located in the 'four corners' area of the Navajo nation where the states of Arizona, Nevada, New Mexico and Utah meet. The community of Ch'ilgo Dootl'izh is 114 square miles and is located in a valley. According to the 2000 Census, there is a population of 2,545 residing in the community. A total of 1,529 adults live in Ch'ilgo Dootl'izh, with 849 being employed and 273 being unemployed. There is a chapter house, two small gas station/convenience stores, a post office, two elementary schools (one BIA and the other public), and one high school. The largest employer of the community is the Ch'ilgo Dootl'izh School District.

Ch'ilgo Dootl'izh High School serves 435 students in grades nine through 12 and approximately 90 of those students are residential boarding students staying five days a week. Also on the same campus of Ch'ilgo Dootl'iizh there is a K-12 BIA school that

serves approximately another 300 students. The largest current class grouping is the sophomores with a population of 110. The mission of Ch'ilgo Dootl'izh reads in part ". . . . in partnership with parents and community, is to provide students with the knowledge and skills necessary for success in life; provide the appreciation of cultural diversity; and insure a safe and secure environment (Ch'ilgo Dootl'izh School Mission, April 2005). Students come from the local community and as far away as 50 mile. The school conducts a regular class schedule Monday through Thursday and on Friday classes end at 12:15 p.m. with a mandatory teacher in-service occurring from 1:00 to 4:00 p.m.

Ch'ilgo Dootl'izh High School offers a choice of a college prep track or a school-to-work program track. It has a school-wide reading program, offers U.S. history, world government, Native American studies, tribal history and government, chemistry, physics, biology, environmental science, free enterprise, U.S. Constitution, accounting, Spanish I and II, yearbook, piano, choir, media production, pre-calculus, foundations of algebra, algebra I and II, and physical education. Ch'ilgo Dootl'izh has an Alternative High School that uses programming from PLATO. The PLATO program is a computer assisted instructional program that assists students to be tested and placed into specific content driven curricula that has been aligned to Arizona standards. There is also a vocational education program that offers industrial technology, welding, building trades, and business technology (see Appendix E). Ch'ilgo Dootl'izh High School offers after-school competitive athletic programs in basketball, softball, baseball, track and field and cross-country running.

Ch'ilgo Dootl'izh High School Principal: Jack Smith

At Ch'ilgo Dootl'izh High School the high school principal is responsible for the school, the grounds, and the dormitory. The principal functions like a superintendent. This responsibility of overseeing several duties within a school site is a function of how the Bureau of Indian Affairs has established schools on the Navajo Nation reservation. The agency director, has a position much like that of a school superintendent, the difference being that the agency director oversees five to eight schools within a given agency. The daily operations of the school including budget, personnel, busing, dormitories, housing, are then the responsibilities to each principal at the individual school sites. The agency director is the officer responsible for all final decisions for that agency, in this case Ch'ilgo Dootl'izh agency is about 30 miles away from the school (Running Record, April 20, 2005).

The principal at Ch'ilgo Dootl'izh High School was responsible solely to make sure that buses ran on time, that students were being taught, that grounds were made safe and clean, that staff and faculty issues were addressed, that residential settings were safe, and that staff development was ongoing. Ch'ilgo Dootl'izh High School is a four-year Bureau of Indian Affairs school where 99% of the students are American Indian, specifically Navajo students.

Principal Jack Smith, the current Ch'ilgo Dootl'izh High School principal had only recently assumed the position in October of 2004, is not fluent in the Navajo language but married into the community.

Principal Smith served as the head counselor at Ch'ilgo Dootl'izh High School.

He states:

I grew up on the East Coast, and graduated from the University of Massachusetts in 1979. I started working at the school in 1981-82 and was a PE teacher, then an athletic director for a number of years. I just finished my 12 years of being one of the high school counselors here when I was selected this past October 2004 to be the principal. It has been about five months that I've been principal. (J.Smith, personal communication, April 21, 2005)

Litso High School

Litso High School is a public school and is the largest public school on the Navajo Nation. This four-year high school serves approximately 1,200 students. The campus covers a radius of ten miles and has both a regular education and an alternative education program. Feeder schools into Litso High School are both local and include communities from as far as 40 miles away.

The community of Litso is the most densely populated of the three communities with four gas stations, a grocery store, an Indian Health Service Hospital, a juvenile detention center, a police department, three hotels, two fire stations, a post office, a chapter house, five restaurants, and six elementary schools, a middle school and a high school that all make up one of the largest public school districts on the Navajo Nation reservation covering over 10 miles in the community. An adjacent alternative school is also under the direct supervision of the Litso high school principal, and offers an educational program that meets the need of the non-traditional student. On campus at Litso High School is a branch of Northern Arizona University, which offers course work to students, staff and community members. The average age for the community is 22

years, the average annual income is \$21,201 and the total population of the Litso community is approximately 11,302 residents.

Litso High School conducts a 2-1-2-schedule meaning that they are in session all year long with two significant two week breaks in the fall and spring. For SY 2004-2205, the fall inter-session began September 27, 2004 and ended October 2, 2004. The winter break was December 17, 2004 to January 4, 2005. The spring inter-session began March 14, 2005 and ended March 25, 2005. The summer school session began June 6, 2005 and ended on June 30, 2005 with the new school year beginning July 15, 2005.

Litso High School offers the TERRA-NOVA test during the ninth grade, the AIMS test during the tenth grade, and other standardized tests such as the SAT-9, ACT, and the ASVAB for students interested in pursuing interests beyond high school at post-secondary schools or in the military. Litso High School also has the most extensive vocational education department that offers certification program in CISCO, cosmetology, building trades and heavy equipment (Running Record, April 2005). The school offers a full course of academic programs and its athletic teams in volleyball, cross-country, wrestling, basketball, softball and baseball are active in competition both regional and state tournaments. The entire school has recently been wired for Internet access and all classrooms are equipped with telephones. There is a counseling staff of five counselors, plus vocational counselors to assist students.

Litso High School has a core curriculum that includes courses in foreign language, Navajo language and culture, fine arts, computer literacy, and both basic and college prep course study in math, science, history, government and English.

The characteristic differences among the schools are related in the following table. The table addresses key characteristics that include: school type, number of students, number of teachers, types of programs, class size, parental involvement, Adequate Yearly Progress and community size. Table 1 is meant to give some basic school demographics and is no way complete of all information relevant to what each school has or is developing. Like all school programs across the country funding plays an important role as to what each school can offer and does offer year to year.

Litso High School Principal: Clark Nez

The final case site was in the Litso community much larger than the other two sites. Litso community has the only grocery store within a 70-mile radius. The Litso community has three gas stations, a post office, a hospital, a police station, a fire station, a teen detention center, four hotels, and as one of its largest attractions one of the largest canyons on the Navajo Nation bringing in tourists from around the world.

The responsibilities of the principal of Litso High School overlap and include athletic director, curriculum writer, and administrator of the alternative high school, home liaison, counselor, and disciplinarian. Principal Clark Nez is an administrator of two different schools on two different campuses--the Main Litso High School and the Alternative High School. A member of the Navajo Nation and a lifetime resident of the Litso Community he was the closest to a grow-your-own principal of the three high schools. A fluent speaker of Navajo and English, Principal Nez showed his knowledge of the Litso community in his everyday interactions with both students and parents. The researcher observed this school administrator for three weeks while the others were observed for five weeks due to his enormously busy schedule both in and out of district.

Principal Nez is the principal of one of the largest public schools on the Navajo Nation reservation. He earned his Masters in Educational Leadership from Northern Arizona University and earned his bachelors at the University of Arizona. Principal Nez has served as Litso High School principal for three years and prior to that as the athletic director for one year. The Litso High School has about 1100 students in grades 9-12. The student make-up is approximately 98% Navajo and 2% Mexican-American and Anglo. The campus is located on approximately 10 square miles, and is one of the largest schools on the Navajo Nation reservation with a staff of 89 certified teachers and 48 support staff. (C. Nez, personal communication, April 25, 2005)

The principals at Lichii High School, Ch'ilgo Dootl'izh High School and Litso High School see their roles as principals as being one that serves their own community as well as other communities that make up the Navajo Nation. These principals see that their role as not limited to just influencing what is happening within their high schools but also what is happening within the educational political system of Navajo Nation, the State of Arizona and the Federal government.

TABLE 1

School Demographics

School Name	Lichii High School	Ch'ilgo Dootl'izh High School	Litso High School
School Type	Grant	BIA	Public
Number of Students	230	435	1100
Number of Teachers	22	76	89
Number of Administrators	1	3	1.5
Residential Program	yes	yes	no
Vocational Program	yes	yes	yes
CAI-Plato	yes	yes	yes
Average Class Sizes	30-1	28-1	30-1
Parenting Programs	no	no	yes
Community Liaison	yes	no	yes
Made 2004 AYP	no	yes	no
Navajo Culture and Language Classes (Integrated Or Extra Curricular)	Yes (I)	Yes (EC)	Yes (I)
Community Size in 2000	469	1529	11302

(Running Record, March-May 2005).

Overview of Findings

The research questions are restated including the particulars unique to each question. The analysis addresses similar and differing perceptions by the principals of regular and special education students. And finally, a summary identifies how these measures are perceived to influence the academic achievement of Navajo high school students.

Standardized Tests as a Measure of Academic Achievement

Research Question One

1) How do high school principals perceive the use of standardized tests as a measure of academic achievement for Navajo high school students?

a.) How is this perception different for the special education student?

Each principal identified specific standardized tests that they administer in their school and in addressing the type of standardized test like the Scholastic Aptitude Test (SAT-9), Terra-Nova, Armed Forces Vocational Aptitude Battery (ASVAB), and ACT they addressed how as principals they perceived the actual test as a measure of academic achievement.

The SAT-9 was the standardized test that preceded the AIMS test. Principal Waters made this statement when it came to the SAT-9, “the problem with the SAT-9 and other tests like that, are that we (schools) give them over and over again, and the students get to a point where they don’t really like tests simply because there are too many” (J.Waters, personal communication, April 04, 2005).

What appears to happen due to the repetition of redundancy of tests given are that the schools begin to emphasize test taking strategies with content secondary to the

curricula. This idea of focusing on testing strategies was in the past limited to students wanting to learn how to better perform on college entrance exams, but was not a part of the everyday learning environment. A good example of this occurred at Litso High School where students, teachers, and staff were asked to assist for several sessions AIMS driven test review sessions for students (Archived material April 2005).

At Lichii High School Principal, Mark Yazzie said,

Let me go back to standardized testing. The standardized testing for the state was we were looking at writing, we were going to assess whether we were doing persuasive types of writing. We realized we were not teaching persuasive essay, so we had to go back to it. We called it boot camp. We went back to boot camp, essay writing. So, then the two next times we started seeing we were steering back in towards the direction we wanted. (J. Smith, personal communication, April 21, 2005).

This concern about what was lacking in the curriculum did not come from a school wide discussion but was driven by the mandated standardized Terra-Nova and AIMS test. What is the test telling us about our students? What do our students need to do in order to pass the test?

These two questions addressed problems with reading, writing and mathematical skills, content of material on tests creating challenges due to lack of experience and culturally relevant material, teacher training, better communication with the Arizona State Department of Education as to the schools' rural nature and lack of professional resources, and finally second language interference which leads to over identification of special education students. What the tests do not allow is for students to share their creative and visual/tactile talents which all three principals agreed their students excelled in (Field Notes, April 2005).

The Terra Nova is a national test that compares how well students in Arizona performed compared to students nationally. The TEERA-NOVA test is quite different from the AIMS test, as it measures students' performance in reading, language arts, and math, in comparison to a national sample of students. The TERRA-NOVA is reported in terms of national percentile rank (NPR). For example, an NPR of 55 shows that the student's score on the test is equal to or better than those of 55% of students nationally (www.greatschools.net, 2005). According to Tom Horne, chief superintendent of Arizona state schools the "results show that Arizona's students scored above the national average in reading, language, and math. For math, the students in ninth grade rank in the 54th percentile against the rest of the country, 56th in reading and 54th in language" (July 13, 2005, Arizona Department of Education News). What this report did not share is that Navajo schools in SY 2004-2005 ranked in the 35 percentile in Math, 43rd percentile in Reading, and 43rd percentile in writing (www.azstarnet.com).

How do principals perceive the TERRA-NOVA test? Principal Waters at Lichii High School stated

The TERRA-NOVA is directed towards this year the 2nd and 9th grade, and will be built into the other tests in the future. My greatest concern for all standardized tests I that they should not be used to compare students' with other student's. (J. Waters, personal communication, April 4, 2005)

This concern over comparison of students has stratified the students into groups and is the same concern the principal addresses that becomes the problem.

