

A Revitalization Method of the Native Language

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A Special Project

Presented to

Dr. Robert Kraig

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Nancy C. Johnson

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## FACULTY APPROVAL

### A Revitalization Method of the Native Language

Approved for the Faculty

\_\_\_\_\_, Faculty Advisor

\_\_\_\_\_, Date

## ABSTRACT

The purpose of this project was to identify a method to teach, learn and preserve the Native American language through flash card and audio CD recordings. For the purpose of this project the Nimipu language of the Nez Perce people was used. The procedure involved nine children ranging from three to nine years old exposed to flash cards containing the Native American Language, along with a CD to hear and repeat the correct pronunciation of the Nimipu language. It was believed by the researcher that methods of teaching must reach beyond the classroom and into the hands of parents if the re-birth of the Native language were to survive. Methods to teach the Native Language must be user friendly, convenient and built with intrinsic rewards for motivation.

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## TABLE OF CONTENTS

	Page
FACULTY APPROVAL.....	i
ABSTRACT.....	ii
PERMISSION TO STORE.....	iii
TABLE OF CONTENTS.....	iv
CHAPTER 1.....	1
Introduction.....	1
Background for the Project.....	1
Statement of the Problem.....	3
Purpose of the Project.....	4
Delimitations.....	5
Assumptions.....	5
Hypothesis or Research Question.....	6
Null Hypothesis.....	6
Significance of the Project.....	6
Procedure.....	7
Definition of Terms.....	7
Acronyms.....	7
CHAPTER 2.....	9

Review of Selected Literature.....	9
Introduction.....	9
History/Impact of BIA.....	9
Education Structure on Reservation.....	13
Native Language.....	14
Resurgence of Native Language /Culture into Early Childhood.....	15
Summary.....	20
CHAPTER 3.....	21
Methodology and Treatment of Data.....	21
Introduction.....	21
Methodology.....	21
Participants.....	22
Instruments.....	22
Design.....	24
Procedure.....	24
Treatment of the Data.....	26
Summary.....	27
CHAPTER 4.....	28
Analysis of the Data.....	28
Introduction.....	28

Description of the Environment.....	28
Hypothesis/Research Question .....	28
Null Hypothesis.....	29
Results of the Study.....	29
Findings.....	36
Discussion.....	37
Summary.....	38
CHAPTER 5.....	39
Summary, Conclusions and Recommendations.....	39
Summary.....	39
Conclusions.....	39
Recommendations.....	40
REFERENCES.....	42
APPENDICES .....	44
Appendix A – Flash Card Pre-Assessment.....	44
Appendix B – Flash Card Post-Assessment.....	45
Appendix C – Language Acquisition Parent Survey.....	46
Appendix D – Language Acquisition Program Parent Survey Pre-Assessment.....	47
Appendix E – Language Acquisition Program Parent Survey	

Post-Assessment.....	48
Appendix F – Permission to Conduct Research.....	49
Appendix G – Fluency Flash Cards Representing Animals, Colors, Numbers, Body Parts, and Basic Greetings in the Nimipu Language.....	50



## Chapter 1

### Introduction

#### Background for the Project

Two centuries of U.S. federal policies directed at assimilation of Native Americans into western culture has resulted in the loss of language, culture, and identity of Native American people (Duran & Duran, 1995). These policies enforced the segregation of Native American families and children through movements such as the boarding school experience. In 1864, the United States Congress prohibited Native American children from being taught in their own language. The U.S. government did not overturn this law for the next 70 years (Crawford, 1999). As a result of such policies, Native American languages were in danger of becoming extinct. Despite the significant threat of extinction, there was minimal support for the preservation of Indigenous languages. Many Americans viewed diversity as a threat to the national fabric. If the United States cannot tolerate the American Indians living as they might choose, both as Native people and as U.S. citizens, what does that mean for the democratic ideals of equality and freedom? If the nation-state cannot forge itself as a healthy productive and diverse society in its relations with American Indians, what hope can other citizens hold that their rights beliefs, practices and values will be respected and protected (Tsianina & McCarty 2002).

The National Association for the Education of Young Children (NAEYC) and the Office of Head Start supported and encouraged early childhood programs to respect, value, and promote children's native languages. In keeping with this effort the goals and objectives of the Colville Tribe Head Start Program were directed at teaching children their native language. With few elders left who fluently speak the native languages of the Colville Tribe, immediate preservation of these languages was imperative. In the *Dual Language Report* (2008) the Office of Head Start asserted that educating children whose primary language was not English, required embedding the connection between educational goals, language, and culture into all aspects of a Head Start program. The report further emphasized that Head Start programs should promote native languages of children because, "effective program support for promoting dual language acquisition in children will result in more children eager to learn in Head Start, as well as, more children being prepared to begin school ready and eager to *continue* learning—an investment well worth making (Rodríguez, 2010, p. 4)." Head Start was built on the premise of utilizing a systems approach incorporating the child, family and community to bring about change, such as the preservation of indigenous languages. Also critical to this approach was significant parental involvement. However, given the lack of support for the preservation of native languages the goals and efforts of Head Start programs may not have been fully realized.

The limited resources and support for promoting bilingual education denied children their basic human and civil rights - the right to learn in their native language. Other entities have shown support for these basic human rights, Article 29 of the Convention on the Rights of a Child adopted by the General Assembly of the United Nations in 1989 (and ratified by all nations except the United States and Somalia) stated, "the education of the child should be directed to ... the development of respect for the child's parents, his or her own cultural identity, language and values." Furthermore, Article 30 explains, "a child belonging to an [ethnic, religious, or linguistic minority] should not be denied the right ... to use his or her own language (Crawford, 1999)." In observance of the notions endorsed by these other entities, solutions to rectify the loss of indigenous languages were essential.

#### Statement of the Problem

Currently, the most important problem to address in the preservation of indigenous languages was obtaining complete documentation and recordings of indigenous languages in their entirety, before all fluent speakers were deceased. There were only a handful of elders left who fluently know and speak the language. Each year fluent speakers were passing away, before being able to pass on and document their knowledge of these indigenous languages. In 2010, two prominent language instructors of the Nimipu language passed away.

Secondly, there was a significant lack of financial and social resources to adequately preserve indigenous languages. Many Native American communities are impoverished and Native American people struggle to meet their basic needs. Learning their native language is not a basic survival need. Due to years of oppression, the effects of colonization still exist and many Native American communities are stricken with depression and high rates of high school drop outs, suicide, substance abuse, and violence. This destruction and devastation among Native American people was primarily due to a loss of identity from the efforts to assimilation.

Lastly, resultant from the aforementioned problems, Native American languages were not available in auditory, visual or kinesthetic programs for parents to learn and then teach their children their native language. Moreover, Native American languages were not offered to students in public schools and were still inadequately taught in Early Childhood programs.

#### Purpose of the Project

The purpose of this project was to assess the efficacy of a methodology utilizing flash cards and an audio CD to teach the Nimipu language to children and families. This program was designed to incorporate visual and auditory stimuli to address the various individual learning styles. Flash cards were developed as a method to preserve and sustain the language for future generations.

### Delimitations

This project included a sample of nine Native American children with representation from both genders. Native American children ranging in age from three to nine years old and living on the Colville Indian Reservation were recruited for this study. A total nine children were involved in this study and asked to participate in a six week native language acquisition program. The researcher developed word fluency flash cards representing animals, colors, numbers, body parts and basic greetings in the Nimipu language. A Pre and Post-test was administered to each child to assess language acquisition and the efficacy of the program.

