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Effects of Dual Language Protocol on Literacy Development of Yup'ik Language Students

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Concordia University (Portland)

College of Education

Doctorate of Education Program

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EFFECTS OF DUAL LANGUAGE PROTOCOL ON LITERACY PROFICIENCY
OF YUP'IK STUDENTS

Kristin Sattler Henke
Concordia University – Portland
College of Education

Dissertation submitted to the Faculty of the College of Education
in partial fulfillment of the requirements for the degree of
Doctor of Education in
Teacher Leadership

Mark E. Jimenez, Ed.D., Faculty Chair Dissertation Committee

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Portland, Oregon

2017

Abstract

This dissertation in teacher leadership represents original, independent research that investigated bilingual language instruction of an indigenous Alaskan group of students. Ethnographic research using qualitative and quantitative data was applied to develop an understanding of correlations between the value of English and Yup'ik language and dual language classroom protocol and pedagogy. This research included cultural insight into the history of language transition, influence of Westernized educational system, and teachers' and community members' attitudes toward bilingual instruction. Dual language enrichment model instruction and teacher efficacy in dual language pedagogy were assessed based upon 3rd grade student reading proficiency outcomes. Observational and interview data provided insight into factors affecting language instruction. The results of this study of students' reading proficiency in English and Yugtun, when looked at through the lens of classroom observation of DLE protocol, show higher levels of reading proficiency in English for those students taught by teachers with more DLE training and experience. Irrespective of whether instruction was done in 90:10 or 50:50 DLE protocol, teacher training and teacher efficacy showed the greatest impact on student language proficiency.

Keywords: bilingual, dual language enrichment instruction, indigenous language, teacher training, teacher efficacy, language acquisition, ethnographic research, heritage language, value added bi-literacy, teacher agency, Yup'ik education

Dedication

This study is dedicated to the people who have taught me so much more than I taught them; the Yup'ik people of Western Alaska, my family, and my parents for their example of life-long learning and serving others.

Acknowledgment

The Yup'ik language, Yugtun, has no word for accomplishing something by oneself; likewise, I could not have accomplished this study without the help and support of advisors, colleagues, friends, and family. Thank you to Dr. Connie Greiner and Dr. Mark Jimenez, my Concordia Dissertation Advisors for their advice, encouragement, eye for detail, and supportive positive attitude. Thank you to Dr. John Mendes and Dr. Angela Smith for making sure my ideas held up to reason. Special thanks to my administrator, Darrell Richard, and my colleagues; you are loved and appreciated beyond measure. Without your wise advice and open minds and hearts I would never have persisted in this endeavor. Thank you to my children for pushing me, and to my granddaughter for the extra motivation to finish in order to focus my attention upon you. Special thanks to Atan, Dorothy, Magdalena, Pauline, Hilda, Grant, Zoya, Ira, Peter, Martha, Christine, Cindy, Frank, Daniel, Charlene, Old Man, Marla, Helen, Alice, Margie, and all of the other “real people” I have the privilege of calling my friends during my time in the Kuskokwim Delta. You have been my inspiration.

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Chapter 1: Introduction

This study of dual language instruction for English Language Learners (ELLs) in western rural Alaska was initiated by inquiry into the value of keeping heritage language intact.

Language is an integral part of culture. The unique nuances of communication in each language shape and sustain cultural identity. Yup'ik elders are vividly aware of the importance of heritage language in sustaining their culture. "Qaneryarput una power-arpakarput/Our language is a great power to us" (Exchange for Local Observations and Knowledge of the Arctic [ELOKA], 2014, p. 1).

Elders we work with always share their knowledge in their Yup'ik language. The wisdom they give thus has double value: It teaches about Yup'ik values and traditions at the same time it does so in uniquely Yup'ik ways, strengthening and passing down Yup'ik oral traditions. Elders are well aware of the power of their language to communicate what English cannot, and they value it (ELOKA, 2014, p. 1).

"The Yup'ik language is powerful and something of great value, which is painful to lose" (John, as cited in ELOKA, 2014, p. 1)

Especially if our young people forget about the land and the names and the hunting places and those rivers, it's like they will lose some of their body parts. But if they learn more about their identity, their minds will be stronger. (D. Sheldon, as cited in ELOKA, 2014, p. 1).

Introduction to the Problem

The language people use critically forms identity (Feinauer & Howard, 2014). The purpose of this ethnographic case study and comparison data analysis was to

examine the beliefs, behaviors, and shared perspectives of a Yup'ik population group on the topic of bilingual literacy in English and Yugtun. The purpose of the quantitative component of language proficiency was to test the theory of dual language enrichment (DLE) instruction compared to transitional bilingual education (TBE) instruction controlling for students enrolled in two-way dual language program and one-way transitional bilingual education language program from kindergarten through grade 3 at a school district in western rural Alaska. The ethnographic research described, analyzed, and interpreted the Yup'ik culture's language in the Yup'ik setting. Bilingual language instruction using dual language enrichment methods have previously been studied of English language learners who are Spanish/English bilinguals (Collier & Thomas, 2014; Gomez, 2006). Research comparing outcomes of immersion transition instruction to dual language instruction results showed greater literacy growth for students in dual language instruction (Collier & Thomas, 2014). Other factors, in addition to type of instruction used, play a key role in literacy development. Attitudes of teachers, administrators, parents, and community members toward the value of literacy in each language and toward the belief in students' abilities to be fluent in both languages may play a larger role than the type of instruction used (Genesee, Lindholm-Leary, Saunders, & Christian, 2006). Teacher training and efficacy have shown to be key factors affecting students' growth of literacy (Ray, 2009; Tedick & Wesely, 2015). Methodology of instruction and value of languages being taught were taken into account during the study.

Background, Context, History, and Conceptual Framework for the Problem

Yup'ik culture is complex and uniquely dependent upon its oral language, which has been insulated from outside languages until the mid-1800s. The transition of Yup'ik language

(Yugtun) to a written language was instigated by missionaries from Jesuit, Russian Orthodox, and Moravian organizations. The English lexicon was developed into a Yup'ik/English dictionary at the University of Alaska, Fairbanks in the 1970s (Alaska Humanities Forum, 2016).

The move away from teaching English-only in village schools began in the late 1970s. School districts took over the old Bureau of Indian Affairs (BIA) schools and worked on development and understanding of culture and language to incorporate into Yup'ik village schools. Most villages have Advisory School Boards that, along with community members, have voted whether to educate students in English only, Yup'ik immersion transitioning to English, or Dual Language Enrichment (DLE) instruction of both languages (Richard, personal communication April 21, 2016).

Many factors influence students' learning in either or both languages beyond the extent of their schooling. Some communities exhibit a strong undercurrent of the belief that school is "Kuss'aq" (meaning "outsider" from the Russian word Cossack), far removed from the Yup'ik culture (researcher observation). Yupik teachers in villages where the researcher has worked have made comments that indicate school is not true to their cultural practices and beliefs, even when the Yup'ik language is a part of the curriculum. "School is a Kuss'aq thing. It is not part of our real lives; of who we are as Yup'iks" (Morris, personal communication, March 20, 2015). This research will examine beliefs toward language value among generations of Yup'ik and non-Yup'ik people living and working in remote villages of Western Alaska. The complex nature of connecting language and cultural identity, along with the influence of modern technology and culture, created a rich source for this study.

Yup'ik high school students have grandparents who spoke only Yugtun (the Yup'ik language) until they attended English-only Bureau of Indian Affairs Schools that opened in the

1950s in their villages. From the 1950s to the 1980s, many Yup'ik villagers learned to read, write, and speak English around the age of 8 as a school-only language (Morris, personal communication, March 5, 2015). Television and popular media came to Yup'ik villages in the early to mid-1990s. The English language came into village homes by radio and TV as recently as the past 20 years. In some villages in this region, Yugtun was the language most often spoken inside and outside of school. In other villages, English replaced oral Yugtun as the language most often spoken by people under the age of 40 (researcher observation).

In the years the researcher lived and worked in Yup'ik villages as an elementary teacher and instructional coach, she observed and spoke with Yup'ik people of all ages. The vast majority of Yup'ik people over the age of 50 learned to read and speak in English when they attended Bureau of Indian Affairs (BIA) schools that were opened in most villages in the 1950s and 1960s. Yup'ik elders over the age of 80 typically speak more Yugtun than English, having learned English orally when their children came home from school speaking the English language, and as communication with the rest of the English-speaking world came to remote villages in the 1950s through air travel and telephone instillation. Generationally, Yup'ik people over 40 years of age seem more comfortable speaking in Yugtun. Their thoughts flow more easily and their Yugtun is fluid and fast (researcher observation). In English, by comparison, many Yupik people over 40 years of age pause frequently searching for vocabulary or for a way to articulate their thoughts in English (researcher observation).

The attempt to save the Yup'ik language through development of Yugtun into writing, and teaching the language through reading and writing in schools, began in the late 1980s. The high-stakes testing culture and standardized tests and curriculum drew attention to low test scores for students being tested in English-only who had received no instruction in English until

grade 3. Until 2011, many Yup'ik village schools taught in Yup'ik-only in kindergarten through grade 3. Students then attended a year of transition grade 3 (3T) for which instruction was in English. Local Yup'ik teachers taught the primary grades, and teachers from outside (Kuss'ak teachers) were hired to teach grades 3 through 12. The teacher turnover rate for Kuss'ak teachers was higher than the national average (AdvancEd, 2015). Kuss'ak teachers coming to teach in Yup'ik villages found students behind academically due to low English vocabulary and the struggle of transferring from one language immersion to another. Misunderstandings of student potential and ability were common (researcher observation). The school district implemented programs to standardize curriculum, oversee instruction more assertively, train teachers for cultural understanding, and build fidelity of instruction (AdvancEd, 2015).

The school district in this study sought to close the gap between English speaking students and students who speak English and Yugtun. Thomas and Collier (1997, 2000) showed dual language learners who attend schools that separate bilingual students from the regular academic program perform lower in standardized English language tests, but bilingual students who are enrolled in two-way immersion programs show better performance in English reading and writing. Dual language enrichment model of instruction as developed by Gomez and Gomez (2006) was adopted and implemented by the district in 2011. The goal of the dual language program was to develop fluency and literacy in both Yup'ik and English languages. The Gomez (2006) dual language enrichment (DLE) protocol uses a combination of best practice strategies in each lesson: language objective, explicit instruction, comprehension activity, application activity, journal writing, and conceptual refinement (Gomez & Gomez Dual Language Consultants, 2016b). Sheltered Instruction Observation Protocol (SIOP) is integrated into most protocol of the DLE lesson cycle (see Appendix A).

Statement of the Problem

It is not known whether 50:50 formal instructional dual language instruction model is more effective than 90:10 dual language immersion/transition instruction for Yup'ik/English language learners. This study investigated whether dual language instruction model is more effective than immersion/transition instruction for Yup'ik/English language learners (Christian, 2016; Collier & Thomas, 2014). This study further investigated the perceptions of value for language acquisition and the relationship of students' language proficiency to stakeholders' value for each language. Academic achievement of students enrolled in two-way dual language education showed academic benefits of dual language for Spanish/English and French/English (Lindholm-Leary & Genesee, 2014; Marian, Shook, & Schroeder, 2013; Umansky & Reardon, 2014), but research is lacking for students enrolled in dual language Yup'ik/English instruction. Teacher efficacy and community support affect language achievement; therefore, the assumption was students will rise to expectations set forth by teachers and family (Christian, 2016; Samson & Collins, 2012). Dual language model instruction uses pedagogical methods of peer teaching; however, an investigation of peer teaching when neither bilingual partner has a strong first language will uncover the effectiveness of DLE methods in this context.

Purpose of the Study

The purpose of this ethnographic study with comparison data analysis was to examine the beliefs, behaviors, and shared perspectives of a Yup'ik population group on the topic of bilingual literacy in English and Yugtun. The purpose of an analysis of language proficiency was to test the theory of dual language enrichment (DLE) instruction compared to transitional bilingual

education (TBE) instruction controlling for students enrolled in two-way dual language program and transitional bilingual education language program from kindergarten through grade 3 at a school district in western rural Alaska. “An educator who respects the language and the culture of all learners honors those students and provides for them an opportunity to excel cognitively, linguistically, academically, and socially” (Rodriguez, Carrasquillo, & Lee, 2014, p. 63). This study investigated the value of indigenous language acquisition on indigenous language proficiency and the value of English language acquisition on English language proficiency. The study searched data for effectiveness of DLE model instruction upon language proficiency.

Research Questions

As some communities work to preserve the indigenous language, attitudes against academic language may inhibit the motivation to become literate in the academic language. There is a “distinction between basic communication and academic language, for example, characterized academic language as decontextualized and cognitively demanding, whereas social language tends to be more contextualized and less cognitively demanding” (Saunders, Goldenberg, & Marcelletti, 2013, p. 19). As communities adapt “village English” for use of 21st century technology, motivation to learn Yugtun will possibly be inhibited. Media, popular entertainment, texting, and social media are English-only and heavily engaged in by Yup’ik youth. It is not known whether language proficiency in Yugtun and English are advanced through community and teacher attitudes, and dual language enrichment instruction versus immersion transition instruction methods. The primary research question guided this study:

RQ1: How does language proficiency compare between 3rd grade students instructed in dual language enrichment Yugtun and English with varying levels of language immersion?

The following secondary questions were addressed:

RQ2: How does the value of speaking the Yup'ik language motivate learning to read and write in Yugtun?

RQ3: How does the value of English as the academic language motivate learning to read and write in English?

Qualitative analysis of attitudes exhibited about Yupik and/or English language acquisition provided rich descriptive support for student language proficiency levels. Uncovering historical and ethnographic beliefs about language and communication in Yup'ik culture provided understanding of the complexities of cultural identity gained by fluency in the indigenous language.

Rationale, Relevance, and Significance of the Study

The overall approach and rationale for this research were the analyses of observational and narrative data along with quantitative analysis of Yup'ik and English language proficiency of elementary students enrolled in dual language and immersion language education methods. Using ethnographic case study research provided solid data showing evidence of language proficiency level along with the cultural attitudes and interpretation to develop an understanding of the meaning of the language proficiency results. The researcher did not attempt to justify preconceived notions of test results. The research assumed test results would show little difference between dual language enrichment and immersion transition instruction (Collier & Thomas, 2014). The curiosity of test results and inquiry into cultural attitudes toward bilingual education motivated the researcher toward further case study in ethnographic methods.

Previous studies of DLE effectiveness focused on Spanish/English speaking student populations. DLE showed to be more effective than immersion with Spanish/English learners when done with fidelity (Collier & Thomas, 2004; Trevino Mendez, 2015). A key factor for researching bilingual instruction in Yup'ik/English was whether or not the cognates would transfer between these two different languages (Moughamian, Rivera, & Francis, 2009; Saunders et al., 2013). English and Yugtun share no common roots, unlike Spanish and English for which DLE was most widely used and researched (Christian, 2016). After an exhaustive search, research on Yup'ik language/English language bilingual learners could not be found. Yup'ik language speakers are 14th in the "Top 20 EL Languages, as Reported in States' Top Five Lists" (Office of English Language Acquisition [OELA], 2015, p. 1). Gomez & Gomez Dual Language Consultants (2016a) stated, "cognates play a substantial role in in the Gomez and Gomez Model. A majority of content-based vocabulary that students in dual language enrichment classes are exposed to are cognates. When students recognize the cognate, they are enriching their 'biliteracy'" (p. 3). How will a program specifically developed for Spanish/English bilingual students show success with English/Yup'ik bilingual students? This study addressed the question through the lens of language proficiency and value of biliteracy. Research into the specific components of the instructional model were not a part of this research, but have initiated the need for further study in this area.

Further research in bilingual educational outcomes of an indigenous language may add to research that qualified and quantified the claim of Barac, Bialystok, Castro, and Sanchez (2014) that bilingual students have higher levels of executive function in cognitive processing. While this study was limited to literacy proficiency and the value of language, and the effect of that value on language proficiency, the findings instigated further study of the Yup'ik language and

culture as an anthropological lens for the survival of the language of group of people who have survived in one of the harshest regions of the planet for thousands of years. Meaning and identity reside in the language of people, and the ability to communicate effectively may be a causal factor in the survival of a culture. Although influenced by, the Yup'ik culture has not been lost to Russian, European, or American exposure. The Yup'ik way of life, subsistence hunting and gathering, has changed little over the centuries. As common in every language, new words have been adopted, but the unique language of Central Yup'ik has endured. This study may lead to further inquiry into cultural identity as defined by language use.

Definition of Terms

Dual language education is an additive approach to developing bilingualism and biliteracy (Lambert, 1984). Learning two languages simultaneously promotes high levels of academic proficiency and cultural identity (Christian, 2011). The key difference of dual language and immersion transition is the long-term goal of students in dual language becoming bilingual and not transitioning to all-English instruction once they become fluent in English. Two-way immersion programs, which are synonymous with dual language programs, are defined by “native speakers of the partner/target language and native speakers of English in roughly equal proportions” (Christian, 2016, p. 1). The following terms were specific to this study.

Best practice: researched-based teaching methods that lead to successful learning (Ezike, 2016).

Bilingual pairs: two students who work together and have an L1 in the other's L2.

Conceptual Refinement: a component of DLE protocol in which the objective is taught in another way so every student acquires an understanding of the lesson (Gomez & Gomez Dual Language Consultants, 2016b).

Content area: a specific subject and the academic vocabulary necessary for understanding in that subject area.

Dual Language Enrichment (DLE): A protocol developed by Leo and Richard Gomez to promote student proficiency in Spanish and English as an additive method for becoming bilingual.