Principals Waters, "they (standardized tests) were monitoring devices for parents to see where their children/students are in the academic setting" (J. Waters, personal communication, April 4, 2005).

The monitoring of a student progress is juxtaposed against the state reporting whole grade level groups of students' progress. At Listo School District the TERRA

NOVA results reported by the state public school site reports that the average 9th grader tested in math ranked at the 35% those same 9th graders also ranked 43% in reading and 43% in language. At Lichii High School the 9th graders ranked at the 41% in reading and 23% in Language. Math was not reported (www.az.starnet.com). The similarities between these two school sites regarding this norm-referenced test shows clearly the fact that Navajo students are not performing well on this kind of test. Speculation by the principals was made that there were significant challenges for students that had second language interference, limited mathematics knowledge, and were challenged by limited persuasive writing abilities.

The issue of comparison within and between schools located on the Navajo reservation is a constant struggle. That has ultimately led to schools on and off the reservation being identified as under-performing schools. The populations within any given school on the reservation can and do change from one public school to another or from BIA to public, or contract to BIA depending on circumstances such as family problems, teen delinquency, and relocation of families. There are present school improvement plans that share the repercussions that compare student successes as relevant factors within state and federal reports that classify and identify schools as under-performing. These struggles hurt schools most profoundly in attracting and retaining qualified staff, and holding on to good students. All three high schools in this study had multiple vacant positions and did not fill many of the teaching positions even after the school year began.

The Armed Forces Vocational Aptitude Battery is an exam that was offered at each of the schools; it has three versions. The version given in all three high schools was the “High School Version.” It is a paper-based test commonly administered to juniors and seniors and used in almost 13,000 high schools and post secondary schools in the U.S (www.usmilitary.com/asvababcs._p.htm).

The primary purpose of the test according to the Department of Defense and the Department of Education is not meant for enlistment (although test scores can be used for enlistment). The subjects covered in the ASVAB include: paragraph comprehension, word knowledge, arithmetic reasoning, mathematical knowledge, general science, and topical areas like: auto and shop information, mechanical comprehension, coding speed, and electronics information.

The conceptual areas in reading and math are similar to those questions asked on the AIMS test. The perception the principals had about the ASVAB included that ‘the ASVAB is for the military vocation said, Principal Waters’ (J. Waters, personal communication, April 4, 2005). The military as a vocation is one of the most concrete manners that schools view success of their students after graduation, because it is away from the community and has resources that train personnel for positions.

All three school principals perceived the ACT as the college entrance exam most often delivered to students going on to higher education institutions. The ACT is America's most widely accepted college entrance exam. It assesses high school students' general educational development and their ability to complete college-level work. The multiple-choice tests cover four skill areas: English, mathematics, reading, and science. The Writing Test, which is optional, measures skill in planning and writing a short essay.

The Lichii High School focus group noted “Lichii High School also was the only school in the study to admit that students do better on the ASVAB than the ACT and are more willing to take it because it offers job opportunities after high school” (Focus Group, Lichii). The ACT is committed to serving students with disabilities by providing reasonable accommodations appropriate to the student's disability. ACT has established policies regarding documentation of an applicant's disability and the process for requesting accommodations (www.act.org/aap).

The ACT was given to 125 of 236 seniors at Litso High School and out of the graduating class of 2005, 75 were accepted into college. Institutions included Northern Arizona University, Dartmouth University, Long Beach State University, Ft. Lewis College, Weber State University, Arizona State University, San Juan College, Technical Vocational Institute, and Eastern Arizona College. Approximately 25% of the junior class at Litso High School takes the ACT as preparation to their senior year (Running record, April 2005). Twenty Lichii High School seniors took the ACT in spring 2005 and four students in the month of April had been accepted into college (Running Record, April 2005).

Similar Perceptions of Principals

Accountability of Principals

The Arizona Department of Education uses both the Terra Nova and AIMS to gauge how well students are learning. This will be further discussed in research question number two. What is addressed here is how as principals their vision or mission for leading has been changed due to testing and what that has then done to the school they are leading. All three schools administered the same type of standardized tests to all

students. The Stanford-9 (SAT-9) was administered in the past and was considered an indicator of achievement.

Principal Smith states “right now we are experiencing a trend where we are being held accountable for test scores and student achievement, where in the past we used the SAT-9 and would use that test to look at achievement” (J. Smith, personal communication, April 22, 2005).

In our special education program we test all the special ed students that were identified as part of the school. They are part of the data, and the data really needs to be cleaned up. They are an important part of everything we are trying to do in this school. How special education students are addressed as part of Adequate Yearly Progress. (C. Nez, personal communication, April 25, 2005)

All the principals shared the same concern that the Special Education student was a part of all types of standardized tests, but most especially that with the reporting of data to the state that ALL students were included in all parts of the standardized testing process.

Calling for accountability in education has become more than a definition that previously addressed moral, professional, fiscal, market, bureaucratic and legal areas. The term now has come to mean a responsibility by the district, principal, teacher, student to parents, and government (state and federal) to produce high achievement scores (Smith & Fey, 2000). Research like that of Reboussin and Goldstein (1966) found that Navajo students were less achievement oriented than white students and that the degree of acculturation was not related to achievement. Does this mean that students should not be held accountable? Not at all. What this reflects is that the standard of what is defined as ‘achievement’ is not a universal concept.

Principal Nez states “I think that NCLB has forced schools to be accountable, look at the data and say ‘Where are we falling behind?’ and we are saying here at Litso High School that ‘We are falling behind in test scores’” (C. Nez, personal communication April 25, 2005). This concept of ‘falling behind’ was exacerbated by the Adequate Yearly Progress (AYP) chart that was placed at the entrance of each school in the April of 2005 (see Appendix D). The elements of Adequate Yearly Progress under the No Child Left Behind Act includes reporting subgroup test scores, attendance, graduation rate, social economic status. The understanding that this principal clearly perceives determines and ultimately dictates how and what achievement is in relationship to their students learning.

Future Graduates

The accountability based on the redundancy and repetition of standardized tests is not new to any one of the schools in the study.

The students get to the point where they don’t like the tests simply because there are so many. This year the BIA office opted to take the AIMS tests to align with the state of Arizona. So the SAT-9 *WILL NOT* be offered this year.”(J.Waters, personal communication, April 4, 2005)

This understanding that one test is replacing another has been a problem for almost 30 years now. One test is put in place and used to determine particular attributes of a population of students and soon after it is replaced with another. According to Principal Waters, "The TERRA-NOVA is another standardized test and is directed to the second and ninth grades, and will be built into other tests in the future” (J.Waters, personal communication, April 4, 2005). Further discussion of the TERRA-NOVA test is discussed in the overview of the findings.

What is a challenge is that the high stakes test for students determines graduation. Graduation is definitely an indicator of student success when it comes to standardized testing especially now with 2001 No Child Left Behind Act. Arizona statute A.R.S. § 15-701.01(A)(3) states that the State Board of Education shall "Develop and adopt competency tests for the graduation of pupils from high school in at least the areas of reading, writing and mathematics and shall establish passing scores for each such test" (Arizona Department of Education, July 2005).

We want to get ourselves off this labeling and we want to get our school off of this under-performing before there are some sanctions, other drastic things come from the STATE because we are on it, and that's our focus. If you look at the total population the total kids passing all three parts (math, reading, writing) it's a second priority to us. It is sad to say that but we are looking at it right now. We need to get out of under-performing. (C.Nez, personal communication, April 25 2005)

What occurs with the external pressure of school administrators and other entities dictating what must be learned, and has to be learned in school before getting a diploma is that students are being pushed out (Berry et al., 2003). Principals at all three schools are being dictated as to when their Navajo students are proficient and when they are not. This outside force of the state determining when a student is proficient has resulted in principals looking at groups of students and not just one student's performance.

"....so a year ago we passed 19 (students). That's an improvement. So something is going on. Because we just administered another test. I'm thinking that we (school) should be higher. I'm kind of thinking that we are not on track with that. We are making improvements with 9th, 10th and 12th" (M.Yazzie, personal communication, April 20, 2005).

Vision of the Principal

It is not just the types of standardized tests given and the added pressure of testing on schools. It is the vision that the role of principal carries. Principal Nez states

I think I need to be knowledgeable in all areas, in all aspects of education from curriculum to instruction, assessment, staff development, ELL, Special Education, discipline, staffing, personnel needs...all these areas I must be knowledgeable about to make decision. That's how I perceive my role going in. (C. Nez, personal communication, April 25, 2005).

Similar concerns are echoed by Principal Waters

The function of my position (principal) is to have students reach an academic level that will allow them to go into post secondary schools, vocational schools or wherever they might want to do. I divide that into (1) preparation of staff to properly teach the content, and (2) is to make sure that the content area is taught at the level of the student. (J. Waters, personal communication, April 4, 2005)

This vision to work with teachers to make sure learning occurs that meets the needs of all students is echoed in his continued insight into special education. The academic leader needs to look at ...special education and ask "What are they teaching?," and "Are they meeting the needs of all the students?" (J. Waters, personal communication, April 4, 2005)

This understanding that a principal must have transcends across all disciplines but when the principal asks these hard questions of the special education department, you know that others are not ignored because now the principal is concerned and engaged in the learning of students in the school. No special education student is exempt from testing in any of the schools unless it is specifically addressed in their Individual Educational Plan (IEP).

Differing Perceptions of Principals

Productive Community Membership

Each principal at each high school had different ways in which they perceived how standardized tests measured academic achievement of their Navajo students. Principal Waters, the "acting principal" at Lichii High School perceived that there were 'common problems' that are seen on reservation schools. It was his perception that the function of his position "is that students have the opportunity to reach an academic level

that will allow them to pursue post secondary schools, vocational schools or whatever they might want to do" (J. Waters, personal communication, April 4, 2005). The result that academic achievement was in direct correlation to students becoming productive members of the community.

The ambiguity of 'whatever they might want to do' is really the issue that has made this school principal question and discover what are the opportunities that we have beyond the school program and how is academic achievement measured.

Teaching Connect/Disconnect

Teaching in Navajo schools does not look the same. What was being required of teachers to teach today due to standardized tests is not always what did need to be learned. It was the contention of Principal Waters that quality teaching was necessary, and to make quality teaching happen there must be stronger preparation on behalf of schools to work with Navajo students. Principal Waters, said "preparing his staff so that they properly teaching the content area and to make sure that the content area is taught in a way that students are able to accomplish what is being learned" (J.Waters, personal communication, April 4, 2005).

This perception of what needs to be accomplished and learned is further addressed in regards to standardized tests in several ways. The first that all three principals voiced a serious disconnect between how students see their Navajo world as students and how they are missing language, experiences and understanding that is necessary to do well on standardized tests. It was the perception of Principal Waters that in order for students to achieve, teachers must be equipped to teach the Navajo student. He states:

if you are teaching a concept, you can apply that (Navajo language and thought) to any subject or any situation. If you are teaching to the test, the

questions on the tests, it is simply choose A, B, or C and then just forget about it. If they (teachers) understand the concept then they (teachers) are well prepared. (J. Waters, personal communication April 4, 2005)

Preparation and quality of the teachers was a hit and miss part of the school.

There was perhaps one teacher per content area, a total of four that were considered master teachers and could assist other novice teachers in how to develop and meet the needs of their students. Much of the mastery of these teachers was based on their observation, awareness and understanding of the Navajo and Anglo worlds.

This understanding that a Navajo Nation controlled school is different than a regular Arizona public school was observed daily by the researcher in daily informal interactions of the principal with staff and students. The informal discussions that related to outside life beyond the school setting was not a purposeful event that occurred with the principal at either the BIA or public high schools.

This connection and disconnect of what is taught and learned was addressed by Principal Smith, Ch'ilgo Dootl'izh High School has it related to the AIMS as a standardized test and how as a test it was difficult to make the test relate to the knowledge base of the students

. . . we can talk technology, but to make sure you get enough information to pass on the AIMS test or a state standardized test, we would need to evaluate that much closer, so that we are not speaking above the heads of the students.” (J. Smith, personal communication, April 21, 2005)

It is the understanding of Principal Waters that “educators must be able to see a progression in learning and make that progression from A, B, C, D and so on something students can see is connected to what they are learning and how they are learning” (J. Waters, personal communication, April 4, 2005).

Testing Proficiency as Predictors

That intense focus of having a test determine the success or failure of how others perceive a school and its students succeeding has been a catalyst for Principal Smith to also acknowledge that there are basically three different types of tests beyond the AIMS test that his high school gives.

