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The Getting Ready to Learn Program: An Impact Report

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The Getting Ready to Learn Program:

An Impact Report

by

Rosa M. Avila

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Public Health
Department of Community and Family Health
College of Public Health
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Table of Contents

List of Tables	ii
List of Figures	iii
Abstract	iv
I. Introduction.....	1
II. Statement of the Problem.....	2
III. Review of Literature Concerning the Significance of Early Childhood Intervention	7
IV. The Getting Ready to Learn Program.....	12
V. Methods.....	15
Theoretical Framework.....	15
Research Questions and Hypotheses	17
Secondary Data	22
Secondary Data: Participants	22
Inclusion Criteria	22
Exclusion Criteria	23
Secondary Data: Measures.....	23
Secondary Data: Evaluation Plan.....	25
Primary Data	28
Primary Data: Participants	28
Inclusion Criteria	28
Exclusion Criteria	28
Primary Data: Measures.....	29
Primary Data: Evaluation Plan.....	29
Primary Data: Analysis	29
VI. Results.....	32
Secondary Data Outcomes	31
Developmental Skills	31
Parent or Caregiver Reading.....	34

Primary Data Outcomes	37
GRTL Staff	38
GRTL Program	40
Program Barriers.....	41
Evaluation	42
GRTL Participant and Non-Participants.....	43
Community	45
Developmental Skills and Reading Behaviors.....	46
VII. Discussion.....	48
Data Collection Process	48
Interpretation of Results.....	49
Limitations	50
Conclusion	52
References.....	56
Appendices.....	58
Appendix A: Parent Questionnaire	59
Appendix B: Ages & Stages Questionnaire Sample.....	60
Appendix C: Question Route for GRTL Program	67
Appendix D: Human Subjects Protections Consent Form.....	68

List of Tables

Table 1	Operationalization of Variables	18
Table 2	Independent & Dependent Variables	25
Table 3	Age and Participation Level of Children by Village: Ages & Stages Questionnaire Pre-Test & Post-Test	32
Table 4	Developmental Skill Scores of Children: Ages & Stages Questionnaire Pre-Test & Post-Test (N = 36)	32
Table 5	Score Differences in Developmental Skills: Ages & Stages Questionnaire Pre-Test & Post-Test (N = 36).....	33
Table 6	Age and Participation Level of Children by Village: Parent Questionnaire Pre-Test & Post-Test	35
Table 7	Reading Behavior Scores of Caregivers: Parent Questionnaire Pre-Test & Post-Test (N = 36)	35
Table 8	Score Differences in Times Read to Child per Week: Parent Questionnaire Pre-Test & Post-Test (N=36).....	36

List of Figures

Figure 1	Theoretical Framework.....	16
Figure 2	Goals and Objectives	21

The Getting Ready to Learn Program: An Impact Report

Rosa M. Avila

ABSTRACT

The Getting Ready to Learn (GRTL) program is an early intervention program designed to improve the developmental skills and learning capacity of Native American children in the Northwest Arctic region of Alaska. Early intervention programs have been found to decrease high school dropout rates and increase employment rates, which contribute to better health outcomes in young adulthood. The Northwest Arctic is a remote area that lacks many resources. As such, the people of this region experience various health disparities. The GRTL program was implemented in 7 of the 11 villages in the Northwest Arctic Borough of Alaska (NWABA). The purpose of this thesis was to evaluate the impact the GRTL program may have had on the development skills (communication, gross motor, fine motor, problem solving, social-personal skills) of participating children and reading behaviors of participating caregivers. Two survey instruments were used to evaluate the GRTL program. Specifically, the Ages and Stages Questionnaire (ASQ) measured developmental skills of participating infants and children, and the Parent Questionnaire (PQ) measured caregiver's satisfaction with the program and reading behaviors of caregivers with their child. Interviews with program employees were also conducted to further interpret the results from the surveys. Program employees reported there was significant community support for the GRTL program, and parents

were pleased with the program. Parents especially liked having a place that allowed them to focus on their child and believed the atmosphere provided positive socialization opportunities. Key informants also reported barriers to participation, which included harsh weather conditions that limited program participation. The ASQ indicated an increase in the means of development skills on the post-test; although most were not significantly different. The PQ showed a significant increase in reading behaviors from participating caregivers. Overall, the qualitative results suggest the GRTL program had a positive impact on its participating children and caregivers.

I. Introduction

This study, entitled *The Getting Ready to Learn Program: An Impact Report*, was an assessment of an early intervention program in the Northwest Arctic region of Alaska. The purpose of the Getting Ready to Learn (GRTL) program was to improve the developmental skills and learning capacity of Native American children in an effort to ensure they entered kindergarten with the skills necessary for success.

The GRTL program was unique since it was tailored specifically to the Native American community. In order to be sensitive to cultural values and to implement a successful program in Native American communities, program planners should have an understanding of Native American beliefs and traditions since the cultural and family environment of Native Americans may be very different from that of non-Native Americans (Teufel-Shone N. I., Staten, L. K., Irwin, S., Rawiel, U., Bravo, A. B., & Waykayuta, S., 2005). The purpose of this thesis project was to evaluate the impact of the GRTL on children's developmental skills and to determine if and how the program influenced parents' behaviors. The GRTL program may not only prepare children for kindergarten, but it may also have long-term positive effects for a community experiencing many health and economic disparities. This evaluation has the potential to provide the preliminary data needed to improve the existing program and possibly aid in the expansion of the program into other Alaskan villages.

II. Statement of the Problem

Although the American Indian/Alaska Native (AI/AN) population comprises a diverse group of over 550 tribal areas with different demographic characteristics and health issues (Roubideaux, 2002), a historical legacy of outside forces have threatened the social, economic, and physical wellbeing of Native peoples in North America (Cameron, 1999). Loss of land, loss of language, genocide, and forced alienation from cultural traditions have all been a part of that history. For some tribes, this history has contributed to significant community and family disintegration, as well as to greater distress and negative health outcomes. The political struggle for health care services and resources also sets the stage for many health disparities and risky health behaviors observed in today's youth and adults in the Native American population (Cameron, 1999).

This thesis study was particularly concerned with health disparities in maternal care and child health, as this has a great impact on the development of young children. Specifically, when one looks at live birth rates in Native American women ages 18 to 44, the highest birth rates are among women between the ages of 20 to 24 (108.8 per 1000) (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005). Lack of prenatal care for pregnant women in this population is an important concern (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005). Of Native American mothers, 7.6% receive late or

no prenatal care as compared to 3.5% of the total population (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005). In 2002, the infant mortality rate for the American Indian/ Alaskan Native population was 8.6 per 1000 compared to the national infant mortality rate of 7 per 1000 (USA.gov, 2007). For the age group with the highest birth rates (women ages 20 to 24 years), the infant mortality rate rose to 9.4 per 1000 compared to 7.8 per 1000 in the total population (USA.gov, 2007). Many of the infant mortality cases were the result of preterm births. Prenatal services would have helped identify and manage high risk pregnancies, which, in turn, could prevent further progression of disabilities, illnesses, and unnecessary death. In addition, Native American women ages 15 to 44 are more likely to participate in binge drinking (35.1%) and more likely to smoke (52%) than any other ethnic group in the United States (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005). With these statistics in mind, it is critical to provide services to children who may be more at risk for developmental delays due exposure to harmful substances *in utero* and due to a lack of prenatal services of mothers while pregnant. Despite the existence of high risk conditions in some Native American communities, families are known to be “support-oriented,” reflecting the importance that the culture places on family (Teufel-Shone et al., 2005). Teufel-Shone and colleagues noted:

Among American Indians, family connectedness, cohesion, and support have been attributed to playing an important role in the physical and cultural survival of the people and, more specifically, in having a significantly positive influence on academic persistence, substance abuse

prevention, suicide prevention, safe sexual practices in youth and physical and emotional wellbeing. (pg.416)

In the Native American culture, children continue to learn about their extended family and clan of their paternal and maternal lineage (Teufel-Shone et al., 2005). Traditional wisdom passed on to each generation also promotes healthy lifestyles through stories of cultural foods and activities (Hindelang, 2006). Positive family environments may have a stronger influence on the health and wellbeing of Native Americans when compared to non-Natives because of Natives' tendency to seek advice and support from family members before seeking health services or health information (Teufel-Shone et al., 2005). Thus, the importance of family environment and family involvement must be considered when it comes to influencing the health behaviors and positive health outcomes of women and children (Hindelang, 2006; Teufel-Shone et al., 2005). With an understanding of the culture, communities can successfully implement family-oriented interventions that reinforce existing strengths (Hindelang, 2006).

Both the risk factors and the cultural strengths noted above demonstrate the significance of introducing early intervention programs for Native children. Early intervention refers to services that target populations at risk for developmental delays or disabilities in its youth (Kotch, 2005). The children experiencing these disparities may be at a large disadvantage in their capacity to learn and their ability to form healthy relationships, which may later translate into negative social and health consequences (Kotch, 2005). Early intervention programs have been implemented with some documented success (Palfrey et al., 2005). However, one unique program currently in practice in the Northwest Arctic of Alaska has not yet been evaluated. This thesis aimed

to evaluate the Getting Ready to Learn (GRTL) program in the Northwest Arctic of Alaska, which is primarily inhabited by Inuit Eskimo.

About 85.8% of the population in the North West Arctic is Alaskan Native ("Profile and General Data Characteristics", 2000), with a total population of 7,208 people ("Profile and General Data Characteristics", 2000). The Northwest Arctic is also a rural area that is very isolated, only accessible by plane or boat. Women in rural areas are more likely to report they are in poor health compared to women that live within or around urban areas (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005). Women in rural locations may be in poorer health status as a result of fewer health care providers and the lack of health resources in their area (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005). Residents of rural areas also often experience more economic challenges, are older, and are less educated than those of urban areas (U.S. Department of Health and Human Services & Health Resources and Services Administration, 2005).

The Northwest Arctic faces challenges similar to those stated above. In the Northwest region of Alaska, there were 1,243 people below the poverty level in 2000. Among families with a female as the primary householder, 31.1% were below the poverty level ("Profile and General Data Characteristics", 2000). In August 2006, the unemployment rate in the Northwest Arctic Borough was 11.0%, which is much greater than the statewide average of 5.5% ("August 2006 Unemployment Rate", 2006). Fifty-three thousand Alaska Native and American Indian grandparents are raising their grandchildren ("Profile and General Data Characteristics", 2000). Due to their poorer health status, economic challenges, and lack of health services, Alaskan Native women

may not be in optimal health and thus may have more difficulties in carrying out healthy pregnancies.

These health disparities, threats to economic security, and challenges in obtaining resources have translated into the educational disparities the youth of the Northwest Arctic experience. Ninety-five percent of students enrolled in the Northwest Arctic Borough school district are Alaskan Native ("Local School Directory: Northwest Arctic Borough School District", 2006). In 2003, only 200 of the 2,165 students enrolled in the Northwest Arctic schools tested as "proficient" in the areas of reading, writing and math (*Northwest Arctic Borough School District Records*, 2003). The dropout rates of students in the 7th through 12th grade have decreased from 9.6% in 2000-2001 to 7.2% in 2005-2006 in the Northwest Arctic, but continue to be higher than the statewide dropout rate, of 4.9% in 2005-2006 ("District Dropout Rates", 2005). Besides higher school drop out rates, other health issues among youth include greater depression, higher suicide rates, increased anxiety, earlier initiation of and more frequent substance use, and generally lower health status (Cameron, 1999). American Indian/ Alaska Native adolescents experience the highest suicide rates. Risk factors for suicide in the American Indian /Alaska Native youth include: "strained interpersonal relationships, family instability, depression, low self-esteem, and alcohol use or substance abuse (Gary, Baker, & Grandbois, 2005)." Having supportive tribal leaders, a positive school experience, and a caring family relationship can help prevent suicide incidents (Gary, Baker, & Grandbois, 2005). For these reasons, early intervention programs, such as the Getting Ready to Learn Program, are critical for addressing the needs of the Native American children on multiple levels.