### Assumptions

In this study the assumption was made that all children and parents put forth full effort on the word fluency pre- and post- assessments and that these assessments were an accurate representation of their abilities. A second assumption was that the children demonstrated consistent effort throughout the language acquisition phase. Another assumption was that the children utilized both the visual and auditory stimuli during language acquisition. A fourth assumption was that the parents consistently supported their child to learn the language and regularly facilitated the learning program in a quiet atmosphere. Lastly, it was assumed that the flash cards accurately reflected the language and parents pronounced the language correctly.

### Hypothesis

Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test. Moreover, it is expected that parents who use the native language flash cards will find value in the time invested in the program.

### Null Hypothesis

Native American children who are taught their Native language utilizing visual, auditory and kinesthetic cues will not evidence significant language acquisition as demonstrated by word recognition. Parents who use the native language flash cards will not find value in the time invested in the program.

### Significance of the Project

The purpose of this project was to assess the efficacy of a method to teach the Nimipu language. This study examined evidence of whether or not utilizing flash cards presented by parents was an effective method to increase the vocabulary of children in their native language. The time commitment necessary to implement the program was significant. However, the benefits of acquiring words from the children's native language outweighed the amount of time required to implement the program. The results of this study can be used to develop an effective native language acquisition program that can be implemented in Head Start programs serving Native American children.

### Procedure

For the purpose of this project, the following procedures were implemented:

1. A plan was developed to identify resources, and necessary support.
2. Potential participants were contacted to gain support and commitment.
3. The Colville Tribe Language Program was contacted to ensure correct spelling and pronunciation of selected words was correct.
4. Pictures and words were developed on the computer for participants to review.
5. A CD inclusive of all the words was developed to hand out to all the participants.
6. Permission slips were designed for all participants to sign.
7. Researcher scheduled a meeting with participants to give instruction, explain project, expectations and provide an opportunity for questions.
8. A Pretest was administered to all subjects.

### Definition of Terms

1. The term “Native American” for the purposes of this paper means Indian.
2. Native American Language means the historical traditional languages spoken by Native Americans.
3. Indian Reservation

### Acronym

BIA Bureau of Indian Affairs

NLAP Native Language Acquisition Program



## CHAPTER 2

### Review of Selected Literature

#### Introduction

This chapter has been organized around the following topics: (a) history/impact of BIA, (b) education structure on reservation, (c) native language (d) resurgence of instilling native language/culture into early childhood (e) summary.

#### History/Impact of BIA

In their book Reyhner and Eder (2004) described the assimilation strategies by European immigrants to the indigenous people of America. American Indians had their own religion, culture, practices and way of living, until the European settlers arrived. Many Native Americans fluently spoke their native language, yet being victims to the boarding school era refused to teach their children.

The demographer Russell Thornton coined the term “American Holocaust” (Reyhner J and Eder J, 2004, Introduction). It is estimated over 12 million Indians died as a result of exploitation from the Spanish. After 1492 the Spanish sought both to exploit Indians through forced labor and to convert them to Catholicism. When the English colonist came later, the Indians were seen “as an impediment to settlement the French and Spanish saw them as a cheap source of labor” (Reyhner J and Eder J, 2004, p.17).

In the late 1800's it was widespread policy to encourage assimilation. Gallou (2007) notes "assimilation of American Indians from 1870 to 1934 (the 'Assimilation period'), and again from the 1940's to the 1960s" (p.1). During the assimilation period, Indian reservations were divided up into individual properties with the idea individualism would replace tribalism and Indian children were also taken out of the reservation to boarding schools to "civilize" them. This included new names, uniforms, conversion to Christianity and relinquishment of tribal ways of traditional foods and speaking only English.

The Indian schools were often located in old forts and very militaristic in approach. This structure meant both significantly less staff and expense. "In 1881 Rhode Island spent 600,000 educating 49,000 students; the Indian office in contrast, spends 215,000 on the same number of Indian children" (Prucha, 1976, p.6).

A further disparity noted was how Indian people were treated, "students are herded together...like so many sheep. They get up by the bell. They eat by the bell. They go to classes by the bell. After three or four years of herding of this kind during the formative period of a boy's life, how can any intelligent man expect a boy to be anything but a machine" (Reyhner J & Eder J, 2004, p. 184). Besides the regimentation of education, there was also much punishment involved in the day to day life of Indian children.

In the mid 1800's, Hale L (2002) cites "the government runs eighty seven boarding schools with 2,900 students", thereby showing the significant of the boarding school movement (p. 43). Parallel to the movement at this same era in time was the removal of Indians to reservations, continuing until the end of the 1930's. It appears evident the government was working on a totality of government dependency, "Forced settlement on reservations causes an almost total dependence on the government for food, shelter and clothing (Hale L, 2002, p.43).

In terms of Indian Citizenship and education, it is quite interesting, in that "The American Indian is promised education through negotiated treaties and sustains a right to education as a U.S. Citizen. In 1924 Congress passes the Indian Citizenship Act, which makes all Indians citizens of the United States." (Hale L, 2002, p. 46).

In June 12, 1926, the Secretary of the Interior formally asked a private research firm, as denoted by Merriam et al. (1928) "to survey the economic and social condition of the American Indians" (p. vii), This comprehensive report, published in 1928, known as the Merriam Report, was substantial in that it was a "place setter" for the introduction of bilingual instruction.

Motivated by the Merriam Report's criticisms, one of the changes in federal schools was the introduction of bilingual instruction in selected locales. Like other efforts to reform the Bureau of Indian Affairs (BIA), federal efforts to

develop bilingual programs and materials for American Indian students were cut short by World War II but nevertheless were key transitions in the history of Indian education. (Merriam et al., 1928, p. vii)

In 1934, the passage of the Johnson O Malley Act by Congress authorizes the federal government to pay states for educating Indians in public school. 1972 the Kennedy Report results in the passage of the Indian Education Act. This act provides funding for Special programs for Indian children in reservation schools and, for the first time programs for urban Indian students.

As the prior paragraphs show, it was evident, cites Reyhner J & Eder (2004) “There is long history of opposition to forced assimilation including efforts to maintain tribal languages and cultures” (p. 6). In 1969, the Senate Special Subcommittee on Indian Education released a two-year congressional investigation of Indian education, “condemning federal Indian policy as ‘one of coercive assimilation,’ the report cited dismal statistics of Indian student failure and the denigration of Indigenous languages and identities in federal schools, which ‘had disastrous effects on the education of Indian children’ (U.S. Office of Education, 1969, p. 21). The schools were to be state operated public schools.

In 1972, Congress authorized the Indian Education Act as a Title IV (now Title IX) amendment to the 1965 Elementary and Secondary Education Act. Title IV was the first federal legislation to support Indigenous bilingual/bicultural materials development, teacher preparation, and parent and community

involvement. In 1975, the Indian Self-Determination and Educational Assistance Act (P.L. 93-638) was passed, formalizing the procedures for tribes and Indigenous communities to contract to operate social and educational programs.

The United States society has become very outcome based in terms of more assessments and national standards, which again may be another deeper deterrent and obstacle in moving gainfully to a more balanced bi-lingual education system for American Indians.

#### Education Structure on Reservation

Leap W. (1981) noted that Tribal Re-assertion of the sovereignty, and thus their inherent right to control decision making processes which affect the lives of the memberships, led to the creation of the Indian Self Determination and Educational Assistance Act of 1972 (PL-93-638). To date, more that 40 tribes have utilized the “638-option” and established their own tribally controlled schooling programs.