One is the Stanford-9, which we gave to the whole school that used to determine Adequate Yearly Progress. We do give the ACT here and the ASVAB (Armed Forces Vocational Aptitude Battery Test) for the military. The ASVAB is given to the juniors and any senior that want to improve their score. The ACT is test is typically given to the juniors and seniors, and the sophomores take the PLAN. Our students do typically better on the ASVAB test, than on the ACT. Our average score on the ACT is around 15-16 out of a possible 36. So we are far below the national average of 22-23. (J. Smith, personal communication April 21, 2005)

This knowledge of how students perform on the ACT is very accurate. This knowledge and articulation was different from the other principals' perceptions perhaps due to the fact that Principal Smith had so much prior knowledge of academic counseling of Navajo students.

Summary

The principals' use of standardized tests as a measure is a predictor to how they perceive the academic achievement of their Navajo high school student. There is a relationship then to which students' stay in school and which students drop out. This relationship also is related to which students' graduate with a diploma and which students earn a letter of attendance. To which students apply and are accepted into college and the military. And finally, which students are employable after completing high school.

High Stakes Tests as a Measure of Success

Research Question Two

- 2.) How do high school principals perceive the use of high stakes tests as a measure of academic achievement for Navajo students?
 - a.) How is the perception different for the special education student?

Arizona Instrument to Measure Standards (AIMS)

The Arizona Instrument to Measure Standards (AIMS) is a series of tests to measure students' knowledge of the Arizona Standards. The AIMS test is given to all students in grades 3, 5, 8, and serves as the required high school graduation test. Like most high stakes tests this test does not come without controversy. The primary controversy stems from the knowledge that the test has had several revisions since its inception in April of 1999, in which the first class of students were administered the AIMS test (www.azleg.state.az.us).

Principal Waters stated, "the original intent of high stakes testing is for the parents to understand where their children are and monitor them and make sure they do qualify for scholarships and post-secondary training" (J. Waters, personal communication, April 04, 2005). What is also interesting is that the BIA schools, private schools and home schooled students are not required to take the AIMS test (State Board of Education, September 27, 1999). What the State of Arizona does do for the participating schools that choose the AIMS test is pick up the testing cost. Unfortunately for the BIA and grant school in the study, these schools have yet to put in place any other form of assessment to better document the students' academic success and thus far have also chosen to administer the AIMS test.

Since the creation of the AIMS test it has been in the spotlight. First the test is designed specifically to measure students' progress towards Arizona standards in mathematics, reading and writing. Achievement of students is then measured by how well students learn the skills described in the state standards at each level.

The AIMS results are reported in terms of performance levels relative to state standards: Exceed the Standard, Meets the Standard, Approaches the Standard, Falls Far Below the Standards. Arizona's state standards describe what students should know and be able to do in nine different subjects as they progress from kindergarten through high school (GreatSchools.net, 2005).

According to Tom Horne, Superintendent of Education for the state of Arizona, the AIMS test has changed not only as a standardized test but also to include a value-added approach. This means that beginning year 2005, each grade tested has a vertical score under which the grade in one year can relate to the grade in another year (Arizona Department of Education, July 13, 2005). Horne, also added that Adequate Yearly Progress would change from 72 percent in 2004 to 79 percent in 2006 due to the redefined perimeters that would address adequate yearly progress based on a value-added approach (Arizona Department of Education, September 1, 2005). This means, for example that the amount of knowledge demonstrated to pass the testing one year has to be greater than the amount of knowledge demonstrated in the earlier year. Principal Waters reports "this year the BIA offices have opted to take the AIMS test to align with state standards. So the SAT-9 and SAT-10 will not be used" (J. Waters, personal communication, April 4, 2005). What was difficult to ascertain from this research was whether there was any participation by Navajo school educators in the adoption of the

value added approach to AIMS testing. The difference between tests are that the AIMS is not optional to students in these schools. The AIMS also determines the Adequate Yearly Progress (AYP) for students, schools, and districts. What is truer today is that standardized tests like the AIMS are increasingly more important to both students and school administrators as a result of the NCLB Act (Laitsch, 2005).

Principal Waters, Lichii High School, Principal Smith at Ch'ilgo Dootl'izh High School and Principal Nez at Litso High School all were able to address their specific differences to high stakes tests, but in doing so also touched on similar topical areas. The similarity among them all was the fact that each identified the AIMS as the test that was a nemesis in one way or another. The challenge for all three principals was to visualize the test as a reliable instrument that was truly measuring their students' academic achievement. None of the three principals said that this was the case. What was addressed is their perceptions of what the AIMS test represents to their school and how that is translated to their students.

The Arizona Department of Education has been asked if they consider the AIMS test to be a high stakes test and their answer is for grades 3, 5, and 8 the AIMS test is not a high stakes test (www.ade.state.az.us/standards/gradtestfaq.asp). What the State of Arizona Department of Education does acknowledge for high school students is that the AIMS test will serve as a graduation test for the class of 2006, and it will be available in English only. Limited English proficient students may receive some forms of accommodations. Those accommodations are available on the Arizona Department of Education (ADE) web site (<http://www.ade.state.az.us>). All three high school principals in this study agreed that the AIMS is a high stakes test for this very reason.

Principal Waters had this to say

. . .my concern is that the use of high stakes tests to say whether a student can graduate from high school and that to me is extremely poor judgment. We have students who are gifted in art for example or ceramic or clay that may never reach the math level of geometry, they have spatial abilities but when it comes to a (test) they don't understand when it is on a test. I've served on committees to develop questions for the state, different content areas, like technology, many of the questions are designed for and by staff that are familiar with them and seem to have lost touch with the beginning learner. We talk technology, but to make sure you get enough information to pass an AIMS test or state standardized tests, we will need to evaluate that much closer, so we are not speaking above our students' heads. We need to have the ability to go from an A-B-C-D progression type thing, so we can really tell where they are at. (J.Waters, personal communication, April, 04, 2005)

Similar Perceptions of Principals

Reading, Writing and Mathematics

What the principals at Lichii High School, Ch'ilgo Dootl'izh High School, and Litso High School all agree on is that the AIMS test is the instrument that defines a school's Adequate Yearly Progress, which in turn influences their perception of academic achievement of the Navajo high school student. Each principal addressed the same tests, the one test that was mentioned the most was the AIMS. The student must meet or exceed all three parts of the test that include reading, writing and mathematics. The school is responsible for testing all 10th graders those who do not meet or exceed the test the first time around and then have two more chances to pass all three of the tests in their 11th and 12th grade years. According to Dr. Flores, Chancellor of Pima College "the state of Arizona is spending a great deal of time in remediation of high school students once they get to college and says, according to what the Arizona Board of Education has reported there are no statistics that have shown that the AIMS test makes no difference in

the success or predictability of students going on to college and succeeding” (Arizona department meeting, 2004).

All the principals in the study in some way, addressed math needs. Principal Nez stated, “The priority is math. In our school improvement plan that is mandated by the State of Arizona, our number one goal is to raise the Math AIMS test scores. Goal Number two is raise reading scores” (C. Nez, personal communication, April 25, 2005).

School Proficiency and Adequate Yearly Progress (AYP)

Student achievement is more than just a diploma and success beyond high school student achievement now is tied directly to No Child Left Behind. Principal Nez states “I think that what the NCLB Act has done is made schools accountable, made school leaders accountable, and whole school communities (C. Nez, personal communication, April 25, 2005). That same sentiment was echoed again by Principal Smith who said “I feel like it is my job or it’s my responsibility to make sure that what is happening in the classroom is tied into the standards represented in the AIMS test, because that is what determines our Adequate Yearly Progress (J. Smith, personal communication, April 21, 2005).

The idea associated with the fact that achievement is a test and a test determines if we are teaching and students are learning has driven how all three high school principals felt they are being held accountable. Principal Smith states

Right now we are experiencing a trend where we (principals) are being held accountable for our test scores and student achievement. Not that principals were never held accountable before, but that this new pressure that comes with running a school is more directed at how principals run their schools as testing centers than as a school for learning. (J. Smith, personal communication, April 21, 2005)

Principal Waters added, “one of the concerns that I have had in Arizona and New Mexico is they continuously change the baseline data, it has changed three or four times the last five years (J. Waters, personal communication, April 04, 2005). This change in base line data also referred to as adequate yearly progress (AYP) is a concern, because for schools to show improvement they need to have consistency in how they and their students are being judged.

While principals work to make sense of what the State of Arizona has mandated they are still dedicated with making teaching and learning happen. This happens at a cost as Principal Smith said, “We prepare mostly for the test, and test taking skills” (J. Smith, personal communication, April 21, 2005). Not that these principals were not accountable before or that there are other measures, but that the test determines the quality of education in their school. Principal Nez chose to put it in this way “Passing the AIMS test...that’s what drives everything that I’ve done right now, as far as making decisions, judgement and policy” (C. Nez, personal communication, April 25, 2005).

Adequate Yearly Progress is a measure of data from the AIMS test that requires 95 percent of the students in the school to take the test. It also requires from all applicable ethnic and social backgrounds in a school to pass the test. Failure of any subgroup to pass the test or not achieve 95 percent attendance when the AIMS is given, results in failure for the entire school regardless of all other students. High School graduation rates are factored into adequate yearly progress (AYP) (<http://www.ade.state.az.us>).

The schools are also required under the 2001 No Child Left Behind Act to show that students have increased their performance in math and reading significantly since the

previous year, with each benchmark incrementally showing growth as each student meets state and federal standards set to be met by the year 2014. According to Principal Smith “The AIMS test is the only test that determines adequate yearly progress” (J. Smith, personal communication, April 21, 2005). Most often Arizona schools fail adequate yearly progress because they have too many students fail the AIMS (Arizona Central, September 21, 2005).

This perception of academic achievement becomes a complex one that is not easily defined in simple parameters around student achievement, due to the fact that principals see their school standing as making adequate yearly progress (AYP) or not making AYP as a greater need than a student actually mastering the test taking skills to pass the AIMS test. The differences that Principal Smith at Ch’ilgo Dootl’izh High School sees in his BIA school is set by the parameters that at times follow federal guidelines, sometimes the state guidelines and sometimes tribal guidelines. The priority as to when one regulation or statute takes precedence seems to be by the directive of agency directors and at the discretion of school personnel that have had a history of seeing how something like ‘testing’ plays out.

The reasoning behind the test being considered the high stakes test is best articulated by Principal Nez.

What the AIMS test has done “is forced me to look at what the problems are and why those problems are like that and it’s based on that testing...we (administrators, teachers, students, community) need to be geared towards passing the AIMS test.” The AIMS test has driven everything I’ve done right now, as far as decision making, judgement and policy. This is it! This is how we are going to do it. Everything is geared towards that test right now.” The AIMS objectives, now that the state has given a window to test in, we can meet that easily. Where schools need to focus now for us here are the AIMS objectives, the test itself, we are trying to correct the problem. (C. Nez, personal communication, April 25, 2005)

In one fashion or another the principals addressed the make-up of the test from Principal Waters concerns with how

both the state of Arizona and New Mexico continuously change the baseline data, it has changed three to four times over the last five years. Every change then throws off the progression scale (which directly then affects the performance according to adequate yearly progress) that students are judged on, so one year a school might be improving and the next year they are not. (J. Waters, personal communication, April 4, 2005)

No one is absent of the new demands that AIMS places on administrators better than the principals themselves. The No Child Left Behind Act has had the intent to make schools and school leaders accountable. (C. Nez, personal communication, April 25, 2005)

The fact that Principal Smith, a non- Navajo, and new principal has spent over 25 years in the Ch'ilgo Dootl'izh community has given him a good background in the politics of tests and the challenge it has on defining student achievement in regards to high stakes tests. He elaborated

At the beginning of this year, we were told we have to use the AIMS tests, as an instructional leader, I feel like it is my boy or it is my responsibility to make sure what is happening in the classroom is tied to the standards represented on the AIMS tests because it is not only the test that determines adequate yearly progress, but eventually students are going to have to pass that test in order to graduate according to the state. It's not required right now for a BIA school, but my understanding is that we are going that way, so I feel like what I need to be doing is to make sure the standards are being covered in the classroom, and what is being taught is reflected in the AIMS and the standards from the state. (J. Smith, personal communication, April 21, 2005)

Since we are looking into the AIMS test as a graduation exam and we are required to give it to our 10th graders, and the 10th graders are what they (State of Arizona) are looking at for adequate yearly progress purposes, we feel like we have to increase our math skills that our students have at an earlier stage in high school (J. Smith, personal communication, April 21, 2005).