III. Review of Literature Concerning the Significance of Early Childhood Intervention.

In the 1960s, researchers began exploring the importance of developing attachments between the child and caregiver (Kotch, 2005). In 1964, the Economic Opportunity Act (Public Law 85-568) was passed as part of President Lyndon Johnson's war on poverty. As part of the Economic Opportunity Act, education legislation was passed, including Project Head Start. Project Head Start was a program created by a panel of child development experts, in an effort to improve developmental growth in disadvantaged pre-school children through parental involvement and by addressing educational, social, and health needs (Summers & Innocenti, 1991). In 1975, the US mandated the provision of free education to handicapped children ages 3 to 21 with the Education of All Handicapped Child Act (Public Law 94-142) (Summers & Innocenti, 1991). Access to early intervention programs for children ages birth to five with special needs was finally mandated by the Education of the Handicapped Act Amendments of 1986 (Public Law 99-457). The 1986 Law has been considered "the most significant event impacting on early intervention" (Summers & Innocenti, 1991). The most recent mandate influencing early intervention programs, such as the GRTL program, was the 1997 Individuals with Disabilities Education Act (IDEA), Public Law 105-17, which provides assistance to states that provide free early intervention services to children with disabilities or "at-risk children" and their families ("Individuals with Disabilities

Education Act", 1997). At-risk children are defined as infants or children under the age of three that may be at risk of developmental delays if early intervention is not provided ("Individuals with Disabilities Education Act," 1997).

Early intervention is described as “the provision of services to young children between birth and school age with or at risk for developmental disabilities and their families” (Kotch, 2005). It has also been traditionally defined as “external manipulations of environmental events in the form of enrichment, education, and physical or psychotherapeutic input, with the objective of maximizing the infant’s potential” (Barrera, 1991). The term that best describes the use of early intervention in the GRTL program is, “the combination of enrichment, education, and psychosocial support within the ecological context of the community and the family” with the objective to “maximize the development of both infants and parents” (Barrera, 1991). The focus of this definition is not solely on the infant, but rather includes a more holistic approach where both the infants’ and caregivers’ development is addressed in the context of the family and the community. Research on child development has demonstrated the family unit and the social environment have a great impact on the developmental process of children and infants, and can buffer some of the effects of genetics and exposure to harmful substances in pregnancies.

Children’s biological and social environments are highly intertwined with regard to developing both learning capacity and behavior patterns. “Neurological differences only render a child more vulnerable to negative environmental circumstances” (Karr-Morse & Wiley, 1997). The biological and social factors interact with each other to mold the interests and behaviors of children. They can serve as either a protective quality

when social and biological factors are nurtured properly or can serve as a high risk characteristic in children's lives when social factors aggravate or enhance biological predispositions to negative interests or behaviors (Karr-Morse & Wiley, 1997).

Biological factors such as heredity and environmental exposures during pregnancy, such as substance abuse/use and physical trauma, can negatively affect the developmental process of a child (Karr-Morse & Wiley, 1997). Besides biological factors, social factors such as family dynamics and social environment can have a great effect on a child's development and behavior, and must be considered when determining risk factors for developmental delay. "Precursors of developmental delay have been identified more accurately by including the impact of multiple family risk factors, such as stressful life events, mother's education level, mother's mental health status, and father's presence in the home" (Kotch, 2005). Therefore, risk for developmental delay must be addressed by taking an ecological look at the child's life. Some of the negative consequences of biological effects and predispositions can be altered by modifying the social environment. Reducing family risk factors and nurturing a child can directly affect brain chemistry and brain tissue development in a positive way (Karr-Morse & Wiley, 1997).

Understanding how family relationships and environmental context contribute to the development of a child is important when trying to understand that child's likelihood to succeed in school (Kotch, 2005). When an infant's early experiences are unstable and attachments to a caregiver are compromised, the child will not be able to form healthy relationships with peers and adults pushing them into "constant vigilance" and this compromises learning in school (Karr-Morse & Wiley, 1997). Even if children have high intelligence, some emotional security, which develops through their relationship with

their caregiver, is needed for children to focus on abstract concepts (Karr-Morse & Wiley, 1997).

Children are more at risk of developmental delays if their caregiver shows signs of depression and substance abuse regardless of socio-economic background (Kotch, 2005). Early intervention programs that are culturally sensitive can help reduce some risk factors of developmental delays, such as familial instability, by promoting child and caregiver attachment and family involvement. Early intervention programs can also provide care and developmental screenings at a critical age of neuro-development, which can prevent developmental delays. With the implementation of early intervention programs, socio-economically disadvantaged children with developmental disabilities who live in a disruptive environment are given a chance for greater opportunities in life by minimizing some of the risk factors in their surroundings (Kotch, 2005).

Early learning intervention programs have shown positive effects on children who participated in pre-school intervention programs. Children in preschool programs tend to be more ready to learn for kindergarten than children who do not attend (Magnuson & Waldfogel, 2005). Early childhood programs with a health component can also decrease racial disparities in school readiness by addressing health issues that can negatively affect the development and behavior of children (Currie, 2005).

Intervention programs that include a parenting component that promote nurturance, teaching, discipline, and language use can improve parenting and the children's readiness for school (Brooks-Gunn & Markman, 2005). A 15-year longitudinal study conducted by Reynolds and associates of an early intervention program demonstrated positive improvements in children. Children who participated in the program for one to

two years were more likely to complete school (49.7 % vs. 38.5%), less likely to dropout of high-school (46.7% vs. 55.0%), and less likely to be arrested as a juvenile (16.9% vs. 25.1%) than children who did not participate (Reynolds, Temple, Robertson, & Mann, 2001).

Early intervention programs can improve children's development and learning capacity, and as a result, help children to attain better health outcomes in the future. For instance, the Brooklyn Education Project, a 25-year study, found that children enrolled in an early intervention program from 1973-1978 demonstrated better health behaviors, less depression, and higher education levels as young adults than those who participated in the control group (Palfrey et al., 2005). Since participating children were more likely to finish high school and pursue higher education, the participating students had a greater opportunity to attain a job with health care benefits and practice healthier behaviors (Palfrey et al., 2005).

An early intervention program is a preventive tool that can have long term positive effects in the lives of children that come from otherwise disadvantaged backgrounds. To summarize the principle, "children reflect what they have absorbed biologically and socially" (Karr-Morse & Wiley, 1997). Reducing harmful exposures and providing a nurturing social environment early in life can potentially reduce developmental delays, influence the child's behavior in a healthy way, and provide the child with a better chance for success in school and in his or her future.

IV. The Getting Ready to Learn Program

The *Mikiruurat Ilisaqtuat: Getting Ready to Learn* (GRTL) Program is an early learning and development program for expecting mothers, infants, and children up to the age of five years. The GRTL program was developed to increase the learning capacity of Native children by encouraging parent and community participation in the learning and developmental process. GRTL is a program that was initiated by the Northwest Arctic Borough of Alaska School District (NWABA).

The program was implemented for the first time in August 2004 in three villages: Kivalina, Selawik, and Noorvik. By August 2006, the program had expanded into four more villages: Ambler, Kobuk, Noatak & Shugnak. Each village has one village liaison, with the exception of one village, which has two liaisons. The village liaisons are responsible for organizing the program activities, teaching, and administering yearly questionnaires.

There are two major components to the GRTL program: play groups and home visits. The village liaisons organize and implement the play groups and home visits in their respective villages. A play group consists of the village liaison and a group of caregivers with their children (ages birth to 5 years). At each play group, the village liaison has the opportunity to teach caregivers about ways to stimulate learning and development in their children. Play groups give children the opportunity to build social skills by playing with other children in their age group. The home visits are scheduled by

the village liaison with participating caregivers and their children. Home visits give the village liaison a chance to go into the home and utilize the tools available in the home environment to teach caregivers how to stimulate their children. The liaison also has an opportunity to build a relationship with the caregiver and answer any questions that they may have about their child.

The village liaison also implements a developmental screening process, and refers children to special needs programs if they require additional care and attention. The village liaison reports monthly to the coordinator of the program in Kotzebue, Alaska, and receives training three times a year. Training includes the Early Childhood Conference in Anchorage, Alaska, a three day staff in-service that focuses on program development, child development and the use of assessment tools, and a video conference on learning and early brain development.

The GRTL program has been evaluated yearly to assess its strengths and weaknesses and to determine where program improvements can be made. Leaders and staff members of the GRTL program have conducted two previous evaluations, but have not been able to accurately assess the impact of the program. Inability to assess the impact was due to not implementing one of the surveys in the first year, administering the surveys only once a year, and inconsistencies in the timing of the administration of each questionnaire between the villages. Prior to this year, the program also did not have any children who had graduated from GRTL into the school setting and so the team was unable to conduct a thorough evaluation of the program's impact on the developmental skills of the children.

In August 2005, the first evaluation was conducted by analyzing the Parent Questionnaire (PQ) administered in May 2005. The PQ was used to obtain feedback on the caregivers' satisfaction with the program and to assess the reading behaviors of the population. In the past evaluation (as shown in the Appendix), the majority of the parents indicated they were satisfied with the program. Unfortunately, no baseline data were collected to ascertain if any improvements in the caregivers' reading with their children could be attributed to participation in the program.

For the second year of the program, the PQ was implemented in both September 2005 and May 2006, although the program lacked the time and resources to analyze any changes in reading behaviors. The coordinator of the program decided also to implement the Ages and Stages Questionnaire (ASQ) to help identify the developmental status of each child, although the times each village implemented the ASQ varied. For instance, two of the villages implemented the ASQ in September 2005 and May 2006, but the other two villages only used the questionnaire in May 2006. Due to differences in how and when the instrument was administered, the evaluation was only able to determine differences in a small number of children. After the evaluation process in August 2006, the staff of the GRTL program clearly defined when each instrument would be used so the impact of the program could be more accurately determined.

V. Methods

This thesis study assessed the impact that the GRTL program had on the participating children and parents. The focus of the project included: 1) an examination of the developmental progress of the participating children, and 2) information on how participation in the GRTL program affected frequency of the caregivers' reading to their children. The study was a mixed-methods evaluation, which included secondary data analysis and collection of primary qualitative data used to interpret results of the quantitative analysis.

Theoretical Framework

There are various factors that influence children's development from infancy to the time they enter kindergarten. The framework outlined in Figure 1 came from the concepts upon which the GRTL program was based. The model used for the theoretical framework of this study was not tested. Rather, it was used to obtain a basic understanding of how the participation in the GRTL program could impact the children's developmental skills and caregiver's reading behaviors, which were the primary focus of the study.

The model posited the primary factor affecting the development of children is the participation of caregivers and children in the program. When children and caregivers participate in the GRTL program, the children are involved in activities that stimulate learning and skill building. Thus, the GRTL program had expected the developmental

skills of participating children to progress optimally and to prepare the children for kindergarten.

Caregiver participation in the GRTL program may also affect the behavior of the caregiver, such as reading to his or her child. The participating caregivers learn about the importance of regularly reading to their children, the importance of play, and stimulating skills. If the participating caregiver begins to adopt some of the behaviors taught in the play groups or home visits, the children are more likely to build the skills and learning capacity needed to ensure the child's readiness for school.