An Elementary and secondary school dropout rate for Native Americans remains high, contributing to the ongoing cycle of poverty (Waldman, C. 2009) Federal and state governments have largely been responsible for the pre-college education of Native youth since the boarding school period. In recent decades, they have handled about 75 percent of the school-age population in public schools on and off reservation. A small percentage of native youth – about 10 percent – attend elementary and secondary schools run by Bureau of Indian Affairs (BIA)

personnel. The remaining 15 percent attend private, parochial, and tribally operated schools. The bias, except in the tribal schools, has been pro-Western over the generations, with a small number of Native teachers and little parental involvement. Moreover, reservation schools have been underfunded.

Participation and graduation rates in higher education remained low for Native Americans as well. The small numbers who do go on to college attended mostly two-year colleges. The graduation rate in two-year and four-year colleges has been less than 50 percent according to recent polls. Only a handful of students made it through graduate school.

#### Native Language

Linguists estimate that at first contact with Europeans, as many as 300 distinct languages were spoken by the people Indigenous to what is now the United States (Krauss 1998). The number of languages from European first contact has decreased dramatically, and in some instances had disappeared entirely. Today, Krauss (1998) cites, “175 of these languages are still spoken, but of these, only 20 are being passed on to the young”. Even with these remaining native languages, many challenges remain regarding installing such into public schools, “the fact that so little is known about Indian language sentence formation makes it difficult to develop properly sequenced language arts curriculum plans” (Leap W. 1981 pg. 166).

Although developing an Indian language programs in schools may be a challenge, it was not insurmountable. A key to promotion and development of Indian language programs was the support by Indian people and community. “The overwhelming majority of Indian students and parents have positive feeling about their tribal language and culture.” (Fuchs and Havighurst, 1972, p.213).

Further support for tribal language program, cited by Leap W. (1981) were “Three fourths of the students indicated an interest in learning their tribal language (p.62)” and Fuchs and Havighurst (1972) cited 68 percent of the parents thought it would be nice or important for the schools to offer instruction in the native language (p. 207).

Indian people have long known the significance of loss of language, Ahenakew (1986) notes “Many Indians felt that the loss of the language was one of the most critical problems they faced, for it leads to a breakdown in communication between children and their grandparents and cuts Indian people off from their heritage” (p. 11).

#### Resurgence of Instilling Native Language/Culture into the Early Childhood

American society was multifaceted in terms of culture and races. Resurgence of native language was noted as follows including the benefits of resurgence:

In 1966, the first American Indian community-controlled school was founded at the small Navajo community of Rough Rock, Arizona. (McCarty,

2002, p. 84). Bilingual/bicultural education naturally complemented the school's community outreach focus, and Rough Rock's curriculum included Navajo language and cultural studies and a program in which parents and elders provided moral education and traditional storytelling in school dormitories. (McCarty, 2002). A major finding of long-term evaluations of bilingual/bicultural education at Rough Rock was that bilingual students who had the benefit of cumulative early literacy experiences in Navajo made the greatest gains on local and national measures of achievement (McCarty, 1993, 2002). (Lomawaima, McCarty, 2002, p. 281-298).

The Cree Way project was created in 1973 by a school principal to counteract the Canadian curriculum being used to educate Cree children. Its purpose was to bridge the enormous gap between the tribal Crees and urban Euro-Canadians and to validate Cree culture and tribal identity. In addition to supporting the traditional oral culture, the project also sought to promote literacy. The Cree Way project began developing Cree language materials and teaching Cree to students. There were more than five hundred textbooks in Cree.

In 1974, the U.S. Supreme Court decided in the case *Lau v. Nichols* that non-English speaking students needed to be provided with special ESL teaching methods or be taught first in their Native language as they learned English. To counter the rapid loss of their language, Maori leaders decided to capitalize on the fact that many elders still spoke their language, and in 1982, they started a Maori



immersion preschool movement, called *Te Kohanga Reo*, which translates as "the language nest" and utilizes fluent Maori-speaking elders... The Maoris were able to convince the government to build on the success of the preschools by providing Maori immersion elementary schools, then secondary schools, and finally Maori language university programs.

In 1972, Congress authorized the Indian Education Act as a Title IV (now Title IX) amendment to the 1965 Elementary and Secondary Education Act. Title IV was the first federal legislation to support Indigenous bilingual/bicultural materials development, teacher preparation, and parent and community involvement. In 1975, the Indian Self-Determination and Educational Assistance Act (P.L. 93-638) was passed, formalizing the procedures for tribes and Indigenous communities to contract to operate social and educational programs.

Meanwhile, evidence mounted that the academic achievement of students in some community-controlled schools equaled or surpassed that of students in schools with conventional English-only curricula. Following a rigorous longitudinal study of students' achievement at Rock Point Community School, Rosier and Farella (1976) reported significant increases in English achievement among Navajo fourth and fifth graders. Rock Point students, who learned to read first in Navajo and had content instruction in Navajo while learning English, "scored significantly higher in Total Reading on the Stanford Achievement Test than did Navajo students in monolingual English BIA schools" (Rosier& Farella,

1976, p. 379). Students also had the advantage, of course, of becoming literate in Navajo, and they exhibited “considerably more self-confidence and pride (Holm & Holm, 1995, p. 148; see also Rosier & Farella, 1976, p. 388). The American Indian Policy Review Commission reported, restored “self-image and interest in learning among young people,” lowered school dropout rates, and graduated students who possessed necessary academic skills (AIPRC, 1976, p. 265).

Rock Point kindergarten students were immersed in Navajo two-thirds of the time, while the other third was devoted to instruction in English. In grades one through four students had one-half day of Navajo instruction, which included instruction in math and science, and one-half day in English. From fifth grade to high school graduation, students spent about one-fifth of their class time in Navajo and the remainder in English. This type of program is called a maintenance or developmental bilingual program, because it maintains the students' Native language while they learn a second language. (Reyhner, J. 2006, pp.3-4 ).

Numerous articles denote the benefits of immersion, starting from a young age, such as preschool, and its impact into adult life. In the 1960s, a Play Centre preschool movement encouraged Maori mothers to use English with their children. In conjunction with the spread of radio and television into Maori homes, this accelerated Maori language loss.

Successful language revitalization efforts are dependent on family and community support. Children need to hear and speak their mother tongue when they are very young. Ideally, this exposure begins in the home, but immersion preschools like those pioneered by the Maoris and Hawaiians can be very effective.

Indigenous language immersion is in its infancy in the continental United States; though there are some successful programs, such as the Arapaho language immersion program on the Wind River Reservation in Wyoming and the Blackfeet immersion program in Montana, the majority are relegated mainly to small preschools. (Reyhner, J. 2006, pp. 1-5). Bilingual programs are achieving quantative results.

Rock Point's new bilingual program had excellent results. Even though students' English language test scores were lower in the early grades, when a lot of their lessons were taught in Navajo, in the upper grades, their test scores were higher because bilingual education allowed them to better understand what they were learning. By 1983, Rock Point's eighth graders were getting higher test scores on the California Achievement Test than other Native Americans in Arizona. In 1987, Rock Point students scored equal or better on the California Basic Education Skills Test than students at surrounding BIA schools. At the same time, Rock Point students were learning to read and write Navajo. In addition to high test scores, the success of Rock Point's bilingual program was

further proved by student attendance rates that were above 94 percent. In contrast, Rough Rock's attendance rate was only around 75 percent. (Reyhner, J. 2006, pp.3-4).

### Summary

The focus of this chapter was to address the available evidence to the topics of (a) history/impact of BIA, (b) education structure on reservation, (c) native language (d) resurgence of instilling native language/culture into early childhood. It is evident from the topics that language acquisition has been impacted significantly by the history of interaction with Indian people permeated by English, French and Spanish through Catholicism and slavery to federal boarding schools of the BIA to eventually public schools. Native people have always embraced the significance of bi-lingual communication skills. Historically speaking, it hasn't been very long that bi-cultural education has been supported in public schools, although funding for such still remains disparaging.