This issue is something that another principal also echoes. It is the perception of

Jack Smith, “I think the high stakes testing that our students are required to take and we are required to give (J. Smith, personal communication, April 21, 2005). The AIMS test is testing the standards that the state has decided are important in order for students to graduate. It is the perception of this principal that

the BIA is going to decide if we (Chilgo Dootl’izh High School) are going to make adequate yearly progress or are whether we go into a status of school improvement, restructuring or a couple of other categories, that if you don’t have a certain amount of students pass this AIMS test. (J. Smith, personal communication, April 21, 2005)

There is a perception that the categories of restructuring, school improvement or state takeover are more real threats or hold a higher threat than a student not receiving a graduation diploma. For Principal Smith his perception is a concern for the school first and then the student. His analysis of data such as the fact that 35.8% of the students must pass the language arts portion of the test and 25% must pass the math portion of the test, is a reality that this principal sees in his school when it comes to high stakes testing and student achievement. Rather than looking at the specifics of students, the school and student body classes are identified. This was true for all three principals.

We (Arizona principals) are being told that we (school administrators) have to use our 10th grade and that becomes even more high stakes for us because our 10th grade typically is the class that is NOT achieving as much as the higher grade levels. It is my understanding that the class of 2006 must pass all three parts of the AIMS in order to graduate (J. Smith, personal communication, April 21, 2005).

For Principal Nez at Lichii High School he observed that attendance was an issue

I know we can correct our attendance rate by appealing based on location and situations that come up here. In our case it is that our school has so much inclement weather days that we can appeal and probably pass. (C. Nez, personal communication, April 25, 2005)

He was also the most articulate about the fact that at his large public school he had to look at

the AIMS objectives data, the test itself and that is where the focus is right now and for us here at our school, we are trying to correct that problem. We are looking at if we can fit that, then everything else will fall into place, we can sort of control the other three, but we can't go in there and take the test for our kids.(C.Nez, personal communication, April 25, 2005)

According to Principal Nez this understanding of what has to happen to tackle the AIMS is something that has been articulated through both a school improvement plan. The school improvement plan is a process that all three schools submitted to the state of Arizona's goal under No Child Left Behind. This is one way the State of Arizona looks to assist schools who may or may not be under school improvement. Beyond this plan a grant to the state of Arizona that allows for schools (BIA, grant, or public) to identify particular areas and work towards correction using scientifically researched based material. For Principal Nez overall the staff know what the goals and priorities are for improving both the student and school. One of the goals that caused some dissension among staff was the replacement of a band program with a math teacher. But, according to the AIMS scores, raising of math scores is needed more than the raising of band scores (C. Nez, personal communication, April 25, 2005).

Principal Nez also realizes

. . .that the AIMS test is something that he sees everyone needs to pass in order to graduate, and that the sophomores class of 2007 is a priority because they will decide if a school and a district are going to get out from under-performing. (C. Nez, personal communication, April 25, 2005)

In one instance he speaks of individual students and in another instance he speaks of the reality of schools being labeled due to a whole category of students regardless of any category other than they are in the class of 2007.

Diversity within the School Population

The student population at the schools is split into numerous subgroups, based on sex, race, family income, and education indicators such as special education or language proficiency. Each subgroup is tested and rated either a 'yes' or 'no' depending on how students met or exceeded the state standard on the tests. All subgroups then must meet the state standards to make adequate yearly progress, because the federal law intended to erase the notion that some groups are 'unteachable.' Schools are also required to test at least 95% of its students to meet adequate yearly progress. This concern about the 95% was echoed by Principal Waters who states, "One of the concerns I have is that if you test fewer than 95% of your students, it will automatically put you in under-performing in adequate yearly progress and has nothing to do with academic achievement" (Interview, April 4, 2005). Other factors include high attendance rate, and high graduation rates for high schools. Principal Smith says "The AIMS tests determine adequate yearly progress....and eventually students are going to have to pass the test in order to graduate. I feel like it is my job and my responsibility to make sure that what is happening in the classroom ties into the standards" (J. Smith, personal communication, April 21, 2005)

Principal Waters sees that much of what can be learned on the test is a process of learning the skills to achieve a passing mark on the test. What is not addressed is what skills students enter high school with and if it is possible to make up the difference in abilities. For the special education student abilities are often tied directly to their IEP. That principal as an academic leader must understand the processes, what happens to a child if he/she is HD or ADHD or SLD or some of the other problems like

autistic, what would happen? The academic leader must go back and look at the IEP to make sure they (teachers) are meeting the needs of the students (Interview April 4, 2005).

It is further the perception of Principal Waters that many students are gifted in other areas like art for example or clay and may never reach a math level of geometry, but they have spatial abilities, but don't understand how to pass a test. The test becomes a poor judgement of what that student can do (J. Waters, personal communication, April 4, 2005).

The problem with the AIMS, and the fact that it is tied to something like Adequate Yearly Progress (AYP) is that the base line data has changed over the last four or five years and with that change it throws off the progression scale that students are judged on. Thus, in one year a school might be on school improvement and the next year they are not, but when the formula changes, even though students may pass, the school fails and is placed into not making Adequate Yearly Progress (J. Waters, personal communication, April 4, 2005).

Inclusion of Special Education Students

The concern that Principal Smith is having is for the special education student--no student is excluded, and the accommodations and modifications on the test are reported when sending the answer sheets in to be scored.

. . .after talking with the certification people, they are saying that we can get all our regular teachers certified in special education, or we can get all our special education teachers certified in different content areas. (J. Waters, personal communication, April 4, 2005)

Principal Nez at starts his discussion of his perception of high stakes tests by looking at how it has been defined by the 2001 No Child Left Behind Act

The NCLB is really geared towards four areas of our school: attendance, graduation rate, AIMS attendance and on the test dates the AIMS objectives. We think we are improving in and assessed in for things is something that makes my job more focused and right now the target is for us, at our school is the AIMS test (C. Nez, personal communication, April 25, 2005).

Like the other principals the AIMS test was identified as the high stakes test. The NCLB Act has forced schools to look at accountability and their data and ask “where are we falling behind?” In most schools they say, “We are falling behind in our scores.”

“For the special education student there is the AIMS-A, the specialized test they give to the special education kids. We don’t leave them out of any kind of test prep,” so it is the perception of Principal Nez that special education students

have a place in student achievement and it is one that is part of their IEP, being properly identified for services and being serviced in a manner that allows for student make positive performance in the classroom and on the test. (C. Nez, personal communication, April 25, 2005).

Principal Nez says, “I need to be more knowledgeable about the ELL (English Language Learner)” (Interview, April 25, 2005) This is significant for him to recognize as a veteran principal and someone who is Navajo and from the community because it speaks to the understanding that as educators nothing can go unnoticed. The most well educated, bilingual educator can forget what it means to have this kind of deficit.

Differing Perceptions of Principals

Student Preparation for AIMS Test

Principal Waters perceived the high stakes testing as something that parents need to understand where their children are, and to monitor them and to make sure they do qualify for scholarships and post secondary training. What he has done at Lichii High School prior to high stakes tests like the (AIMS) is to train the teachers, and instruct the teachers how students should take the test, using test taking skills and concentrating on areas such as writing. At Lichii High School persuasive writing is just one area on the AIMS test that students were not proficient in and so it was necessary to go back, and

teach persuasive essay writing and that's all the English teachers do is concentrate on persuasive essays, because that is a skill, a test taking skill (Interview, April 4, 2005).

This response to narrow the responsibility of persuasive essay writing to the English department was across the board a familiar response, by all three principals at all three schools. An active reading program throughout the school was a product of Chi'lgo Dotl'izh High School Principal Smith's response to making reading both fun and part of each student's daily life regardless to any particular content area

As far as statistics go, at Lichii High School four or five years ago no one passed the writing test on the AIMS. This year we had 27 out of our 159 students pass the writing portion of the test. We see that as progression (J. Waters, personal communication, April 4, 2005).

Exclusion of Navajo Language and Culture

The schools and the curricula inside the school varied greatly as to when and for what purpose Navajo language and culture courses were offered. All three school principals did have some type of Navajo course in their school. The principal perception about offering the Navajo language and culture courses were dependent upon support of the community, school board and personnel inside the school.

We have several programs unique to the community. One is the Navajo culture program and we also offer four years of Navajo language, tribal government and have a relationship with Dine College. We also have a horsemanship program here that allows student to learn how to train them, harness them to a wagon, and students are sent on a trail ride for four days where they are asked to demonstrate their abilities in how to care for, ride, and work with the horses. (J. Waters, personal communication, April 4, 2005)

This knowledge of knowing that students already come to school with skills and talents is best accentuated at the high school level through unique programs that blend both the Navajo culture and tradition with practical hands on skills that students can use beyond high school, and rarely if ever assessed on tests.

Summary

In relationship to the principals' perception of academic achievement using the Arizona Instrument to Measure Standards (AIMS) as the identified high stakes test. There were factors that related to the academic achievement of Navajo students. Those factors were: who graduates and who gets a certificate of attendance, who goes on to college and who drops out, how does Adequate Yearly Progress affects a school and the development of a Navajo language and culture as an integrated part of the schools curriculum.

Other Measures of Academic Success

Research Question Three

- 3.) What other measures do high school principals use to determine academic success for Navajo students?
 - a.) Are these measures the same or different for the special education students?

Similar Perceptions of Principals

The Arts

The most prevalent similarity was the need to include the arts in the curriculum and depending on whether a principal was a part of the community or merely an addition to the community they either supported Navajo culture and language as an embedded part of the entire schooling process or saw it as an additional burden and responsibility.

The arts include course development in everything from fine arts to the creative arts. Fine arts offerings in all three high schools was well established and in two of the schools, Litso High School and Lichii High School, the schools' teaching staff had built a reputation for the school's artwork in oils, watercolor, traditional beadwork and weaving.

Lichii High School is also known throughout the reservation for their superior student work in drama and traditional song-and-dance.

PLATO Learning

Principal Smith was also very enthusiastic about the fact that

. . . there was an alternative high school, that caters to students for one reason or another have in the past left school and want to come back in. Using a computer assisted program called PLATO they take courses that are needs either through programs on the computer, or by video, or assisted by texts. We have seen an increase in students graduating through this self paced program. (J. Smith, personal communication, April 21, 2005)

All three high schools have implemented the PLATO learning system. PLATO is a computer based instructional program that assists students in making progress in the core curricula. PLATO curricula includes basic to advanced level instruction in reading, writing, mathematics, science, social studies, interdisciplinary learning, ELL, and life and job skills. The PLATO program courseware is the most comprehensive available for K-12 and adult learning (PLATO Learning, K-12 Adult Technologies Software and Service Guide, pg.14).

Principal Smith stated “We have an alternative school that caters to students, for one reason or another left high school and want to come back to earn their degree, so it’s typically students who are 19, 20 or older” (J. Smith, personal communication, April 21, 2005).

Vocational Education

The history of vocational education for Indian students is not new. Every report starting with Merriam Report of 1928 to the 2000 White House Conference on Indian Education has had some form of discussion on vocational education. Not surprisingly, in 1877, the Commission on Indian Affairs established compulsory schooling system for

Indian students that included industrial (trade) schools (Stahl, 1979). Of all the schools Listo High School had the most extensive and most developed vocational education program of all three schools. The course offerings included auto technology, heavy equipment operation, nursing assistant, health occupations, carpentry, cosmetology, office training, building trades, agriculture, food, electronics, horticulture, drafting, cabinet making, CISCO, commercial arts, and word processing (Field Notes, 2005). The uniqueness of offering all these courses is that for those students who are considered self-motivated, and have passed specific tests to assist them in certification in some areas, there is a real opportunity for them within the community to be employed right out of high school and continue their trade.

For Principal Waters at Lichii High School he views his role as principal as measured by how well he was able to get teachers to communicate and deliver the teaching skills necessary for students to do well inside school and beyond. He states

The function of my position is to ...allow students the opportunity to reach an academic level that will allow them to go into post secondary schools, vocational schools or whatever they want to do. I do this by 1. Preparing the staff so that they can teach properly what is in their content area, and 2. To make the sure the content is taught to the student, so the student is able to accomplish what is being taught. (J. Waters, personal communication, April 4, 2005).

Listo High School is a model school according to the Arizona Department of Vocational Training and Education as far as how it has developed a comprehensive program alignment to allow students to enter in their freshman year and exit as seniors, having completed a certified program. The contradiction seems to come as to whether vocational education or career technical education is a successful venue for determining academic achievement. Many including NAVE (National Assessment of Vocational

Education) are quoted to say “that career and technical courses do not distract from student achievement, but there is no evidence as of yet that it aids in student achievement” (Hoachlander, 2005). Graduation rates will increase with less pressure being placed on testing and more emphasis being placed on teaching and learning. At Litso High School, Principal Nez states his approach is “to take care of graduation rates by facilitating seniors, and just working with them” (C. Nez, personal communication, April 25, 2005). He continued with

. . .this happens by making schooling something they want to achieve in “looking at attendance data, I know one of the major problems is truancy, as it relates to student achievement. I want kids in the classroom. I think that in itself, what has helped me understand what is needed to achieve student success is to be able to go in, correct a lot of things, and be able to help students in an indirect way.” (C. Nez, personal communication, April 25, 2005).