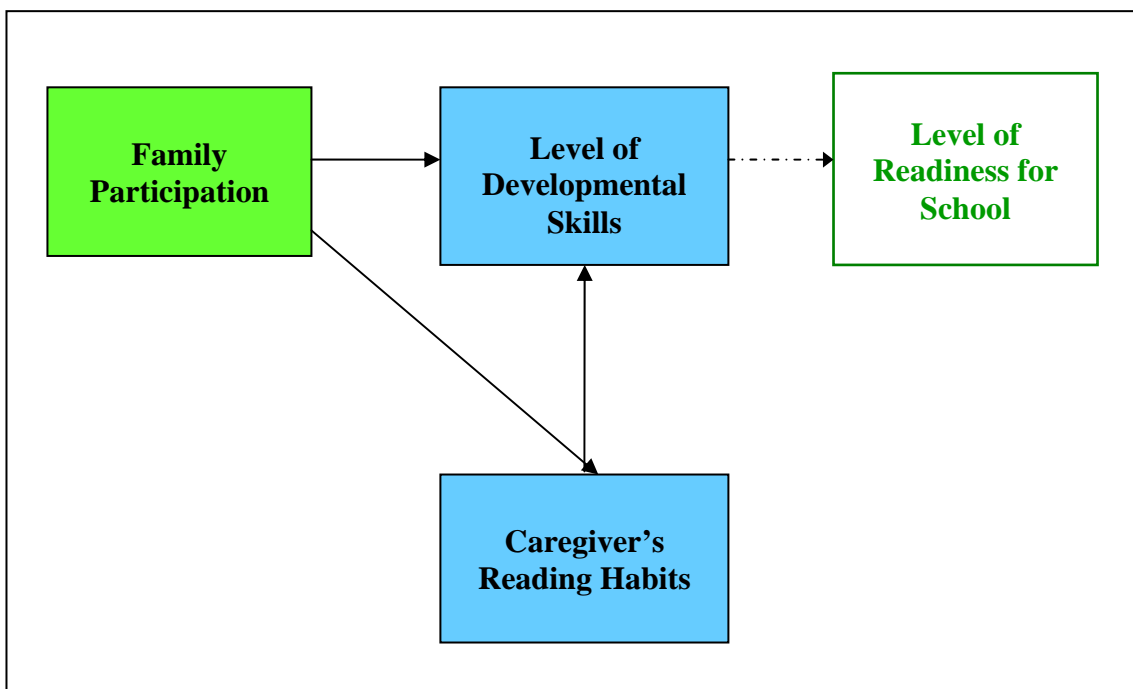


Figure 1. Theoretical Framework.

Both caregiver reading behaviors and the level of child developmental skills were mediating variables in the framework, but were treated as primary outcome variables in this evaluation study. Caregiver reading behaviors may influence developmental skills, where more reading to children may increase some developmental skill categories, including communication skills and problem solving skills. As depicted in Figure 1, the model suggests that level of developmental skills determines whether the child is ready for school or lacks the skills and learning capacity needed to be successful in kindergarten. The ultimate goal of GRTL is to prepare all children for kindergarten, but due to limitations in sample size, this study does not focus on the level of readiness for school.

Research Questions and Hypotheses

The primary research question for this project was: To what extent did the GRTL program impact developmental skills of children in the Northwest Arctic of Alaska? The secondary research question was: To what extent did the GRTL program impact parental involvement in the child's development? The primary outcomes measured were the level of developmental skill categories (see Table 1) per child and the caregiver's frequency reading to child per week. There were two hypotheses being tested: 1) participation in the GRTL program helped participating children improve developmental skill levels; 2) participation in the GRTL program helped parents increase reading skills. To further interpret the results, the study looked into the community and parents' involvement and acceptance of the GRTL program, and how the program was implemented to address the

Table 1

Operationalization of Variables

<i>Construct</i>	<i>Category</i>	<i>Question</i>	<i>Response</i>
Development Skill	Communication	Does your child name at least three items from a common category? For example, If you say to your child, "tell me some things that you can eat," does your child answer with something like, "Cookies, eggs, and cereal"? Or if you say, "Tell me the names of some animals," does your child answer with something like, "Cow, dog, and elephant"?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Communication	a) Does your child answer the following questions: "What do you do when you are hungry?" (Acceptable answers include: "Get food," "Eat," "Ask for something to eat," and "Have a snack." Please write your response: b) "What do you do when you are tired?" (Acceptable answers include: "Take a nap," "Rest," "Go to sleep," "Go to bed," "lie down," and "Sit down.") Please write your response: (Mark "sometimes" if your child answers only one question.)	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Communication	Does your child tell you at least two things about common objects? For example, if you say to your child, "Tell me about your ball," does he say something like, "It's round. I throw it, it's big"?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Communication	Does your child use endings of words, such as "s," "ed," and "ing"? For example, does your child say things like, "I see two cats," "I am <i>playing</i> ," or "I <i>kicked</i> the ball"?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Communication	Without giving help by pointing or repeating, does your child follow three directions that are unrelated to one another? For example, you may ask your child to "Clap your hands, walk to the door, and sit down."	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Communication	Does your child use all the words in a sentence (for example, "a," "the," "arm," "is," and "are") to make complete sentences, such as "I am going to the park" or "is there a toy to play with?" or "are you coming too?"	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Gross Motor	Does your child catch a large ball with both hands? You should stand about 5 feet away and give your child two or three tries.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Gross Motor	Does your child climb the rungs of a ladder of a playground slide and slide down without help?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Gross Motor	While standing, does your child throw a ball <i>overhand</i> in the direction of a person standing at least 6 feet away? To throw overhand, your child must raise her arm to shoulder height and throw the ball forward. (dropping the ball, letting the ball go, or throwing the ball underhand should be scored as "not yet")	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Gross Motor	Does your child hop up and down on either the right or left foot at least one time without losing his balance or falling?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Gross Motor	Does your child jump forward a distance of 20 inches from a standing position, starting with her feet together?	10 – Yes 5 – Sometimes 0 – Not yet

Table 1 (Continued)

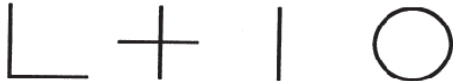

<i>Construct</i>	<i>Category</i>	<i>Question</i>	<i>Response</i>
Development Skill	Gross Motor	Without holding onto anything, does your child stand on one foot for at least five seconds without losing his balance and putting his foot down? You may give your child two or three tries before you mark the question.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Fine Motor	Does your child put together a six-piece interlocking puzzle? (If one is not available, take a full-page picture from a magazine or catalog and cut it into six pieces. Does your child put it back together correctly?)	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Fine Motor	Using child-safe scissors, does your child cut a paper in half on a more or less straight line, making the blades go up and down? (Carefully watch your child's use of scissors for safety reasons.)	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Fine Motor	Using the shapes below to look at, does your child copy at least three shapes onto a large piece of paper using a pencil or crayon, without tracing? Your child's drawings should look similar to the design of the shapes below, but they may be different in size.	10 – Yes 5 – Sometimes 0 – Not yet
			
Development Skill	Fine Motor	Does your child unbutton one or more buttons? Your child may use his own clothing or a doll's clothing.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Fine Motor	Does your child draw pictures of people that have at least three of the following features: head, eyes, nose, mouth, neck, hair, trunk, arms, hands, legs, or feet?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Fine Motor	Does your child color mostly within the lines in a coloring book? Your child should not go more than ¼ inch outside the lines on most of the picture.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Problem Solving	When you say, "say five eight three," does your child repeat just these three numbers in the correct order? <i>Do not repeat these numbers.</i> If necessary, try another series of numbers and say "Say six nine two." Your child must repeat just one series of three numbers to answer "yes" to this question.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Problem Solving	When asked, "Which circle is the smallest?" does your child point to the smallest circle? Ask this question <i>without</i> providing help by pointing, gesturing, or looking at the smallest circle.	10 – Yes 5 – Sometimes 0 – Not yet
			
Development Skill	Problem Solving	Without giving help by pointing, does your child follow three different directions using the words "under," "between," and "middle"? For example, ask your child to put a book "under the couch." Then ask her to put the ball "between the chairs" and the shoe "in the middle of the table."	10 – Yes 5 – Sometimes 0 – Not yet

Table 1 (Continued)

<i>Construct</i>	<i>Category</i>	<i>Question</i>	<i>Response</i>
Development Skill	Problem Solving	When shown an object and asked, “what color is this?” does your child name five different colors like red, blue, yellow, orange, black, white, or pink? Answer “yes” only if your child answers the question correctly using five colors.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Problem Solving	Does your child dress up and “play-act,” pretending to be someone or something else? For example, your child may dress up in different clothes and pretend to be a mommy, daddy, brother or sister, or an imaginary animal or figure.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Problem Solving	If you place five objects in front of your child, can he count them saying, “one, two, three, four, five,” in order? Ask this question <i>without</i> providing help by pointing, gesturing, or naming.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Personal – Social	Does your child serve herself, taking food from one container to another using utensils? For example, can your child use a large spoon to scoop applesauce from a jar into a bowl?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Personal – Social	Does your child tell you at least four of the following? a. First name b. Age c. City she lives in d. Last name e. Boy or girl f. Telephone number Please circle the items your child knows.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Personal – Social	Does your child wash his hands and face using soap and dry off with a towel without help?	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Personal – Social	Does your child tell you the names of two or more playmates, not including brothers and sisters? Ask this question without providing help by suggesting names of playmates or friends.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Personal – Social	Does your child brush her teeth by putting toothpaste on the toothbrush and brushing all her teeth without help? You may still need to check and rebrush your child’s teeth.	10 – Yes 5 – Sometimes 0 – Not yet
Development Skill	Personal – Social	Does your child dress or undress himself without help (except for snaps, buttons, and zippers)?	10 – Yes 5 – Sometimes 0 – Not yet
Parent Behavior	Reading Habits	How many times in a week do you read to your child?	0 – None 1 – 1 to 2 xs per week 2 – 3 to 5 xs per week 3 – More than 5 xs per week
Parent Behavior	Level of Participation	How involved are parents in the GRTL program?	Coded as parent participation
Community Impact	Community Awareness	How do people know about the program? In your opinion, how aware is the community of the GRTL program?	Coded as community awareness
Community Impact	Community Acceptance	How do people in your community perceive the GRTL program?	Coded as community acceptance

Table 1 (Continued)

<i>Construct</i>	<i>Construct</i>	<i>Construct</i>	<i>Construct</i>
Community Impact	Community Involvement	How involved is the community in the GRTL program?	Coded as community involvement
Subject Information	Home Environment	Can you describe what it is like to conduct a home visit? Who participates in the home visits? What kind of difficulties do you face when planning and conducting home visits?	Coded as home environment
Dose of Intervention	Child Participation	Includes play group and home visits	A continuous variable in the analysis process
Program Sensitivity	Cultural Competencies	How does the GRTL program cater to the Native American culture?	Coded as cultural competencies
Program Sensitivity	Recruitment Process	How do you get parents and their children to participate in the play groups or home visits?	Coded as recruitment
Program Sensitivity	Referral Process	When you notice that a child has developmental problems, what do you do?	Coded as referral process
Program Sensitivity	Scheduling/ Planning	What determines how you schedule play groups and home visits? What kind of events affect the way you plan GRTL activities?	Coded as planning

-
- (1) Evaluation of increases in the learning capacity of infants and children up to the age of four participating in the GRTL program.**
- To compare the Ages and Stages Questionnaire (ASQ) post-test results given in May 2007 with the ASQ pre-test results obtained in September 2006.
 - To compare results from the five categories in the ASQ with level of participation in the GRTL program.
- (2) Evaluation of parent involvement with their child in GRTL participants.**
- To compare the May 2007 Parent Questionnaire (PQ) post-test results with the September 2006 pre-test results for improved reading habits.
 - To compare results from PQ question on reading habits with level of participation in the GRTL program
-

Figure 2. Goals and Objectives

needs of each participating village. The evaluation project focused on the following goals (Figure 2): 1) increases in the learning capacity of infants and children up to the age of four participating in the GRTL program, and 2) parent involvement with his or her child and increases in reading habits.

Secondary Data

The thesis study focused on secondary analysis of data collected from GRTL program. There were two questionnaires which were administered in the beginning of the program year as pre-tests in September 2006 and at the end of the program year as post-tests administered in April 2007.

Secondary Data: Participants

The participants of the GRTL program included caregivers and children in the Northwest Arctic Borough where the vast majority of the population consists of Alaska Inuit Eskimo. The student investigator conducted secondary analysis of data collected from the GRTL program participants who fit within the following inclusion or exclusion criteria:

Inclusion Criteria.

- Any participant who follows the eligibility criteria of the GRTL program, which includes infants and children up to five years of age, plus their caregivers.
- Children and caregivers who live in a village which offers the GRTL program.
- Any participant who has completed both a pre-test and post-test of the ASQ and/or PQ.

Exclusion Criteria.

- Any person or child who does not meet GRTL eligibility requirements, and/or does not live in a village which offers the GRTL program.
- Any participant who did not complete a post-test for ASQ and/or PQ

The final number of participants for the 2006-2007 GRTL program year was 294 children out of 403 children in the villages. In the 2005-2006 program year, there were approximately 170 infants and children participants in the GRTL program. For this reason, approximately 170 pre and post test surveys were expected to be completed for the ASQ and PQ.