## CHAPTER 3

### Methodology and Treatment of the Data

#### Introduction

This chapter has been organized around the following topics: (a) Methodology, (b) Participants, (c) Instruments, (d) Design, (e) Procedure, (f) Treatment of the Data, (g) Summary.

#### Methodology

The method for this project began with a review of selected literature. The review of literature was through the use of Heritage University's on-line database, as well as the use of internet search engines. Literature and information was also gathered from Oklahoma State University. The next step taken was gathering data through descriptive research. The purpose of the descriptive research was to test the project hypothesis, and also support or not support a cause-effect relationship between the Native Language Acquisition Program.

During this study, descriptive research was also conducted in the form of parent questionnaire and a pre and post assessment to children by pre-experimental design. Both assessments were given to all participants in the study. The assessment measured children language acquisition and the efficacy of the program. The survey was designed to measure parents' value in the time invested in the program.

### Participants

The experimental group in this study consisted of nine Native American children in the 2010/2011, living on the Colville Indian Reservation. In the pre-experimental group there were four males and five females. The ethnic makeup was 100% Native American.

### Instruments

There were two instruments to gather data in this study. The first of these was the Native Language Acquisition Program consisting of fluency flash cards. A pre-assessment was given to participants both in January 2011, and a post-assessment in March 2011. During January to March the Native Language Acquisition Program was administered to the participants. The assessment was conducted by the parents of the children trained in the Native Language Acquisition Program.

During the assessments, the parents read aloud 40 word fluency flash cards representing animals, colors, numbers, body parts, and basic greetings in the Nimipu language. Each card was read and reviewed. During the pre and post assessment, the total number of words read correctly was recorded. The score was recorded as the flash card assessment score. Scores for the pre-assessment in January 2011 were tabulated and graphed (Appendix A). The same process was conducted for the post-assessment in March 2011 and the scores were also tabulated and graphed (Appendix B).

The other tool used to gather data in this study was a survey. The survey asked parents ten different questions regarding perceptions of value in time in the language acquisition program. The survey asked participants to answer each question on a scale of strongly agree, agree, disagree, or strongly disagree (Appendix C). Parents circle the choice for each question that best fit their feelings. One survey was given to the parents prior to the language acquisition program being introduced to the participants (Appendix D), and the same survey was given to the parents after the intervention was conducted in 6 weeks to the participants (Appendix E).

An internal validity issue present in this study was the Native Language Acquisition Program conducted in parents homes whereby extraneous noise such as a television or company or a quiet room is not utilized consistently during the study. Taking a pretest may also improve children scores on a posttest, however this internal validity measure is minimized as the number of test cards was quite large, at 40. To limit the effect of these validity issues, the researcher chose all Native American children that are in the same familial group and in their natural environment. Therefore, the number of pre-existing differences among the groups was limited as much as possible by the researcher.

The instrumentation validity of this study was not an issue. The same assessment, the native language acquisition program was used as a pre-test and a post-test. The assessment was administered by the same researcher for both the

pre and post test. Also, the same testing procedures were followed in both the pre and post test and for the groups. The native language acquisition program was an objective assessment of participant language acquisition. Biases of the researcher were rendered insignificant by the strict procedures and absence of subjective assessment techniques.

The data acquired in the testing was considered reliable as the cards and the audio CD's the parents utilize, along with the same time window produces a test consistently measured. With the testing reliability, more confidence is gained from the scores obtained from the test.

### Design

This study was a pre-experimental design with one-group pretest-posttest design involving one group that was pretested, exposed to treatment, and then tested gain. The success of the treatment was determined by comparing pretest and posttest scores. This group falls in the category of pre-experimental design as the group was predetermined as all participants are relatives to one another and the researcher.

### Procedure

For purposes of this study, the following procedures were implemented:

1. A review of selected literature was conducted at both Heritage

University and Oklahoma State University, and through internet search



engines. A thorough report of information gathered was reported in Chapter 2 of this project.

2. Permission to conduct research was granted by parents (Appendix F).
3. The Researcher worked with the Colville Tribe Language program to obtain correct spelling and pronunciation of the Nez Perce (Nimipu) language. The categories and words selected included: colors, numbers, animals, and body parts. 40 cards were developed with the word of the object are on the card along with a visual of the object (Appendix G).
4. A meeting with all participants' parents was conducted in early January 2011 to review and instruct parents on the language acquisition program procedures. A small photo album with pictures, the words, and an audio CD of the language was given to each of the parents.
5. The pre and post assessment of the language acquisition program was administered to participants by the researcher. Each child was given a pre-test to evaluate native language skills. After each card, the number of symbols read correctly was recorded as participants Language Acquisition Fluency Score.
6. The language acquisition program was administered by parents to complete with the participant 4 times a week (with a minimum 3 times

a week) for 6 weeks. Parent reviews each language acquisition card with participant, taking no longer than 5 minutes to complete all cards.

7. Scores from the Language Acquisition Fluency assessment were tabulated (Appendixes A and B)
8. A survey questionnaire was given to each parent to evaluate their attitude toward their child learning at the beginning and at the end of the Language Acquisition Program. Results from these confidence surveys were tabulated and graphed (Appendixes D & E).
9. Results from the study were examined, evaluated, and conclusions drawn.
10. A short interview with the parents was also a part of the final assessment of this research project.
11. A meeting will be conducted with the parents to determine the effectiveness of the program and make a decision in regards to future implementation across all age groups.

#### Treatment of Data

The data gathered from pre-intervention Language Acquisition Program confidence survey and the post intervention survey was calculated and examined using the Microsoft Excel program. Responses from the survey were numerically represented on a scale from 1-4. All information is represented in Microsoft Excel Data Sheets, as well as Microsoft Excel Data Graphs.

The data gathered from the Language Acquisition Program was tabulated and examined using the Microsoft Excel Program. The data was also interpreted using the STATPAK program. This program was used to find the mean, mode, and t-score of the Language Acquisition Program data gathered by the researcher.

### Summary

This summary reviews the methodology and treatment of data related to the Language Acquisition Assessment scores of participants. This summary also reviewed the treatment and methodology of data gathered through a pre-intervention and post intervention survey given to parents. The analysis of data and findings from this study are reported in Chapter 4.

## CHAPTER 4

### Analysis of the Data

#### Introduction

Chapter 4 has been organized around the following topics: (a) Description of Environment, (b) Hypothesis, (c) Results of the Study, (d) Findings, and (e) Summary.

#### Description of the Environment

This project was delimited to three to nine year old Native American children living on the Colville Indian Reservation, located in Eastern Washington. This study was conducted during January to March, 2011. The ethnic make-up was Native American 100%.

In this study there were nine children in ages from three to nine years old, comprised of four boys and five girls. All children were taught by a parent, whom received the LAP training. All children had the same weekly schedule for the LAP and the same number of minutes for the literacy block. Therefore, the amount of time available for LAP activities was the same for all children.

#### Hypothesis

Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and

post- test. Moreover, it is expected that parents who use the native language flash cards will find value in the time invested in the program.

#### Null Hypothesis

Native American children who are taught their Native language utilizing visual, auditory and kinesthetic cues will not evidence significant language acquisition as demonstrated by word recognition. Parents who use the native language flash cards will not find value in the time invested in the program.

#### Results of the Study

To test the hypothesis, the researcher evaluated and examined the data collected during the study, using the STATPAK program and the Microsoft Excel program. The sum, mean, mode, and t-scores of the data were calculated.