Dual Language Immersion: “Dual immersion programs are sometimes called: two-way immersion (TWI), bilingual immersion, dual language immersion, two-way bilingual, Spanish immersion (or whatever the minority language of focus might be), or developmental bilingual education (DBE – a term used by the U.S. Dept. of Education). Student population consists of majority language speakers and minority language speakers with dominance in their first language and home language support for this language (e.g., Spanish dominant students whose parents use primarily Spanish in the home and English dominant students from English-speaking homes). A 1:1 ratio is ideally maintained for these two language groups, but a minimum of one-third of each language group (i.e., a 2:1 ratio) is essential. An academically challenging learning environment is provided to bring children from two different language groups together to learn from and with each other in an integrated setting. Instruction through the minority language is viewed as an enrichment experience for all, not as remedial or compensatory education for the language minority students in the program (Center for Advanced Research of Language Acquisition, 2016).

Immersion transition (TBE Transitional Bilingual Education): Students are taught in L1 during the primary grades, and are then transitioned to the L2.

L1: A student’s first language - the language spoken in the student’s home (Gomez & Gomez Dual Language Consultants, 2016b).

L2: A student's second language - the language being learned in addition to the student's first language (Gomez & Gomez Dual Language Consultants, 2016b).

Language of Instruction (LOI): The language used for instruction of a specific content area (Gomez & Gomez Dual Language Consultants, 2016a).

Peer teaching: Reciprocal teaching of comprehension or application of a learning objective (Goodlad & Hirst, 1989) - part of DLE protocol when used in a bilingual pair (Gomez & Gomez Dual Language Consultants, 2016b).

Sheltered Instruction Observation Protocol (SIOP): "A framework that provides teacher of English learners ...with the means to plan, teach, and assess effective, comprehensible, and appropriate instruction" (Vogt et al., 2015, p. xix).

Yup'ik population: "The southwest Alaska Natives names after the two main dialects of the Yup'ik language, known as Yup'ik ad Cup'ik and encompassing the geographic areas of Nunivak, population: 500, Yukon-Kuskokwim, population: 13,000, and Bristol Bay, population: 3000 (Alaska Native Heritage Center, 2011).

Teacher efficacy: The belief a teacher has that their instructional practice is effective (Tschannen-Moran, Hoy, & Hoy, 1998).

Assumptions, Delimitations, and Limitations

This study was limited to findings from four Yup'ik villages among hundreds of Yup'ik villages ranging over an area of 22,000 square miles of road-less tundra (AdvancEd, 2015). All villages do not share the same degree of belief systems toward English and Yup'ik language proficiency. Variations in Yup'ik dialect differ between villages (researcher observation). This study was limited to Central Yup'ik Language used in the YPT assessment language.

This researcher was not fluent at oral or written Yup'ik language. All interviews were conducted in English. When Yugtun was the language of instruction, the researcher used non-verbal cues and limited understanding of Yugtun to describe content. Yugtun communication is by nature more intuitive and reliant on gestures than traditional English (Price, 2003). This researcher provided definitions of the most common gestures used in place of spoken words. This study was limited in time to qualitative data from observations and immersion into Yup'ik culture from 2011 through 2017. Interview data of Yup'ik residents' recollections from time prior to the current research years was sought for clarification of current value toward literacy. Informal interviews of Yup'ik language teachers prompted this study of bilingual language acquisition and methods in schools using dual language model instruction. Information shared by Yup'ik elders was used for building background knowledge in this study.

A limitation of this study was that only the reading achievement scores of bilingual language learners in two program types were compared: DLE (50:50) and TBE (90:10). Other bilingual education programs were not included in this analysis because DLE and TBE are the two programs used in Yup'ik and English bilingual instruction. The schools in this study use the terms "two-way" and "one-way" dual language to connote 50:50 and 90:10 DLE instruction. Two way or one-way DLE instruction is determined in each kindergarten class at the start of each school year based upon a parent survey inquiring which language is predominantly spoken in the child's home environment. This study does not undertake the analysis of the reliability of parents' understanding and interpretation in filling in the survey.

Delimitations included context from layers of time present in interviewees' conceptions of language development from past to present. Peer debriefing of interview analysis provided perspective to this research. As recommended by Watt (2007), reflective description of

ethnographic data collected provided objectivity enabling new insights into language attitudes and the effect on literacy. This study was delimited to ELs chosen based on the following criteria: enrolled in Lower Kuskokwim Public Schools from 2010–2017, third grade students, and in DLE programs or TBE programs with similar demographics, and located in similar villages.

This study analyzed the results of third grade ELs, but did not consider the long-term benefits that support the use of DLE over TBE programs as documented by researchers. Collier and Thomas (2014) and Lindholm-Leary (2005) suggested DLE programs led to higher student outcomes when provided for at least six years. Ferron (2011) concluded when ELs participate in DLE programs, they are able to achieve better results on standardized assessments and graduate at higher rates in high school, and perform more effectively in higher education courses.

This study examined literacy acquisition of 3rd grade students in English and Yup'ik. This study includes historical and attitudinal factors about language in this population, which may or may not affect literacy acquisition.

Chapter 1 Summary

Qualitative analysis of attitudes exhibited about Yupik and/or English language acquisition provided rich descriptive support for student language proficiency levels. Uncovering historical and ethnographic beliefs about language and communication in Yup'ik culture provided understanding of the complexities of cultural identity gained by fluency in the indigenous language. Observation of classroom instruction in DLE methods provided a lens to analyze perceptions shared in interview data and students' reading proficiency assessments. This study used ethnographic case study research supported by quantitative data analysis to investigate the effects of dual language protocol on literacy development for Yup'ik language

speakers. Through analysis of language proficiency assessment results along with interview and observational descriptive data, a deep understanding of causational factors affecting language acquisition and proficiency were gained. This research examined and analyzed the power of language to communicate, as well as sustain or change a culture.

Chapter 2: Literature Review

Introduction to the Literature Review

Review of past and current research of bilingual instructional methods and outcomes provides perspective to this research. Understanding factors affecting bilingual instructional outcomes and methods used for bilingual literacy development ground this study of dual language learners by developing perspective into the unique factors affecting the population in this study. Previous research has focused mainly on English Language Learners, the population in this study are categorized as English Language Learners (ELL), but are really bilingual language learners enrolled in schools where dual language instruction values instruction in two languages equally. This review of research will delve into studies showing advantages and possible disadvantages of traditional ELL and value-added DLE instruction.

Dual Language Enrichment

Literacy acquisition is at the core of educational endeavors. Until children know how to read, write, and comprehend what is written and what they read, they will not be successful in school and beyond. The topic of literacy acquisition is worthy of further research because of the importance of the issue to student success. Students who come to school unready to read are at an added disadvantage. Are bilingual students who speak with a limited vocabulary in two different languages at a further disadvantage for literacy acquisition? Or, are they more likely to become proficient in two languages simultaneously with quality dual language instruction? These questions provide an interesting and beneficial research topic.

Studies have shown dual-language instruction in Spanish and English results in higher test scores for students in middle and high school (Collier & Thomas, 2014; Gomez, 2006). Do those studies transfer to Yup'ik and English? Spanish is a classical language that has been

written for centuries with Latin roots similar to English. Great works of literature have been published in Spanish. Spanish speaking students listen to media in Spanish. The premise of dual language instruction for Yup'ik/English students is Yup'ik and English will have the same success in dual-language instruction as Spanish and English dual-language instruction. Yet, Yup'ik has been an oral language until the 1970s. The only classic literature translated into Yup'ik is the Bible. There are simple Yup'ik children's stories written at the first grade reading level, a reading anthology was published by a school district for use in kindergarten through grade 6, and a basic Yup'ik dictionary has recently been developed. How will dual-language instruction be implemented with fidelity in this construct?

Teacher, parent, and community buy-in are vital to the success of dual-language acquisition. Recent research in dual-language instruction has shown students' success depends on teacher agency and parent and community commitment (Ray, 2009). Whether those two factors are present and fully engaged remains a question in most Yup'ik villages. Dual-language instruction is looked at as another "white person" initiative to save the Yup'ik language. How can parents become active partners when the schooling of their children is viewed as someone else's responsibility? Parent involvement in their children's literacy success has long interested many teachers. How can teachers engage parents in their children's learning? Methods used to involve community members, parents, and teachers in dual-language instruction in order to establish a culture that values literacy are up for discovery. The aim of further research in this area was to increase awareness of successful methods to help students succeed in becoming literate in two languages.

These questions, which are relevant to dual language instruction working with Yup'ik/English instruction, teacher agency with dual-language pedagogy, and community/parent

buy-in, are necessary to address for the literacy success of students in hundreds of Yup'ik villages in Western Alaska. Preliminary research had been done on these issues, but a thorough, correlation research dissertation was not. This research is a worthy and welcome task that would interest teachers who work with dual-language students in many cultures and countries.

Background

The Yup'ik People of Western Alaska

The Yup'ik People have lived a subsistence lifestyle along a large expanse of the Bering Sea of Western Alaska from Prince William Sound in the south to the Arctic Ocean in the north. The Yup'ik people are the largest indigenous group in Alaska and in the United States. People in Alaska speak Yugtun, the Yup'ik language, more than any other indigenous language in the state. Before Moravian and Russian Orthodox missionaries brought Christianity along with Russian and English language to the Yup'ik people in the mid-1800s, the worldview centered on shamanistic beliefs that explained all events (Alaska Humanities Forum, 2016).

Yup'ik villages were hit hard by the introduction of alcohol, tuberculosis, and influenza in the early 1900s. The introduction of air transportation allowed increased medical services. Pregnant Yup'ik women are now required to stay at the pre-maternal home for the month before delivery of each child. The birth rate and infant and childhood survival rate of Yup'ik children increased significantly in the past 40 years. The median age of many rural Yup'ik villages is 19 years of age. Most Yup'ik families still engage in subsistence hunting and gathering. The subsistence diet of salmon, seal, wild game, and berries is supplemented by "white people food" from the Native Store in each village. Each village has a medical clinic with local health aides to treat myriad ailments to which people living without running water, indoor plumbing, and in close proximity are more prone (Farmer, 2003).

Generalizations can be made of unique cultural differences existing between Yup'ik and Western culture. Time is valued differently in Yup'ik culture than in Western culture.

Traditionally, Yup'ik People live by the seasons without calendars or clocks. There is no urgency present when working with Yup'ik people. The assumption is children will learn from their mistakes, and to tell children what to do and not to do is considered bad luck. The belief is children must learn through their own mistakes. If a Yup'ik child does not want to go to school, the parent believes there is nothing that can be done to make the child attend school. Similar beliefs exist about the behavioral expectations and learning expectations for children. Examples of acceptable behaviors in Yup'ik society are when children put their head down or turn away from an adult and refuse to listen (personal observation, 2016).

In general, the Yup'ik people are more accepting of differences among families, adherent behaviors, and actions than Western society. When there is a feast in the village, everyone is welcome to come and eat. No invitations are sent out. The time of the feast is unknown until the food is set out. Homes are filled with people sitting on floors, sharing plates, and leaving soon after they have eaten. To plan something ahead of time is considered presumptuous as no one can predict the future.

In Yup'ik society, death is a part of life and deceased bodies are taken care of in the home by the family while a casket is built locally and neighbors dig a grave. Every villager kisses the body before the casket is closed and then all help to bury the casket in the graveyard. Twenty day, 40 day, and yearly feasts are held to honor and bring back the memory of the deceased. New babies are named for the deceased and then take on the relationship of the living to the deceased. For a Yup'ik teacher or adult to call a young child "grandma" or "a'pa"

(grandpa) because the child has been given the name of his or her grandparent is common (personal observation, 2016).

Most Yup'ik People live in financial and material poverty. Children are considered to be a sign of blessings and riches. There are often five or more children in each family. The children share one small bed and may have two or three sets of clothing to wear for the school year. Homes, yards, clothing, and belongings are not considered a sign of social status. Everyone is accepted equally, other than some animosity shown to certain families due to family histories (personal observation).

The purpose of schooling in Yup'ik villages, beginning in the 1940s under the Bureau of Indian Affairs (BIA), was to assimilate Native Alaskans into Western culture while educating children (Barnhardt, 2001). Students were not allowed to speak the Yup'ik language at most BIA schools. The issue of 40 years of English-only education contributed to the valuing or devaluing of either English or Yugtun for some people at the present time. "The school year began in September and ended in May. The requirement to attend school disrupted many Natives' traditional subsistence cycle" (Alaska Humanities Forum, 2016, p. 3). Children were not free to move to spring or fall hunting camps. The societal and family changes brought about by compulsory education had substantial repercussions on the subsistence culture and extended family structure of the Yup'ik people. The present system of public education run by the State of Alaska and local school districts began with Molly Hootch Legislation in the mid-1970s (Barnhardt, 2001). The legislation required each village with more than 12 school-age children to build and staff a local school.

The Value of Heritage Language

Literacy in a heritage language provides cultural identity (Muniz, 2007). Cultural traditions are lost or kept through bilingual literacy (Cowell, 2002). Awareness and use of Yup'ik language (Yugtun) and English in the classroom should elevate the status of Yugtun, however, some teachers and community members view use of Yugtun as a school district mandate. Yup'ik villages in rural Alaska may be considered diglossic communities since Yugtun and English are necessary to fully engage as a member of the community. The Yup'ik people choose to speak Yugtun because they are proud of their Yup'ik culture. Cultural identity supports resiliency and independence necessary for cultural preservation. The power to define self and others comes through the result of culture, language, ethnicity, and nationality (Cowell, 2002). The power of the Yup'ik people to retain their rich heritage and find their identity in a global society was discovered through their literacy in the Yup'ik language.

A discussion of the value of literacy in the Yup'ik culture brings depth and understanding to this research through analysis of overall values that may impede or facilitate schooling of students. Background information from a qualitative study of cultural aspects influencing the expectations of behavior, learning, attitudes, and values of Yup'ik children plays a vital role in language acquisition and must be considered in the overall analysis of bilingual educational processes. The development of Yup'ik written language, including the 1970s revisions from Moravian Yugtun to Modern Yugtun, were considered as factors that have influenced the value of Yup'ik language acquisition. The issue of which Yup'ik language is considered "correct" varies by age and village. A short discussion of the influences of colloquialisms on teaching a language as an attempt to save the language created an understanding of some of the challenges inherent in trying to assess Yup'ik literacy.

Dual Language Enrichment Instructional Model

Several program types refer to bilingual instruction (see Table 1). The defining goal of all bilingual instruction is to develop literacy in two languages throughout students' schooling. Instruction in Yugtun and English through Dual Language Enrichment (DLE) is the most promising method to equally develop literacy and value for both languages (Gomez, 2006) (see Appendix B). The process and outcomes of two-way dual language education are supported through a growing body of experience and research (Lyons, 2014). Summary analyses of multiple research studies have posited the outcome of successful DLE programs in the respect and nurturing of the multiple cultural heritages (Collier & Thomas, 2004). Dual language enrichment model instruction requires teachers' belief in the value added idea of teaching two languages instead of only helping students become English proficient. Studies have shown improved academic achievement of dual language students (Lindholm-Leary & Genessee, 2014; Marian et al., 2013; Umansky & Reardon, 2014). Cognitive benefits in language and literacy development have been the focus of research (Howard, Christian, & Genessee, 2004). Sociological studies have shown the value of cultural identity related to fluency of indigenous language (Dorais, 2002; Fitts, 2006; Lyster, Collins, & Ballinger, 2009).

Table 1 describes models and goals of bilingual instruction and the name used for the program. Studies referenced in this research come from all types of programs listed in Table 1.

Table 1

Bilingual Model and Goal (adapted from NCELA, 2007)

Model and goal	Program (typical names)	Language(s) of instruction
Bilingual: Developing literacy in two languages simultaneously	Bilingual immersion	English & students' native language (L1) usually throughout elementary school
	Dual language immersion	
	Two-way immersion	
	Developmental bilingual education	
	Late-exit	English & students' native language (L1).
	Maintenance education	
	Heritage language Indigenous language program	

Ethnographic case study research of dual language and immersion language students in Yup'ik/English bilingual students will focus on value-added bilingual education, efforts to save an at-risk indigenous language, and benefits of heritage language literacy to support cultural identity. This study also supported the cognitive benefits researched in dual language methods for improving executive control and working memory tasks in brain function (Barac et al., 2014).

Dual Language Enrichment (DLE) instructional model may be more effective than immersion language models for Yupik/English language learners based on the following components. Dual language enrichment (DLE) uses best practice, effective pedagogy, and Sheltered Initiative Operational Protocol (SIOP) as instructional modes (Short, Fidelman, & Louguit, 2012). Effective instructional modes provide support and enrichment, enabling students' academic success in dual language learning (Gomez, 2006) (see Appendix C). Research provided comparison data for students receiving dual language enrichment model instruction compared to immersion language students. When students enter kindergarten without

any strong language, explicit support and enrichment will provide the means for students to develop literacy in two languages (Berens, Kovelman, & Petitto, 2013) (see Appendix A).