Secondary Data: Measures

The GRTL program has used two instruments to determine the developmental status of the child and parents' reading behaviors. The two instruments used were the Ages and Stages Questionnaires (ASQ), and the Parent Questionnaire (PQ). The evaluation used the data collected from these two instruments for secondary analysis. One item was used in the parent questionnaire to determine changes in reading behaviors from September 2006 to April 2007 results.

The ASQ (Appendix 2) was developed to measure the developmental skills of infants at 4 to 60 months of age (Technical Report on ASQ, 2006). The questionnaire tests the following skills: communication, fine motor, gross motor, problem solving, and personal-social skills (Technical Report on ASQ, 2006).

The ASQ was intended to be easily used by parents. The questions were based on skills that could be easily identified by parents and skills that were commonly seen in home settings ("Technical Report on ASQ", 2006). The questionnaire has a readability

level of the fourth to sixth grade, and includes illustrations to clearly demonstrate the skills being tested ("Technical Report on ASQ", 2006). The ability for the test to accurately assess normal child development was high (specificity of 86% overall), and the ability for the test to accurately identify delayed development was adequate (sensitivity of 72% overall) ("Technical Report on ASQ", 2006). A Cronbach's alpha test was conducted by the student investigator and by developers of the ASQ to assure that each subset of questions reliably measured each corresponding development skill by having values greater than 0.70 ("Technical Report on ASQ", 2006). Parents completed the ASQ with the assistance of the village liaison.

The PQ (Appendix 1) was designed by the GRTL Program to test the caregiver's satisfaction with the program and to assess the reading habits of caregivers. The PQ was completed by the primary caregivers who participated in the GRTL program with their children. The questions related to reading included: the first time the parent read to the child, number of times read to child per week, and number of children's books owned. To determine changes in reading behaviors of caregivers, this study primarily used one item: the number of times read to child per week.

The project had two independent variables of interest: 1) Child's participation level in the GRTL program and 2) initial assessment, which included pretest results of parent reading habits and developmental skills (Table 2). The child's participation level in the GRTL program was assessed by using the number of days the child participated in the program from the beginning of the program year to the date the post-test was administered.

Table 2

Independent & Dependent Variables

<i>Variables</i>	<i>Categories</i>	<i>Source</i>
Independent Variables		
Initial parental reading habit	Times read to child per week	Parent Questionnaire
Initial developmental skills	Communication Skills ,Fine Motor Skills, Gross Motor Skills, Problem Solving Skills, Personal-Social Skills	Ages & Stages Questionnaire
Child & Caregiver Participation	Number of times that child and caregiver participated in play group or home visit.	GRTL Program Play group and Home Visit Records
Dependent Variables		
Parent reading habit post intervention	Times read to child per week	Parent Questionnaire
Level of developmental skills post intervention	Communication Skills, Fine Motor Skills, Gross Motor Skills, Problem Solving Skills, Personal-Social Skills	Ages & Stages Questionnaire

The following dependent variables were measured: 1) level of developmental skills, which included five developmental skills, which are communication, fine motor, gross motor, problem solving, and personal-social skills; and 2) parent behavior, as measured by parent reading habits (Table 1). The Independent and Dependent Variables were operationalized as shown in the Construct Table (Table 1). The ASQ questions were all designed to fit different age groups from 4 to 60 months of age.

Secondary Data: Evaluation Plan

To evaluate the impact the GRTL program had on developmental skills of children in the Northwest Arctic of Alaska, the student investigator analyzed data obtained from the ASQ and PQ to examine whether participation in the GRTL program changed parental reading behaviors and developmental skills of their children. To assess whether participation in the GRTL program helped participating children improve

developmental skill levels, the student investigator compared the Ages and Stages Questionnaire (ASQ) post-test results taken at the end of the program year with the ASQ pre-test results obtained at the beginning of the program year and tested for an association between the five categories in the ASQ compared with child's participation level. To assess whether caregiver participation in the GRTL program helped caregivers increase reading skills, the May 2007 Parent Questionnaire (PQ) post-test results were compared with the September 2006 pre-test results for improved reading habits. The association between the PQ question on reading habits with child's participation level was also tested (Figure 2).

Both instruments were administered by the village liaisons at different times throughout the year. The ASQ and PQ were both administered in the beginning of the program year (September 2006) as a pre-test, and then again at the end of the program year (April 2007) as a post-test. Each developmental skill was measured by the ASQ, and parental reading was measured by the PQ. The ASQ pre and post-test scores from the GRTL infant/child participants were compared to determine changes in level of developmental skills. The PQ pre and post-test scores from GRTL parents were compared to determine changes in level of parental reading behaviors. Thus, the ASQ was used to determine any improvement in skills of participating children, and the PQ was used to determine whether participating caregivers improved the amount of times they read to their child. Each child served as its own control by using a pre and post test study design.

The variables being measured by the PQ and ASQ have already been determined by those who developed each instrument. The operationalization of each variable can be seen in Table 1.

Secondary Data: Analysis

For the quantitative portion of the study, secondary analysis was completed on two instruments to determine the developmental status of the child and caregiver's reading behaviors. The ASQ was developed to measure the following skills: communication, fine motor, gross motor, problem solving, and personal-social skills ("Technical Report on ASQ," 2006). To measure the reliability of each instrument, a Cronbach's alpha test was conducted for each type of developmental skill. This helped determine whether each item consistently measured the category of interest in each instrument.

The PQ was designed by the GRTL Program to test parent satisfaction and the reading habits of participants such as: first time read to child, number of times read to child per week, and number of children's books they own. Analyses of all survey results (ASQ and PQ) were done through the SAS program by the student investigator. The SAS program was used to conduct univariate and bivariate analysis of the quantitative data. The univariate analysis included: frequency and proportion distributions, and measures of central tendency (means, medians, and modes).

In addition to the univariate analyses, bivariate analysis was also conducted to determine the association between variables. The pre-test and post-test data were first compared using a paired independent t-test to determine whether there was a change in responses of scores. The pre- and post-test data were then stratified by participation level.

The pre and post test comparison through the paired independent t-test was conducted for all five categories in the ASQ. The pre and post test results for the PQ were also compared through a paired independent t-test. Since only one test was conducted, no adjustments were necessary. Questionnaires that did not have a post-test were not analyzed. Each ASQ pre and post test had a score for each developmental skill. Since one question in the PQ was used to measure reading behaviors, if the question was not answered, both pre and post tests were removed from analysis. To preserve the confidentiality of the participants, the names of the villages were replaced with numbers one through seven.

Primary Data

Primary data analysis of interviews with GRTL staff was a supplemental portion of the mixed methodology thesis study that helped interpret the outcomes from the secondary data analysis.

Primary Data: Participants

The primary investigator conducted interviews from participants who fit the following inclusion or exclusion criteria:

Inclusion Criteria.

- GRTL program coordinator and GRTL liaisons for one or more of the following villages: Kivalina, Noorvik, Selawik, Ambler, Kobuk, Noatak & Shugnak.

Exclusion Criteria.

- A GRTL employee that had not worked in the GRTL program for the entire program year from September 2006 to May 2007.

The thesis study design included a purposive sample set of 5 interviewees. The purposive sample set included interviews with GRTL village liaisons and the GRTL coordinator. In the 2006 -2007 program year, there were five GRTL staff members who were asked to participate by the primary investigator.

Primary Data: Measures

Each interview was conducted with a questionnaire developed by the student investigator. Each item was an open-ended question that helped explain the categories of observations of play groups and home visits, caregiver participation, program implementation, and community impact. The purpose of the interviews was to help clarify and interpret results from the secondary analysis. The questionnaire was revised while the secondary data was being analyzed. Some modifications or questions were added to the question route depending on the secondary analysis and emerging questions that arose from the first two interviews.

Primary Data: Evaluation Plan

The interviews were conducted by the student investigator. The study used a purposive sample design. Four of the five village liaisons and the program coordinator were interviewed by the student investigator to shed light on some of the results of the questionnaires, parent behaviors and utilization of the program, and to determine how well the GRTL program fit the cultural environment.

Primary Data: Analysis

Primary data analysis was conducted for the qualitative portion of the study. The interview instrument was created by the student investigator and was used to interpret the results from the quantitative data analysis. All interviews were conducted and

transcribed by the student investigator. Transcripts were kept on a password -protected computer. Analysis of the interviews was conducted through the qualitative program, Atlas-ti. The primary coding technique used for this project was to identify emerging themes throughout the coding process. The coding was guided by general categories that helped interpret the results. Categories of interest included: GRTL liaison's /coordinator's observations of play groups & home visits, parent involvement, community impact (awareness, acceptance, & involvement), and program implementation (planning & cultural competencies). The qualitative aspect of the study was used to complement the results from the questionnaire and provided rich information that could give further insight into the GRTL program's impact on the community and families involved.

VI. Results

For the secondary data collected in the project, there were a total of 36 participants that completed a pre and post-test for the ASQ, and 36 participants that completed a pre and post-test for the PQ. Of those who completed pre and post-tests, 25 had completed both the ASQ and PQ pre and post-tests. Participating children and caregivers attended the play groups or home visits from 0 to 56 times in the 2006-2007 program year. For the primary data collected, there were 5 total interviews with GRTL program staff members.

Secondary Data Outcomes

There were a total of 294 participants in the GRTL program from September 2006 to May 2007. A majority of the participants came from Village 3 (31.74%) followed by Village 1 (19.45%) and Village 2 (17.41%). The fewest number of participants came from Village 6 (2.73%) and Village 4 (4.44%). Of the 294 participants, 158 (53.92%) participants were tested with an ASQ, PQ, or both. Two villages did not have any post-tests for either the ASQ or PQ.

Developmental Skills

Overall, 128 participants completed an ASQ. Approximately 28% of those who completed an ASQ had completed both a pre and post-test (n=36). As shown in Table 3, the majority of the participants who completed an ASQ with pre and post-tests came from Village 1 (55.56%), followed by Village 2 (25%) and Village 3 (11.11%). The fewest

number of participants who completed an ASQ were from Village 4 (5.56%) and Village 5 (2.78%). Of those who completed the ASQ pre and post test, the majority (33.3%) participated in a play group or home visit 6 to 10 times in the program year.

Table 3

Age and Participation Level of Children by Village: Ages & Stages Questionnaire Pre-Test & Post-Test

Age & Level of Participation	n, Percent									
	Village 1 (n=20)		Village 2 (n=4)		Village 3 (n=9)		Village 4 & 5 ^a (n=3)		Total (n=36)	
Age by months										
0 to 12	4	20.00	3	75.00	1	11.11	0	0.00	8	22.22
13 to 24	1	5.00	0	0.00	3	33.33	2	66.67	6	16.67
25 to 36	7	35.00	1	25.00	5	55.56	1	33.33	14	38.89
37 to 60	8	40.00	0	0.00	0	0.00	0	0.00	8	22.22
Participation level ^c										
0 to 5	4	20.00	0	0.00	1	11.11	3	100.00	8	22.22
6 to 10	9	45.00	2	50.00	1	11.11	0	0.00	12	33.33
11 to 15	5	25.00	0	0.00	2	22.22	0	0.00	7	19.44
16 or more	2	10.00	2	50.00	5	55.56	0	0.00	9	25.00
Total ^b	20	55.56	4	11.11	9	25.00	3	8.33	36	100.0

^a Due to the small sample sizes, villages 4 and 5 were combined.

^b Total sample size and proportion of participating children in each village.

^c Refers to the number of times that the child and caregiver participated in a play group or home visit.

Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

Table 4

Developmental Skill Scores of Children: Ages & Stages Questionnaire Pre-Test & Post-Test (N = 36)

Pre-Test & Post-Test Developmental Skills	Means (SE)				Mean Difference	t-value	p-value
	Pre-Test		Post-Test				
Communication Skills	41.39	(2.21)	44.17	(1.92)	2.78	-1.16	0.25
Gross Motor Skills	46.94	(2.27)	51.67	(1.54)	5.73	0.91	0.34
Fine Motor Skills	33.19	(2.83)	36.11	(2.83)	2.92	-0.90	0.37
Problem Solving Skills ^a	33.61	(2.64)	40.56	(2.50)	6.95	-1.96	0.06
Personal-Social Skills	46.25	(2.04)	47.64	(2.08)	1.39	-0.72	0.48

^a Estimates for ASQ pre-test and post-test significantly differ at the 0.10 level

Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

Each developmental skill tested in the ASQ (communication, gross motor, fine motor, problem solving, personal-social), had a five increment measurement scale of 0 to 60 points. As shown in Table 4, the total means for all the developmental skills scores were generally higher for the post-tests in comparison to the pre-test scores. Gross motor skills means increased by 10% and post-test means of problem solving skills increased by approximately 21%, but these differences were not significant at the alpha 0.05 level. However, problem solving skills significantly increased at an alpha 0.10 level.

Table 5

Score Differences in Developmental Skills: Ages & Stages Questionnaire Pre-Test & Post-Test (N=36)

<i>Developmental Skill</i>	<i>n, Percent</i>					
	<i>No Change^a</i>		<i>Score Increased^b</i>		<i>Score Decreased^c</i>	
Communication Skills	8	22.22	15	41.67	13	36.11
Gross Motor Skills	11	30.56	17	47.22	8	
Fine Motor Skills	1	2.78	20	55.56	15	41.67
Problem Solving Skills	2	5.56	21	58.33	13	36.11
Personal-Social Skills	9	25.00	15	41.67	12	33.33

Score differences are any changes or the lack of change between pre & post-test scores for each individual participant.

^a The difference between pre-test and post-test results equal to zero indicating no change in pre-& post- test scores

^b The difference between pre-test and post-test results is greater than zero indicating an increase in post-test scores

^c The difference between pre-test and post-test results is less than zero indicating a decrease in post-test scores

Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

Table 5 shows whether a child’s score improved, stayed the same, or decreased from pre-test to post-test. This greatest improvement was seen in problem solving skills, where 58% of all the children had improved from pre-test to post-test scores. The largest decrease in pre-test to post-test scores was seen in fine motor skills, where 42% of participants had a decrease in score. However 56% of children had an increase in fine motor skill scores. Gross motor skills showed the largest number of participants maintaining the same score from pre to post test. Each developmental skill had a higher

percentage of children with improved scores compared to decreased scores or scores with no change.

Mean differences in pre and post-test scores were also stratified by village. There were no significant differences in developmental skills between villages, but it is interesting to note Village 3 had an approximately 63% increase in post-test scores for fine motor skills. Mean differences in pre and post-test scores were also examined by participation. Those who participated 11 to 15 times in a play group or home visit had the highest increase in scores for communication skills, fine motor skills, and problem solving skills. A Pearson's Correlation test was conducted on participation level and developmental skills, but there was no significant correlation.

Parent or Caregiver Reading

Overall, 102 participants completed a PQ. Approximately 35% of those who completed a PQ had completed both a pre and post-test (n=36). As shown in Table 6, most participants tested came from Village 1 (63.89%) and the least number of participants tested were from Village 4 (5.56 %). Of those who completed the PQ pre and post-test, the majority (33.3%) participated in a play group or home visit 16 or more times.

For those who completed a PQ, the number of times a caregiver read to their child increased from pre-test to post-test. Table 7 showed a significant decrease in respondents who did not read to their child or read 1 to 2 times per week. There was a significant increase in caregivers who read 3 or more times a week in post-test results compared to pre-test results.

Table 6

Age and Participation Level of Children by Village: Parent Questionnaire Pre-Test & Post-Test

Age of Child & Level of Participation	n, Percent											
	village 1 (n=23)		village 2 (n=2)		village 3 (n=3)		village 4 (n=2)		village 5 (n=6)		Total (n=36)	
Age by months												
0 to 12	2	8.70	0	0.00	0	0.00	0	0.00	0	0.00	2	5.56
13 to 24	3	13.04	0	0.00	0	0.00	1	50.00	2	33.33	6	16.67
25 to 36	7	30.43	1	50.00	0	0.00	0	0.00	3	50.00	11	30.56
37 to 60	11	47.83	1	50.00	3	100.00	1	50.00	1	16.67	17	47.22
Participation												
0 to 5	4	17.39	1	50.00	0	0.00	2	100.00	1	16.67	8	22.22
6 to 10	8	34.78	0	0.00	0	0.00	0	0.00	0	0.00	8	22.22
11 to 15	7	30.43	0	0.00	0	0.00	0	0.00	1	16.67	8	22.22
16 or more	4	17.39	1	50.00	3	100.00	0	0.00	4	66.67	12	33.33
Total ^a	23	63.89	2	5.56	3	8.33	2	5.56	6	16.67	36	100.00

^a Total sample size and proportion of participating children in each village.

^c Refers to the number of times that the child and caregiver participated in a play group or home visit.

Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

Table 7

Reading Behavior Scores of Caregivers: Parent Questionnaire Pre-Test & Post-Test (N=36)

Reading	n, Percent (SE)						Relative Difference Pre / Post ^b
	Pre-Test			Post-Test			
Times read to child per week							
None ^a	5	13.89	(0.06)	2	5.56	(0.04)	-60.0%
1 to 2 times ^a	17	47.22	(0.08)	14	38.89	(0.08)	-17.6%
3 to 5 times ^a	10	27.78	(0.08)	12	33.33	(0.08)	20.0%
more than 5 times ^a	4	11.11	(0.05)	8	22.22	(0.07)	100.0%

^a Estimates for ASQ pre-test and post-test significantly differ at the 0.05 level

^b The relative difference between the pre-test results and post-test results for each variable level

Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

Table 8 presents any changes a particular caregiver had in his or her pre and post test reading scores. Of those who said they did not read to their child in the pre-test, 80%

showed improvements in reading habits by reporting that they did read to their child during the week in the post-test. Most participants who reported reading to their child 1 to 2 times a week (53%) generally did not change in the number of times they read to their child from pre-test to post-test. Participants who read more than 5 times a week in the pre-test showed a decrease in the amount of times they read to their child in the post-test. Half of those who reported reading 3 to 5 times a week in the pre-test stayed the same and the other half increased reading in the post-test results to more than five times a week.

Table 8

Score Differences in Times Read to Child Per Week: Parent Questionnaire Pre-Test & Post-Test (N=36)

<i>Reading</i>	<i>n, Percent</i>						<i>SE</i>
	<i>No Change^a</i>		<i>Score Increased^b</i>		<i>Score Decreased^c</i>		
None	1	20.00	4	80.00	0	0.00	(0.20)
1 to 2 times	9	52.94	7	41.18	3	5.88	(0.15)
3 to 5 times	5	50.00	5	50.00	0	0.00	(0.17)
More than 5 times ^d	0	0.00	0	0.00	4	100.00	(0.25)

^a The difference between pre-test and post-test results indicate no change in times read to child per week

^b The difference between pre-test and post-test results indicate an increase in times read to child per week

^c The difference between pre-test and post-test results indicate a decrease in times read to child per week

^d Participants that answered "more than 5" in pre-test did not decrease to "None" in post-test.

Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

When determining whether level of participation had any change on reading behaviors, there were no significant correlations between level of participation and reading. However, among caregivers who participated 10 or less times in the GRTL program, there was a 50% increase of those who reported reading more than five times

per week in the post-test. Among caregivers who participated more than 10 times in the GRTL program there was a 400% increase of those who reported reading more than five times per week in the post-test compared to the pre-test.

The overall pre and post test results for each reading behavior option (number of times read to child per week), were statistically different between pre and post test outcomes. When stratified by village, Village 1 (n=23) had the largest differences in scores. Village 1 had an approximate 50% decrease in respondents who said they did not read to their child, a 25% decrease in those who read 1 to 2 times, a 29% increase in participants that read 3 to 5 times, and a 50% increase in participants that read 5 or more times to their children.

All three questions on reading from the PQ were tested with a Pearson Correlation test, and the results demonstrated significant association between times read per week and first time read to child ($p < 0.0001$), and times read per week and number of books owned ($p = 0.0059$). Number of times read per week had a strong correlation with number of books owned (0.432), and a very strong correlation with first time ever read to child (0.997). A Kruskal-Wallis Test was conducted to see if reading levels differed by developmental scores on 25 participants who completed both the ASQ pre and post tests and PQ pre and post tests. The results were not significantly different at the 0.05 alpha level, but there was an increase of problem solving skills with increased reading at the 0.10 alpha level ($\chi = 6.34, p = 0.10$).

Primary Data Outcomes

Interviews were conducted by the student investigator with five GRTL staff. Interviews lasted from 40 minutes to 1 hour. The following section presents the

responses made by the GRTL staff, which was organized in the following categories and order: GRTL Staff, GRTL Program, Evaluation, GRTL Participants & Non-Participants, Community, Developmental Skills and Reading Behaviors. The first category, GRTL Staff, describes how long the GRTL staff lived in the village they served, how involved they were in the village and community, and how they viewed their role in the program. The GRTL Program section presents the staff's responses on how they implemented the program. The implementation of the evaluation of the program, which includes the ASQ and PQ, are discussed in the Evaluation section, and the GRTL staff's observations of the participants and non-participants are discussed in the GRTL Participants & Non-Participants section. Details of the community's involvement and attitudes or perceptions of the program are presented in the Community section, and the GRTL staff's observations of developmental skills and parent reading behaviors are described in the last section.

GRTL Staff

Five GRTL staff interviewed for the qualitative portion of the study. All of the GRTL program staff had lived in the community in which they worked for at least four years. Two of the liaisons interviewed had lived in their respective villages for their entire lives. The remaining three GRTL staff members lived in their communities from 4 to 7 years. All of the liaisons were active members in their village and participated in various volunteer activities in the church, school and community. They all expressed love for their villages and felt very settled in their communities.

One of the liaisons that had not spent her lifetime in the village recalled having a difficult time getting used to the village lifestyle prior to working as a village liaison.

After a couple years, she began working in the GRTL program and recalled implementation of the program was problematic. Parents were quiet and would not talk during in-person meetings, and parents would hang up the phone when called to be invited to play groups or to schedule home visits. After three years, her experience in the program was much easier. The respondent explained the experience became easier as trust was built and strengthened through her commitment to the community and to the program. It took one year to gain the trust of the GRTL participating caregivers. Trust was a topic another village liaison mentioned as something that had to be built in the community. The community needed to know not just those who ran the program can be trusted, but that they could trust the organization itself. One liaison gave an example stating,

I just hadn't built a trust and it takes them a while. You know, this village has had so many teachers come and go, you know. Just when they get the kids and the parents used to staff members then they're gone.

It takes about one full program year to gain the community's trust, and to do this the liaison must be persistent in contacting and inviting people to the play groups.

The GRTL staff viewed their role as promoters of the importance of early childhood development and getting children ready for school. One of the things they said was the most important contribution the GRTL program provided was socialization.

They also viewed themselves as a resource for parents. One liaison stated,

We think the first step to getting them into our kindergarten program is to have them know that we're there to help whenever they need any advice.

If we didn't have it, we'd do research, whatever the parents really wanted, we researched.

GRTL Program

The village liaisons implemented play groups depending on the caregivers and community's preferences. Some caregivers split the play groups into infants and toddlers, and others had play groups with all children ages 0 to 5. Many of the liaisons would not split the play groups by age group because parents preferred it to be all ages birth to 5. Community organizations influenced when play groups were implemented, as they requested they be provided at certain times of the day.

Many of the liaisons did not have a set lesson plan prior to implementing their play group. One indicated there was no tool in which she could devise specific lesson plans. Topics taught included promoting reading, socialization, hand-eye coordination and motor skills of children. One of the difficulties when implementing the play groups was the liaisons did not know how many children were going to attend or what age groups they would be (infants or toddlers). One noted she just had a variety of things ready for when the children came to play groups.

The play groups were a way for the parents and caregivers to get together in a positive fashion. Many times people came together because someone was ill or to help a family that had a loved one pass away. The play groups were a place where caregivers could socialize in a positive way with other parents and with their child. Many noted the play groups also provided a place where they could focus on their child. One person explained that with the demands of taking care of elderly, household, and other siblings, the child does not get the needed attention to develop certain skills properly.