Table 1 displayed the scores of the children on the language acquisition program assessment for both the January 2011 assessment, and the March assessment. Those children who took pre- Jan 11 test received either their actual score correct or if no correct answers than a score of .01 was awarded for effort. Table one showed the scores for both assessments for each child, as well as the growth of each child from the pre-assessment to the post assessment. The growth for each child represented the amount of change in the child's language acquisition score from January 2011 to March 2011. The value of growth for each student was compiled and a mean of 17.98 was found. This mean represented the average increase in language acquisition scores for the children.

Therefore, the average increase in language acquisition scores for children receiving basic reading instruction was 17.98 words read correctly within the preset time frame. These results suggest that Native American children who are taught their native language through visual, auditory and kinesthetic stimuli evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test.

Table 1

Language Acquisition Program Scores for the Children

Student	Jan-11	Mar-11	Growth
A	.01	10	9.9
B	.01	19	18.9
C	.01	25	24.9
D	.01	19	18.9
E	.01	12	11.9
F	.01	17	16.9
G	.01	26	25.9
H	3.0	23	19.9
I	4.0	18	13.9
Sum	7.888	169	161.9
Mean	.8888	18.77	17.98

Figure 1 represented the overall average growth per children in the language acquisition program. This growth was calculated from the difference between children scores on the January 2011 language acquisition program assessment and the March 211 language acquisition program assessment.

Figure 1

Average Growth per Child on Language Acquisition Assessment

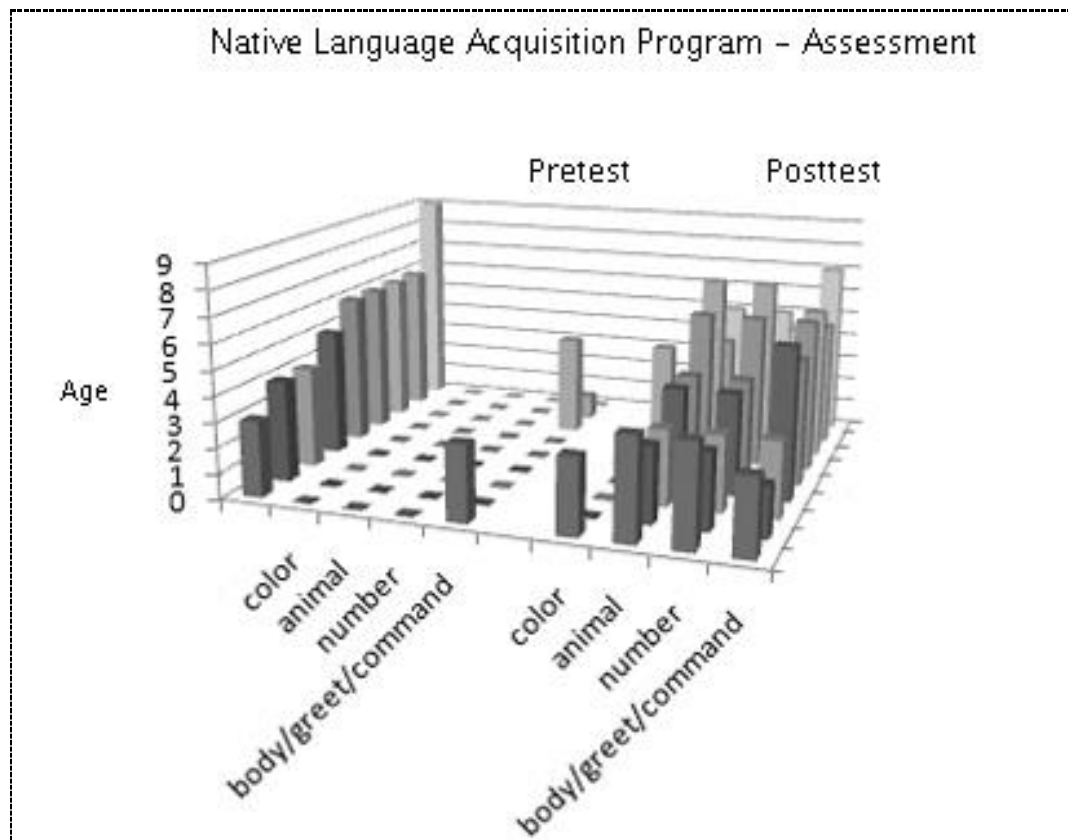


Table 2 showed the results of a Non-Independent Groups t-test Between Means. The post-test data from language acquisition program March 2011 assessment were used from both the pre-assessment and post-assessment. To calculate these statistical values, the researcher used the STATPAK program and formulas provided by Gay, Mills and Airasian (2006).

Table 2

Comparison of the T-test Score Values for the Nonindependent Group on the Language Acquisition Program March 2011 Assessment

Statistic	Value
Number of Pairs	9
Sum of Deviations	161.93
Mean Score of Deviations	17.99
Sum of Deviations	3149.44
t-value	9.94
Standard Deviation	5.39
Degrees of Freedom	8
Distribution of t at $\alpha = 0.05$	2.30



Figure 2 represented data from Survey 1 and Survey 2 given to the parents (See Appendixes D - E). All the scores of the survey were tabulated using a scoring system of 1-4. A score of one represented an answer of “Strongly Disagree”. A score of two represented an answer of “Disagree”. A score of three represented an answer of “Agree”. A score of four represented an answer of “Strongly Agree”.

Figure 2

Comparison of Pre and Post Parent Survey

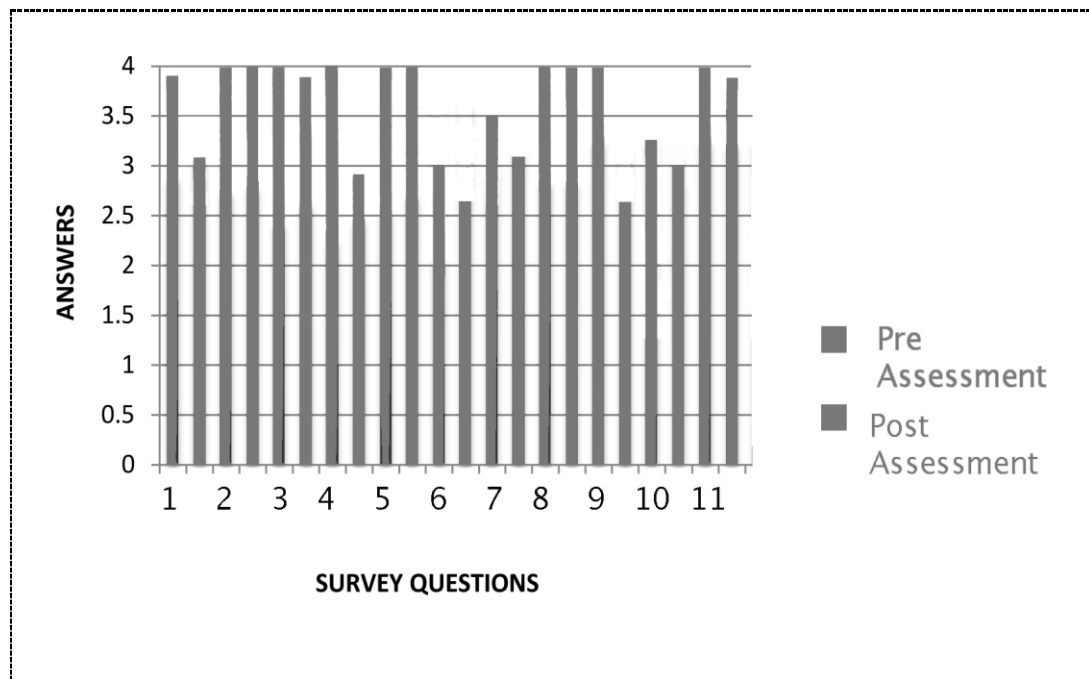


Figure 3 represented parents' scores on post-survey question number 4. This survey question asked parents to rate their feelings in regards to the following statement: "I will provide the time as explained to me for my child to learn the language." This question was a significant indicator of the confidence level of parents in regards to their value of time invested in the language acquisition program. The graph represented survey answers from the pre-survey and post survey. The pre survey question where all parents strongly agreed were spread out evenly on the post survey on all four ratings from strongly agree to strongly disagree.