That indirect way for Principal Nez is simply to put together teachers and teaching environments that are not offered any where else, for example: cosmetology, graphic design, drafting, Heavy Equipment, Nursing and Navajo Language and Culture.

Differing Perceptions of Principals

Community Involvement and Leadership

Principal Nez perceived other measures as something he felt, as he said, a part of being a strong ‘multifaceted leader.’ For him community was at the center of the other measures

. . .we are trying to get more involved with our community and parent. To have them come in and do things with the kids in the school. We offer parenting classes here at the school and we try to get educated about what it means to be a ‘good parent’ one of those characteristics is that students still practice traditional ways at home. This is one thing we found out and we want to encourage. (C. Nez, personal communication, April 25, 2005)

At Litso High School clubs like Powwow and Native American Clubs are ways that students can be involved and ‘attached’ to their traditional culture. At Litso High School there is also a strong understanding that with laws such as PROP 301, English Only

. . .the school has to work to keep the bilingual programs alive and in tack. We want to keep it. It is part of our school mission and philosophy, and we want to serve the kids the best we can. (C. Nez, personal communication, April 25, 2005)

This concept of serving the community is an attribute that this principal shared that the other two principals did not.

That leadership is a shared responsibility and with that shared responsibility comes a duty to know that students will show you what they know through means that are not necessarily measured on tests, and using a language and a culture that they know and is expressed in ways that are not easily shared at times. Principal Nez shared this view stating “give us minority schools in remote areas another path, to meet the needs and challenges that are fair and equitable to us here.” (C.Nez, personal communication, April 25, 2005).

That challenge to fair and equitable is something that all three principals again thought and shared was not part of the testing process. So, to be fair to students other ways of showing achievement must be possible and present. Those different ways of viewing students as achieving beyond tests are only possible with some risk taking and ingenuity

Navajo Language and Culture

How Navajo Language and Culture is perceived by the high school principals in the three schools often is complicated by how the Navajo Nation perceives State and Federal mandates, like the No Child Left Behind Act. The NCLBA challenges educators

on the Navajo Nation to fulfill their role in the educating the whole Navajo student. The Navajo Division of Education Director, Leland Lennard was quoted as saying:

The No Child Left Behind Act tests only in three subjects: reading, math and writing. While these subjects are important, the No Child Left Behind Act excludes tests given to students who may be excelling in other areas, such as music, art or Navajo language. As a community of Navajo thinkers and learners the retention of the native language and culture is a priority, but the No Child Left Behind Act does not recognize any achievement in that area. (Navajo Nation Testimony to the Senate Committee on Indian Affairs, June 16, 2004)

Nothing at the state or federal level yet recognizes that Navajo students along with other American Indian students have an ability to express achievement in other ways not often measured on standardized tests.

We have several ways we monitor particular student proficiency through competitions among other schools. No student is exempt from trying out for any of these activities. We send out students out to compete in construction trades, welding, robotics, performing arts. We have other various clubs like the Future Business Leaders of America and Rodeo Club that allows students to show off their abilities and be judged and assessed differently. (J. Waters, personal communication, April 4, 2005)

Textbook Tests and Sustained Silent Reading

For Principal Smith, he interpreted the other measures as different programs he felt were unique to Ch'ilgo Dootl'izh High School and how they might work hand-in-hand with the school improvement plan that he and his staff worked on many occasions during the researcher's month-long observation

I think the other measures, the measures used by the teachers, quite often the tests and questions given at the end of each chapter of a textbook. Mostly, the textbooks are aligned to the national standards and it is my understanding that we also have books aligned to state standards (J. Smith, personal communication, April 21, 2005).

In addition to teacher made tests, the high school has also been successful in a sustained silent reading program for about three years. The reason we started this program was to get kids interested in reading and enjoying reading on their own. I think we have accomplished that. We need to increase the reading levels and this

is one way we have been able to do that. (J. Smith, personal communication, April 21, 2005)

Special Education Students Measured Differently

Students throughout all three schools are being administered the AIMS test. Very few students in all three schools are found exempt from the AIMS and as a result are being asked to Meet or Exceed the required skills in reading, writing and mathematics. In Litso High School and Ch'ilgo Dootl'izh High School testing preparation for the AIMS are offered to ALL students in response to the requirement 'that all students' will be proficient in reading, writing and math skills in accordance to the AIMS test (Running Record, April 2005).

John Waters at Lichii High School addressed the issues of special education in this way.

The academic leader/principal needs to look at each department 9th-12th, special education, and ask 'What are they teaching?' Special education to me is...it must be designed for the level of the students, and the abilities of the students no matter what the physical, hearing problem, vision problems, being in a wheelchair type things or an LD (learning disability) situation. (J. Waters, personal communication, April 4, 2005)

Summary

How principals' perceive the use of other measures as an influence on the academic achievement of Navajo students was related directly to the school. The factors that influenced Navajo high school students included: getting and keeping a job, having productive vocational skills to be employable, being involved in their community, and finally knowing how to live a balanced life both within Navajo society and the Western society.

CHAPTER FIVE

Conclusions, Implications and Recommendations

In this chapter, the study conclusions are discussed along with the recommendations, for policy and practice, and research.

Conclusions

In the multi-case study of three principals from schools on the Navajo Nation, the researcher starts with the premise that the principals' perceptions on test (standardized and high stakes) influence the academic achievement of their Navajo high school students.

One conclusion is that standards driven curricula along with high stakes tests have cost principals to make decisions about school curricula that is prescribed and best suits the agenda of a test while excluding other content and objectives (Kohn, 2000). The proficiency on standardized tests is driven by the students' expressed knowledge on the tests in math, reading and writing. There may have been other areas on other standardized tests that required other knowledge, but these three areas were at the core of each of the tests. The results regarding proficiency in math, reading and writing on standardized tests for individual students was seen as a clear indicator as perceived by the principals' as to what choices students had about graduation and which students do go on to graduate (Ogbu, 1987).

Students who had results that were lower and did not meet the norm on a standardized test were from schools where there was a perception by the principal that the students were disconnected from the learning in the classroom. This disconnection could be attributed to the disconnect between what is perceived as western knowledge and the

knowledge relevant to the student on the Navajo Nation (Brescia & Fortune, 1988; Deyhle & Swisher, 1997).

The Arizona Instrument to Measure Standards (AIMS) was identified as both a standardized test and high stakes test by the principals. For the purpose of this research the AIMS was addressed as a high stakes test. The AIMS test is used as an indicator as to those students' who will graduate with a high school diploma and those that will not. The AIMS, has created a testing lethargy due to redundancy and repetition. This discussion of the AIMS is also addressed as a tool that defines Adequate Yearly Progress and as a result has labeled some schools as under-performing, placing schools in jeopardy of state take-over.

The prevailing influences of academic achievement based on the principals' perceptions are: graduation with high school diploma, post-secondary opportunities in college, military or workforce, and their contribution as members of their Navajo community.

The principals' perceptions of high stakes tests as a measure of academic achievement of their Navajo high school students is related directly to the AIMS. A high school student's performance on the AIMS in math, reading and writing is one indicator for the State Department of Education for Arizona to determine whether a school meets adequate yearly progress.

This one indicator for principals is being perceived as the greatest challenge. The AIMS has caused the principals to perceive a new way of presenting their curriculum in math, reading, and writing to better address this issue (Hess, 2004). Principals in the research study did not have any alternative ways of addressing high stakes tests, but

instead tackled the issue by suggesting better teacher training and professional development. Through the administering of the AIMS it was the principals' perception that the needs of students would be met in math, reading, and writing. The principals were confident that students would meet or exceeded the scores needed to pass the AIMS. It was this confidence that students' would meet or exceed the standards in math, reading and writing and in doing so would remove schools from the state lists identified as under-performing due to test scores and other indicators.

The understanding of the principals to include *ALL* students as part of this high stakes test is a conscious act. Principals in the study were given the directive by the state of Arizona to meet the needs of *ALL* students, to which principals determine along with their staff how those needs are going to be met. The preparation of students to do well on the AIMS was a vision that the principal at two schools felt was a matter of offering testing preparation courses. These courses were presented to *ALL* students and it was the perception of the principals that *ALL* students would succeed after taking the testing preparation courses. The principals' perception of academic achievement as it relates to the AIMS tests relates to the test as a reliable instrument that is without cultural bias. The AIMS test however, excludes Navajo language and culture as part of the instrument.

Finally, the other measures that high school principals in this research study use to determine the academic achievement of their Navajo students were based on their perceptions of what the standardized test or the high stakes test did not do.

The principals in the study saw that the creative arts were a strong indicator of what students do well. The Arts included both traditional crafts such as: beading, horsemanship, Navajo song and dance, weaving, rodeo and the non-traditional arts.

The principals also oversaw alternative education programs at all three schools that included the use of computer-assisted instruction (CAI) through the PLATO program. This alternative setting using CAI has allowed all three schools to graduate students who could not complete a traditional high school program. The principals saw this program as a strong foundation that worked in collaboration with both the curricula defined by the school and was aligned to meet the State of Arizona standards in math, reading, and writing.

The other measure that principals addressed in the research was the vocational education program. The similarity is that principals agreed this is an avenue of academic success that works in unison with the regular education program, but has its own standards of accountability. Each school depending upon the student population at the school offered from four to sixteen different vocational courses. Some courses had direct alignment with certificate programs that also seemed to be external motivators for students to succeed and be certified in a specialized area for employment right out of high school. The downfall of many of the more complex vocational course offerings are that they must be entered into by the freshman year to be considered a 'completer' and earn a certificate.

The principals' perceptions differed on other measures dependent on large part to the involvement that the community had on addressing and being heard on educational structure and organization. Two principals perceived the community as a guiding force in the development of leadership. The balancing within the school was to both develop the skills perceived as necessary in the dominant society and those skills relevant and necessary in Navajo society. This meant that principals in two schools had to be

continually engaging the community into decision-making matters regarding all forms of learning in and out of school.

The principals perception of Navajo language and culture in schools depended on the school mission , the vision of the principal, the school culture, and the acceptance or resistance within the community. In all three schools some form of Navajo language and culture was present in the school curricula. In two schools it was a part of the integrated curricula and in one school it was an elective. What was different was the articulated belief that principals' shared with students, faculty, parents and community on why Navajo language and culture was important to the academic success of students. This nuance of belief was difficult to capture in the research, but was evident in the observation within the culture of the school. The principals' perceived structure of the high school experience in two cases demonstrated the value that the principals' had to balance both Dine (Navajo) thinking and learning and that of more (Western) thinking and learning as complimentary systems that assist in the overall academic achievement of Navajo students.

The principals perceived that these other measures of the Arts, CAI, vocational education, community involvement, and Navajo language and culture are strengths of the academic achievement of both the regular and special education student. The influences of academic achievement were employment, lifetime skills, involvement in the community, and the balancing of Dine values and that of Western values in regards to defining what a differing viewpoint on achievement.

Implications

The implications of this research study are (1) Navajo students will not earn a high school diploma and as a result will drop out of school. (2) Students who earn a letter of attendance will not be able to go on to post-secondary institutions including the military. (3) There will be more students and parents that will look to be exempt from high stakes tests through their IEP, resulting in skewed reporting by schools to the state. (4) There will be greater turnover in principals due to the mandated pressures outlined in NCLB and State improvement plans. (5) Schools that are on the last tier of improvement will be taken over by the State resulting in even lesser control of Navajo education codes being enforced

Recommendations

Policy

What this research points to is the fact that when policymakers consider professional learning, they must consider leadership and how this shifts over time. The development of leadership is something that is both developed and shifts not only over time and but in place as well. The principal as leader within a particular community will be sustained not by “best practices” or “tricks”, but by true reform: that is reforming and reshaping of knowledge in the principal’s minds, and sees teacher’s as co-leaders and students’ as co-learners in the process.

Policymakers must also consider strategies to increase access to this type of professional community. All three principals spoke to the need for professional development assistance for themselves as leaders to help make more informed decisions on both organizational structure and curricula issues. How should professional leadership

activities be devised to best suit these rural principals? This is an avenue of discovery that must be more than just university driven, there must an investment of building sustainable leadership by the Navajo Nation first, with the assistance of expertise from both within and outside the Navajo Nation.

Practice

The AIMS is pressuring principals to be stronger advocates for their students than ever before. The pressure to conform is greater than the risk of being different and thinking outside the comfort zone of what has been mandated by the State of Arizona.