Program Barriers

Many village events affect the program. Specifically, liaisons schedule play groups around sporting events, fundraisers and other village activities. Important events such as a death in the village can also force the program to cancel planned play groups. Teen suicides are a big concern for the villages, as some villages experience one or more deaths by suicide each winter. When a death occurs, the whole village participates in raising money for the family to cover expenses for the funeral. These types of events lead to cancellation of the GRTL program for the week since no one will be available for the classes. Another reason classes are often cancelled is due to bad weather. During snow storms, parents tend to keep their young children inside to avoid sickness. The program was also highly dependent upon the village liaison. If the liaison must leave the village for personal or family emergencies, the program cannot be implemented in that village. Finally, sickness can lead to low numbers of participants coming to play groups. When a virus breaks out in the school, it spreads to the whole village leaving children, parents, and other family members in need of care at home.

Space was another issue with conducting play groups. Some noted that for the first time they had their own space this year in which they could have play groups, but sometimes the facilities/space was not adequate if there was a big showing of parents and their children. Having enough space was not just a problem in the school district but village-wide as well.

Housing was a difficulty for all of the villages. The village populations were growing, but housing development was not growing as fast. Many of the liaisons reported some houses have up to four generations of family members living in one small

house, which does not allow very much room or privacy for a home visit. For this reason, most of the participants preferred play groups rather than home visits. The one-on-one time that could be provided by a liaison in a home visit was seen as potentially beneficial to the family, but difficult to accomplish. As stated by one liaison,

We have a real high demand for housing, but yet nothing has been done in the last five or eight years. So there's multiple families in one household. Like, for me, for instance, we have three generations or four generations in a bedroom. Knowing that it happens like in any other home there is multiple families. Sometimes it's hard to conduct a home visit within that home, but when we do that it shows the other parents that their involvement is very important and very crucial.

Even with the housing issue, however, there was another reason why participants disliked home visits, which was having an unfamiliar person in the home. Liaisons stated that participants may have felt like they were being watched and critiqued and did not want to face criticism. They also did not want to let anyone into their home with whom they had not built a trusting relationship. It often takes a year or longer to build trust with the community members and participants of the program, making it difficult for those who have not yet established those relationships to schedule home visits.

Evaluation

All but one of the liaisons was very familiar with the evaluation process. For the one liaison not familiar with the process, evaluation of the program was conducted by another liaison in the village. Among the three that actively conducted the evaluation portion of the program, two stated they administered the questionnaires at the beginning

and end of the program year, but one said there was not enough time to fully administer questionnaires in the later half of the year. This liaison had to end the program early due to personal reasons. The liaisons were familiar with the process of referring families with children that may have developmental delays to the early learning and family program. They also provided information to educate parents on developmental delays, or researched additional information if requested by the parents.

The liaisons also stated it was difficult to administer the questionnaires. One reason was the parents would request to complete it later, but then would not show up in the following play group or would forget about it. The participants would also be actively involved in the fall and not during the spring, which made it difficult to get enough post-tests. The questionnaires were considered part of the “paperwork,” which by some liaisons, was noted as a challenge. They expressed there was too much paperwork, and stated it as something that could change in the program. The evaluation process was described every year at the beginning of the program year, and the importance of it was discussed at these meetings, as well. However, the coordinator stated the liaisons may not fully understand the importance of timely and thorough evaluation of the program because they were not involved in the process of evaluation beyond administering the questionnaires.

GRTL Participants and Non-Participants

Caregivers who participated in the program were mostly women, which consisted of mothers, grandmothers, sisters, and female babysitters. Fathers and uncles participated as well, but not as many. However, two liaisons did report there were increasingly more men (fathers & uncles) coming to the play groups. They stated the low number of father

participants may have been due to the fact that participants consist predominantly of women, which made the men uncomfortable.

All of the participants were strong advocates for the program. All liaisons said the parents would express how much they enjoyed and loved the program, but participation was consistently a challenge in all of the villages. Fall was widely noted as the most popular time of the year when everyone was “gung-ho” for the program. Although after the fall, participation was scattered in the winter and spring for a variety of reasons. During the winter months, many families traditionally do not take their young children outside in rough weather. Weather was usually the main reason why people did not participate in the program during the winter. Sickness was also cited as a reason for low program participation. One liaison stated that many of the caregivers believed the weather was the cause of sickness and not that it was a communicable disease such as a virus that had spread throughout the school. Besides not being able to leave the house due to children becoming sick, many households also cared for elderly who also had health issues that demanded much of the caregivers’ time. In the spring, more people started attending program activities, but tended to spend more of their time doing seasonal activities such as berry picking, hunting, and just spending time in the long-awaited sunny outdoors.

There were some people in the community with other reasons not to attend. A liaison noted there may be a dispute between caregivers, and they both would not attend to prevent running into each other. Another liaison stated alcohol was a problem in the community, and some parents did not participate because they were more preoccupied with their drinking than their children. The villages are dry, meaning alcohol was not

permitted to be sold or consumed in the village by law. At one point, there were a lot of problems in one village with alcohol, which corresponded with a couple of murders and a few suicides locally. Due to this, the liaison did not make any home visits for several months until the village was “cleaned up.”

Some non-participants also expressed to the liaisons their reluctance to join GRTL since so many programs have high turnover rates. The participants valued longevity of a program which demonstrated a program was committed to the village; in the past, many programs like Head Start have quickly come and gone leaving the village without a resource they both needed and appreciated.

Community

For the most part, the community was very supportive of the GRTL program, with many local organizations as strong supporters. Liaisons noted some community members even helped by promoting the village and encouraging parents and caregivers to attend.

The liaisons did feel there could be more community involvement with the GRTL program, particularly by having elders participate. Elders are vital as they bring the language and culture to the children. One liaison even stated that it was almost too late for the older children (teens and tweens), who had lost respect for their elders. The main barrier elders face is their declining health, and many are not strong enough to make it to the play groups. Some liaisons did indicate they could have done more to invite elders to the play groups.

The GRTL program was reported as a resource that was specifically focused on infants and children in the community. Many liaisons listed popular activities in the

communities, which included sporting events, bingo, traditional gatherings of the women, and traditional gatherings of the elderly and teenagers, but there were no activities or events specifically for infants and children. GRTL provided a place where the community could focus on its infants, children, and supporting young families.

Developmental Skills and Reading Behaviors

Liaisons were asked about any improvements they had seen in the children and parents. From their responses, they did not indicate any specific skills had changed, but did say they observed the children learned and developed the appropriate skills at the correct age level. They noticed the children became more social and comfortable with other children as the year progressed. One liaison stated a couple of parents from the previous program year had mentioned having an easier time introducing their child (that participated in the program) to Kindergarten compared to their older siblings (who did not participate in the program). The liaisons mentioned parents also became more interested in what their children could do and what they accomplished. One liaison gave an example of this stating,

We kind of modeled this one little activity with a parent and her son, who she thought didn't care for reading. I put some toys near the child and he sort of chose which ones he wanted to play with... So anyway, I sat down two to three feet away and started just reading a book and sounded real exciting and the book facing myself and the child was able to look up from his playing, see the book that I was reading and numerous times he would look up and point right to what I was referring to from the reading and – the child is three years old, by the way – and I just kept reading throughout

the book, and every time he looked up and showed any kind of interest I put the book closer to him and he just was following along and his mother was really surprised that he was listening. And the point that I made to her later was even though you think that the child was not listening, per se, he is listening, whether you think he's listening or not

The liaisons encouraged reading as much as they could and did notice the parents became more aware of the importance of reading to their child.

VII. Discussion

Data Collection Process

The liaisons tried to complete an ASQ and PQ pre-test and post-test for participating caregivers and children in the fall and spring of the 2006-2007 program year. There was a lack of pre-tests for some children, but mostly there was a lack of post-tests. According to the village liaisons, participation from the caregivers and children was sporadic throughout the year. Some noted there was strong participation in the play groups in the fall, but when spring began, participation decreased due to seasonal activities such as hunting and berry picking. These activities were very important for families who practiced subsistence living, as those living in the villages did. For this reason, most children completed a pre-test, but due to low participation in the spring, a post-test for that child could not be completed.

Even though a large number of children initially participated in the program, regular participation was only seen in a small number of children throughout the year. Besides the spring activities that would take up a family's time, the winter had low participation rates due to harsh weather conditions. As the year progressed, people also participated in community events or united to mourn a death and assist the family in need.

Interpretation of Results

When the mean scores of each development skill were compared at pre-test and post-test; there was an increase seen at the post-test, relative to pre-test scores. The results showed higher scores in the post-tests than in the pre-tests for both ASQ and PQ. Paired t-tests revealed these changes were not statistically significant at $p < 0.05$ level, but significantly higher scores were revealed in the post-test for problem solving skills at the $p < 0.10$ level. The main reason why a statistically significant outcome may not have resulted in the analysis was likely due to the small sample size. Another factor that may have played a role in the outcome of the analysis was the lack of a comparison or control group. Without a control group, we cannot attribute changes seen in developmental skills to the child's participation in the program or to other factors not measured in this study.

Another important finding was the change in parent reading habits potentially due to the participation in the Getting Ready to Learn Program. There was a strong correlation between initial time of reading and times read per week in the PQ. With this finding it further supports the notion that having parents exposed to the program early in their child's life may increase the chances they will continue to read to their children in the future.

The qualitative portion of the study assisted in discovering possible explanations for attrition in post-tests and for the outcomes of the ASQ and PQ. The small number of pre and post-test completions might be a result of participation in other activities popular within the village and during certain seasons. The small number of pre and post-tests make it difficult to find significant differences between each developmental skill. Another reason why there may not have been any significant differences might be due to

the inconsistencies in how play groups were implemented in each village by having different lesson plans, different ways of scheduling, separation or inclusion of certain age groups in play groups, and the lack of participation in home visits in most villages.

However, even though significant differences were not found in developmental skills, liaisons did report positive changes. Liaisons reported parents were more interested in what their young children could do and accomplish; the GRTL program helped parents realize they need more one-on-one time with their children, and it made parents more aware that reading at a young age was important. These findings help explain why there were significant positive changes in parents reading to their children each week. Another positive change revealed by the liaisons was children became more comfortable being among and interacting with other children. Furthermore, it was seen that parents who had their children in the GRTL program in prior years had an easier time introducing their child to kindergarten than their older siblings who did not participate in the GRTL program.

Limitations

Although this evaluation provides useful information for the GRTL program staff, it was not devoid of limitations. One of the limitations acknowledged by the student investigator was the use of proposed evaluation instruments. Other instruments to measure development of children and reading behaviors of parents could have been used, but the instruments had already been selected and utilized by the GRTL program as part of their original program design. Questionnaires used for children aged five years old tested the child's readiness to enter school and used a different measurement scale. Where as, the questionnaires used for children under the age of five measured each

developmental skill, therefore the pos-test questionnaires completed for children who turned five at the end of the year could not be compared with their pre-tests. Due to this, three ASQ pre and post tests were excluded from the final analysis. The GRTL program chose to use the ASQ in the 2006-2007 program year to stay consistent with testing techniques used in previous years and for future evaluation.

The lack of a control group for the quantitative data analysis was another limitation. When the GRTL program was implemented, there was no established control group. The analysis conducted involved a pre-test and post-test comparison evaluation; whereas the most rigorous type of research design would involve a control group and randomization to the intervention or control group. Even though there was not a control group, the study did employ a qualitative phase to help with interpretation of the results.

Determining the precise dose of each child's exposure to the program was a limitation to the study. The play group and home visit attendance sheets did not always correspond with dates the ASQ or PQ were implemented for some children. The number of times the child and parents participated in the program may not be completely accurate if the liaison made a mistake or forgot to record information.

Another limitation encountered was the scheduling of the pre-test and post-tests. The pre-tests for the ASQ and PQ were not all given in the first month of the program (late August to September 2006). Some pre-tests were given when the participant entered into the program, which for some was closer to the middle of the program year. All of the post-tests were given anywhere between the end of March to the beginning of May. Thus, the opportunity for each participant to have participated in a play group or home visit varied.