In 1995, Gomez and Gomez developed the Gomez and Gomez Dual Language Enrichment Model, which have been adopted by 450 schools in Texas, Washington, Alaska, New Mexico, California, Kansas, Illinois, Oklahoma, Colorado and Oregon. The Gomez and Gomez Dual Language Enrichment Model breaks into six main components (i.e., grade level, heterogeneous instructional grouping, separation of languages for content-area instruction, computer support, vocabulary enrichments, and conceptual refinement & academic rigor) across 7 grade levels (i.e., pre kinder through Grade 5) (see Appendix B). The Gomez and Gomez Dual Language Enrichment Model involves a variety of activities that promote the academic and linguistic growth of children who are expanding their first language and learning a second language (Gomez et al., 2005; Gomez & Gomez, 2013). The Gomez Model of Dual Language Enrichment Instruction was adopted by Lower Kuskokwim School District in 2011. The results of this DLE model of instruction was compared in the methodology to assert the claim of DLE being a stronger, more supportive instructional model for bilingual education than immersion methods (see Appendix C). When both languages of bilingual learners are valued equally, students have enriched learning experiences through translation (Espinosa, 2012; Fitts, 2006; Pearson, 2007). Studies have shown dual language learners surpassing growth of immersion or English only learners by grade five (Collier & Thomas, 2004; Freeman, Freeman, & Gomez, 2005; Gómez & Ruiz-Escalante, 2005). Research indicated teachers tend to be most effective with Alaska Native students when connecting course material to real-life situations, using examples from Alaska Native cultures, encouraging small group activities, developing personal relationships with students, and allowing students a range of ways to demonstrate mastery of

material (Stark, 2010). The dual language enrichment model of bilingual instruction incorporates strategies that promote Stark's (2010) research. Language status and attitudes about language play a role in developing language proficiency in the minority language (Pearson, 2007).

The keys to effective dual language enrichment implementation are teacher training, teacher belief in the effectiveness of the model, and the valuing by all stakeholders of the native language as equal to the acquisition of English (see Appendix C). Thomas and Collier (2004) concluded school leaders should be encouraged to adopt as many of the characteristics of dual language programs as possible to help students become fluent in two languages which will in turn enable students to rise above remedial instruction for English only acquisition.

Teacher Agency

The claim of teacher agency as the most important characteristic for academically successful Dual Language (DL) elementary schools has merit (Ray, 2009). Teacher agency is a key factor in most successful educational research. Ray's (2009) research identified factors that informed teachers' sense of agency "(antecedents) and the instructional behaviors that result from that sense of agency (manifestations)" (p. 112). Bandura's (1989) interpretation of human agency as "the capacity to exercise control over one's own thought processes, motivation, and action" works to motivate teachers to set higher standards and expect greater achievement from their students (as cited in Ray, 2009, p. 138). These expectations are used as the grounds for academic success through teacher agency. Ray's warrant, teachers who are personally and emotionally invested in their students' success through dual language instruction have students with higher gains in academic achievement, is backed by evidence from the "culture of intellectualism" present in schools with effective DL programs. These schools are characterized

by the promotion of higher order thinking skills, active engagement in learning, and the exchange of ideas (Ray, 2009).

Rebuttals to teacher agency being less relevant to cognitive processing are present in the literature research that posited all second-language learning models have benefits for students (Christian, 2016; Collier & Thomas, 2004; Gomez, 2006). Ray (2009) recognized DL programs' supportive increase of academic achievement for ELLs and native English-speaking children. The qualifier present in this qualitative research analysis indicated other factors have an impact on DL program quality of the school studied. Analysis of the literature indicates causal factors besides teacher agency (Ray, 2009). Community buy-in, administrative support, appropriate use of teaching materials, and value for both languages are other causal factors in need of consideration.

Value-added Bi-literacy

The value of bilingual learning holds benefit for cognitive development aside from cultural value. Yup'ik is a non-academic language without benefits for high standards in globally educated students. Bilingual instruction should not be considered remediation, but rather value-added enrichment. The benefits of dual language instruction counter arguments from English elitists who may question the value of using academic instructional time for teaching an indigenous language.

Value-added bi-literacy has been the central topic of research for many studies of bilingual educational models. Whether the researcher is focused on the reasoning behind bilingual education or the value of teaching a heritage language, the common framework rests on the value that a non-dominant language holds for a community or culture. The framework is pertinent to this research because Yugtun is an indigenous language in danger of becoming

extinct unless commitment by community and/or schools leads to using and teaching the spoken and written language.

Meyer, Coyle, Halbach, Schuck, and Ting (2015) posited content and language integrated learning systematically and strategically remedies functional illiteracy issues among some dual language learners. Using students' first language when instructing in content areas develops greater literacy as well as subject-specific literacies. Subject-specific academic vocabulary is strengthened when all instruction in a subject area is given in one language without translation (Meyer et al., 2015). Value-added bilingual instruction honors two languages equally and emphasizes content-rich relevant instruction that builds deeper subject understanding building greater vocabulary. The old ELL pullout model of remedial vocabulary instruction has been shown to be detrimental to language proficiency and content understanding (Thomas & Collier, 2003).

Conceptual Framework

This study compared varying instructional models of teaching bilingual students their indigenous language and English. The issue is many students enter school linguistically barren, with limited vocabulary in either language, possibly one of many factors to shed light on the comparison, but the researcher did not attempt to find the cause or the solution of that separate topic.

Studies of dual language enrichment instruction model claim DLE is more effective than immersion transition language models for Yupik/English language learners (WIDA News, 2014). Dual language Enrichment (DLE) uses best practice, effective pedagogy, and Sheltered Initiative Operational Protocol (SIOP) as instructional modes (Short et al., 2012) (see Appendix D). Effective instructional modes provide support and enrichment, enabling students' academic

success in dual language learning. Gomez (2006) provided comparison data for students receiving dual language enrichment model instruction compared to immersion language students in Spanish/English. Even when students enter kindergarten without one strong language, explicit support and enrichment will provide the means for students to develop literacy in two languages (Berens et al., 2013).

Yup'ik/English students struggle with the dual language model and the use of bilingual pairs engaged in speaking, listening, reading, and writing throughout each subject. Many Yup'ik/English students have deficits communicating in either language as shown on Kindergarten Yup'ik Proficiency Test (Lower Kuskokwim School District, 2015) results and Aims-Web (2015) assessments. But effective pedagogy and enrichment practice in language instruction value a growth mindset toward developing both languages (Gomez, 2006). The consistent practice of effective instructional modes, along with teacher efficacy, enables supportive instruction for bilingual students entering school with minimal language development (Caldas, 2013). Characteristics of dual language programs promote effective pedagogy. Students will rise to expectations set forth by teachers (Gilbert, 2001).

Dual language enrichment success has been questioned due to the key factor that many Yupik/English students do not enter school with a strong first language (Lower Kuskokwim School District, 2015). The success of dual language enrichment implementation being dependent upon having a strong first language may be questioned. Use of SIOP with continuous teacher modeling and student practice with language quickly strengthens students' speaking ability (Short et al., 2012). Studies also show teacher efficacy and community support positively affect language achievement and can usurp the lack of language development (Kim, Curby, & Winsler, 2014; Ray, 2009; WIDA News, 2014). Ray (2009) further showed teachers who believe

students can learn are more likely to push them to learn with effective and engaging strategies and a positive belief system. Proper teacher training and family involvement strategies and support can be built for teacher efficacy and student success in two languages. Hickey and de Mejia (2014) pointed out in their study on immersion education that a loss of one language occurs in bilingual children who attend preschool in only one language. Yet, studies show children immersed in two languages learn both equally well (Genesee, 2000; Pearson, 2007).

When both languages of bilingual learners are valued equally, students have enriched learning experiences through translation (Espinosa, 2012; Fitts, 2006; Pearson, 2007). Studies have shown dual language learners surpassing growth of immersion or English only learners by grade five (Collier & Thomas, 2004; Freeman et al., 2001; Gómez & Ruiz-Escalante, 2005). Research indicated teachers who tie course material to real-life situations, use examples from Alaska Native cultures, encourage small group activities, develop personal relationships with their students, and allow students a range of ways to demonstrate mastery of material, tend to be most effective with Alaska Native students (Williams & Rearden, 2006). The dual language enrichment model of bilingual instruction incorporates strategies that promote Stark's (2010) research. Language status and attitudes about language play a role in developing language proficiency in the minority language (Pearson, 2007).

The key to effective dual language enrichment implementation is teacher training, teacher belief in the effectiveness of the model, and the valuing of the native language as equal to the acquisition of English. Thomas and Collier (2003) concluded school leaders should be encouraged to adopt as many of the characteristics of dual language programs as possible to help students become fluent in two languages which will in turn enable students to rise above remedial instruction for English only acquisition.

Review of Research Literature

Aylward (2010) used inquiry to identify and analyze the role of Inuit languages in Nunavut schooling. Aylward (2010) claimed identification of two discourse models, academic truths and revitalization, stemmed from the network of situated meanings of teacher interviews conducted in Nunavut. Four situated meanings were derived as the motive of bilingual education: “(a) survival of Inuit languages, (b) the nature of bilingual education programs in Nunavut, (c) the necessary support for bilingual educators, and (d) the Inuit languages stream as a disadvantage” (Aylward, 2010, p. 303).

The premises for these claims are based on excerpts of 10 interviews, five from white English teachers and five from Inuit teachers. Common among the interviews was the question of minority rights legislation to protect the Indigenous language of Inuktitut. Teachers expressed frustration that the language is not valued as other languages are in parts of their country. The specific bilingual models implemented in Nunavut schools were a second factor of frustration for the teachers. Teachers expressed concern about teaching students to value Inuktitut acquisition, in part because the students were allowed to be educated in the Inuktitut language unlike the previous generation in which schooling was forced in English only. A third emphasis was lack of programs and curriculum resources, as well as the lack of trained bilingual Inuit educators to successfully “equalize” bilingual instruction. Teacher training programs were lacking in training Inuit language teachers for full immersion throughout elementary and secondary grades. Teachers made comparisons of teacher training for Inuit language teachers to southern Canadian programs for mandatory English and French language programs. Teachers based their frustrations on students’ lack of competency in either English or Inuit to the lack of Inuit language use in students’ homes and in the community. The lack of resources and overall support

for bilingual educators was another premise on which the interviewees based their frustration.

Aylward's (2010) study of dual language in Nunavut parallels Yup'ik language issues in almost every aspect - cultural, value, community, and parental commitment to language acquisition.

The warrant was made for students' academic problems related to bilingual education on specific factors outside of their control, yet teachers continued to express dedication to bilingual education because they believed in the academic truth of the benefits. The statement of evidence (basis) upon which the warrant resides is teachers' belief that all of the factors problematic in bilingual education in Nunavut could be addressed and controlled. The basis of this belief is the perspective of many Aboriginal scholars relating language learning more holistically to the spirit and soul of a people (Kirkness, 1998 as cited in Aylward, 2010). Therefore, even though teachers realized the present state of bilingual education was not meeting the academic needs of students, they nevertheless believed in the academic truths of bilingual education and the possibility of revitalization of successful bilingual education.

Review of Methodological Issues

The use of ethnographic case study research with supportive quantitative data analysis for the study of dual language enrichment instruction results will provide the research community with both subjective data and the analysis of that data through cause and effect ethnographic observations and interviews. The Yup'ik culture and the Yugtun language are a new and unique subject for thorough critical ethnographic research. Aylward (2010), Cowell (2002), and Lyster et al. (2009) used interview data of teachers for their bilingual research on dual language instruction for indigenous languages including Arapaho, Inuktitut, and Spanish. While their studies lend understanding to bilingual literacy acquisition, the studies are more subjective and suspect for bias due to the variance in interpretation from differing ethnographic background.

Sociological narrative research methods used by Dorais (2002), Fitts (2006), and Roy (2006) focused inquiry on the value of learning an indigenous language along with English. Value of instructional languages should be analyzed as a causational factor of language acquisition. However, the culture of the educational system calls for accountability using assessment data. Collier and Thomas (2004), Gilbert (2001), Gomez (2006), and Kim et al. (2014) used test data for analysis of the success of DLE with Spanish/English students. While data-driven reflection and analysis guide and improve instructional practices, cause and effect connections are not made, which narrative from qualitative research methods is able to provide.

Synthesis of Research Findings

Since bilingual education research began in earnest in the 1970s, there have been three main foci of study: bilingual instruction as remediation education for English Language Learners (Collier & Thomas, 2004; Kim et al., 2014; Short et al., 2012), bilingual instruction as benefit model for increased cognitive development and globally enriched education (Padilla, 1990; Ruiz, 1988 as cited in Moran & Hakuta, 1995), and bilingual education as means to bridge cultural and socio-economic gaps in student achievement (Baker, 1996; Cummins, 1993; Dicker, 1996; Fernandez, 1999; Reyhner, 1992 as cited in Ngel, 2002). Research on second language acquisition has focused not only on the learner and the learning process, but also on the effect of instruction on second language learners (Larson-Freeman & Long, 1991).

This study of dual language enrichment (DLE) model instruction on academic achievement must be seen as one of several methods necessary to close the achievement gap for Yup'ik students. Culturally relevant curriculum, improved teacher training for working with students from this unique culture, and an understanding of instructional practices most beneficial for “caste-like minority” status Native Alaskan students are needed as reforms (Kanu, 2007).

These issues run counter-culture to the common core curriculum and standardized testing culture of the past 20 years in the United States educational system. While DLE uses pedagogical practices recommended for instruction of Aboriginal students, DLE should not be seen as a panacea to cure all academic and social inequalities (Kanu, 2007). Although English is valued as the academic language for students above their heritage language, DLE language use has the potential to equalize language value. Bilingual instructional practices “need not be divisive, but instead inclusive” (Williams & Rearden, 2006, p. 39).

Previous research on dual-language learning has predominantly compared bilingual children in single-language versus dual-language programs, showing that overall, children benefit from learning in two-way dual-language programs compared to single-language (Collier, 1992; Cummins, 1992; Genesee, 1989; Kovelman et al., 2008; Krashen, 2005; Lindholm-Leary, 2001; López & Tashakkori, 2004; Oller & Eilers, 2002; Rolstad, Mahoney, & Glass, 2005; Thomas & Collier, 2002). Studies comparing two-way dual-language learning to transitional learning have shown students benefit from learning in two-way dual-language programs (De Jong, 2006; Friedenberg, 1984; Gertsen & Woodward, 1995; Hofstetter, 2004; Proctor, Carlo, August, & Snow, 2005; Ramírez, Yuen, Ramey, & Pasta, 1991; Slavin & Cheung, 2003, 2005). Several studies compared learning in the two main types of two-way dual-language learning, 50:50 and 90:10. One study comparing two-way dual-language, transitional, and single-language learning, Thomas and Collier (2002) posits children enrolled in two-way dual-language programs (50:50 or 90:10) showed the best mastery in English. However, the two main types of two-way dual-language programs were not directly compared, leaving open the question about which two-way dual-language learning context is best for first (majority) and second (minority) language

learning. Furthermore, there is the need for studies of bilingual language learners in which two languages are equally valued and not labeled as majority or minority languages.

The research in effectiveness of dual language enrichment (DLE) model instruction for indigenous Yup'ik students in rural Alaska is unique in scope and limitation. For students in low-socio-economic environments, the assertion of bilingual instruction serving as the silver bullet to close the gap between students performing far below proficient on state exams to students performing at proficient levels has been disproven in recent research. Studies of Canadian Aboriginal student success posit pedagogy and curriculum as two of several major reforms needed to close the gap between mainstream American students and indigenous students (Kanu, 2007). Lipka (2002) studied the integration of Yup'ik language and culture into core instruction and claimed relevant curricula and teaching practices increased Native students' achievement levels. However, research of macro-structural changes supportive of cultural differences in learning methods "suggested that what differentiated effective teachers in Indian and Eskimo (Aboriginal and Inuit) students was their instructional style" (Kanu, 2007, p. 23). Kanu (2007) further appraised student achievement, class attendance, and school retention among Aboriginal students as the result of major reforms in teacher training, instructional practices, and the awareness of culturally relevant instruction and curriculum. "Teacher respect and warmth toward Aboriginal learners" was one of nine identified aspects that appeared to influence Aboriginal student achievement (Kanu, 2007, p. 23). The ideology of equality for both languages of dual language enrichment instruction develops awareness of culturally relevant instruction and curriculum.

The point of this literature review and methodology was not merely to prove whether or not dual language enrichment instruction is more effective than immersion-transition language

instruction. The question lead to developing a deeper level of understanding, a more complete picture, of the factors that influence bilingual fluency and teacher agency that will provide effective instruction leading to literacy in Yup'ik language and English. The perceived administrators' and teachers' biases in the schools where the research was done is the dual language enrichment endeavor will fail because there is a lack of value for literacy in the Yup'ik village culture. The researcher has held the same bias at times, but through research and work with students can realize DLE coming to fruition as research has shown with Spanish/English programs. A constructivist research paradigm in which the researcher and participants co-construct the understanding of language value and instruction is present throughout this study (Hatch, 2002).

The biases present in this literature review rest upon the motive for bilingual education. When considering the topic of dual language model bilingual instruction in a Yup'ik village where all students are considered ESL, the researcher was a naysayer about students learning the Yup'ik language (Yugtun) along with English, and did not see the benefit for the students' academic achievement in a Western school system. This researcher first thought learning Yup'ik was a waste of school time when students did not even speak grammatically correct English and were far below reading level in English. Research of the Gomez' model of dual language enrichment instruction demonstrated the DLE approach to learning two languages was not a remediation method of instruction to be used until students were academically successful in English. Throughout research and training in the DLE model, this researcher has come to understand DLE uses best practices in instruction based on Sheltered Instruction Operational Protocol (SIOP) (see Appendix D). DLE also immerses students in listening, speaking, writing, and reading in both languages throughout each day's instruction, and is a rigorous method that

demands teacher efficacy during implementation (see Appendix A). When done with fidelity and support, this researcher believes DLE can provide successful dual-language acquisition.

Although, as McGuire (2014) stated, “education operates under multiple realities; so the researcher’s personal bias toward DLE effectiveness will be proven or disproven by the data analysis from the methodology” (p. 2). Through the literature review, awareness of value-added verses necessary for remediation ideologies present in bilingual programs was raised. The recognition is made of bias against public education being responsible for saving heritage languages. Included is the recognition that some languages are more valued as second languages than others, and that the term “second language” connotes English valued as the first and therefore more important language of acquisition. The historical impact of English-only practices in Bureau of Indian Affairs (BIA) schools until as recently as the 1980s, and the guilt effect that practice is still having on communities’ desire to return to their indigenous language as a matter of cultural identity, should be recognized.