One way to begin to address the pressures of conforming to standardized testing is to look at other ways students are succeeding and use the foundation of Navajo philosophy and learning.

In Navajo, this great central focus is the synthesization of knowledge obtained from the cardinal points that find expression and appreciation, reverence and harmony. It is this knowledge that brings about an interrelationship from where there is a central focus of balance and harmony (Benally, 1987).

It must be this understanding of the Navajo child as they progress through the schooling experience that will determine a new future of learning beyond the standardized and high stakes test. Inclusion of Navajo language and culture must be part of that understanding and like a thread run through all parts of the schooling experience.

Once principals at schools, like the ones in the study, come up with answers to this they can begin to look at how the standardized test and high stakes test (AIMS) do not meet the needs of ALL their students. The principals in this study must first address and adhere to the statutes under the Navajo State Department of Education. The recommendation of this study would be to enforce of the Navajo Division of Education code of (1985) that states:

The Navajo language is an essential element of the life, culture, and identity of the Navajo people. The Navajo Nation recognizes the importance of preserving and perpetuating that language to the survival of the Nation. Instruction in the Navajo language shall be made available at all grade levels in all schools serving the Navajo Nation. Navajo language instruction shall include to the greatest extent practicable: thinking, speaking, comprehension, reading and writing skills and study of the formal grammar of the language (Zah, 1985).

As a sovereign Nation this code must be upheld. The use of this code and other educational mandates by the Navajo State Department of Education will result in schools finding a balance between educating the whole Navajo student and developing and implementing necessary authentic assessments that best address the Navajo students strength in two language, and two cultures. It is a recommended that schools on the Navajo Nation, no matter what school type of school, provide professional development, technical assistance, administrator and teacher academies, so that schools can meet the provisions of both the Navajo Nation and federal and state education statutes. It is further recommended that the Navajo Nation State Department of Education revisits their statutes and develop amendments to develop a more comprehensive approach to fully implement the provisions of the statute in all schools.

It is also recommended that schools take an active role in developing alternative assessments that are relevant to their special education students. Principals at all three schools must begin to develop alternative assessments for their special education students.

The A.A.C. R7-2-302, an Arizona- statute, allows schools and principals to create alternative assessments to provide a more equitable educational experience for the Special Education students when it comes to passing the AIMS as a requirement for graduation.

On February 9, 2005 the Office of the Attorney General established the following: “A.A.C. R7-2-302 (6), which permits school districts to establish graduation requirements for special education programs, consistent with the requirements in A.R.S. sec. 15-701.01 (A) and the governing special education. Under this rule the federal laws governing special education, so may, through an IEP, exempt special education students from passing the AIMS in order to graduate from high school.”

In the development of these alternative assessments schools and principals must be sure that they not only define their alternate assessment but they include: the nature of non-standard assessments, the scoring and what constitutes the score, what the levels will be set to determine academic achievement, what types of labeling will be applied to the levels, the combination of general assessments with alternate assessments and how will the results be reported for individual students (Thurlow, Elliot & Ysseldyke, 1997).

Research

Further research is needed to determine the issues surrounding this year’s graduating class of 2006 (first class to earn diploma or letter of attendance) and the impact that a letter of attendance has on regular education and special education students’ success after high school. Also, more research needs to address how standardized tests administered and mandated by the State of Arizona conflict with the educational mandates of the Navajo State Department of Education.

Principal leadership is one venue to examine student achievement, future studies should the perceptions and actions of teachers, parents, and others on the academic achievement of the Navajo students. Kinship and extended family plays a tremendous role in the identity of a Navajo student and how this plays into achievement is directly related in many ways to a student’s self concept and role in the larger society.

Teachers as a catalyst for understanding and accepting the Navajo world as equal and ever changing to that of the larger world has potential for yet other studies that look at defining what is achievement within Navajo society and how is it the same or different from that of the Anglo world.

BIBLIOGRAPHY

- Anderson, L., & Pigford, A. (1987). Removing administrative impediments to instructional improvement efforts. *Theory Into Practice*, 26(1), 67-71.
- AIMS testing and special education, (“A.R.S.”) §15-701.01(A)(3) (2005).
- Arizona Department of Education. (2005). “*More Emphasis on Testing.*” Retrieved September 09, 2004 www.ade.az.gov.
- Arizona Department of Education (2005, September). “*Horne announces 79 percent of Arizona schools make adequate yearly progress (AYP).*” Retrieved October 01, 2005. www.ade.az.gov.
- Armein, A. L. & Berliner, D. C. (2002). High-Stakes Testing, Uncertainty, and Student Learning. *Education Policy Analysis Archives*, 10(8)
www.epaa.asu.edu/eppa/v10n18
- Armein, A. L., & Berliner, D. C. (2002). *The impact of high stakes tests on student academic performance: An analysis of NAEP results in states with high-stakes tests and ACT, SAT, and AP test results in state with high school graduation exams* (EPSL-0211-126- EPRU.). Tempe, AZ: Educational Policy Studies Laboratory.
- Auerbach, C. F., & Silverstein, L.B. (2003). *Qualitative Data: An Introduction to Coding and Analysis*. New York: New York University Press.
- August, D. & Hakuta, K. (1994). Evaluating the inclusion of LEP students in systemic reform. In *Issues and strategies in evaluating systemic reform*. Papers prepared for the U.S. Department of Education, Office of the Under Secretary, Planning And Evaluation Service.

- Baker, C. (2001). *Foundations of bilingual education and bilingualism* (3rd ed.). Clevedon, UK: Multilingual Factors.
- Bamburg, J. D., & Andrews, R. L. (1990). Instructional leadership, school goals, and student achievement. *School Effectiveness and School Improvement*, 1, 175-191.
- Banks, S. R., (1997). Caregiver and professional perceptions of assessment practices and validity for American Indian/Alaskan Native families. *Journal of American Indian Education*, 37(1), 16-44.
- Benally, H.J., (1987). Navajo Philosophy of Learning. *Dine Be'iina*.1(1), 133-148.
- Berry, B., Turchi, L., Johnson, D., Hare, D., Owens, D., & Clements, S. (2003). *The impact of high-stakes accountability on teachers' professional development*. South. Chapel Hill, NC: Southeast Center for Teaching Quality.
- Bird, T., & Little, J. W. (1985). *Instructional Leadership in Eight Secondary Schools. Final report to the National Institute of Education*. Boulder, CO: Center for Action Research, Inc.
- Black, P., & William, D. (1998). Inside the black box: raising standards through classroom assessments. *Phi Delta Kappan*, 80(2), 139-148.
- Blumberg, A., & Greenfield, W. (1980). *The effective principal: Perspectives on school leadership*. Boston: Allyn and Bacon. Pg. 54.
- Bogdan, R., & Taylor, S. (1975). *Introduction to qualitative research methods: A phenomenological approach to the social sciences*. New York: Wiley.
- Bordeaux, R., (1995). *Assessment for American Indian and Alaska Native Learners*. (ED 385-424). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

- Brand, D. (1987, August). The new whiz kids. *Time*, p.49.
- Bredeson, P.V. (1966). Superintendents' roles in curriculum development and instructional leadership: Instructional visionaries, collaborators, supporters, and delegators. *Journal of School Leadership*, 6(3), 243-264.
- Brescia, W., & Fortune, J. C. (1988). Standardized testing of American Indian students. (ED 296813). Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools.
- Brown, C. (2002, March). Opportunities and accountability: No child left behind in middle grades. The Edna McConnell Clark Foundation Retrieved February 11, 2003, http://www.emcf.org/pdf/student_2001nochildleftbehindanalysis.pdf, 1-36.
- Burrello, L., Lashley, C., (1992). The destiny of special education. In K. Walron, A. Riester, and J. Moore (Eds.), *Special Education in the future*. San Francisco: Mellen Research University Press.
- Candell, L.S. (2004). Innovation meets backlash as states struggle with large scale assessments. Retrieved November/03/2005, www.nwrel.org/nwedo/fall_04/articles6.html.
- Christie, K. (2002). States address achievement gaps. *Phi Delta Kappan*, 84(2), 102-103.
- Clark, S., & Clark, D. (2001). The challenge of curricular and instructional improvement in an era of high stakes testing. *Middle School Journal*, 32(2), 52-59.
- Collins, J. and Porras, J., (1997). *Built to Last: Successful Habits of Visionary Companies*. New York: Harper Business.

- Cotton, K. (2000). *The schooling practices that matter most*. Alexandria, VA: Association of Supervision and Curriculum Development.
- Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed methods approach*. (2nd ed.). Thousand Oaks: Sage Publications.
- Cuban, L. (1988). *The managerial imperative and the practice of leadership in schools*. Albany: State University of New York Press.
- Dagley, D., & Orso, J. (1991). Integrating summative, formative modes of evaluation. *NASSP Bulletin*, 75(536), 72-82.
- Darling-Hammond, L., (2004). Standards, accountability, and school reform. *Teachers College Record*, 106(6), 1047-1085.
- Darling-Hammond, L., Ancess, J., & Falk, B. (1995). *Authentic assessment in action: Studies of schools and students at work*. New York: National Center for Restructuring Education, Schools, and Teaching.
- DeBevoise, W. (1984, February). Synthesis of research of the principal as instructional leader. *Educational Leadership*, 41(5), 14-20.
- Deyhle, D., & Swisher, K. (1997). Research in American Indian and Alaskan Native Education: From assimilation to self-determination. In M.W. Apple (Ed.), *Review of Research in Education*, 22, 113-194. Washington, DC: American Educational Research Association.
- Donaldson, G. A. (2001). *Cultivating Leadership in Schools: connecting people, purpose, and practice*. New York: NY. Teachers College Press.

- Educational Publications. (2002). *No Child Left Behind: What to know and where to go parents' guide*. Retrieved from U.S. Department of Education website on October/07/2005: www.nochildleftbehind.gov.
- Elford, G.W. (2002). *Beyond Standardized Testing: better information for school accountability and management*. Lanham, MD: Rowman and Littlefield.
- Filstead, W.J. (Ed.) (1970). *Qualitative Methodology: Firsthand involvement with the social world*. Chicago: Markham Publishing.
- Findley, B., & Findley, D. (1992). Effective schools: The role of the principal. *Contemporary Education*, 63(2), 102-104.
- Flanigan, J. L. (1994). The principalship: position in transition. *American Secondary Education*, 23(3), 25-30.
- Flath, B. (1989). The principal as instructional leader. *ATA Magazine*, 69(3), 19-22, 47-49.
- Fox, S.J. (2001, Dec). American Indian and Alaskan Education and student based reform. (EDO RC-01-2). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
- Freeman, J. & Butler, E. (1976). Some sources of interviewer variance in surveys. *Public Opinion Quarterly*, 40, 79-92.
- Freidman, M. I., Hatch, C. W., Jacobs, J. E., Lau-Dickenson, A. C., Nickerson, A. B., & Shnepel, K. C., (2003). *Educators Handbook on Effective Testing*. Columbia, SC: Institute for Evidence-Based Decision.
- Fullen, M. (1998). Leadership for the 21st century. Breaking the bonds of dependency. *Educational Leadership*, 55(7), 6-10.

Furman, S. (1999). *The new accountability. CPRE Policy Briefs, RB-27-January 1999.*

Philadelphia: Consortium for policy research in education.

Garcia, E. E. (2001). *Hispanic education in the United States.* Lanham, MD:

Rowan and Littlefield.

Giannangelo, D.M., & Malone, M.G. (1987). Teachers' perceptions of the principals' role. Clearinghouse No: EA02038, U.S.; Tennessee, 10p. 1987. ED299672.

Giles, K. I. (1985). *Indian high school dropouts: a perspective.* Milwaukee: University of Wisconsin-Milwaukee, Midwest National Origin Desegregation Assistance Center.

Glasser, B. G., & Strauss, A.L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research.* Chicago: Aldine.

GreatSchools.net (2005). *Standardized Tests in Arizona.* Retrieved September 22, 2005
From <http://www.greatschools.net/cgi-bin/showarticle/AZ/66/improve/print/>

Guba, E .G., & Lincoln, Y. S. (1989). *Effective evaluation.* (1st ed). San Francisco: Jossey-Bass. Guerin, G.R., & Maier, A.S., (1983). *Informal assessment in education.* Palo Alto, CA: Mayfield Publishing Co.

Guerin, G.R., & Maier, A.S., (1983). *Informal assessment in education.* Palo Alto, CA: Mayfield Publishing Co.

Hakuta, K. (1986). *The mirror of language: the debate on bilingualism.* New York: Basic Books.

Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *Elementary School Journal, 86,* 217-247.