Unpopularity of the home visits was also a limitation. Only one village had successfully implemented home visits in their program. Since the home visit was still an intervention the participating child and caregiver experienced, it was included as part of the level of exposure estimated for that child. Not including home visits in the level of exposure for the participant would further bias the results by indicating the child and caregiver had less exposure in the program than they actually had. There were no significant findings between those who attended play groups and those who had a home visits due to the fact not many people participated in home visits. Some villages did not implement any home visits because participants did not want to schedule them. For this reason it is unknown whether home visits could have impacted children's developmental skills.

The main limitation to the study was attrition. The GRTL program had a great amount of participation in the beginning of the year, but due to weather and subsistence living activities, many participants attended play groups and other GRTL activities less frequently in the winter and spring.

Conclusion

The results showed a significant difference in reading behaviors and higher mean scores in developmental skills. Problem solving skills increased the most from pre- to post-test, although the difference was not significant at 0.05 alpha level. The program also appeared to increase caregiver's reading to their child.

There are some areas that can be improved in the evaluation process. Efforts have been made to help liaisons understand the importance of evaluation, but ensuring all liaisons are adequately prepared to conduct evaluation would be highly recommended.

Liaisons may also benefit from having a booklet with set lesson plans. This would help to ensure the GRTL liaisons taught the same materials in each village, and all developmental areas were being addressed in each play group. Efforts should be made in the future to administer as many pre-tests as possible in the first months of the program in order to increase chances of getting more paired pre and post tests. Inclusion of both the Parent Questionnaire and Ages & Stages Questionnaire as part of the enrollment process is recommended, and modifying the Parent Questionnaire to include only questions on reading for the pre-test, which will shorten the questionnaire significantly, may increase pre-test completion rates.

Due to traditional seasonal activities and weather affecting participation rates, different approaches to receiving post-tests could be considered. Full communication about the importance of completing the pre and post test with the parent may be helpful. Post-tests were also generally completed in the play groups. Incorporating scheduled appointments for parents to complete a post-test at a time and location that was convenient for the caregiver or parent may increase post-test completion as well.

The challenges faced in evaluating the developmental skills and reading behaviors of parents or caregivers are important lessons learned which may help others that are planning on implementing and evaluating programs in isolated communities with strong traditional practices. Consideration of location, the community's history, culture and traditions are all important. Understanding these challenges can lead to new and innovative approaches to evaluation and research in the target population. When in the beginning stages of program planning, it is recommended that the evaluation process,

including the analysis of the evaluation data, be thoroughly discussed with the participants.

Although the secondary data analysis was inconclusive, the qualitative information collected in this study supports the idea that the Getting Ready to Learn Program had a positive impact on its participating children, caregivers, and community. The GRTL program's largest accomplishment was to change the way parents and caregivers think about reading and spending one-on-one time with their children. The program managed to become an acceptable, and to some, an integral part of the community. Overall, the GRTL program has established a strong foundation by gaining the trust of parents and the community, and changing the way they think about the development of their young children.

GRTL is a program with the potential to make a difference in the lives of children in remote and isolated areas with limited resources. GRTL promotes early development and building a healthy relationship between caregiver and child. Children that are nurtured with strong family ties may be able to prevent developmental delays and build healthy relationships (Karr-Morse & Wiley, 1997; Kotch, 2005). This has shown to help children successfully complete school, which will lead to better health outcomes such as less depression, better health behaviors, and better health care benefits later on in life (Palfrey et al., 2005). Strong family ties and positive school experiences can also prevent suicides (Gary, Baker, & Grandbois, 2005), which is more prevalent in Alaska Native villages. By creating awareness and providing resources through the GRTL program, caregivers of young children can greatly impact their child's future by reading to them

and being conscious of developmental needs so their child can be adequately prepared for all the learning and life challenges that lie ahead.

References

- August 2006 Unemployment Rate. (2006, October 8,2006). from <http://www.labor.state.ak.us/research/monthlyunemprate/aug06map.pdf>
- Barrera, M. E. (1991). The Transactional Model of Early Home Intervention: Application with Developmentally Delayed Children and Their Families. In K. Marfo (Ed.), *Early Intervention in Transition* (pp. 109-146). New York: Praeger.
- Brooks-Gunn, J., & Markman, L. B. (2005). The contribution of parenting to ethnic and racial gaps in school readiness. *Future Child, 15*(1), 139-168.
- Cameron, L. A. (1999). Understanding alcohol abuse in American Indian/Alaskan Native youth. *Pediatric Nursing, 25*(3), 297-300.
- Currie, J. (2005). Health disparities and gaps in school readiness. *Future Child, 15*(1), 117-138.
- District Dropout Rates. (2005). Retrieved October 8,2006, from <http://www.eed.state.ak.us/stats/DropoutRates/1991-2004DropoutRatesByDistrict.pdf>
- Donders, A. R., van der Heijden, G. J., Stijnen, T., & Moons, K. G. (2006). Review: a gentle introduction to imputation of missing values. *Journal of Clinical Epidemiology, 59*(10), 1087-1091.
- Gary, F. A., Baker, M., & Grandbois, D. M. (2005). Perspectives on suicide prevention among American Indian and Alaska native children and adolescents: a call for help. *Online Journal Issues of Nursing, 10*(2), 6.
- Hindelang, M. (2006). Honoring our elders: hearing their stories, respecting their ways. *Home Healthcare and Nurse, 24*(5), 294-297.
- Individuals with Disabilities Education Act Amendments of 1997, 115 Congress of the U.S.(1997).
- Karr-Morse, R., & Wiley, M. S. (1997). *Ghosts from the Nursery: Tracing the Roots of Violence*. New York: The Atlantic Monthly Press.

- Kotch, J. B. (2005). *Maternal and Child Health: Programs, Problems, and Policy in Public Health* (Second ed.). Massachusetts: Jones and Bartlett Publishers, Inc.
- Local School Directory: Northwest Arctic Borough School District. (2006). Retrieved October 8, 2006, from http://ak.localschooldirectory.com/districts.php/district_id/37/district_state/AK/district_name/Northwest~Arctic~Borough
- Magnuson, K. A., & Waldfogel, J. (2005). Early childhood care and education: effects on ethnic and racial gaps in school readiness. *Future Child, 15*(1), 169-196.
- Northwest Arctic Borough School District Records*. (2003.). Kotzebue: Northwest Arctic Borough School District.
- Palfrey, J. S., Hauser-Cram, P., Bronson, M. B., Warfield, M. E., Sirin, S., & Chan, E. (2005). The Brookline Early Education Project: a 25-year follow-up study of a family-centered early health and development intervention. *Pediatrics, 116*(1), 144-152.
- Profile and General Data Characteristics. (2000). Retrieved October 8, 2006, from <http://www.labor.state.ak.us/research/cgin/sf3profiles/nwa.pdf>
- Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. *Journal of the American Medical Association, 285*(18), 2339-2346.
- Summers, M., & Innocenti, M. S. (1991). Early Intervention in the United States. In K. Marfo (Ed.), *Early Intervention in Transition* (pp. 205 - 206). New York: Praeger.
- Technical Report on ASQ. (2006). *Paul H. Brookes Publishing Co.*
- Teufel-Shone, N. I., Staten, L. K., Irwin, S., Rawiel, U., Bravo, A. B., & Waykayuta, S. (2005). Family cohesion and conflict in an American Indian community. *American Journal of Health Behavior, 29*(5), 413-422.
- U.S. Department of Health and Human Services, & Health Resources and Services Administration. (2005). *Women's Health USA 2005*. Rockville: U.S. Department of Health and Human Service.
- USA.gov. (2007). Quality Tools. Retrieved February 19, 2007, from <http://www.qualitytools.ahrq.gov/>

Appendices

Appendix A: Parent Questionnaire

Date _____ S.S.# _____
Parent's Name _____
Child's Name _____
Birth Date _____ Village _____

Directions: Please complete the following questionnaire by circling ONE response for each item. Results will be used for research purposes and will be kept confidential. Your participation will assist us in providing better services for children in the future. Please respond truthfully to each question. There are no right or wrong answers on the survey. If you have more than one child, please fill out a separate survey for each child.

1. Were there specific things that you did in play group that you found especially useful or fun as you play and care for your child?

2. Which activity was the most valuable?

- A) none
- B) play group
- C) home visit
- D) Both

3. Which activity was not valuable?

- A) none
- B) play group
- C) home visit
- D) other _____

4. How old was your child when you first began to read to him or her?

- A) Before birth
- B) Birth to 1 year
- C) 1 year to 3 years
- D) 3 years or older

5. How many times in a week do you read to your child?

- A) none
- B) 1 to 2 times per week
- C) 3 to 5 times per week
- D) more that 5 times per week

6. Approximately how many children's books does your child have? _____

7. Do you plan to participate in the program next year?

- A) Yes
- B) No
- C) Not Sure

* Questionnaire page layout was modified for this document, but the text remains the same.

** Source GRTL Program, Northwest Artic Borough of Alaska, Kotzebue, 2006-2007

Appendix B: Ages & Stages Questionnaire Sample

Ages & Stages Questionnaires: A Parent-Completed, Child-Monitoring System
Second Edition

By Diane Bricker and Jane Squires

with assistance from Linda Mounts, LaWanda Potter, Robert Nickel, Elizabeth Twombly, and Jane Farrell

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48 Month • 4 Year **Questionnaire**



On the following pages are questions about activities children do. Your child may have already done some of the activities described here, and there may be some your child has not begun doing yet. For each item, please check the box that tells whether your child is doing the activity regularly, sometimes, or not yet.

Important Points to Remember:

- Be sure to try each activity with your child before checking a box.
- Try to make completing this questionnaire a game that is fun for you and your child.
- Make sure your child is rested, fed, and ready to play.
- Please return this questionnaire by _____.
- If you have any questions or concerns about your child or about this questionnaire, please call: _____.
- Look forward to filling out another questionnaire in _____ months.



Ages & Stages Questionnaires: A Parent-Completed, Child-Monitoring System
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48 Month • 4 Year Questionnaire

Please provide the following information:

Child's name: _____

Child's date of birth: _____

Today's date: _____

Person filling out this questionnaire: _____

What is your relationship to the child? _____

Your telephone: _____

Your mailing address: _____

City: _____


State: _____ zip code: _____


List people assisting in questionnaire completion: _____

Administering program or provider: _____



	YES	SOMETIMES	NOT YET	
COMMUNICATION <i>Be sure to try each activity with your child.</i>				
1. Does your child name at least three items from a common category? For example, if you say to your child, "Tell me some things that you can eat," does your child answer with something like, "Cookies, eggs, and cereal"? Or if you say, "Tell me the names of some animals," does your child answer with something like, "Cow, dog, and elephant?"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
2. Does your child answer the following questions: "What do you do when you are hungry?" (Acceptable answers include: "Get food," "Eat," "Ask for something to eat," and "Have a snack.") Please write your child's response: _____ "What do you do when you are tired?" (Acceptable answers include: "Take a nap," "Rest," "Go to sleep," "Go to bed," "Lie down," and "Sit down.") Please write your child's response: _____				
Mark "sometimes" if your child answers only one question.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
3. Does your child tell you at least two things about common objects? For example, if you say to your child, "Tell me about your ball," does he say something like, "It's round. I throw it. It's big?"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
4. Does your child use endings of words, such as "s," "ed," and "ing"? For example, does your child say things like, "I see two cats," "I am playing," or "I kicked the ball?"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
5. Without giving help by pointing or repeating, does your child follow three directions that are unrelated to one another? For example, you may ask your child to "Clap your hands, walk to the door, and sit down."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
6. Does your child use all of the words in a sentence (for example, "a," "the," "am," "is," and "are") to make complete sentences, such as "I am going to the park," or "Is there a toy to play with?" or "Are you coming, too?"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
				COMMUNICATION TOTAL ___
GROSS MOTOR <i>Be sure to try each activity with your child.</i>				
1. Does your child catch a large ball with both hands? You should stand about 5 feet away and give your child two or three tries.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
2. Does your child climb the rungs of a ladder of a playground slide and slide down without help?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
3. While standing, does your child throw a ball overhand in the direction of a person standing at least 6 feet away? To throw overhand, your child must raise her arm to shoulder height and throw the ball forward. (Dropping the ball, letting the ball go, or throwing the ball underhand should be scored as "not yet.")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___