Published research articles on bilingual instruction support bilingual education, either as remediation or as enrichment (value added) ideals. However, colleagues who are immersed in the bilingual endeavor in the Yup’ik/English community have serious doubts and questions about the purpose for bilingual education. Is the United States public school system responsible for saving an indigenous language if there is no academic purpose inherent in that pursuit? The value, purpose, and viability of bilingual instruction are in question even as dual language instruction is implemented. If teacher efficacy is a leading factor to success, and not all teachers believe in the value of bilingual education, then this researcher believes attitudes of teachers will affect the results of the methodology.

Transparency about the attitudes of teachers and administrators as research data are obtained, presented, and analyzed will allow future researchers in the topic of dual language and bilingual education to gain insight into factors beyond pedagogy, support, and training. Insight into cultural aspects of acceptance and belief in the value of dual language model instruction were gained through this research.

Critique of Previous Research

Research findings of dual language enrichment instruction (DLE) compared to immersion transition models of bilingual instruction use qualitative and quantitative methods to arrive at conclusions that more frequently show benefits of DLE above immersion instruction. No comparison studies of the two methods exist at this time for Yup'ik/English bilingual instruction. Many variables affect published research comparing DLE and immersion instruction. Socio-economic status of students, family and community support, teacher training, and belief in the effectiveness of the methods and students' potential are variables present in research.

Howard, Sugarman, Christian, Lindholm-Leary, and Rogers (2007) noted the first principle of program structure is, "all aspects of the program work together to achieve the goals of additive bilingualism, bi-literacy and cross-cultural competence while meeting grade-level expectations" (p. 2). This principle of instruction runs contrary to some Spanish/English bilingual programs intended to create English proficiency and allowing the Spanish first language (L1) to be lost (Mora, Wink, & Wink, 2001). The bilingual instructional model implemented for Yugtun/English instruction is based on the principle of promoting biliteracy, but cross-cultural competence may be sacrificed in the attempt to honor Yup'ik culture in an effort to increase Yup'ik identity.

Spanish/English DLE researchers most often rely upon quantitative data comparison of English reading test scores (Collier & Thomas, 2004; Gilbert, 2001; Gomez, 2006; Tedick & Wesely, 2015). Weakness of this research method is in limiting language assessment in one language instead of both languages of instruction. A key component of DLE instruction is the equal value of both languages, so comparing the instructional model by testing students in English alone leaves out the information needed to fully assess students' progress in dual language proficiency. Cummins (2007) brought attention to five inter-related assumptions underlying much English language teaching in global contexts:

- English is best taught monolingually.
- The ideal teacher of English is a native speaker.
- The earlier English is taught, the better results.
- The more English is taught, the better the results.
- Standards of English will decline if other languages are used for any significant amount of instruction time. (p. 225)

The point of this discussion is to bring awareness to the effect of teacher and community attitude toward dual language enrichment instruction on the success of the method to develop proficiency in both languages. Research using quantitative data to analyze student proficiency in English is missing the point of DLE principles of bi-literacy. DLE “promotes the development of content-area bi-literacy by the end of 5th grade” (Gomez, 2016, p. 1). The basic goals of DLE instruction are to promote two-way immersion instruction with conceptual refinement and vocabulary support in both languages (Gomez, 2016). Research focused on English proficiency alone neglected measures of the other language of instruction (Howard et al., 2004).

Qualitative research methods examine language attitudes and values from the perspectives of students, parents, teachers, and administrators' perspectives (Aylward, 2010; Cowell, 2002; Kanu, 2007). The story and analysis of language values, community use of both languages, and factors beyond classroom instruction work to identify cause and effect connections influencing proficiency in either or both languages of instruction (Nascimento, 2012). Sociological studies based on narrative analyzed field notes, observations, and student work, were used to discover language status in bilingual education. However, analysis of proficiency data for both languages is absent in recent research of bilingual instruction. Proficiency data provided empirical analysis to interpret and analyze. Observations and field notes impart a fuller picture of influencing factors in language proficiency for Yugtun and English. Ethnographic case study supported with quantitative data research was necessary for a full and reliable impression of factors affecting immersion and dual language enrichment (DLE) instruction success.

This comparison study of Yup'ik/English bilingual language speakers is unique because of human subjects who are not culturally diverse as the case is in many dual language schools in the United States. The school district in this study has a student enrollment that is 98% Yup'ik. Almost all students speak Yup'ik and English. Most dual language programs, noted Juarez (2008), "emphasize inclusion, cultural pluralism, and linguistic tolerance that results in the revaluing of students' social differences as resources" (p. 234). Students' social differences within the classroom were not a pertinent factor in valuing language acquisition. However, the social differences between Yup'ik culture and mainstream American culture were a factor worthy of consideration and discussion. The influence of Yup'ik culture upon language acquisition is relevant. The researcher has observed and noted aspects of Yup'ik communication

that vary substantially from English communication. Yup'ik communication uses more facial and body gesture in place of speaking. Intuitive communication through eye contact and body language is much stronger in Yup'ik culture than in mainstream American English culture. When communicating with Yup'ik Americans, there seems to be less of a need to speak than when communicating with mainstream English-speaking Americans. Silence among Yup'ik speakers is acceptable, and wait time is substantially longer. These differences needed to be recognized when test data was analyzed using World-class Instructional Design and Assessment (WIDA) Speaking Assessments for students. WIDA assessments are written assuming the student has similar speaking expectations to most mainstream American English-speaking students (personal observation). The researcher would argue Yup'ik speaking expectations and practices have pronounced differences with English speakers. The differences in language culture of Yugtun/English call for further research than previous studies.

Cummons (2007) described the use of translation during classroom instruction for improving cognates, which vary considerably in Yugtun/English research and must be considered as a key factor in analyzing data. The academic lexicon of English is derived primarily from Latin and Greek sources (Corson, 1997). Thousands of words with cognate relationships are common between English and romance languages, such as French and Spanish. Systematic cross-linguistic exploration of the structure of the Greco-Latin lexicon of English and French as a means of expanding vocabulary knowledge in both languages would seem to be an obvious instructional strategy in French immersion programs (Cummons, 2007)

A key factor for researching bilingual instruction in Yup'ik/English is whether or not the cognates will transfer between these two different languages. English and Yugtun share no common roots. Different areas of the mouth, throat, and tongue are used to pronounce the sounds

of each language. Most Yugtun speakers are unable to hear the “sh” sound of English and native English speakers are unable to make the back of the throat and glottal sounds in the double fricatives of the Yugtun language (personal observation).

Current studies leave the topic of Yup’ik/English bilingual instruction open for qualitative and quantitative research methods. Ethnographic case study research delved into the sociological factors of what parents desire for bilingual education compared to what student outcomes are for learning the majority language above the heritage language. This study also explored the issue of language preservation. Ethnographic research recognized state and national standards do not promote the use of indigenous language programs to preserve cultural identity. The push for globalization threatens languages.

Summary of Research

Research of dual language enrichment bilingual instruction provided insight into cultural traditions lost or kept through bilingual education and curriculum written in indigenous language. Collier and Thomas (2004) posited one outcome of successful DLE programs is the respect and nurturing of the multiple cultural heritages and the two main languages present in the school. DLE leads to teacher belief in value added idea of teaching two languages instead of only helping students become English proficient. Conclusions can be drawn from studies showing bilingual advantage on theory of mind and executive control processing (Barac et al., 2014). The researcher recognized cognitive benefits and cultural identity benefits as value added factors of bilingual instruction.

Research of instruction using DLE has shown promising results from Spanish/English and French/English studies. However, a thorough comparison of immersion bilingual language instruction to dual language enrichment instruction had not been carried out for Yugtun/English

bilingual learners. The intention of this study was to compare the results of students in grade 3 for reading fluency and comprehension who had 50:50 and 90:10 dual language instruction in previous grades. Norm-referenced assessments from dual language enrichment schools were compared. Comparison of Yugtun proficiency data and English proficiency data provided a more complete analysis than similar studies comparing only English proficiency for bilingual students in Spanish/English programs.

Qualitative data from interviews, observations, and student work was analyzed to broaden and deepen the understanding of cultural attitudes toward language acquisition and literacy. Teacher agency and program effectiveness were examined through interview and observation analysis over a one-year period. The researcher has taught immersion students in grade 5 for four years and DLE students in grades 2 and 3 for one year. The researcher observed as an instructional coach at four schools using DLE instruction for a period of one full school year. Observational and test data were available from immersion and DLE schools prior to the full year of observation. The depth of understanding from working closely through a transition to dual language enrichment instructional methods elicited meaningful experiential data giving more complete sociological analysis to this study.

History of Yup'ik language (Yugtun) as an oral and written language is a factor considered in this study. The speaking of Yup'ik language (Yugtun) was forbidden in Bureau of Indian Affairs (BIA) schools existing in villages throughout western Alaska from the 1940s to the 1970s. The goal of education was to “westernize” the Yup'ik people in order to assimilate them into modern culture. Russian and English were brought to Yup'ik people by missionaries and fur traders prior to BIA schooling. Yup'ik language was mostly oral until a standard orthography was developed in the 1960s at the University of Alaska Fairbanks (Kremers, 1996).

Cultural identity related to proficiency of aboriginal language was a factor of this study.

Ethnographic case study research supported with quantitative data analyses was used because limiting this study to Yugtun/English proficiency comparison would have lacked research value for understanding to anthropological forces at work in cultural identity, education, and literacy.

Chapter 3: The Methodology

Introduction

This study of bilingual language proficiency, value of literacy, and cultural factors of language usage used induction and deduction from a theory, with interconnections between data analysis of norm-referenced proficiency tests and observational and anecdotal data analysis in the form of ethnographic research. The use of ethnographic case study research with quantitative data allowed language proficiency assessment data comparative analysis along with ethnographic study describing the core values influencing literacy proficiency in two languages. This study took into account instructional strategies affected by the values of teachers, students, environmental factors and the culture of the community. Thereby, the nature of this study required observation before deduction. Analyzing test data, along with observational, anecdotal, and interview analysis, fleshed out the results and the circumstances that helped explain assessment results (Christian, 2016; Kim et al., 2014).

Critical ethnography in educational research is appropriate when identifying the focus of study for the approach to indigenous and English language instruction in a dual language enrichment pedagogical protocol. This research served as a 3rd person objective narration of participant views (Kepner, 1991). The researcher used meanings of participants' edited quotes to provide depth and value to bilingual instructional research. Through ethnographic research the cultural groups' language was explored and focused upon the intent and outcome of language instruction in 50:50 and 90:10 DLE model protocol for Yup'ik language and English language acquisition. Through interview and observational data of teachers, community members, and administrators, factors affecting teacher efficacy were explored and extrapolated.

Appropriateness of Qualitative Design

In a qualitative ethnographic case study, description and interpretation of the values and practices of language instruction is only possible in context, and effort to share what is learned from teachers, community members, and administrators requires an awareness of the context. (Merriam, 2009; Taylor & Bogdan, 1998). Dual language instruction and Yup'ik language proficiency has various meanings for different people. The goal of this study was to learn about the values placed on language learning and dual language instruction from the perspective of the teachers, administrators, and community members involved in bilingual education. Rather than attempting to impose a definition of dual language value from the research literature, the purpose of this ethnographic case study was to learn how teachers valued and practiced dual language pedagogy and what the student effect was.

Data in this study are analyzed inductively (Bogdan & Biklen, 2006). The bottom-up approach of data analysis allows the pieces to take shape without first jumping to conclusions about the answer. The investigator examined the parts and then assembled those into a theme or a series of themes. Coding and themes from the interview data were extracted and organized using ATLAS.ti (2017) qualitative analysis software.

Purpose of the Study

The purpose of this ethnographic case study with quantitative support was to examine the beliefs, behaviors, and shared perspectives of a Yup'ik population group on the topic of bilingual literacy in English and Yugtun. The purpose of quantitative analysis of language proficiency was to test the theory of dual language enrichment (DLE) instruction compared to transitional bilingual education (TBE) instruction controlling for students enrolled in two-way dual language program and transitional bilingual education (one-way) language program from kindergarten

through grade 3 at a school district in western rural Alaska. The problem for exploration was the effectiveness of bilingual instruction for students entering school who are nearly linguistically barren. The dual language enrichment model assumes students enter school with a strong first language (L1) (Gomez, 2006). Gomez's (2006) research indicated students with a strong first language transfer meaning to the second language through work with a bilingual pair. In the Gomez and Gomez model, each student is paired with a student whose dominant language (L1) is in the second language of instruction. This study posed the question: What if the majority of students entering school have limited vocabulary in two languages, neither of which is a strong first language? Hamayan, Genesee, and Cloud (2013) proposed strategies for developing advanced academic language skills in the L2 during primary grades for developing literacy skills necessary for academic instruction in the second language in higher grades. Research unwrapped causes and correlations between value of language proficiency and literacy acquisition and the role of teacher efficacy and instructional rigor in affecting language proficiency.

Previous studies of DLE effectiveness have focused on Spanish/English speaking student population. DLE has shown to be more effective than immersion with Spanish/English learners when done with fidelity (Collier & Thomas, 2004; Trevino Mendez, 2015). A key factor for researching bilingual instruction in Yup'ik/English was whether or not the cognates transfer between these two different languages (Moughamian et al., 2009; Saunders et al., 2013). English and Yugtun share no common roots, unlike Spanish and English for which DLE is currently most widely used and researched (Christian, 2016). After an exhaustive search, research on Yup'ik language/English language bilingual learners could not be found. Yup'ik language speakers are 14th in the "Top 20 EL Languages, as Reported in States' Top Five Lists: SY 2011–12" (OELA, 2015, p. 1).

Collier and Thomas (2006) found ESL achievement gaps can be closed and Spanish-speaking ESLs can surpass monolingual learners through dual language enrichment instruction done with fidelity and rigor over at least three years in primary and elementary grades. Goldenberg (2008) and Cummins (2007) cautioned transfer of reading decoding and comprehension skills might not occur spontaneously or simultaneously. Teachers need to purposely teach ELs that the reading skills they have in their first language can also be applied to their second language. This study sought to determine whether Yup'ik language bilingual learners make similar learning progress with at least three years in Yugtun and English dual language enrichment instruction. Research findings from August and Shanahan (2006) showed, “oral proficiency and literacy in the student’s native language (L1) will facilitate development of literacy in English, but literacy in English can also be developed without proficiency in the L1” (as cited in Echevarria, Vogt, & Short, 2013, p. 6). Research on the influence of home language experiences and sociocultural factors is limited (August & Shanahan, 2006). This study added to the research that is lacking in these areas.

The subjects of this study were classified as English Language Learners by government designation. The researcher wishes to make clear the term English Language Learner (ELL), used in quantitative studies of language proficiency bilingual students, is not accurate in DLE instruction (Williams, 2011). Students in DLE are learning two languages; in the case of this study students were Yugtun and English Language Learners. The designation ELL recognizes the value-added benefit model of learning two languages simultaneously and with equal value. The heritage language is not considered of lesser value, nor is English considered a language of remediation. Clarification between instruction for ELL and bilingual learners must also be made. Sheltered Instruction used by the schools in this study “is designed specifically to advance

English learners' knowledge and use of English in increasingly sophisticated ways (Saunders et al., 2013, p. 14). English Language Development Instruction (ELDI) increases students' English proficiency level to help them be successful in academic studies. The students in this study speak two languages, but are not proficient at academic English (Williams & Rearden, 2006). Previous studies of DLE effectiveness in increasing language proficiency have focused upon English Language Learners defined as "students whose English proficiency has not yet developed to a point where they can profit fully from English instruction" (Garcia, Jensen, & Scribner, 2009, p. 1). DLE protocol training used by the district in this study comes from the Gomez & Gomez Dual Language Consultants (2016b) model which originated in Texas. The Texas Administrative Code (2011) of an English Language Learner as "a person who is in the process of acquiring English and has another language as the first native language" (p. 1) is not an accurate descriptor for Yup'ik/English students enrolled in DLE schools. Many students entering Yup'ik/English DLE schools are not fluent in either language and literacy must be built in Yugtun and English (researcher observation). Documented achievements of ELs in transitional bilingual education (TBE) programs at the elementary level (Baker, 2006; Collier & Thomas, 2014; Freeman et al., 2005) did not indicate significant differences between the achievements of ELs in DLE and TBE programs (Fralick, 2007; Montes, 2005; Trejo, 2015).

Studies of bilingual language acquisition and proficiency have used qualitative and quantitative means to measure and analyze effects of instructional methods and influencing cultural factors. Kim et al. (2014) used quantitative methods of analyzing test data for predictors of speed of English acquisition for dual language learners. Collier and Thomas (2004) and Gilbert (2001) used quantitative comparison of 1st through 5th grade students' English Reading

Mean NCE scores to analyze the outcome of DLE programs for Spanish/English language learners.