- Harden, G. (1988). The principal as leader practitioner. *The Clearing House*, 62(2), 87-88.
- Hargreaves, A., & Fink, D. (2000). The three dimensions of reform. *Educational Leadership*, 49(7), 30-34.
- Haughey, M., & MacElwain, L. (1992). Principals as instructional supervisors. *Alberta Journal of Educational Research*, 38(2), 105-119.
- Havigurst, R. L. & Fuchs, E. (1972). *To live on this earth: American Indian education*. Garden City: NY. Doubleday & Company Inc.
- Havigurst, R. L., & Levine, D. U. (1979). *Society and Education*. (5th ed.). Boston: Allyn & Bacon.
- Herriot, R.E., & Firestone, W.A., (1983). Multisite qualitative policy research: Optimizing description and generalizability. *Educational Research*, 12, 14-19.
- Hess, F.M., (2004). Inclusive Ambiguity: multicultural conflict in an era of accountability. 18(1).95-115.
- Heubert, J. P., & Hauser, R. M. (Eds). (1999). *High stakes: testing or tracking, promotion and graduation*. Washington, DC: National Academy Press.
- Hoachlander, G. (1995). *Making pilots: An inquiry into standards*. Paper presented at the 1995 American Educational Research Association, San Francisco: CA.
- Homans, G.C. (1950). *The human group*. New York, Harcourt Brace.
- Jago, A.G., (1982). Leadership: perspectives in theory and research. *Management Science*, 28(3), 315-336.
- Jones, M. G., Jones, B. D., & Hargrove, T. Y. (2003). *The unintended consequences of high-stakes testing*. Lanham, MD: Rowman & Littlefield.

- Kerlinger, F. N. (1979) *Behavioural Research: A Conceptual Approach*. New York: Holt, Rinehart and Winston.
- Klein, S. P., Hamilton, L. S., McCaffery, D. F., & Stetcher, B. (2000,Oct). "What do test scores in Texas tell us?" *Education Policy Analysis Archives*, 8, 49.
- Klug, B. J., & Whitfield, P.T. (2003). *Widening the circle: Culturally relevant pedagogy for American Indian children*. New York: Routledge Falmer.
- Kohn, A. (1999, September 15). Confusing Harder with Better. *Education Week*, <http://www.alfiekohn.org/teaching/edweek/chwb.htm>.
- Kohn, A. (2000). Burnt at the high stakes. *Journal of Teacher Education*, 51, (4) 315-327.
- Koretz, D. M. & Barron, S. (1998). *The validity of gain in scores in Kentucky instructional results informational system (KIRIS)*. Santa Monica: Rand Corporation.
- Koretz, D. M., Linn, R. L., Dunbar, S. B., & Shepard, L.A., (1991). The effects of high-stakes testing on achievement: Preliminary findings about generalizations across tests. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL.
- Kossan, P. (2004, September 14). \$4.5 Million may shift for AIMS. *The Arizona Republic*. Phoenix, AZ Gannett Co.,
- Kvale, S. (1999). *Interviews: an introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage Publications.

- LaMarca, P. M., Redfield, D., & Winter, P. C. (2000). State standards and state assessment systems: A guide to the alignment. A Comprehensive assessment system for IASA Title I. Washington, DC: Council of Chief State School Officers.
- Leithwood, K. (1992). The move toward transformational leadership. *Educational Leadership*, 49(5), 8-12.
- Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly*, 30, 498-518.
- Leithwood, K., Jantzi, D., & Steinbach, R. (1999). *Changing leadership for changing times*. Buckingham: Philadelphia: Open University Press.
- Leithwood, K. and C. Riehl. (2003). "What We Know About Successful School Leadership." Philadelphia, PA: Laboratory for Student Success, Temple University.
- Lieberman, A. (Nov, 1991). Accountability as a reform strategy. *Phi Delta Kappan*. 73(3), 219-220.
- Linn, R. L. (2000). Assessments and Accountability. *Educational Researcher*, 23(9), 4-14.
- Linn, R.L. (1998). Standards based accountability: Ten suggestions. CRESST Policy Brief. Retrieved 04/17/2005 www.ucla.edu/cresst/files/policypaper.pdf. Los Angeles: National Center for research on evaluation, standards, and students testing.

- Linn, R. L., Graue, M., & Sanders, N. (1990). Comparing state and district level test results to national norms: the validity of claims that 'everyone is above average.' *Education Measurement: Issues and Practice*, 9(3), 5-14.
- Lomawaima, K. T. (1999). The unnatural history of Indian education. In K.G. Swisher & J. W. Tippeconnic III (Eds), *Next Steps: Research and practice to advance Indian Education*, (ED 427 903), (pp. 3-31). Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
- Lomawaima, K. T. & McCarty, T. L. (December 2002). Reliability, validity, and authenticity in American Indian and Alaska Native research, (ED470951). Charleston, WV: ERIC Clearinghouse on Rural Education and Small School.
<http://www.ericdigests.org/2003-4/native-research.html>
- Luftig, R. L. (1983). Effects of schooling on the self-concept of the Native American student. *School Counselor*, 30, 251-260.
- Maaus, G. F. & Abrams, L. M., (2003, Nov). The lesson of high stakes testing. *Educational Psychology*, (61)3,31-34.
- Madaus, G.F., & O'Dwyer, L. M. (1999). A short history of performance assessment: Lessons learned. *Phi Delta Kappan*, 80(9), 288-295, 688-695.
- Marshall, C. & Rossman, G. B., (1999). *Designing Qualitative Research*. (2nd ed). Newbury Park, CA: Sage.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.
- McCarty, T.L. (2002) A place to be Navajo: Rock Rock and the struggle for self-determination in Indigenous schooling. Mahwah, NJ: Lawrence Erlbaum.

- Mclaughlin, M.W. (Nov. 1991). Test Based accountability as a reform strategy.
Phi Delta Kappan, 7, 248-251.
- McMillan, J. H., & Schumacher, S. (2001). *Research in education: A conceptual introduction* (5th Ed.). New York: Longman.
- MCREL (April, 2000). Standards Based Accountability System. *Policy Brief*, pp. 1-9. <http://www.mcrel.org>.
- Merriam, S. B. (1928). *Qualitative Research and Case Study Applications in Education*. San Francisco: Jossey-Bass.
- Merton, R. K., Fiske, M., & Kendall, P. L.(1990). *The focused interview: A manual of problems and procedures*. (2nd ed.). New York: Free Press.
- Miles, M. B. (1979). Qualitative data as an attractive nuisance: The problem of analysis. *Administrative Science Quarterly*, 24, 590-601.
- Miles, M. B., & Huberman, A. M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverly Hills, CA: Sage.
- Morris, V., Crowson, C., Porter-Gehrie, C., Hurwitz, E., Jr. (1984). *Principals in action: the reality of managing schools*. Columbus, OH: Charles E. Merrill.
- Moss, K., (2002). Leadership styles and high stakes testing: principals make a difference. *Education and Urban Society*, 35(1), 111-132.
- Miles, K. H., & Darling-Hammond, L. (1998). Rethinking the allocation of teaching resources: Some lessons from high-performing schools. *Educational Evaluation and Policy Analysis*, 20(1), 9-29
- No Child Left Behind Act of 2001*, Pub. L. No. 107-110, 115 Stat. 1425 (2002).

No State Left Behind: The challenges and opportunities of ESEA 2001.

Denver: Education Commission on the States.

Ogbu, J. (1987). Variability in minority school performance: A problem in search of an explanation. *Anthropology & Education Quarterly*, 18(4), 312-334.

Ohanian, S. (1999). *One size fits few: The folly of educational standards*. Portsmouth, NH: Heinemann.

Patton, M.Q. (1987). *How to use qualitative methodology in evaluation*. Newbury Park, CA: Sage.

Philips, S.U. (1983). *The invisible culture: Communication in the classroom and community on the Warm Springs Indian Reservation*. New York: Longman.

Pierce, M., & Stapleton, D. L., (2003). *The 21st Century Principal: Current issues in leadership and policy*. Cambridge, MA: Harvard Education Press.

Plato Learning Inc., (www.plato.com)

Popham, W.F. (1998, Jan). Farwell curriculum: confusion of an assessment convert. *Phi Delta Kappan*, 79(5), 380-385.

Reboussin, R., & Goldstein, J.W. (1996, June). Achievement Motivation in Navaho and White Students. *American Anthropologist*. 68(3), 740-745.

Richardson, M.D., Flanigan, J.L., Lane, K.E. and Keaster, R., (1989). *Teacher perceptions of principal behaviors*.(Eric Document Reproduction Service No. 352 710). (pp.1-22).

Riordan, K. (2003). *Teacher leadership as a strategy for instructional improvement: the case of the Merck Institute for science education*. Philadelphia: Consortium for Policy Research in Education.

- Roderick, M., Bryk, A. S., Jacob, B. A., Easton, J. A., & Allensworth. E. (1999). *Ending social promotion: Results from the first two years*. Chicago: Consortium on Chicago School Research
- Roderick, M. (1993). *The path to dropping out: Evidence for intervention*. Westport, CT: Auburn House.
- Rodrick, M., & Engle, M. (2001, April). The grasshopper and the ant: motivational responses of low-achieving student to high-stakes testing. *Educational Evaluation and Policy Analysis*, 23(3), 197-227.
- Roidan, K. (March, 2003). Teacher leadership as a strategy for instructional Improvement the case of the Merck Institute for Science Education, Philadelphia: *Consortium for Policy Research in Education*.1-33.
- Sergiovanni, T.J., (1987). The theoretical basis for cultural leadership, in L.T. Sheive & M.B Schoenheit (Eds), *Leadership: Examining the Elusive*. 1987 Yearbook for Supervision and Curriculum Development. Alexandria: ASCD.
- Sergiovanni, T.J., (1992). *Moral Leadership: Getting to the heart of school improvement*. San Francisco: Jossey-Bass.
- Sergiovanni, T. J., (2001). *The principalship: A reflective practice perspective* (4th ed.). Needham Heights, MA: Allyn & Bacon.
- Sergiovanni, T. J., & Carver, F. (1980). *The New School Executive: A theory of administration*.(2nd Ed.) New York: Harper & Row.
- Shepard, L.(1989). Why we need better assessments. *Educational Leadership*, 46(7), 4-9.
- Shepard, L.A., & Smith M.L., (1986). Synthesis of research on school readiness and kindergarten retention. *Educational Leadership*, 44, 78-86.

- Smith, M. L., & Fey, P. (2000). Validity and Accountability of High-Stakes Testing. *Journal of Teacher Education, 51*(5), 334-344.
- Sperling, D. H., (1994). Assessment and reporting: A natural pair. *Educational Leadership, 52*(2), 10-13.
- Spillane, J., Halverson, R., & Diamond, J. (2001, April) Investigating school leadership practice: distributive perspective. *Educational Researcher, 30*(3), 23-28.
- Squires, D., Huitt, W., & Segar, J. (1984). *Effective Schools in Classrooms: A Research Based Perspective*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Stahl, W. K. (1979). A Survey of Federal Legislation. *Journal of American Indian Education, 18*(3), 28-32.
- Stecher, B. M. & Barron, S. (2001). Unintended Consequences of test-based accountability when testing on milepost grades. *Educational Assessment, 7*(4), 259-281.
- Stecher, B. M., Barron, S., Kaganoff, T., & Goodwin, J. (1998). The effects of standards-based assessment on classroom practices: Results of the 1996-97 RAND survey of Kentucky Teachers of Mathematics and Writing. Los Angeles: Center for Research on Evaluation, Standards, and Student Testing.
- Stiggins, R. J. (2002). Assessment crisis: The absence of assessment FOR learning. *Phi Delta Kappan, 83*(10), 758-765.

- Swisher, K.G. & Tippeconnic, J.W., III. (1999). *Next Steps: Research and Practice to Advance Indian Education*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.
- Talbert, J. E., & McLaughlin, M. W. (1996). Teacher professionalism in local school contexts. In I. F. Goodson (Ed.), *Teachers' professional lives*. London: Falmer Press.
- Thurlow, M., Elliot, J. & Ysseldyke, J. (1997). Testing students with disabilities: Practical strategies for complying with district and state requirements. Thousand Oaks, CA: Corwin Press. pp.78-117
- Thurston, P., Clift, R., & Schacht, M. (1993). Preparing leaders of change-oriented schools. *Phi Delta Kappan*, 75(3), 259-266.
- Tippeconnic, J. W., III. (2003, Dec.). The Use of Academic Achievement Tests and Measurements with American Indian and Alaskan Native Students. ERIC. EDO-RC-03-07. pp.1-5.
- U.S. Census Bureau. (2000). *Census 2000 Summary File 4:Households and Families: 2000*. Retrieved June 20, 2005 from U.S. Census Web site: <http://factfinder.census.gov>
- U.S. Department of Education (1999). *Early Start, finish strong. How to help every child become a reader*. Washington, DC: America Reads Challenge. Retrieved August/05/2005 vs Released October 16, 2001 from <http://www.ed.gov/pubs/startearly>
- Van Mannen, J. (1979). The fact of fiction in organizational ethnography. *Administrative Science Quarterly*, 24(4), 539-550.