	YES	SOMETIMES	NOT YET	
GROSS MOTOR (continued)				
4. Does your child hop up and down on either the right or left foot at least one time without losing his balance or falling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
5. Does your child jump forward a distance of 20 inches from standing position, starting with her feet together?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
6. Without holding onto anything, does your child stand on one foot for at least 5 seconds without losing his balance and putting his foot down? You may give your child two or three tries before you mark the question.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
				GROSS MOTOR TOTAL ___
FINE MOTOR Be sure to try each activity with your child.				
1. Does your child put together a six-piece interlocking puzzle? (If one is not available, take a full-page picture from a magazine or catalog and cut it into six pieces. Does your child put it back together correctly?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
2. Using child-safe scissors, does your child cut a paper in half on a more or less straight line, making the blades go up and down? (Carefully watch your child's use of scissors for safety reasons.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
3. Using the shapes below to look at, does your child copy at least three shapes onto a large piece of paper using a pencil or crayon, without tracing? Your child's drawings should look similar to the design of the shapes below, but they may be different in size.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
				
4. Does your child unbutton one or more buttons? Your child may use his own clothing or a doll's clothing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
5. Does your child draw pictures of people that have at least three of the following features: head, eyes, nose, mouth, neck, hair, trunk, arms, hands, legs, or feet?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
6. Does your child color mostly within the lines in a coloring book? Your child should not go more than 1/2 inch outside the lines on most of the picture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
				FINE MOTOR TOTAL ___

	YES	SOMETIMES	NOT YET	
PROBLEM SOLVING Be sure to try each activity with your child.				
1. When you say, "Say five eight three," does your child repeat just these three numbers in the correct order? Do not repeat these numbers. If necessary, try another series of numbers and say, "Say six nine two." Your child must repeat just one series of three numbers to answer "yes" to this question.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
2. When asked, "Which circle is the smallest?" does your child point to the smallest circle? Ask this question without providing help by pointing, gesturing, or looking at the smallest circle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
				
3. Without giving help by pointing, does your child follow three different directions using the words "under," "between," and "middle"? For example, ask your child to put a book "under" the couch. Then ask her to put the ball "between" the chairs and the shoe "in the middle" of the table.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
4. When shown an object and asked, "What color is this?" does your child name five different colors like red, blue, yellow, orange, black, white, or pink? Answer "yes" only if your child answers the question correctly using five colors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
5. Does your child dress up and "play-act," pretending to be someone or something else? For example, your child may dress up in different clothes and pretend to be a mommy, daddy, brother or sister, or an imaginary animal or figure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
6. If you place five objects in front of your child, can he count them saying, "One, two, three, four, five," in order? Ask this question without providing help by pointing, gesturing, or naming.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
PROBLEM SOLVING TOTAL				___
PERSONAL-SOCIAL Be sure to try each activity with your child.				
1. Does your child serve herself, taking food from one container to another using utensils? For example, can your child use a large spoon to scoop applesauce from a jar into a bowl?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
2. Does your child tell you at least four of the following:				
a. First name		d. Last name		
b. Age		e. Boy or girl		
c. City she lives in		f. Telephone number		
Please circle the items your child knows.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
3. Does your child wash his hands and face using soap and dry off with a towel without help?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___
4. Does your child tell you the names of two or more playmates, not including brothers and sisters? Ask this question without providing help by suggesting names of playmates or friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___

YES SOMETIMES NOT YET

PERSONAL-SOCIAL (continued)

5. Does your child brush her teeth by putting toothpaste on the toothbrush and brushing all her teeth without help? You may still need to check and rebrush your child's teeth. ___
6. Does your child dress or undress himself without help (except for snaps, buttons, and zippers)? ___

PERSONAL-SOCIAL TOTAL ___

OVERALL *Parents and providers may use the space below or the back of this sheet for additional comments.*

1. Do you think your child hears well? YES NO
If no, explain: _____
2. Do you think your child talks like other children her age? YES NO
If no, explain: _____
3. Can you understand most of what your child says? YES NO
If no, explain: _____
4. Do you think your child walks, runs, and climbs like other children his age? YES NO
If no, explain: _____
5. Does either parent have a family history of childhood deafness or hearing impairment? YES NO
If yes, explain: _____
6. Do you have any concerns about your child's vision? YES NO
If yes, explain: _____
7. Has your child had any medical problems in the last several months? YES NO
If yes, explain: _____
8. Does anything about your child worry you? YES NO
If yes, explain: _____

48 Month/4 Year ASQ Information Summary

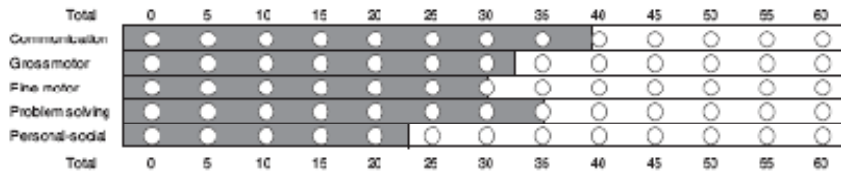
Child's name: _____ Date of birth: _____
 Person filling out the AQD: _____ Relationship to child: _____
 Mailing address: _____ City: _____ State: _____ Zip: _____
 Telephone: _____ Assessor in ASQ completion: _____
 Today's date: _____

OVERALL: Please transfer the answers in the Overall section of the questionnaire by circling "yes" or "no" and reporting any comments.

<p>1. How well? Comments: YES NO</p> <p>2. Talks like other children? Comments: YES NO</p> <p>3. Understand child? Comments: YES NO</p> <p>4. Walks, runs, and climbs like others? Comments: YES NO</p>	<p>5. Family history of hearing impairment? Comments: YES NO</p> <p>6. Vision okay? Comments: YES NO</p> <p>7. Recent medical problems? Comments: YES NO</p> <p>8. Other concerns? Comments: YES NO</p>
---	---

SCORING THE QUESTIONNAIRE

- Be sure each item has been answered. If an item cannot be answered, refer to the ratio scoring procedure in *The ASQ User's Guide*.
- Score each item on the questionnaire by writing the appropriate number on the line by each item answer.
 YES = 10 SOMETIMES = 5 NOT YET = 0
- Add up the item scores for each area, and record these totals in the space provided for area totals.
- Indicate the child's total score for each area by filling in the appropriate circle on the chart below. For example, if the total score for the Communication area was 50, fill in the circle below 50 in the first row.



Examine the blackened circles for each area in the chart above.

- If the child's total score falls within the area, the child appears to be doing well in this area at this time.
- If the child's total score falls within the area, talk with a professional. The child may need further evaluation.

OPTIONAL: The specific answers to each item on the questionnaire can be recorded below on the summary chart.

	Score	Cut-off	Communication			Gross motor			Fine motor			Problem solving			Personal-social		
			1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
48 months/4 years	Communication	39.1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Gross motor	37.0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Fine motor	30.0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Problem solving	35.0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Personal-social	23.4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
				Y	S	N	Y	S	N	Y	S	N	Y	S	N	Y	S

Administering program or provider: _____

Appendix C: Question Route for GRTL Program

Ice Breaker/Introduction Questions

- 1) How long have you lived in [*Village Name*], and what do you like the most about [*Village Name*].
- 2) Can you describe what positions and activities you are involved in within your community?

Personal Observations of Play Groups & Home Visits

- 3) Can you describe your involvement in the GRTL Program?
- 4) Can you describe what it is like to conduct a play group?
 - a. Who participates in the play groups?
 - b. What kinds of difficulties do you face when planning and conducting play groups?
- 5) Can you describe what it is like to conduct a home visit?
 - a. Who participates in the home visits?
 - b. What kinds of difficulties do you face when planning and conducting home visit?
- 6) When you notice that a child has developmental problems, what do you do?

Parent Involvement

- 7) How involved are parents in the GRTL program?
 - a. How do you get parents and their children to participate in the play groups or home visit?
 - b. What are some reasons why people choose to participate?
 - c. What kinds of changes have you seen in the caregivers that participate?
- 8) Can you describe the people that do not participate in the program?
 - a. What are some reasons why people choose not to participate?

Community Impact

- 9) In your opinion, how aware is the community of the GRTL program? Can you give some examples of things people have said about the program?
 - a. What do people in your community think of the GRTL program?
- 10) How involved is the community in the GRTL program? Can you give some examples of how people have been involved in the program?
 - a. In an ideal world, how would you like the community involved?

Program Implementation

- 11) How does the GRTL program meet the community's needs?
- 12) How does the GRTL program incorporate the community's traditions?
- 13) What determines how you schedule play groups and home visits?
- 14) What kinds of events affect the way you plan GRTL activities?

Summary Questions

- 15) In your opinion, what is the most important thing that the GRTL program does?
- 16) Overall, what do you think should change in the GRTL program?

(Give a brief summary of the key points discussed...)

- 17) Does this sound right to you? If no, can you please clarify what was not stated correctly?
- 18) Is there anything else that you think I should know?



**Informed Consent to Participate in Research
Information to Consider Before Taking Part in this Research Study**

Researchers at the University of South Florida (USF) and the Northwest Arctic Borough of Alaska School District study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study.

We are asking you to take part in a research study that is called:
The Getting Ready to Learn Program: An Impact Report

The person who is in charge of this research study is *Rosa M. Avila*.
The research will be done at the University of South Florida's College of Public Health.

Purpose of the study

The purpose of this study is to get an understanding of how the GRTL program has influenced the community. You are being asked to participate because you are a valued member of the community in which the Getting Ready to Learn Program is being implemented.

Study Procedures

If you take part in this study, you will be asked to answer some questions. The interview should not be longer than an hour and thirty minutes. You will only be asked to participate for one interview. The interview will be done by telephone. Your interview will be audio recorded.

Alternatives

You have the alternative to choose not to participate in this research study.

Benefits

We don't know if you will get any benefits by taking part in this study. However, possible benefits might include learning more about the effectiveness of the GRTL program in your community and across several villages in Alaska.

Risks or Discomfort

The risk is minimal. There are no known risks to those who take part in this study.

Compensation

We will not pay you for the time you volunteer while being in this study.

Confidentiality

We will keep your study records confidential.

- a. The audio recordings will be stored for a period of two years
- b. They will only be used for the duration of the study.
- c. The recordings will be stored in a password protected computer.
- d. The recordings may be shown to University of South Florida professors who are advising the principal investigator and are a part of the primary investigator's research committee.

By law, anyone who looks at your records must keep them completely confidential. To summarize, the only people who will be allowed to see these records are:

- The research team, including the Principal Investigator, and all other research advisors.
- Certain government and university people who need to know more about the study. For example, individuals who provide oversight of this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety. These include:
 - a. The University of South Florida Institutional Review Board (IRB) and the staff that work for the IRB. Other individuals who work for USF that provide other kinds of oversight may also need to look at your records.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are.

Voluntary Participation / Withdrawal

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study, to please the principal investigator or the research staff. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Decision to participate or not to participate will not affect your job status.

Questions, concerns, or complaints

If you have any questions, concerns or complaints about this study or if you experience an adverse event or unanticipated problem, call Rosa Avila at 813-484-3353 or email at ravila@hsc.usf.edu. If you have questions about your rights, general questions, complaints, or issues as a person taking part in this study, call the Division of Research Integrity and Compliance of the University of South Florida at (813) 974-9343.

Consent to Take Part in this Research Study

It is up to you to decide whether you want to take part in this study. If you want to take part, please sign the form, if the following statements are true.

I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

Signature of Person Taking Part in Study

Date

Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect.

I hereby certify that when this person signs this form, to the best of my knowledge, he or she understands:

- What the study is about.
- What procedures/interventions/investigational drugs or devices will be used.
- What the potential benefits might be.
- What the known risks might be.

I also certify that he or she does not have any problems that could make it hard to understand what it means to take part in this research. This person speaks the language that was used to explain this research.

This person reads well enough to understand this form or, if not, this person is able to hear and understand when the form is read to him or her.

This person does not have a medical/psychological problem that would compromise comprehension and therefore makes it hard to understand what is being explained and can, therefore, give informed consent.

This person is not taking drugs that may cloud their judgment or make it hard to understand what is being explained and can, therefore, give informed consent.

Signature of Person Obtaining Informed Consent

Date

Printed Name of Person Obtaining Informed Consent