Studies of Native American and First Nations bilingual indigenous language/English instruction have used qualitative methods to give an understanding of the issues affecting literacy acquisition in unique indigenous cultures. Sociological studies based on narratives by Dorais (2002) and Fitts (2006) are examples of qualitative methodology broadening the understanding of the value of heritage language use on cultural identity. This researcher presented comparative analysis using language proficiency data along with interview and observational data analysis in order to study Yugtun/English proficiency and the cultural identity issues affecting the acquisition of both languages. Barac et al. (2014) and Pearson (2007) used qualitative and quantitative research on the topic of bilingual acquisition for marginalized students and sociological factors to help explain quantitative analysis of bilingual proficiency. Ethnographic research by Coelho (1998) and Delpit (2006) brought to light cultural values which may be in conflict with school values that lead to misunderstanding student motivation and literacy skills. Analysis of quantitative data alone would not provide this study with depth of cultural understanding necessary for implications of bilingual instructional methods. The use of “village English” (researcher observation) may be considered a unique dialect that according to Christian (1997) and Jackson (2007) may lead teachers to underestimate the abilities of students. Through ethnographic methodology researchers learn about a culture from the inside and may then interpret data and draw conclusions based on their understanding (Creswell, 2007; Wolcott, 2008). As a participant observer in the culture of study this researcher was able to acquire evidence of cultural values before making reasoned generalizations about motivation and literacy of students (Lenski, Crumpler, Stallworth, & Crawford, 2005).

Research Questions

As some communities work to preserve the indigenous language, attitudes against academic language may inhibit the motivation to become literate in the academic language. There is a “distinction between basic communication and academic language, for example, characterized academic language as decontextualized and cognitively demanding, whereas social language tends to be more contextualized and less cognitively demanding” (Saunders et al., 2013, p. 19). As communities adapt “village English” for their use of 21st century technology, motivation to learn Yugtun will possibly be inhibited. Media, popular entertainment, texting, and social media are English-only and heavily engaged in by Yup’ik youth. It is not known whether 50:50 dual language instruction model is more effective than 90:10 dual language immersion/transition instruction for Yup’ik/English language learners.

The primary research question guided this study:

RQ1: How does language proficiency compare between 3rd grade students instructed in 50:50 dual language enrichment and 3rd grade students instructed in 90:10 transition immersion methods in Yugtun and English?

The following secondary questions were addressed:

RQ2: How does the value of speaking the Yup’ik language motivate learning to read and write in Yugtun?

RQ3: How does the value of English as the academic language motivate learning to read and write in English?

Basis of Ethnographic Paradigm

Reflexivity of central tendencies derived from five years as a participant in research setting indicated the following ontological framework. The researcher began data collection and analysis with the belief that:

1. Students receiving dual language enrichment instruction with fidelity from kindergarten through grade 3 show higher levels of language proficiency in Yugtun and English reading, writing, speaking, and listening tests.
2. The value the community, family, teacher, and school shows for speaking the Yup'ik language will motivate learning to read and write in Yugtun.
3. The value the community, family, teacher, and school shows for English as the academic language will motivate learning to read and write in English.
4. Students receiving dual language enrichment instruction with fidelity from kindergarten through grade 3 will not show higher levels of language proficiency in Yugtun and English reading, writing, speaking, and listening tests.
5. The value the community, family, teacher, and school shows for speaking the Yup'ik language will not motivate learning to read and write in Yugtun.
6. The value the community, family, teacher, and school shows for English as the academic language will not motivate learning to read and write in English.

The researcher's beliefs were based on prior research showing positive correlation between students' language proficiency and bilingual enrichment protocol instruction combined with teacher efficacy in students' ability to learn two languages simultaneously (Collier & Thomas, 2004; Gomez, 2006; Ray, 2009). The basis of the researcher's belief regarding the second and third RQs focus on motivation to read and write as a result of the values that family,

community members, and teachers exhibit for learning a particular language. The value the community, family, teacher, and school show for a language will increase proficiency and use of the language (Hickey, 2016; Tedick & Wesely, 2015; Trejo, 2015).

Research Design

Ethnographic case study research of dual language and immersion language instruction of Yup'ik/English bilingual students focused on value-added bilingual education, efforts to save an at-risk indigenous language, and benefits of heritage language literacy to support cultural identity. The purpose of using ethnographic methodology was to understand data analysis of literacy through the lens of Yup'ik culture as a theoretical framework (Creswell, 2007).

Ethnology was a useful approach for analyzing the conceptual research questions of the value of bilingual literacy in Yup'ik culture. Anthropological analysis provided historical context along with cause and effect considerations from a historical viewpoint of this recently oral language society. Wolcott (2008) recommended researchers become immersed in the day-to-day lives of the people being studied. This researcher has been immersed in Yup'ik culture for over five years, involved in immersion and dual language instruction of Yup'ik bilingual students and teachers, and worked with community members to develop an understanding of the value of literacy in each language. This researcher had access to observational and interview data from DLE classrooms and community members. Qualitative data from interviews, observations, and student work were analyzed to broaden and deepen the understanding of cultural attitudes toward language acquisition and literacy. Qualitative research methods examined language attitudes and values from the perspectives of students, parents, teachers, and administrators. These stakeholders are part of the community of research.

Quantitative analysis was done using the comparison of language proficiency scores at schools using 50:50 DLE and schools using 90:10 DLE Yugtun and English instruction. Reading and language test scores in English and Yugtun were used to verify effectiveness of dual language and immersion language instruction comparatively. The intention of this quantitative comparison/causal method was to compare the results of transitional immersion and dual language instruction for students in grade 3 for reading fluency and comprehension, and English and Yup'ik listening and speaking skills. Norm-referenced assessment from transitional immersion DLE 90:10 (one-way) and DLE 50:50 (two-way) schools were compared. Comparison of Yugtun proficiency data and English proficiency data provided a more complete analysis than similar studies comparing only English proficiency for bilingual students in Spanish/English programs (Collier & Thomas, 2004; Gilbert, 2001; Gomez, 2006; Kim et al., 2014; Nakamoto, Lindsay, & Manis, 2012).

Quantitative data comparison of language proficiency provided a lens through which to interpret categorization and analysis of interviews and observations of the target group used for ethnographic understanding of literacy in the Yup'ik culture. Balanced representation of qualitative data was obtained from interviews of four categories of stakeholders in four Yup'ik villages of the Yukon-Kuskokwim Delta.

1. Yup'ik/English speaking teachers
2. Kass'ak (outside) English only speaking teachers
3. Community members
4. School administrators

Observational data from dual language enrichment instruction and transitional immersion instruction settings were categorized and analyzed for causational factors of language

proficiency scores. Through ethnographic study, this researcher looked for patterns in both data sets and drew connections between the culture-sharing group and larger theoretical frameworks (Creswell, 2007).

The information from this study could not be obtained through the use of quantitative data alone. Analyzing language proficiency scores would not give a clear picture of the cause of language proficiency levels. Qualitative analysis alone would not include empirical data to inform the purpose of bilingual education to develop proficiency in Yugtun and English. Using ethnographic case study methodology helped answer research questions through data analysis and cultural analysis to provide a more complete understanding of causational factors at play in bilingual acquisition in the Yup'ik culture (Aylward, 2010).

The use of ethnographic case study research for the study of dual language enrichment instruction results provided the research community with subjective data and the analysis of the data through cause and effect ethnographic observations and interviews. The Yup'ik culture and the Yugtun language are a new and unique subject for thorough correlational ethnographic research. Aylward (2010), Cowell (2002), and Lyster et al. (2009) used interview data of teachers for their bilingual research on dual language instruction for indigenous languages including Arapaho, Inuktitut, and Spanish. While their studies lend understanding to bilingual literacy acquisition, the studies are more subjective and suspect for bias due to the variance in interpretation from differing ethnographic backgrounds.

Sociological narrative research methods used by Dorais (2002), Fitts (2006), and Ray (2009) focused inquiry on the cultural value of identity in learning an indigenous language along with English. Value held toward an instructional language should be analyzed as a causational factor of language acquisition. Culture of the educational system calls for accountability of

language learning using assessment data. Collier and Thomas (2004), Gilbert (2001), Gomez (2006), and Kim et al. (2014) used test data for analysis of the success of DLE with Spanish/English students. While data-driven reflection and analysis guide and improve instructional practices, cause and effect connections have not been made between length of time students have been receiving English instruction and national test measure English literacy. Narrative from qualitative research methods is able to provide the connections.

Target Population, Sampling Method, and Related Procedures

As an ethnographic study, this researcher identified the Yup'ik culture-sharing group. Members of the Yup'ik culture are categorized as sharing three key ideas: preserving Yup'ik cultural traditions including subsistence practices, protecting their Native Alaskan rights, and using 21st century technology with proficiency. Meaning plays a key role in motivating and compelling language learning because of the need to express and comprehend meaningful communication (Saunders et al., 2013). Key ideas included in this research were based upon Yup'ik and English language proficiencies. This researcher focused upon three belief systems toward literacy: (a) Greater value of Yugtun oral proficiency, or positive beliefs about dual language instruction; (b) Greater value of English literacy, or negative beliefs about dual language instruction; and (c) Equal value for proficiency in written and oral Yugtun and English, or neutral beliefs about dual language instruction. These belief systems varied between generations, families, and villages within the Yukon/Kuskokwim Delta Region. Coding was based on the three key ideas of Yup'ik culture preservation and upon the three key belief systems toward literacy (Winsler, Kim, & Richard, 2014).

Ray's (2009) research showed first language was better maintained in some dual language learner bilingual programs than others, depending upon teachers' and parents' belief

systems toward literacy value in one or both languages. “Teachers who can speak the L1 of DLLs in the classroom, and who understand and accept dual language learners may create a more comfortable learning environment for DLLs” (Chang et al., 2007, p. 246). Differences in teacher proficiency of how to teach academic language at different levels and appropriately assess students' academic language proficiency were explored through this research (Freeman & Freeman, 2011). L2 competence of bilingual students can be improved if teachers are explicit and systematic in content instruction and integrating language consistently across grade levels (Lindholm-Leary & Genesee, 2014).

The target population of this study encompassed participants from four villages in rural western Alaska accessible by plane. All four villages are diglossic Yugtun/English. Languages spoken in the villages may be categorized into the following groups: traditional Yugtun, academic English, and village English. This researcher recognized village English as a vernacular of separate identity because village English was spoken and written by students in their school writing and communication. Village English has specific grammatical differences compared with academic English. This study focused on proficiency in Yugtun and academic English. Yup'ik people mainly speak village English, which is far different than academic English.

The schools using DLE instruction have teachers trained in the Gomez and Gomez Dual Language Enrichment Model, which promotes the development of content-area biliteracy (Gomez & Gomez Dual Language Consultants, 2016a). The Gomez & Gomez Dual Language Consultants (2016b) Dual Language Enrichment Model currently used for teacher training provides a protocol in which subject areas are taught in one language, with vocabulary enrichment in the other language. Gomez & Gomez Dual Language Consultants (2016a) used

bilingual pairs, bilingual learning centers, and bilingual research centers. According to Gomez & Gomez Dual Language Consultants (2016b) training, students whose first language is English are grouped with students who are dominant in another language different from English. Pacific Policy Research Center (2010) defined two-way dual immersion bilingual programs sharing, “three key characteristics: a. instruction in two languages, b. one language at a time, c. peer-to-peer facilitated language sharing” (p. 2). Previous research has shown greater language proficiency after three to five years of consistent high-level dual language instruction for students in Spanish and English bilingual programs (Nascimento, 2012).

This study used stratified select sampling to obtain qualitative data about the language belief systems and language practices of four age categories in four locations. Purposive sampling was used in obtaining quantitative data from students in grade 3 in four schools in Lower Kuskokwim School District. The schools were specifically chosen as DLE and immersion transition schools. Data from Yugtun and English language acquisition pre and post DLE implementation were analyzed for student proficiency levels of each language. Levels of comparison using nationally normed tests of reading fluency were compared. Coding techniques were used to identify themes from the interview data.

Instrumentation

Quantitative data analysis of Yup’ik Proficiency Tests, WIDA, and AIMSweb assessments was used to compare language proficiency growth between four schools for students in grade 3. Language proficiency from schools using DLE 50:50 instruction in kindergarten and first grade from 2016/2017 were compared to schools using DLE 90:10 instruction in kindergarten and first grade. AIMSweb validity and reliability of CBM fluency were confirmed through multiple studies (AIMSweb, 2014). WIDA ACCESS Annual Tech Report 6 (2009–

2010) provided data on validity and reliability. WIDA Access for ELLs 2.0 Summative Assessment is a “secure large-scale English language proficiency assessment” used by schools in Alaska to measure reading, writing, listening, and speaking skills of ELL students” (WIDA, 2014, p. 5). WIDA validity and reliability measures meet United States Department of Education review (WIDA, 2014). Yugtun R-CBM was developed through collaboration between LKSD and WIDA for using the same standards of reliability as WIDA (G. Miller, personal communication, October 14, 2016).

Data Collection

Reading proficiency in English was analyzed from the results of AIMSweb Reading Curriculum Based Measurement (R-CBM) assessment. “AIMSweb is designed for universal screening and progress monitoring to identify struggling students early and to monitor student acquisition of foundation academic skills” (AIMSweb, 2012, p. 2). For the R-CBM standardized test of oral reading, students read a grade-level passage for one minute while a trained teacher evaluates the student’s reading ability. As the student reads a passage aloud for one minute, the teacher “records any error – words that are mispronounced, substituted, omitted, or read out of sequence that the students does not self-correct within 3 seconds” (AIMSweb, 2014, p. 5). According to AIMSweb (2014), the R-CBM is research-based and curriculum independent; and meets professional standards for reliability, validity, and sensitivity to improvement.

Yup’ik Proficiency Test (YPT) was developed by Lower Kuskokwim School District in cooperation with WIDA as a measure for screening comprehension of Yugtun oral language. The Yup’ik Proficiency Test was developed with WIDA consultation as a measure of listening, speaking, and reading ability (G. Miller, personal communication, October 14, 2016). WIDA and YPT test data were collected from four schools. YPT test data were found to be inaccurate

measures of Yugtun proficiency for reading fluency or reading comprehension so YPT results were not factored into the data analysis. Instead the Yup'ik equivalent of AIMSWeb, called the Y-CBM was used as a raw score of grade-level words read in one minute minus errors. Y-CBM is not a measure of Yup'ik language comprehension. Y-CBM is a measure of decoding and fluency.

Ethnographic research was conducted through informal interviews among participants at DLE schools and community members of the village schools. Data were analyzed and categorized into themes. Results of the findings were organized to develop deeper understanding of factors affecting literacy in the Yup'ik indigenous group. The value and attitude of teachers, administrators, parents, and elders toward Yup'ik and English literacy was compared to literacy proficiency data as a method of discovering correlational effect.

Operationalization of Variables

Attributes of this study included unique cultural values that differ from mainstream school values based on the values predominant in Caucasian middle class society in the United States (Diller, 1999; Michie, 2007). Variables in student and teacher attitude, teacher training, student motivation on assessment, and value of literacy were taken into consideration in qualitative and quantitative data analysis.

Variables of this study included, but were not limited to, variations in rigor of instruction, expectations of family and community members, and students' motivation for learning and test taking. DLE teachers practiced varying levels of implementation, but not of equal rigor (researcher observation). School administrators vary in buy-in and support for DLE protocol. Families and community members vary in their dedication and practice of using Yugtun and grammatically accurate English. Teacher training is a substantial variable of this research.

Yup'ik teachers are most often not certified, but are working toward an associate teaching classification. English teachers are certified but not equally trained in DLE protocol. High levels of English teacher turnover add inconsistency in training and application of DLE instructional methods (researcher observation, 2016).

Analysis of Quantitative and Qualitative Factors

Quantitative data were reduced to mean scores of language proficiency tests by method of instruction. Qualitative data were reduced to rating scales from anecdotal and interview data collection and analysis. Data were analyzed for comparisons of outcomes in 50:50 and 90:10 Yup'ik/English dual language enrichment language instruction through test scores in English and Yugtun reading proficiency. Analysis of factors affecting results was codified using interview and observational notes to formulate categories applicable to construct of meaning in relation to language acquisition.

Quantitative data were organized by school, grade level, and students' levels of proficiency. This researcher established time students had been in either 50:50 or 90:10 dual language enrichment instructions. Qualitative data were organized according to three belief systems toward literacy: (a) Greater value of Yugtun oral proficiency, or positive beliefs about dual language instruction; (b) Greater value of English literacy, or negative beliefs about dual language instruction; and (c) Equal value for proficiency in written and oral Yugtun and English, or neutral beliefs about dual language instruction

Limitations and Delimitations of the Research Design

This study was limited to findings from four Yup'ik villages among hundreds of Yup'ik villages ranging over an area of 22,000 square miles of road-less tundra (AdvancEd, 2015). All villages do not share the same degree of belief systems toward English and Yup'ik language

proficiency. Variations in Yup'ik dialect differ between villages (researcher observation). This study was limited to Central Yup'ik Language because that is the YPT assessment language.

This researcher is not fluent at oral or written Yup'ik language. All interviews were conducted in English. When Yugtun was the language of instruction, the researcher used non-verbal cues and limited understanding of Yugtun to describe content. Yugtun communication is by nature more intuitive and reliant on gestures than traditional English (Price, 2003). This researcher provided definitions of the most common gestures used in place of spoken words.

This study was limited in time to qualitative data from observations and immersion in Yup'ik culture from 2011 through 2017. Interview data of Yup'ik residents' recollections from time prior to the current research years was sought for clarification of current value toward literacy. A further limitation was that only the reading achievement scores of bilingual language learners in two program types were compared: 50:50 DLE and 90:10 TBE. Other bilingual education programs were not included in this analysis because DLE and TBE are the two programs being used in Yup'ik and English bilingual instruction.

Delimitations included context from layers of time present in interviewees conceptions of language development from past to present. Peer debriefing of interview analysis gave perspective to this research. As recommended by Watt (2007), reflective description of ethnographic data collected provided objectivity enabling new insights into language attitudes and their effect on literacy. This study was delimited to ELs chosen based on the following criteria: enrolled in the district in this study public schools from 2010–2017, third grade students, and in 50:50 DLE programs or 90:10 TBE programs with similar demographics and located in similar villages.