Figure 3

Comparison of Pre and Post Parent Survey Question Number Four

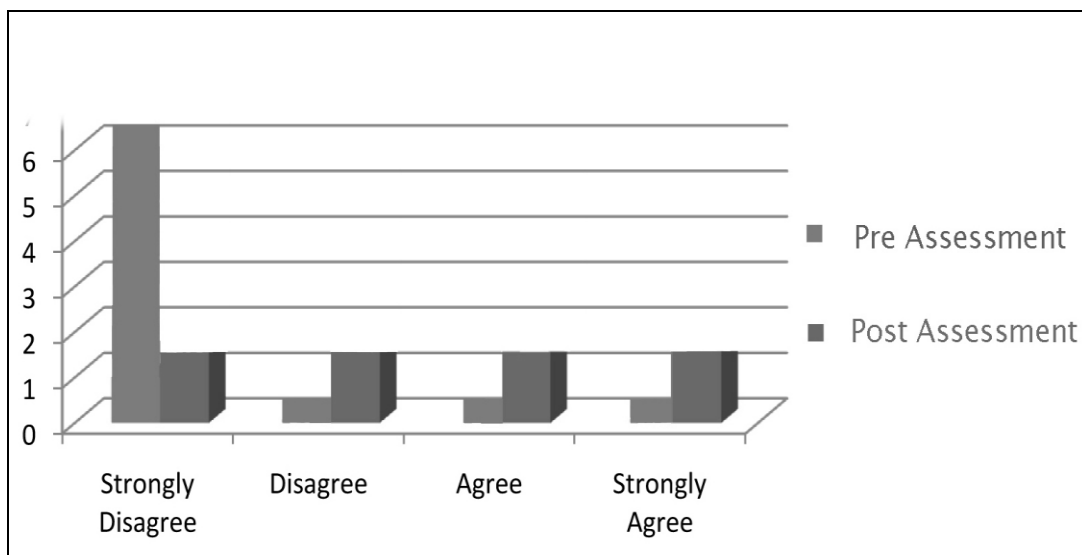


Table 3 represents paired samples t-test of all pre and post pairs, except for pairs 2, 5, 7, and 8 as the pre and post data were the same scores. This table was a significant indicator overall of the confidence level of parents in regards to their value of time invested in the language acquisition program.

Table 3

Comparison of the T-test Score Values for the Nonindependent Group on the Pre and Post Parent Survey

Pair	Pre – post question	Mean	Std. Deviation	Std. Error Mean	t	df
Pair 1	q1pre - q1post	.16667	.40825	.16667	1.000	5
Pair 3	q3pre - q3post	.16667	.40825	.16667	1.000	5
Pair 4	q4pre - q4post	1.16667	.98319	.40139	2.907	5
Pair 6	q6pre - q6post	1.33333	1.63299	.66667	2.000	5
Pair 9	q9pre - q9post	1.33333	1.03280	.42164	3.162	5
Pair 10	q10pre - q10pst	.33333	.51640	.21082	1.581	5
Pair 11	q11pre - q11post	.16667	.40825	.16667	1.000	5

A paired-samples t-test was conducted to compare the parents commitment to providing the time necessary for their child to learn the Native language pre- and post- implementation of the Native Language Program. There is a significant difference in the pre-test commitment scores (M=4.00, SD=0.00) and the post test commitment (M=2.83, SD=0.98) scores;  $t(5)=2.91$ ,  $p = 0.03$ .

These results suggest that the language program significantly decreases the parents commitment to providing the time for their child to learn the Native Language. Specifically, the results suggest that after participating in the program, the strength of their commitment decreases.

A short interview with the parents was also a part of the final assessment of this research project. During the meeting parents were enthusiastic about the native language gains of their children in the Language Acquisition Program. Results of the parent survey results lead to discussion that the survey may not have accurately measured the parents' values and attitudes in the native language so much as it appeared to represent more the "time demands" of everyday life and responsibilities.

### Findings

The research analyzed the data with the degree of freedom at 2 the required a t score of 3.78 to demonstrate a significant change. The t score of 3.78 met the criteria needed to show significant change at 0.5 for the hypothesis Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test. Moreover, it is expected that parents who use the native language flash cards will find value in the time invested in the program. The research findings in Table 3

Table 3 Comparison of the t-test score values for the nonindependent group on the

pre- and post- survey do not support the hypothesis Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test.

### Discussion

Chapter 2 Review of Selected Literature describes history/impact of BIA, education structure on reservation, native language, and resurgence of instilling language/culture into early childhood. The children that participated in the experiment are enrolled tribal members and the results of the NLAP and the parent survey is indicative of the impact of BIA. The education structure on the Colville Indian reservation does not include tribal language and the pre-assessment of the NLAP appears to be indicative of the impact of the BIA, education structure on the reservation, and native language.

The parent survey of pre survey answers were overwhelmingly “strongly agree”, however the outcome results were spread out evenly in all four areas from “strongly agree” to “strongly disagree”, indicating parents not have value in time commitment of the Language Acquisition Program. However, parent follow-up meeting indicates the survey may have shown very positive results over a longer period of study and more carefully selected “attitudinal” and “value” of time and commitment questions more specific to the Language Acquisition Program.. The researcher would be interested in following up on these recommendations to see

what the outcomes may be in regards to parent value and attitude in time commitment to the Language Acquisition Program. The results of the children are indicative the native language can be learned in a language program and contribute to the resurgence of instilling native language. Literature review of Rock Point bilingual program of students immersed in language, while other time in English, and the 1960s Play Centre preschool movement are examples of such that agree with the findings of this project.

### Summary

The hypothesis; Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test was accepted by the researcher. The hypothesis; it is expected that parents who use the native language flash cards will find value in the time invested in the program was rejected by the researcher.

The null hypothesis; Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test was rejected by the researcher. The null hypothesis; it is expected that parents who use the native language flash cards will find value in the time invested in the program was accepted by the researcher.

## CHAPTER 5

### Summary, Conclusions and Recommendations

#### Introduction

This chapter has been organized around the following topic: (a) introduction, (b) summary, (c) conclusions, (d) recommendations.

#### Summary

The Native Language Acquisition Program (NLAP) was created and applied to 9 children in ages from 3 to 9 years old over a course of 6 weeks. All children were taught by a parent, whom received the NLAP training. All children had the same weekly schedule for the NLAP and the same number of minutes for the literacy block. The parents were also given a pre- and post- survey to determine that parents who use the native language flash cards will find value in the time invested in the program.

#### Conclusions

The results of the LAP indicate significant gains in children reading comprehension and understanding of the native language over a course of 6 weeks by utilizing the language flash cards and the CD audio recordings of native language to the children. The parent survey findings indicate parents who use the native language flash cards do not find value in the time invested in the program. A parent discussion was followed up indicating parents want to continue supporting teaching the language to their children. The researcher believes the

survey may not have accurately represented parents attitude and value regarding the meaningfulness of the program with time invested using the native language flash cards with their children.