- Wagner, T. (2003, May). Reinventing America's Schools. *Phi Delta Kappan*, 84(9), 665-668.
- Waxman, H. C. & Huang, S. L. (1996). Motivation and learning environmental differences in inner-city middle school students. *Journal of Educational Research*, 90(2), 93-102.
- Weindling, D. (1990). The secondary school head teacher: New principals in the United Kingdom. *NASSP Bulletin*, 74(526), 40-45.
- Wenglinsky, H. (2002, February). How schools matter: The link between teacher classroom practices and student academic performance. *Educational Policy Analysis Archives*. Retrieved September 9, 2002, from <http://epaa.asu.edu/epaa/v10n12/>
- Wildy, H., & Dimmock, C. (1993), "Instructional leadership in primary and secondary schools in Western Australia", *Journal of Educational Administration*, 31(2), 43-63.
- Wiley, T. G. & Wright, W. E. (2004). Against the Undertow: Language-Minority Education Politics in the 'age of accountability'. *Educational Policy*, 18(1), 142-168.
- Wilson, J. G. & Black, A. B. (1978, November). Native American Indians and the variables that are interrelated with academic achievement. Paper presented at the annual meeting of the American Educational Opportunities Program Personnel. Fontana, WI.
- Yates, A. (1987). Current status and future direction of research and the American Indian child. *American Journal of Psychiatry*, 144(9), 1135-1142.

- Yazzie, T. (1999). Culturally appropriate curriculum: A research-based rationale. In K.W. Swisher & J.W. Tippeconnic (Eds.), *Next Steps: Research and Practice to advance Indian education* (pp. 83-106). Charleston, WV: ERIC/CRESS. (ED 427 906).
- Yin, R. K. (1994). *Case Study Research: Design and Methods*. (2nd ed.). Applied Social Science Series. Vol. 5. Thousand Oaks, CA: Sage Publications, Inc.
- Youngman, G. & Sadongei, M. (1974). Counseling the American Indian Child. *Elementary School Guidance and Counseling*, 8, 273-277.
- Zah, P. (1985). *Navajo Tribal Education Policies*. Navajo Division of Education of the Navajo Nation. Window Rock, AZ: 4-9.

Appendix A

ENCLOSED RESPONSE POSTCARD

Name: _____

Address: _____

_____ Zip Code: _____

I am willing to participate

YES _____ NO _____

Type of School (please check)

BIA _____ PUBLIC _____

GRANT _____ CONTRACT _____

Type of Community (please check)

RURAL _____ URBAN _____

MY SCHOOL IS....

Senior High School (9-12) _____

Junior/Senior High (6-12) _____

Other _____ (list grades) _____

I would like a copy of this study

YES _____ NO _____

Appendix B

LETTER REQUESTING INTERVIEW

PO Box 152
Pine Grove Mills, PA 16868

March 10, 2005

Heading
Heading
Heading

Dear Mr./Ms. :

I am completing a doctoral dissertation in Educational Administration at The Pennsylvania State University on "High School Principals perceptions on Academic Achievement of Navajo Students." I would like your permission to include you in my multisite case study of five different Navajo schools. The initial open ended interview will take approximately 30 minutes. If you agree to participate I will contact you by phone and arrange a time to stop by your school. I would like to interview five (5) of your teachers in content areas specific to the state mandated test areas (math, writing, and reading).

The names of participants will be kept confidential and no information about particular individuals or the school district will be released. All participants will receive a copy of the results.

I hope that this study will provide a fuller understanding about what high school principals of Navajo students perceive are the key factors to the academic achievement of Navajo students in their school in this time of No Child Left Behind and high stakes testing. One possible advantage of this information might be to assist your school, the Navajo Tribe, and the State Department of Education in best practices related to the academic achievement of Navajo students. Your willingness to participate will be appreciated.

Please return the preaddressed and stamped postcard by July 1st. I will then contact you about arranging a time to interview yourself and five of your teaching staff.

Thank you for your consideration.

Sincerely,

Tamarah Pfeiffer

Appendix C

INTERVIEW (PRINCIPAL) PROTOCOL

Demographic Background:

Tell me a little about how you became a high school principal here at this school?

Research Question 1:

Can you tell me a little about the types of standardized tests that are administered at your school and what you find their purpose to be as a high school principal in relationship to the academic achievement of your Navajo students?

How is the same or different for your special education students?

Research Question 2:

Can you tell me what test you give in your high school that you consider to be a high stakes test and why? How do you perceive that this test has affected your understanding of the academic achievement of your students?

In what way has this high stakes test been different or the same for your special education students?

Research Question #3:

Are there any other ways you have come to measure academic achievement of your students and if so could you please describe the process, program, procedure in which you do this? Are special education students also a part of this other measurement and if they have other measures what are they?

Appendix D

ADEQUATE YEARLY PROGRESS CHART

AYP Perimeters SY 2004	Lichii High School	Chilgo Dootl'izh High School	Litso High School
Participation Rate			
ALL	no	yes	yes
LEP	no	yes	yes
SPLED	no	yes	yes
Reading			
ALL	19.66	44.36	54.67
LEP	14.12	40.35	N/A
SPLED	3.92	9.52	N/A
Math			
ALL	28.93	65.92	49.33
LEP	20.39	63.03	N/A
SPLED	11.76	19.05	N/A
Language Arts			
ALL	24.44	55.29	63.67
LEP	19.22	46.15	N/A
SPLED	28.93	0.00	N/A
Attendance			
ALL	yes	yes	N/A
LEP	yes	yes	N/A
SPLED	yes	yes	N/A
Graduation			
ALL	N/A	yes	no
LE P	N/A	yes	no
SPLED	N/A	yes	no
LEP total	150	104	151
SPLED total	26	18	103
DID school make AYP?	NO	*YES	NO

Data from September 8, 2004 thru April 21, 2005
 AYP for SY04-05 was 45.75 AYP for SY 05-06 50.00

APPENDIX E
PLATO COURSE OFFERINGS

Reading, Language Arts, and Writing	Skill Level														Target Learners			
	K	1	2	3	4	5	6	7	8	9	10	11	12	13-14	E	M	H	PS
PLATO Focus Reading and Language Program	█														✓			
PLATO Achieve Now Reading/Language Arts	█														✓	✓		
PLATO Literacy Library Reading/Language Arts	█														✓	✓		
PLATO Reading Center	█														✓			
PLATO Beginning Reading	█														✓			
PLATO Reading Explorations				█											✓	✓		
PLATO Achieve More						█										✓		
*HEC Reading Horizons	█																✓	✓
PLATO Essential Reading Skills			█												✓	✓	✓	✓
PLATO Fundamental Reading Strategies				█											✓	✓	✓	✓
PLATO Intermediate Reading Strategies							█								✓	✓	✓	✓
PLATO Advanced Reading Strategies									█						✓	✓		
PLATO Vocabulary and Reading Comprehension			█							█					✓	✓	✓	✓
PLATO Vocabulary Builder						█								✓	✓	✓	✓	
PLATO Reading for Information								█						✓	✓	✓	✓	
PLATO Writing in the Workplace								█						✓	✓	✓	✓	
PLATO Communication Skills										█						✓	✓	✓
PLATO Writing Series			█												✓	✓	✓	✓
PLATO Essential Writing Process and Practice			█												✓	✓	✓	✓
PLATO Fundamental Writing Process and Practice					█										✓	✓	✓	✓
PLATO Intermediate Writing Process and Practice							█								✓	✓	✓	✓
PLATO Advanced Writing Process and Practice										█					✓	✓	✓	✓
PLATO Interactive English									█						✓	✓		

Mathematics	Skill Level														Target Learners			
	K	1	2	3	4	5	6	7	8	9	10	11	12	13-14	E	M	H	PS
PLATO Achieve Now Mathematics	█														✓	✓		
PLATO Math Expeditions							█								✓	✓		
PLATO Math Fundamentals		█													✓	✓	✓	✓
PLATO Math Problem Solving			█												✓	✓	✓	✓
PLATO Applied Math						█									✓	✓	✓	✓
PLATO Algebra 1, Part 1							█								✓	✓	✓	✓
PLATO Algebra 1, Part 2								█							✓	✓	✓	✓
PLATO Algebra 2, Part 1									█						✓	✓	✓	✓
PLATO Algebra 2, Part 2										█					✓	✓	✓	✓
PLATO Geometry and Measurement 1								█							✓	✓	✓	✓
PLATO Geometry and Measurement 2										█					✓	✓	✓	✓
PLATO Trigonometry												█			✓	✓	✓	✓
PLATO Calculus 1													█		✓	✓	✓	✓
PLATO Calculus 2													█		✓	✓	✓	✓
PLATO Data Skills							█								✓	✓	✓	✓
PLATO Interactive Mathematics										█						✓	✓	✓

APPENDIX F

OBSERVATION AND DOCUMENT COLLECTION CHECK LIST

OBSERVATIONS	Week 1	Week 2	Week 3	Week 4
Teacher Issues				
a. substitute				
b. personal				
c. academic				
d. special education				
Student Issue				
a. personal				
b. academic				
c. special education				
Parent Issue				
a. personal				
b. academic				
c. special education				
Other School Personnel Issues				
Documentation				
a. non-academic				
b. academic				
c. special education				
d. other				
Discipline				
a. dorm related				
b. In School Suspension				
c. Hall Passing				
Announcements				
a. student				
b. teachers				
c. other				
Security				
Transportation				
Athletics				
Building and Grounds				
Dormitory				
Medical				

Lichii School High (GRANT)	Ch'ilgo Dootl'iizh High (BIA)	Litso High School (PUBLIC)
AZ Terra Nova Results AS AIMS Results (grade level)	AZ Terra Nova Results AS AIMS Results (grade level)	AZ Terra Nova Results AS AIMS Results (grade level)
Adequate Yearly Progress Chart	Adequate Yearly Progress Chart	Adequate Yearly Progress Chart
Student/Parent Handbook	Student /Parent Handbook	Student/Parent Handbook
N/A	Code of Conduct	N/A
School Goals	BIA National Goals	School Goals
Annual Report Card	Annual Fiscal Summary	N/A
School Calendar	School Calendar	School Calendar
Action Plan Regarding :AYP	Action Plan Regarding: AYP	Action Plan Regarding: AYP
School Philosophy, Mission and Goals (English/Navajo)	School Philosophy, Mission and Goals (English only)	School Philosophy, Mission and Goals (English/Navajo)
Arizona School Improvement Plan	CIMP: Continual Improvement Monitoring Process Improvement Plan	Arizona School Improvement Plan
Attendance Report (Update)	Not Available	Attendance Report (Update)
N/A	Special Education Checklist	N/A
Parent Material	Not Available	Parent Material
Alternative Education Curricula (PLATO) Regular Education Course Study	Alternative Education Curricula (PLATO) Regular Education Course Study	Alternative Education Curricula (PLATO) Regular Education Course Study

VITA
TAMARAH PFEIFFER

University Address

The Pennsylvania State University
300 Rackley Building
University Park, PA 16801

Home Address

1022 Silver SW #2
Albuquerque, NM 87102

e-mail: tamarah.pfeiffer@gmail.com

Education

- Ph.D., Educational Administration 2006
Coursework completed
Dissertation underway
The Pennsylvania State University
Educational Policy Studies
University Park, PA
- M.S., English 1999
Breadloaf School of English
Middlebury College
Middlebury, Vermont
- BA, University of New Mexico, 1990
Secondary Education/English as a Second Language
College of Education
Albuquerque, New Mexico

Employment History

- 2002-2006. Graduate Student, Educational Administration, The Pennsylvania State University, University Park, Pennsylvania
- 1998-2002. Dean of Students, Ganado High School, Ganado, Arizona
- 1998. Teacher Trainer, Agah Kahn Schools, Karachi, Pakistan
- 1997-1998. Teacher, Tohajillee Community School, Tohajillee, New Mexico
- 1994-1997. Teacher, Rock Point Community School, Rock Point, Arizona
- 1992-1994. Education Specialist, Youth Development Inc., Albuquerque, New Mexico
- 1988-1992. Teacher, Rock Point Community School, Rock Point, Arizona

Publications

Tamarah Pfeiffer and Susan Faircloth. *Ethical Leadership and Decision Making in Education: Applying Theoretical Perspectives to Complex Dilemmas*. Chapter 4: Ethics of Religion in Education. Lawrence Erlbaum Press.