This study analyzed the results of third grade ELs, but did not consider the long-term benefits that support the use of DLE over TBE programs as documented by researchers. Collier and Thomas (2014) and Lindholm-Leary (2005) suggested DLE programs led to higher student outcomes when provided for at least six years. Ferron (2011) concluded when ELs participate in DLE programs, they are able to achieve better results on standardized assessments and graduate at higher rates in high school, and perform more effectively in higher education courses.

Internal and External Validity

External validity in this study was inherent in analysis of quantitative methods used for instrumentation by national norms from assessment data. WIDA and AIMSweb are recognized as valid measures of language development (AIMSweb, 2012; MacGregor et al., 2010). Test administration affected validity of measurement due to lack of calibration in trained test administrators from school to school and within schools varying by grade levels.

Internal validity of the qualitative methodology of this study was promoted through the use of a journal in which anecdotal and observational data were compiled. This method allowed narrative consolidation and extension through reflection (Watt, 2007). By articulating thoughts in a reflective journal, this researcher continuously developed a deeper understanding of biases, assumptions, and generalizations in order to create a transparent understanding of causes and effects of language acquisition and transition. Themes were identified and analyzed for consistency and causational factors.

Expected Findings

Findings from this study added to research of bilingual educational practices for indigenous and under-represented cultures. The findings provided insight into best practice for simultaneously developing proficiency in two languages. This researcher found cause and effect

connections and explanations for proficiency or lack thereof in bilingual language acquisition. Transferability of this study may be useful for further research in bilingual education for indigenous languages and language preservation and morphology.

This study broadened understanding of bilingual acquisition. Expected findings for this study of maintenance bilingual education included level of L1 proficiency and academic achievement and acquisition of literacy in an L2. Results from this study generated deeper understanding of the relationship between value-added language developments of a heritage language. This study established a base for comparison of further studies of bilingual education for indigenous languages. Understanding of how a community's attitudes affect language acquisition and proficiency were explored and deepened through this research. Cultural identity as a purpose for indigenous language proficiency was explored through ethnographic qualitative data analysis.

Ethical Issues in the Study

Benefits of this study included improving instructional practice for bilingual students, identifying gaps in bridging cultural understanding for teachers of Yup'ik students, and gaining deeper understanding of the transfer of indigenous language to cultural identity. Lyons (2014) posited instructional needs of bilingual students are different from those of English only speaking students. "Policies and programs designed to improve the academic achievement and educational outcomes of English-only students are often ineffectual for Emerging Bilingual Students and sometimes harmful (Lyons, 2014, p. 4). Findings from this study addressed instructional needs unique to bilingual Yup'ik/English-speaking students.

Risks of this study were cultural misunderstandings or misinterpretations that could have occurred due to interpretive differences. Ethical concerns were addressed through obtaining

permission from the school district's Board of Education prior to the commencement of this study. Informed consent and assent were obtained from the participants in the interview and observational data collection process (see Appendix F). Conceptual boundaries were recognized and organized to gain understanding and depth for qualitative analysis (Hatch, 2002).

The minimal risk of psychological harm related to participation in this study was diminished with the long-term relationship building the researcher engaged in with the participants. The researcher established working professional relationships with staff members, administrators, and community members over a five-year period prior to this study. Participants of this study had a pre-established comfort level of trust in sharing opinions of teaching strategies, language acquisition beliefs, and bilingual language philosophies and histories with the researcher. Limiting risks associated with information disclosure of all locations and personal data included the use of number and letter identifiers instead of people and place names.

Summary of Methodology

This quantitative analysis compared the reading achievement of third grade English/Yugtun learners enrolled in 50:50 and 90:10 dual language education programs in order to ascertain which program was more effective in improving the reading proficiency of English/Yupik learners as indicated by their performance on the WIDA and YPT assessments. As LeCompte and Preissle (1993) pointed out, use of qualitative ethnographic data was beneficial to overcome research gaps and provide more description and relevancy. The qualitative study provided deep rich content for understanding the value held by stakeholders for proficiency in Yugtun or English to the progress of literacy development of both languages.

Teacher training and efficacy have substantial influence on the success of bilingual education outcomes (Samson & Collins, 2012). This study provided data from teacher interviews

to develop an understanding of factors influencing teacher efficacy. This research led to further questions about what teacher training should entail to provide fidelity of bilingual instructional methods.

The study utilized comparative design in order to examine pre-existing conditions. This study attempted to determine if English/Yupik learners in two dual language education programs perform differently on the same reading assessments. Participants' scores were analyzed to determine significant differences between the performances of ELs (Genesee et al., 2006). Qualitative analysis of attitudes exhibited about Yupik and/or English language acquisition provided rich descriptive exegesis for student language proficiency levels. Uncovering historical and ethnographic beliefs about language and communication in Yup'ik culture provided understanding of the complexities of cultural identity gained by fluency in the indigenous language (Kanu, 2007). As Teddlie and Yu (2007) advocated, quantitative and qualitative research provide meaningful integration and brings a broader perspective to data interpretation. Through ethnographic case study with quantitative data support this study provided data analysis with background cultural perspectives.

Chapter 4: Data Analysis and Results

Introduction

The purpose of this ethnographic case study and comparison data analysis was to examine the beliefs, behaviors, and shared perspectives of a Yup'ik population group on the topic of bilingual literacy in English and Yugtun. The purpose of a quantitative analysis of language proficiency was to test the theory of dual language enrichment (DLE) instruction compared to transitional bilingual education (TBE) instruction controlling for students enrolled in 50:50 two-way dual language program and 90:10 transitional bilingual education language program from kindergarten through grade 3 at a school district in western rural Alaska. This ethnographic research described, analyzed, and interpreted the proficiency of students' language learning in Yugtun and English at schools using Dual Language Enrichment Instructional protocol. This study also presented perspectives from teachers, administrators, and community members about their perceived value of bilingual education using dual language methods. Chapter 4 presented the results and general conclusions of the study. Chapter 5 discussed implications from the results, presented limitations of the study, and made recommendations for future study.

This study was comprised of two processes. The first process was acquiring and analyzing, qualitative data from interviews and observations in the culture-sharing group of four bilingual public schools in Yup'ik villages of western Alaska described the ideas and beliefs of the group. The use of ethnographic qualitative data in this study developed deeper understanding, comparative analysis of culture-sharing perspectives, and interpretation of quantitative data. Twenty-six interviews were collected and analyzed using ATLAS.ti (2017) qualitative analysis software. The second process of this study undertook quantitative analysis of test data showed

student proficiency in Yugtun and English, delving into effectiveness of DLE protocol in various settings within one school district.

Quantitative data were organized by school, grade level, and students' levels of proficiency. This researcher established time students have been in dual language enrichment instruction with certified and classified teachers with varying levels of experience. Qualitative data were organized according to three belief systems toward literacy: (a) Greater value of Yugtun oral proficiency, or positive beliefs about dual language instruction; (b) Greater value of English literacy, or negative beliefs about dual language instruction; and (c) Equal value for proficiency in written and oral Yugtun and English, or neutral beliefs about dual language instruction.

Quantitative data were reduced to mean scores of language proficiency tests by method of instruction. Qualitative data were reduced to rating scales from anecdotal and interview data collection and analysis. Data were analyzed for comparisons in quality and rigor of Yup'ik/English instruction and dual language enrichment instruction through test scores in English and Yugtun reading proficiency. Analyses of factors affecting results were codified using interview and observational notes to formulate categories applicable to construct of meaning in relation to language acquisition.

Description of the Sample

Qualitative research was conducted for the purpose of synthesizing explanatory sequential design. In addition, interview coding was used to interpret how qualitative results explain quantitative results. This method was used as a means to compare teacher factors that may have influenced student language proficiency test scores. Interview data was collected from four school sites in western Alaska. Informal and formal observational data were collected using

Gomez and Gomez (2016b) DLE Protocol. Coding and themes were derived from observational data using hand coding and ATLAS.ti (2008). Quantitative comparison was not used from the observational data because the data were not evaluative in purpose. Observational data were used to create the context, or picture, of instructional practices in DLE at the four study sites. While specific ethnomethodology was not sought out during data collection, the opportunity to use social interaction and conversation analysis presented itself and influenced research coding and themes (Hatch, 2002; Maynard & Clayman, 1991).

Two of the four school sites studied used 90:10 dual language protocol for Yup'ik/English instruction in kindergarten and grade 1, and two used 50:50 dual language protocol for Yup'ik/English instruction in kindergarten and grade 1. All four sites used 50:50 Yup'ik/English instruction in 2nd and 3rd grades. Teacher certification and experience varied widely between sites and grade levels. Teacher experience, certification, and DLE training were included as factors affecting student assessment outcomes.

Five to seven interviews were completed at each of the four sites. Interview sources included English teachers, Yup'ik teachers, administrators, and community members. Interviews of two curriculum and program specialists from the school district office were included in the research for a perspective of protocol goals and definition of fidelity of implementation of the language instructional model used by the district. A total of 26 interviews were collected and analyzed using ATLAS.ti (2017) qualitative analysis software. Coding and themes were extracted from the interview data. Interview questions were reflexive in nature, causing the participants to share their personal experiences and reflect upon their views based on the research questions.

Teacher, administrator, and community member interviews focused upon the following questions:

1. What language did you learn to speak at home as a child, or what was your first language?
2. When did you learn to speak another language? How old were you? How did you learn the other language? How did you feel about learning another language?
3. How do you feel about your students/ children learning Yup'ik language?
4. How do you feel about your students/children learning English language?
5. How important do you believe it is to be able to read and write well in Yup'ik and in English?

Follow up interview questions varied depending upon the interviewees' experiences with language instruction. Examples of follow up interview questions were: 1. How effective do you feel DLE is in building bilingual literacy? 2. What do you feel schools should be doing for language instruction?

Demographic Overview of the Interview Participants

The ages of the participants ranged from 19 years to their late 50s. All lived in villages where students were taught in English and Yugtun in kindergarten through grade 3, and some lived in villages where children were taught in English and Yugtun in kindergarten through grade 5. Yugtun was spoken as the majority language by all ages of the population in three of the four villages. English was spoken as the majority language for people under the age of 40 in one village. Teachers who spoke English only and teachers who spoke English and Yup'ik language lived in all four of the villages.

Four site administrators were interviewed, one at each site. Two site administrators were female and two were male. One site administrator was bilingual in English and Yup'ik; three were English monolingual. Two of the four site administrators were in their first year at the school district and new to DLE.

Of the 23 classroom teachers interviewed, 12 were Yup'ik bilingual teachers and 11 were English-speaking teachers. The eleven English-speaking teachers ranged in age from mid-20s to early 60s, these teachers also ranged in teaching experience from their first year of teaching to 30 year veteran teachers. All twelve Yup'ik teachers were bilingual in Yup'ik and English. Several of the Yup'ik teachers interviewed were associate teachers enrolled in University of Alaska, Fairbanks courses to obtain their certified teaching credentials. Several of the Yup'ik teachers interviewed were certified teachers. The Yup'ik teachers ranged in age from their mid 20s to their mid 60s. Experience in teaching ranged from first year to more than 30 years.

Twelve community members were interviewed. Equality of female and male, equality of range in ages from 18 years to mid 70s, and equal disbursement among the four sites under study was applied. Community members were asked the same questions as all other interviewees. Community members often shared further information about language acquisition and the history of learning Yugtun and English. Values and attitudes about English and Yugtun used and taught at home and school were shared by community members more than by school administrators and teachers.

Site Administrators were coded as SA 1–4. English monolingual teachers were coded ET 1–11. Yup'ik bilingual teachers were coded YT 1–12. Community members interviewed were coded CM 1–12. Codes were used for anonymity as well as organizational structure when presenting qualitative data throughout Chapter 4.

All classroom teachers agreed to the classroom observation. Kindergarten, 1st, 2nd, and 3rd grade DLE classrooms were observed. Nine of the 12 Yup'ik teachers interviewed were primary or elementary teachers and three were middle school or high school teachers. Two of the Yup'ik teachers interviewed taught only Yup'ik language and culture for middle grade students. All teachers agreed to the interviews and signed the consent forms prior to the first interview. Four site administrators agreed to be interviewed and all signed the consent forms prior to the first interview.

Research Methodology and Analysis: Qualitative Methodology using Interview and Observational Data

Categories indicating the following factors were collected for K – 3rd grade experiences of the analyzed students' scores.

- Level of teacher experience (years teaching)
- Teacher DLE training experience
- Teacher's first language
- Teacher credentials

Interview Coding

Creswell (2013) suggested that through an interview process the “*what*” and “*how*” can be provided to the reader regarding the participants' experience or the context (p. 194). Interview data provided a wide variety of what stakeholders' concerns were and how stakeholders felt about language acquisition and language instruction. Of the 23 teachers and four site administrators interviewed, the length of each interview ranged from six minutes to 25 minutes, depending upon the extent to which the interviewee replied to each question. Each interview used the general format questions to facilitate specific perception of bilingual instruction

response. Each interview closed with open-ended questions reflecting the research question, “How effective do you believe dual language instruction is for helping students become proficient at both English and Yugtun?” All teachers interviewed had knowledge of DLE, and the elementary teachers whose classroom instruction was observed had been trained in DLE to varying degrees. The interviewee with the longest time of experience in DLE was in the 5th year of using Gomez and Gomez (2016b) elements. The interviewees with the shortest time of experience in DLE were in their first year and had minimal training.

Community interviews took place in school common areas, at community members’ homes, and at airport waiting areas. The researcher inquired whether the community member was willing to be interviewed about their feelings and experiences with English and Yugtun, the interviewee signed the consent form, and the interview was recorded on the researcher’s phone or computer and then later transcribed. Because community members’ and Yup’ik teachers’ roles overlapped, coding and analysis for community members was separated from Yup’ik teacher analysis through the lenses of value for language acquisition and historical perspective of bilingual experience. As interviews were transcribed, the following themes began to arise in conversation: passion for preserving the Yupik culture, the need for community and family buy-in for literacy in English and Yup’ik, and the need for more thorough teacher training and teacher efficacy.

After the interview audio files were transcribed, the interviews were coded. Attributes were listed that were thought to influence perception of dual language instruction and bilingual instruction in general. The attribute list was based upon researcher experience and information drawn from literature. The list of factors was used as a starting point for coding the transcripts. A

representation of these factors is shown in Figure 1. The transcripts were examined through this lens of factors.

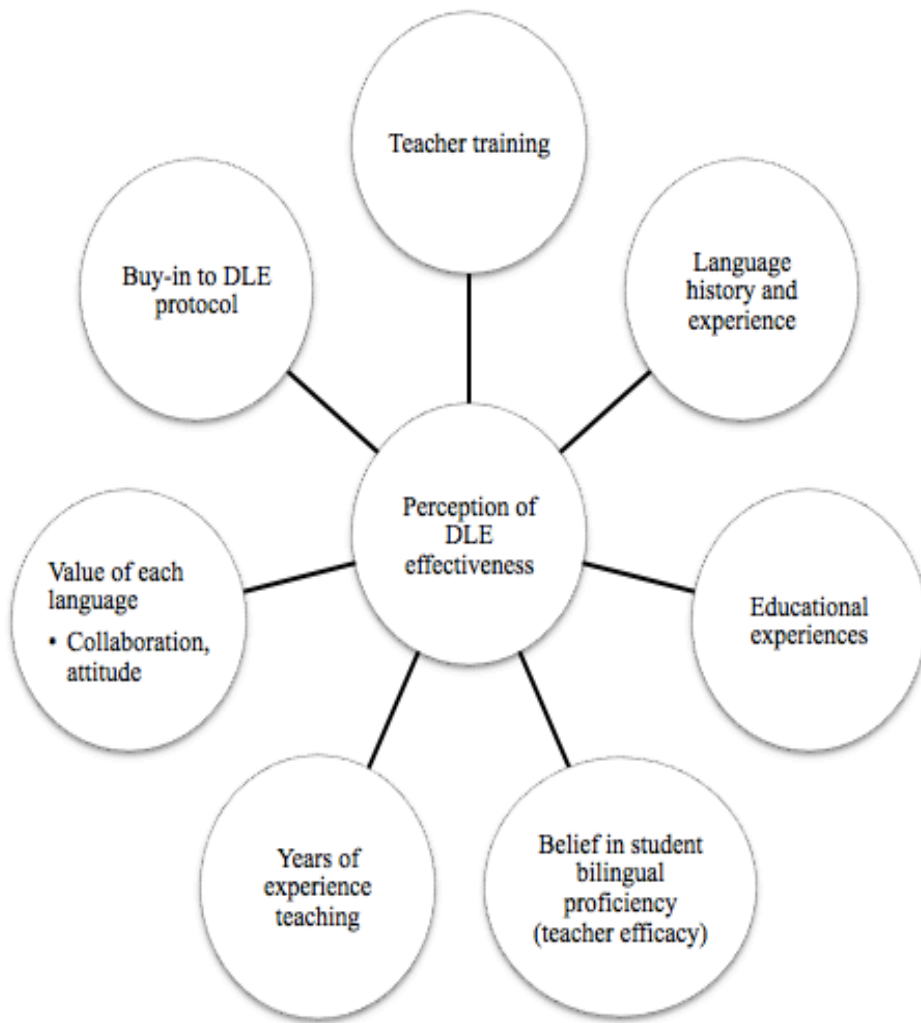


Figure 1. Coding from teacher interviews.

Data from the first several transcripts then informed the codes, and a codebook was created for analyzing the interview transcripts. During the process of analyzing the transcripts, the researcher noticed interviews revealed rich descriptions and examples of themes. Phrases or

sentences, the identifying codes, and themes, were copied and pasted into electronic folders using ATLAS.ti (2017). Each quote contained the participant code for reference.