### Recommendations

Based on the conclusions, the researcher determines children learn the native language with a combination of flash cards with figures and native art work, along with CD audio of the language is a positive combination of reinforcement in teaching children native language. Parent support of learning was also a big factor in learning the language. A longer duration study needs to be completed to reassess parents who use the native language flash cards find value in the time invested in the program

The researcher recommends:

1. Two to three weekend series of language immersion, this would be helpful in reinforcing learning the language and provide parent support.
2. A longer time period of language acquisition study with a pre- and post- test survey of parents who use the native language flash cards finding value in the time invested in the program survey.
3. A reward system for children to learn the language.
4. Parent input on words selected for teaching.
5. Pictures of all children are used in the flash cards.
6. Support to parents and regular contact.



The results of the project are encouraging in that children participating in the language acquisition program are learning native language. It is my personal goal to continue developing flash cards and working with my own Grandchildren and families to teach and learn the language.

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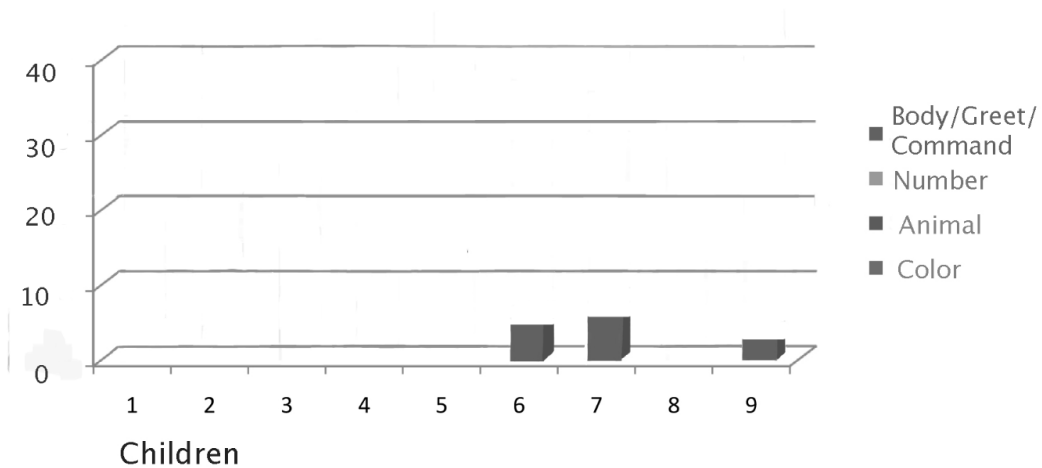
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## APPENDIX A

### FLASH CARD PRE-ASSESSMENT

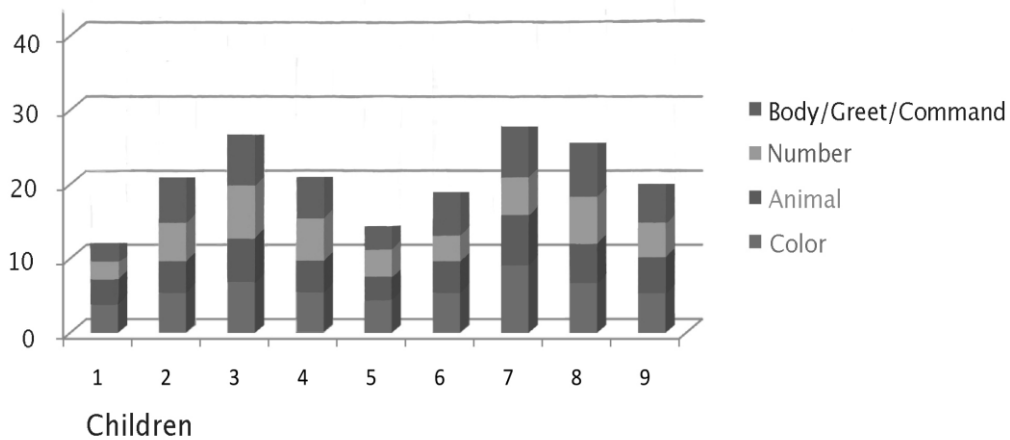
	Age	Colors	Animals	Number	Body	Total
Child 1	4	0	0	0	0	0
Child 2	6	0	0	0	0	0
Same parent for Child 1 and Child 2						
Child 3	6	0	0	0	0	0
Child 4	5	0	0	0	0	0
Child 5	4	0	0	0	0	0
Child 4 and Child 5 live between two homes						
Child 6	3	0	0	0	3	3
Child 7	6	0	0	0	4	4
Same parents for Child 6 and Child 7. Difficulty for Child 7 to keep on a time limited task						
Child 8	9	0	0	0	0	0
One parent, value of worth not with participant						
Child 9	6	0	0	0	1	1



## APPENDIX B

### FLASH CARD POST-ASSESSMENT

	Age	Colors	Animals	Number	Body	Total
Child 1	4	3	3	2	2	10
Child 2	6	4	4	5	6	19
Same parent for Child 1 and Child 2						
Child 3	6	6	6	7	7	25
Child 4	5	4	4	6	5	19
Child 5	4	3	3	3	3	12
Child 4 and Child 5 live between two homes						
Child 6	3	4	4	3	5	17
Child 7	6	7	7	6	6	26
Same parents for Child 6 and Child 7. Difficulty for Child 7 to keep on a time limited task						
Child 8	9	5	5	7	6	23
One parent, value of worth not with participant						
Child 9	6	4	4	5	5	18



## APPENDIX C

### LANGUAGE ACQUISITION PROGRAM PARENT SURVEY

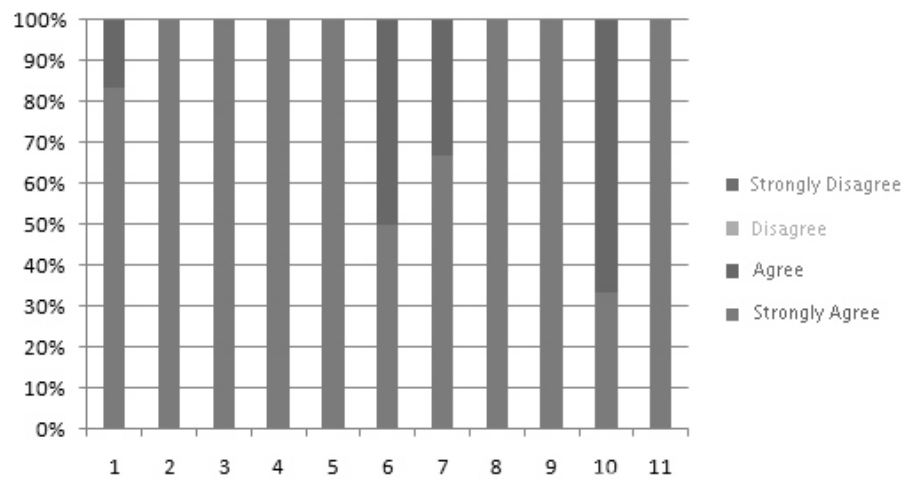
#### PARENT QUESTIONNAIRE OF LANGUAGE ACQUISITION PROGRAM

		STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
1.	I like learning the native language	_____	_____	_____	_____
2.	I believe it is important for my child to learn the native language	_____	_____	_____	_____
3.	I have a positive attitude toward involving my child in learning the Native language.	_____	_____	_____	_____
4.	I will provide the time as explained to me for my child to learn the Native language.	_____	_____	_____	_____
5.	I believe in the value of my child learning the native language.	_____	_____	_____	_____
6.	I have the time to commit toward teaching my child the Native language.	_____	_____	_____	_____
7.	I believe the parent is the primary educator in teaching and learning the Native language.	_____	_____	_____	_____
8.	Native language learning is a top priority for my child.	_____	_____	_____	_____
9.	I believe the Native language should be taught at school.	_____	_____	_____	_____
10.	I have reviewed the language program and believe it is a good teaching tool.	_____	_____	_____	_____
11.	I would like to continue learning and teaching my child beyond The research study.	_____	_____	_____	_____