The administrator interviews were similarly coded following the example of the teacher interviews. Administrator interviews had less emphasis on instructional practices and more emphasis upon value of DLE protocol. The administrator interviews were analyzed for themes or patterns of perceived value of bilingual instruction and DLE protocol. The main themes that emerged from administrator interviews were teacher training in DLE and community support of language acquisition.

Community member interviews were coded based upon the first few transcripts. Those codes were then applied to all of the community member interview transcriptions to identify common themes. Key themes from community member interviews were the preservation of the Yup'ik language and the value of the Yup'ik language in schooling. Common themes emerged between the teacher, administrator, and community member interview transcripts. Themes were grouped into three main perception headings. One overall perception is bilingual education and/or DLE instructional practices being a positive action for our students and communities. The second overall perception is bilingual education and/or DLE instructional practices being a negative action for our students and communities. The third overall perception is neutral, as in no specific positive or negative attitude or perception existed in the interview transcript to indicate a pro or con perception of bilingual instruction, or the perception was mixed. Table 2 lists the codes derived from interview data and provides definitions for each code.

Table 2

Interview Codebook and Definitions

Code Type	Definition
Teacher Perceptions	
Buy-in	Buy-in to DLE protocol using the Gomez training that includes collaboration and the attitude that the protocol works for instruction.
T.Train	Teacher Training: District-provided training on DLE protocol and the bilingual advantage.
Lang. Hist.	Language history and the person's experience with bilingualism.
Ed. Exp.	Educational experiences that may have affected the person's attitude toward education and language learning in general.
Belief	Belief in students' bilingual proficiency. Also referred to as teacher efficacy.
Years	Years of teaching experience; often providing a deeper understanding of student potential or conversely a lack of trust in the "system."
Value	Value of each language. An indication of whether or not the teacher values Yugtun or English equally or one more than the other.
Administrative Perceptions Code	Definitions
Training	Teacher and administrator training that developed a complete understanding of the purpose of bilingual education.
Collaboration	Teachers' willingness to work together and accept whatever assignment the DLE protocol implementation needs.
Buy-in	Buy-in to DLE protocol using the Gomez training that includes collaboration and the attitude that the protocol works for instruction.
Elements in Place	Physical attributes of DLE in the school and classrooms as well as observable instructional elements.
Value	Value of each language.

Table 2 (continued)

Interview Codebook and Definitions

Code Type	Definition
Community Members' Perceptions	
History	Language and schooling history and experiences
Reality	Reality of which language is truly their first language and which language is used more by their family at the present time.
Commitment	Commitment to preserving or using a particular language.
Responsibility	Responsibility of an entity for teaching language. (i.e. Whose responsibility is it to teach Yugtun?)
C & E	Cause and Effect: Effect of language usage and who or what the cause may be.

Summary of the Findings for Qualitative Data

Themes expressed in interviews were categorized into positive – belief in DLE protocol for building proficiency in both languages or a positive attitude toward Yup'ik instruction; neutral – indications that do not indicate positive or negative beliefs about DLE instruction; negative – belief that DLE protocol is not effective at building proficiency in either or both languages, or that English language is valued more than Yup'ik language. ATLAS.ti (2008) was used to interlink segments semantically and define relationships between the findings.

Positive Belief Themes

Interview responses indicating a positive perception of dual language instruction included recognition of each language having an importance for students to become proficient. Some interviewees expressed their belief that Yup'ik has greater and more accurate terms to express meaning and also that Yup'ik has ideas that cannot be expressed in English. "There are more words for things in Yup'ik than English. It is easier for us to describe things and to express

ourselves in Yup'ik" (CM1). Several interviewees expressed their belief that English has ideas that cannot be expressed in Yugtun and Yugtun/English cultural differences cannot easily translate between languages. Interviewees also shared examples of bilingual adults who are successful due to their proficiency in both languages.

Language shapes how we see the world. So when I speak in English my thinking is strictly on stuff that makes sense in the English language. And if I speak in Yupik there's different things in the Yupik language that does not make sense in the English language. So because of my experiences in both worlds, I've learned to take from each language (YT3)

Many stakeholders interviewed shared their perception that bilinguals have an advantage in knowing their language of heritage and that having the ability to speak, read, and write in Yugtun builds cultural identity.

I'm glad the kids nowadays can speak either language, but they don't always feel comfortable speaking Yup'ik, some do and some don't. It depends on the family. The Yup'ik they are learning now in school is different than how we talked. But now they have the new Yup'ik (CM6).

Interviewee CM15 expressed the following concern about keeping the Yup'ik language alive, "Most of our students are getting to be English dominant. Yugtun language will soon be no longer if we don't get it started." Some teacher and most administrator interviewees shared the belief that DLE protocol helps build language proficiency through best practice and bilingual instructional methods.

Negative Belief Themes

Interview transcripts that were coded as negative perceptions of DLE instruction indicated the belief that dual language methods were ineffective for the students in this culture due to several factors such as students' lack of a strong first language, lack of teacher training and Yup'ik reading materials, and the lack of buy-in from some English-speaking teachers. Administrators and teachers felt DLE was created with Spanish/English speaking instruction and Yup'ik/English is far different in comparison and quantity of Yup'ik language resources. CM13 said, "there is more to Yup'ik instruction than translating English materials into Yup'ik. Yup'ik instructors need opportunities to listening, speak, read, write in Yup'ik. Becoming certified does not improve Yup'ik language. All [teacher] courses are in English." Several teachers' shared their perception that Yup'ik speaking students entering school have less vocabulary than Spanish speaking students entering school. CM13 shared, "Some children are behind in their first language. There is no system for catching them up." Several administrators and teachers held the belief that Yup'ik teachers had not all received adequate teacher training to be as effective as possible at language instruction. According to YT11,

I have never taken a course that teaches me how instruct in Yugtun, and how to improve students' oral skills in Yugtun. We are just told that some of the things we learn about English instruction can transfer into Yugtun instruction. (YT11)

Some English-only teachers and administrators thought that students' proficiency of academic and non-academic English was needed for success in Western culture. ET4 stated,

The students here need to learn to communicate better with both languages, especially English. Our students fall behind because they don't learn to read in English early. If parents would read to their children at home, the students would have an easier time

learning to read in school. So many of our students struggle because they are trying to learn two languages.

In contrast to the above perception, several Yup'ik teachers shared the belief that English-only teachers are too impatient with student progress using DLE protocol.

I'm frustrated with the DLE. I told you about that experience last year. The DLE people came in from Texas to our classroom unannounced, looked around for 10 minutes, had no idea, didn't stay long enough or talk to anyone about what was going on, began talking to me while I was presenting the lesson to the kids. Trying to tell me what to do and not giving me time to explain that that part of the lesson is coming tomorrow.

Community members interviewed spoke of the value for children understanding and communicating with elders in Yup'ik. Interviewee CM4 stated,

Our culture is important, but our elders are not that many. The influence of western ways are ruining our culture by saying it is not working. It worked many years ago, but rules and regulations are messing this up. All the tests are in English . . . these kids here are struggling with western ways and being told our ways don't work anymore, and making it all worse. Elders are not much here, and some don't like talking to kids who already are told our ways don't work and don't even listen.

There was the perception among stakeholders that DLE protocol was not being used effectively. CM9 said, "If teachers knew about second language teaching (along with Dual language techniques) we would have a better success rate of students that are proficient in Yugtun." Several administrators and teachers interviewed expressed their perception that English-only teachers had not fully embraced DLE protocol and they were not sure that Yup'ik speaking students would transfer language learning from one language to the other. The

perception that successful dual language instruction and proficiency begins at home and is the responsibility of the family was a passionate response by many interviewees. Interviewees who held negative opinions about DLE or bilingual instruction in general spoke of concern for early language development and parent commitment to language development. CM13 said,

Dual language will never work if students don't have a strong L1. Only thing that came to mind is that parents are the ones to make this happen, they are the ones to be the first teachers, they talk in Yupik, they will speak it. LKSD alone cannot save the Yup'ik Language!

Some interviewees shared information about lack of parental communication with children in either or both languages i.e. the loss of close family communication in building relationships and improving communication skills in young children. CM11 said,

Language starts in the home. If the family does not value or speak their language, it is not the school's job to ensure it happens. Our children are English first and Yup'ik is the second language. That is how we should be approaching our educational strategies. If children have a strong language base, they will learn the second language quicker, easier, and become fluent.

YT9 addressed the issue of loss of communication between very young children and adults. "Right now our 5-year-olds are coming in to school with one fourth of the vocabulary that the average 5-year old has. So they're not getting the oral language that your generation did, and they're not getting the language of books at home either." The loss of oral language shared in Yup'ik was a resentment expressed by several interviewees. Concern was conveyed about students and adults speaking "baby Yup'ik" and the similarity to "village English" in the loss of grammatical and/or suffix usage.

English teachers were also frustrated at the lack of a strong L1 for students trying to transfer meaning from their first language to a second language. ET7 shared, “Parents need to practice speaking only one language (either language) to their babies and toddlers because the success of learning a second language is reliant on having a strong base language.”

Neutral Belief Themes

Community members expressed resentment over forced elimination of Yup’ik language from schooling in grandparents’ generation. CM15 “Most of our students are getting to be English dominant. Yugtun language will soon be no longer if we don’t get it started.”

English teachers’ and administrators’ shared feelings about students benefiting from knowing how to read by 3rd grade and the contrast of Yup’ik teachers’ and community members’ belief that students will learn to read when they are ready and that there is no urgency. ET5 stated, “Parents need to understand the importance of speaking to their children early and often in their native tongue.” ET8 articulated his/her conflicting beliefs in regard to students “falling behind” yet benefiting from knowing two languages.

I think it’s important for these students to learn their language, the Yup’ik language so they can understand the elders. But I think it’s very important for these students to learn to read, write, and speak correct English. I think it is hard for them because they don’t learn to read in English until 2nd or 3rd grade and then the curriculum is really above their reading level. The 2nd and 3rd grade reading curriculum doesn’t really teach students how to read, it teaches them how to find meaning in what they read. Once they fall behind in school it becomes very frustrating for some of the students. Oh, I think it’s good that they can speak two languages. Being bilingual is good for them. I know that studies say being bilingual is good for brain growth. So in one way it is good that the

students are saving their language by learning it in school, but in another way it is hard, because they struggle with the English curriculum.

Evidence of positive value for bilingual instruction was strongest in Yup'ik teacher and community members' interviews. CM4 stated,

I learned to read the Yup'ik letters and learned their sounds when my son went to school. When he was in Kindergarten then I realized there was a Yup'ik alphabet and I learned the sounds. I was surprised. I learned to read in Yup'ik when my kids were little. The older people don't know how to read in Yup'ik but they can speak in both English and Yup'ik, but mostly Yup'ik. I think it is important for our kids to speak mostly Yup'ik. They need to know their language. It is easier to talk about things in Yup'ik. In English there aren't the right words.

CM5 stated,

To keep our culture and language alive, we need to do everything we possibly can to invest more into our language. Please keep this a priority for our schools and region. It would be a great benefit to teach Yugtun through 12th grade to keep our students speaking the language. They don't use it as much after 6th grade. When one doesn't use it you start losing it.

Several community members communicated their desire for Yup'ik language to be taught in school. CM1 said, "Someday I want my children to learn Yup'ik first. It is very important for them and for us that they speak and know our language."

YT5 also spoke to the importance of learning to read in Yup'ik.

I think the written Yupik is important now. I'm glad the language has been written down because that's one way of saving the language. So in that way I'm glad it is being written

down. These children, my daughter who is 30 years old, she can read Yupik, but she cannot speak fluently. I can speak Yupik fluently, but I did not see written Yupik until I was a senior in high school Yupik class is one that I failed with a “D.” Because I had never seen written Yupik before other than in the Bible.

Some responses indicated in interviews expressed concern about parent support for bilingual instruction but not specifying support for or against bilingual instruction specifically.

I noticed some of our kids right now in grades 8th to 12th are still struggling from Yupik to English, and there should be more reading, Akleng, our kids struggling, don’t have that at home nobody read to their kids like kassaqs do. Maybe start early, and parents make time to read every day to their kids . . . I wished I had time to do that . . . I know I can, but it has to be all the family involved . . . Need to start on that myself (CM7).

Interviewees who were bilingual recognized the need for bilingual education.

In school I learned in Yup’ik until 2nd grade. Then I learned English. Now I speak better in Yup’ik but I read better in English. Why? The books are in English for school. Those I need to read. But it is important for us to speak Yugtun or Cup’ik because that is how we know how to understand and to talk to our elders. (CM1)

Community member interviewees spoke of the historical trauma of language instruction and the changes that have taken place over the past three generations.

When I was growing up I spoke to everyone in Yup’ik and then when I got to school I didn’t know what the teachers were saying. We used to play school. We talk in English imitating the teachers. Say shshshshshshthththththththth. (Laughter!) We pretend we could speak even though we didn’t know what they were saying. (CM2)

According to CM5,

Some of our teachers got if we spoke Yup'ik at school. We couldn't whisper or move.

One teacher would tape our mouths if she heard us whisper to each other Yup'ik. But we had a teacher who taught us songs in English. She would sing to us and we learned to speak English when we sing. Then it starts to make sense to us.

Community members spoke about their educational experiences in school in the 1960s.

And they were attempting to teach children to read in English, but the fact of the matter is children didn't even know how to listen to English yet! We actually learned to read with Dick and Jane and Puff the cat and Spot the dog and we didn't know cat, and run, and see Spot run. Because we didn't know what a cat was. And these pictures were like people from outer space because they had yellow hair and blue eyes and there was this thing called a cat and we had never seen one. But we did learn how to read, how to make sounds. I did, I had a teacher in 4th grade that would sing to us. (CM5)

Several community members also related the loss of the traditional ways of learning in Yup'ik culture. CM14 said,

Kids nowadays who only pay attention to their electronic things don't notice the world around them and don't know the Yup'ik ways. They are losing their language. Even if they are taught their language in school, they don't really know what it means because they aren't outside looking and watching their elders. The language now that school is teaching in Yup'ik is different. Kids don't have all the words and don't get all the meanings like we did when we listen to our elders. My a'pa didn't say much but I watched him.

Administrator Interview Data

School principals in Lower Kuskokwim School District are termed “Site Administrators” or SAs. The role of an SA is greater than the role of a building principal. Due to the remoteness of villages, the SA at each K-12 school is responsible for a wide variety of tasks including children’s and teachers’ safety and well-being; budgeting for each school year and balancing the school’s budget; ordering supplies for instruction, building maintenance and improvement, and food service; managing the lease of teacher housing between the school district and the teachers; and hiring and managing the full staff of certified and classified teachers, teacher aides, cooks, custodians, maintenance workers. The site administrator is flown to Bethel each month for a 2-day meeting with district administrators and other site administrators. Schools with more than 180 students have an assistant site administrator who is responsible for testing students, managing school-wide behavior and discipline, and arranging for air travel for teachers and students for sports and extracurricular programs at other sites.

The researcher interviewed site administrators at each of the four dual language sites being studied. Each administrator had been trained in DLE as part of their pre-service training. Two of the four administrators interviewed traveled to schools in Texas to observe DLE classrooms and speak with teachers and administrators about DLE protocol. Each site administrator seemed careful to promote DLE. They all spoke of the benefit of DLE using best practice. SA1 stated,

As I proceeded through the DLE training I was surprised by the quality of the pedagogy. The Gomez and Gomez model makes use of a number of educational best practices that ensure, if implemented with fidelity, our students will learn; the teachers talk for only 15

– 20 minutes; students presents with hands-on activities, students are engaged with their activities while work cooperatively with other students.

Site administrators spoke to the challenges of full implementation of DLE.

These constructs will require more work in preparation by the teachers to facilitate student learning toward the language acquisition and academic goals. I believe the emphasis on cooperative learning is crucial to the success of the model for the student interaction with each other so they are able to take academic chances in an environment that is comfortable. As I become more familiar with the Gomez and Gomez DLE Model I realized the importance of having the entire school staff buy into the program. The LOD is a very important component for the success of the model. Janitors, cooks, and secretaries will have to contribute to the use of Yugtun during the process of the school day. (SA1)

SA4 spoke of concern that Gomez DLE methods separate two languages unnaturally. He described language learning as being a more organic process and had concerns about Yup'ik language instruction,

So the DLE program espoused by Gomez and Gayle wants that strict keep them apart, but in the real order of things we are inundated with English already. So we have to keep the Yup'ik going. I like the idea of Monday, Wednesday, Friday being Yup'ik days. The only problem is the Yup'ik spoken here. The high school Yup'ik teacher here doesn't have the ear for the language the way it's supposed to be spoken.

SA3 shared, "It's just hard to find trained teachers who speak Yugtun fluently. The Yup'ik teachers are taking classes after teaching all day and they are struggling. The classes don't always help them in their classroom instruction."

Community involvement in bilingual instruction was recognized as necessary for successful outcomes of DLE. SA2 stated,

I feel our students can learn both languages. The community needs to support the students in learning Yup'ik. Our teachers can't do that all by themselves, but we have community members who are involved with the school and provide a lot of time and opportunity for the student to learn and speak in Yup'ik. I think it helps the students' sense of identity when they know how to speak their native language.

The importance of students doing well academically with high school curriculum that is English-only came through in several interviews. SA2 stated,

But, you know, the students also need to be able to speak and read and write in English, especially academic English, because that is what they are schooled in. So they really need both languages and that is what we are providing for them here. You can hear that in the hallway and in many of the classrooms students speak in Yugun. But they can also speak in English. In High School they have to be able to read and write well in English in order to graduate and especially if they go on to college or other career training. So I would say that both languages are equally important.