## APPENDIX D

### LANGUAGE ACQUISITION PROGRAM PARENT SURVEY PRE-ASSESSMENT

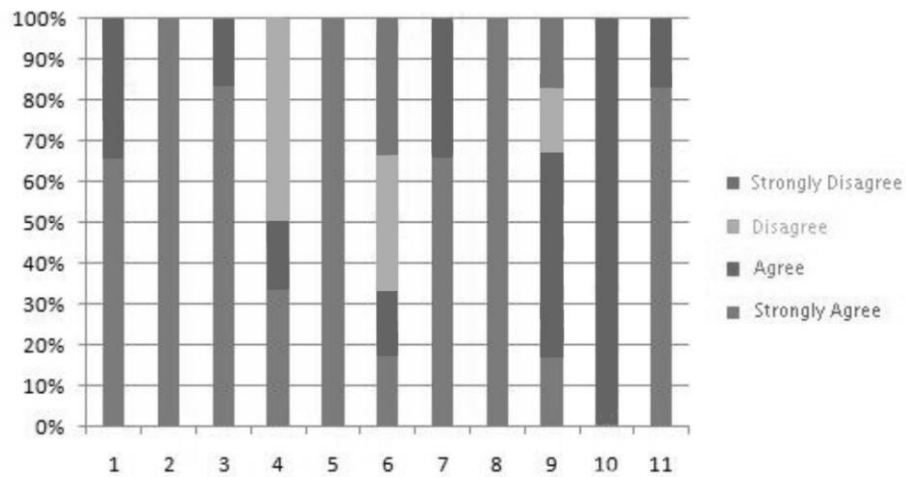
Question	Strongly Agree	Agree	Disagree	Strongly Disagree
1	5	1	0	0
2	6	0	0	0
3	6	0	0	0
4	6	0	0	0
5	6	0	0	0
6	3	3	0	0
7	4	2	0	0
8	6	0	0	0
9	6	0	0	0
10	2	4	0	0
11	6	0	0	0
TOTAL	56	10	0	0



## APPENDIX E

### LANGUAGE ACQUISITION PROGRAM PARENT SURVEY POST-ASSESSMENT

Question	Strongly Agree	Agree	Disagree	Strongly Disagree
1	4	2	0	0
2	6	0	0	0
3	5	1	0	0
4	2	1	3	0
5	6	0	0	0
6	1	1	2	2
7	4	2	0	0
8	6	0	0	0
9	1	3	1	1
10	0	6	0	0
11	5	1	0	0
TOTAL	40	17	6	3





## APPENDIX F

### PERMISSION TO CONDUCT RESEARCH

#### Letter of Permission to Conduct Research

I, \_\_\_\_\_, give Nancy C. Johnson permission to conduct  
Parent name

research for the Masters Degree at Heritage University during the 2010 – 2011 academic school year at the Colville Indian Reservation, with the hypothesis Native American children who are taught their native language through visual, auditory and kinesthetic stimuli will evidence significant language acquisition as demonstrated by an increase in word recognition between pre- and post- test. Moreover, it is expected that parents who use the native language flash cards will find value in the time invested in the program.

\_\_\_\_\_  
Parent name

\_\_\_\_\_  
Date

## APPENDIX G

FLUENCY FLASH CARDS REPRESENTING ANIMALS, COLORS,  
NUMBERS, BODY PARTS, AND BASIC GREETINGS IN THE NIMIPU  
LANGUAGE.

yá·ka' Bear



piyó·piyo bird



mácqox chipmunk



cíq'a·mqal dog



hé·y'uxc Rabbit



himí·n wolf



tipiyeléhne eagle



wewu kiye Elk



sík'em horse



naco x salmon



nú·sus head



wé·yux leg



í·mn knees



'á·tim arm



sílu eyes



hím̃ mouth



nú·snu nose



hú huy shoulders



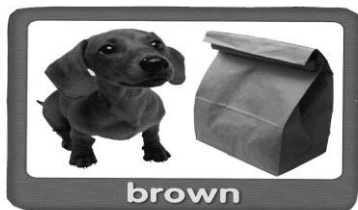
miyá'c baby



macayo Ear



sukúysukúy dark brown

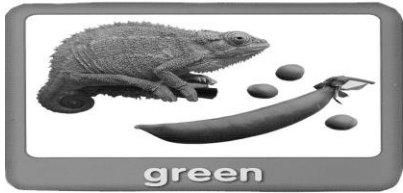


pu·xpú·x gray



ǰéǰus

green



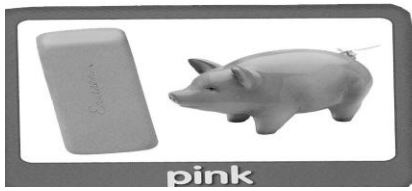
maqsmáqs

yellow



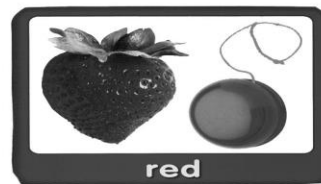
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pink



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red



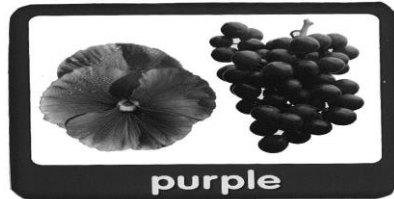
mimqas

orange



cí·cyele

purple



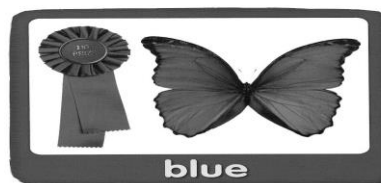
ǰayǰáyǰ

white



yo·syó·s

blue



1 - naqc

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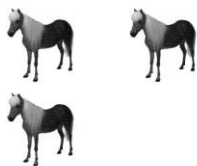
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two



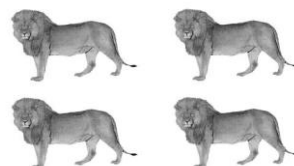
3 - mitá·t

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three



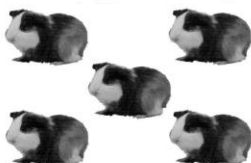
4 - pí·lept

**4**  
four



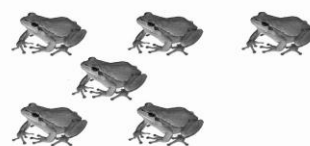
5 - páxat

**5**  
five



6 - ʔoyláqc

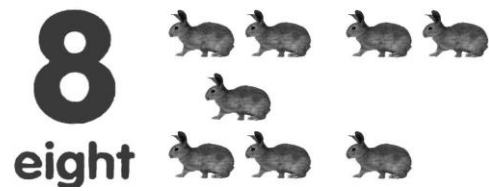
**6**  
six



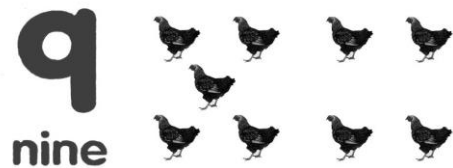
7 - ʔuynépt



8 - ʔoymátat



9 - k'uyc



10 - pútimt