According to SA3,

Well, I know that it is important for them to know Yup'ik to speak to their elders and to save their language, but in order to graduate from High School the students need to know academic English. Also, if they decide to leave the village and work somewhere else they will need to be fluent in English. Of course it helps if they are fluent in both languages. That is an advantage.

English Teacher Perceptions

English teachers interviewed were generally concerned about student academic success and the need for parent and community commitment and involvement in bilingual learning. The majority of English teachers were outspoken about their opinions for early literacy in English. The following excerpts from English teacher interviews provided the overwhelming perception. ET1 stated,

I think English is important too because that's the language of the world out there. And, most likely they're not just going to stay in the village. I believe it's important because if they go to college they need to know how to be proficient in English because I'm not aware of any Yup'ik colleges.

ET4 expressed the following,

The students here need to learn to communicate better with both languages, especially English. Our students fall behind because they don't learn to read in English early. If parents would read to their children at home, the students would have an easier time learning to read in school. So many of our students struggle because they are trying to learn two languages.

ET6 felt strongly about promoting English and noted,

The students need to learn English. We are doing them a disservice to focus so much time on Yup'ik. That is not the language that is going to help them be successful in life. If they have any chance of leaving the village and going to live anywhere else in the world they need to know how to speak, read, and write correct English. All colleges require good English skills. These students aren't even learning to read and write in English until 3rd grade and by that time it's almost too late. Then they are behind academically and

never catch up. No wonder so many end up dropping out of high school. They can't read the high school material.

ET5 spoke about support from families. "Language and learning begins at home and we need to get community involvement in teaching Yugtun & Cugtun. Getting parent/guardians on the same page would greatly improve proficiency for our students." ET4 also emphasized his/her belief in family generated language learning,

I think learning to read in Yup'ik will help to save the indigenous language, but it needs to begin at home. Parents and grandparents need to be the ones who teach the Yup'ik language to their children and grandchildren. The public school should not be responsible for saving the language. Outside of this area how many people speak Yup'ik? Will they (the students) need to speak Yup'ik in college, or if they get a job outside the village?

ET5 included the importance of elders teaching students, "Having students work with elders is amazing because of the wealth of knowledge rooted in the explanations and they bring in rich Yup'ik terminology." English teachers interviewed saw teaching Yup'ik reading and writing as a means to save the indigenous language. In response to the interview question, "Do you feel strongly that we should spend years of school teaching how to read and write in Yugtun? ET1 stated,

That is something I've thought a lot about because Yugtun was such an oral language, because written language is everywhere as an invention; because we're born with oral language, but we need to be taught a written language. So the two sides of that are leave it as an oral language, or teach it as a written language. Reading and writing are a way of preserving the language.

Relating to the interviewer's inquiry about the importance of making learning meaningful for the Yup'ik culture and relevant for the students' lives, ET6 communicated,

Well, what is that going to give them? How are they going to function in the real word or outside of the village? They are not going to be able to engage in modern culture and technology unless we give them the tools they need to read and write in English. Studies show that if a child isn't reading by the 3rd grade they are more likely to drop out of high school because they never catch up. That is what is happening here. We have to get these kids reading in English in 1st and 2nd grade so they become literate. Then they have a chance of graduating from high school!

Teacher training necessary for the success of bilingual instruction was a repeated issue in English teacher interviews. ET1 said,

The problems are systemic. Whoever is making the decisions at the district office are not looking at what our students truly need. Teacher training is lacking. Too often teachers are brought in from the community to teach, enrolled in teacher training courses that have nothing to do with learning how to teach language, and are expected to teach full time, multiple subjects, follow complex curriculums, and meet the needs of students. They are not even trained in Yup'ik orthography like they were in the BIA days. The BIA schools pulled out in 1985, and now teachers aren't trained to teach the language. The Yup'ik elders say that younger people speak 'baby Yup'ik'; forgetting to add the correct endings on words and not using the correct words. It's like village English; it's a different language.

One teacher interviewed noted,

It's not fair to say we're going to teach oral language through the reading program! You know you have to have such a talent base to do that. Okay? Here's another piece of the issue; no one is trained like they should be. The district says you can teach if you aren't certified, but you will get yourself into a certification program, college preparation program, but nobody trains them to be teachers.

ET5 spoke to the importance of teacher buy-in,

Just like other language taught in school create one where teachers and staff can learn the basics. This way, when the native tongue is spoken – this will give non-natives the ability to be culturally responsive to the needs of the indigenous people. I think that reminding people to speak and be spoken to in Yup'ik is the key. Two-way communication will go a long way in meeting the proficiency.

ET11 provided specific ideas for how bilingual education could be improved.

Dual language needs to be done correctly to be effective. [The district should] Continue full Yup'ik immersion in strong language communities of k-2. Offer dual language in other sites. Continue to embrace classified Yugtun teachers as educators and key stakeholders in our language maintenance. They are part of the teaching foundation. Offer high school Yup'ik orthography classes. Continue to offer and embrace Yuuyarak classes at each site. Language + culture = strong identity. Increase literacy materials on site and in schools (our libraries and classrooms should be full). Our district has its own Yup'ik bookstore; we should have plentiful resources for our teachers, students, and parents.

Using DLE with the current curriculum was also a concern for some English teachers who were interviewed. ET3 had an overall negative opinion of Gomez Model DLE,

Whoever decided we should use a Spanish/English model for our students wasn't thinking. Why didn't we look to Canadian programs from First Nations Schools? Our students don't have a strong oral language when they come to school and in order to teach them oral language skills a teacher needs to know how to break it down to simple steps, it's most basic components. We're supposed to be teaching robust vocabulary in Storytown and our students don't even know Tier 1 words. Like the word "left." They don't know the different contexts and meanings of the word "left" and were supposed to be teaching them words that they may use to discuss complex story themes?!

Parent involvement was a repeated theme throughout teacher interviews. ET5 felt, "Parents need to understand the importance of speaking to their children early and often in their native tongue." ET10 explicitly stated, "Yugtun/Cugtun should be taught at home. If the native speakers don't think their native language is important enough to pass on, then let them let it die. We should be teaching English only. ET9 shared a similar opinion;

The best way for kids to speak Yup'ik is for the parents to teach them at home! If we expect our students to be marketable and successful in the world of employment (outside their village) they must be able to understand and converse in English.

Several English-speaking teachers also expressed concern for parents' perceptions of their child's first language. ET3 responded to an inquiry about the kindergarten screener for determining a student's 1st language.

Interviewer: So you think that when the kindergarten students are given the language screener it's not accurate?

ET3: Of course it's not! I know that sometimes the understanding isn't there for the parents when they fill it out. They are just reporting what they perceive and their perception is not reality. There is really no hard evidence to which language is the child's first language, to support what the parents perceive. Look what they have in Spanish! You can actually do a Spanish language assessment and know if the parent perception is false.

ET8 expressed a common theme succinctly,

There has to be more buy in from the village. I really like the idea of elders being a part of the curriculum. The only way that the language will survive is if more adults take an interest and help promote the language.”

Observational Anecdotal Data

The four sites studied for DLE implementation included observations of kindergarten, 1st, 2nd, and 3rd grade instruction. Observations of DLE classroom instruction provided anecdotal evidence for the implementation of 50/50 and 90/10 bilingual instruction based on the Gomez (2016) model. The researcher included four factors from each teacher that instructed the 3rd grade students' whose test scores were analyzed for language proficiency. Factors influencing instruction affecting reading proficiency included level of teacher experience, type of DLE training experience, teachers' first language, and teachers' credentials for each grade level at each site studied. These four factors, along with observational data, were then analyzed to see if any cause and effect conclusions could be found.

Teaching staff in kindergarten, first, second, and third grades at Site A included three certified teachers and one associate teacher. Two out of the four teachers and DLE training and observations of Gomez model instruction in Texas at a DLE school. Two of the four teacher

were trained by the school district. Three of the four teachers at Site A are Yup'ik/English bilingual. One is English monolingual. The level of teacher experience ranged from 5 to 30+ years. Site A has been using DLE protocol for 5 years in the 50:50 model

Teaching staff in kindergarten, first, second, and third grades at Site B included one certified teacher and three classified teachers working toward their teaching credentials. Two of the four teachers received DLE training and observations of Gomez model instruction in Texas at a DLE school. Two of the teachers were DLE trained by the school district. The level of teacher experience ranged from 5 to 30 years. Site B had been using DLE protocol for 4 years in the 90:10 model.

Teaching staff in kindergarten, first, second, and third grades at Site C included two certified teachers and two classified/associate teachers working toward their teaching credentials. All four of the teachers had been trained in DLE by the school district. The level of teacher experience ranged from 1 to 20 years. Site C had been using DLE protocol for three years in the 90:10 model.

Teaching staff in kindergarten, first, second, and third grades at Site D included one certified and three classified teachers. One classified teacher was working toward his/her associate degree. All four teachers had been trained in DLE protocol by the district. Two teachers are English monolingual and two are Yup'ik/English bilingual. Site D had been using DLE protocol for four years in the 50:50 model.

Summary of Teacher Credentials indicated the five English teachers at the four sites in this study were all certified, but Yugtun teachers at the four sites in this study were not all certified. Out of 11 Yup'ik-speaking teachers in grades K – 3 at the four sites studied, four were certified. Seven Yup'ik-speaking teachers were enrolled in online courses to work toward

teacher certification or were in the process of acquiring an associate degree as part of the classified teacher status. Interview data substantiated teacher-training concerns.

By the end of the second quarter our Yup'ik kindergarten teacher had transferred, the 2nd/3rd grade teacher moved to K/1, and we have a new person with no training teaching Yup'ik reading, writing, social studies and science in 2nd and 3rd grade. The old teacher was not an associate teacher but she was implementing the wonderful training she had and she has children who are school age so she was really conscientious about following things. I enjoyed working with her. She was receptive about working with me. She tried things out to see how this would work. (ET7)

Frequent teacher turnover added to lack of teacher training. Especially when teachers leave and positions are filled during the school year, there is a lack of DLE training.

The person who came in was left without any direction. She was searching on the Internet just to find stuff to keep the kids busy. The student behavior went down. The kids were struggling. The second week went a little bit better. But I'm not going to stick my head in there when I don't even know what is going on. (ET7)

Several Yup'ik/English-speaking teachers hired just prior to the beginning of the school year or during the school year had not received DLE training and were not enrolled in teacher training courses. Observational data showed varying levels of instruction taking place in these classrooms. Experienced teachers related frustration over students' instructional needs being met by these teachers.

So my 3rd grade group is supposedly the benchmark group for DLE, so that means two of the kids out of 14 had a trained teacher teaching them English reading and the parapro had the rest. That's not right! That's so obviously not right. So that group comes up and

the Yugtun group ended up being one of the stronger English readers because the teacher was not a strong Yupik speaker. (ET7)

Observation of DLE Protocol

Classroom observation of DLE instruction was based on Gomez' (2016) Dual Language Training Institute Classroom Elements of the Gomez & Gomez Dual Language Enrichment Model (Appendix C). This observation form lists 10 components each DLE classroom environment should have visible, and 10 components of instructional process and student learning an observer should see taking place (see Appendix B). Each of the 20 items is rated on a scale of strength of implementation. A minimum of three observations lasting at least 20 minutes were conducted by the researcher at each school site in kindergarten, and grades 1, 2, and 3 using the observation form and anecdotal note-taking (see Table 3).

Table 3

Observational Data

Site and Grade Level	Dual Language Classroom Environment	Dual Language Instructional Process and Student Learning
Site A Kindergarten 50/50 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year.	Each of the 10 Instructional Processes and Student Learning items was noted as frequently taking place.
Site A Grade 1 50/50 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year. Reading books were not equitable in both languages.	Each of the 10 Instructional Processes and Student Learning items was noted as frequently taking place.
Site A Grade 2 50/50 Yup'ik/English Instruction	9 of 10 elements were in place. Student work displayed in both languages was not as prevalent as recommended.	Each of the 10 Instructional Processes and Student Learning items was noted as frequently taking place.
Site A Grade 3 50/50 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year. Reading books were not equitable in both languages.	Each of the 10 Instructional Processes and Student Learning items was noted as frequently taking place.
Site B Kindergarten 90/10 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year. Although reading materials were not prevalent and English word wall was weak.	Teacher was consistent in language of instruction (LOI). Language of the Day (LOD) was weak on English days. DLE lessons were weak on rigor. Students used bilingual pairs and meaningful hands-on learning.
Site B Grade 1 90/10 Yup'ik/English Instruction	8 of the 10 elements were present throughout the year. English word wall was weak. Student work in English was not displayed.	Minimal aspects of each element were present, but instruction was not rigorous. Student learning evidence was weak. Instructional was below grade level.

Table 3 (continued)

Observational Data

Site and Grade Level	Dual Language Classroom Environment	Dual Language Instructional Process and Student Learning
Site B Grade 2 50/50 Yup'ik/English Instruction	8 of 10 elements were present throughout the school year.	Strong evidence of 7 elements. Specialized Vocabulary Enrichment was not observed. DLE Lessons engaging student in Higher Order Thinking Skills was not observed.
Site B Grade 3 50/50 Yup'ik/English Instruction	8 of 10 elements were present throughout the school year.	7 of 10 Instructional Processes and Student Learning items was noted as frequently taking place.
Site C Kindergarten 90/10 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year.	Teacher used mostly Yugtun for instruction. LOD was weak on English days. Evidence of meaningful learning was weak, with DLE lessons low on Blooms' Taxonomy. Evidence of Specialized Vocabulary instruction was not observed.
Site C Grade 1 90/10 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year.	Yugtun used for most of instruction whether English or Yup'ik day. Evidence of meaningful learning was weak, with DLE lessons low on Blooms' Taxonomy. Instruction was below grade level.
Site C Grade 2 50/50 Yup'ik/English Instruction	Classroom labels were not present. Word walls were sparse. No bilingual pairs posted.	Teacher consistent in language of instruction. Worksheets used throughout the lesson. Lesson pace was slow and lacked rigor. No evidence of conceptual refinement or higher levels of instruction. Instruction was below grade level.
Site C Grade 3 50/50 Yup'ik/English Instruction	7 of the 10 elements were present throughout the school year. Reading materials present mainly in English.	Observed 9 elements in English instruction. Pace was slow. Lacked frequent pair grouping. Instruction was below grade level.

Table 3 (continued)

Observational Data

Site and Grade Level	Dual Language Classroom Environment	Dual Language Instructional Process and Student Learning
Site D Kindergarten 50/50 Yup'ik/English Instruction	Sparse word walls. Some elements were present.	Inconsistent instructional rigor. Much waste of classroom time. Instruction mostly in Yugtun.
Site D Grade 1 50/50 Yup'ik/English Instruction	7 of 10 elements present. No bilingual learning centers, equitable literature not present, instructional materials lacking in Yugtun.	Language of instruction used consistently. Lack of authentic, meaningful opportunities to read and write. Rigor not observed. Instruction was below grade level.
Site D Grade 2 50/50 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year.	Each of 10 elements of instructional process and student learning observed, but inconsistent.
Site D Grade 3 50/50 Yup'ik/English Instruction	Each of the 10 elements was present throughout the school year.	Each of 10 elements of instructional process and student learning observed.

Details of Variations of DLE Protocol Instruction

Site A was more consistent in the use of DLE model elements in each classroom, K – 3, of all the elements of dual language classroom environment. Site B kindergarten exhibited all 10 elements. As an observational protocol, the elements of classroom environment were easy to recognize and check as strengths. The least recognized element was “literature accessible and equitable in both languages” (Gomez, 2016). Kindergarten and 1st grade had more literature accessible in both languages than 2nd and 3rd grade. However, most students in kindergarten and 1st grade were not yet reading, so the Yugtun and English storybooks were above students’

reading levels and were used as picture books. Site C showed strong elements in kindergarten and grade 1, however grade 2 was lacking many elements. Grade 3 of site C had strong elements. Site D had most visible elements in place in classrooms; however instruction in kindergarten and grade 1 did not adhere to DLE methods in most areas.

Further analysis of anecdotal notes of observations brought to light clear differences in rigor of instructional protocol. The differences in rigor were not solely based on the pace of instruction. Some classrooms were slower paced with more rigor of instruction as defined by student/teacher interaction with greater depth of knowledge. Three teachers in particular, at Sites A and D in 2nd and 3rd grade levels consistently engaged students in higher order thinking with hands-on activities combined with discussion questions. These teachers had high levels of student engagement according to time-on-task data collection. Some classrooms, in particular at Sites B and C had a slower pace of student activity and almost no instruction was taking place; students were engaged in tasks without a clear purpose, such as coloring, filling in blanks on worksheets, or doing nothing while waiting for the teacher for over five minutes. Efficiency of classroom time did not always equate with instructional rigor. Instruction at Sites B and C were below grade level in first, second, and third grades.

Observational data using the Dual Language Training Institute Classroom Elements of the Gomez & Gomez Dual Language Enrichment Model (2014) remained anecdotal without numerical scoring. The researcher purposefully chose qualitative methods because the use of the Elements Model was not scientifically or statically based as an assessment tool (see Appendix C). The Elements Model checklist was for teacher reflection purposes and the researcher felt uncomfortable attaching a numerical score for evaluative purposes because of the risk of loss of validity and bias.

Summary of the Findings for Quantitative Data

Quantitative data analysis supported the interview and observational data of this ethnographic case study through the lens of language proficiency assessment levels for 3rd grade students. Grade 3 assessment data was chosen because previous studies showed a 3 to 5 year lag time for bilingual students instructed in dual language education to meet the proficiency level of their monolingual peers (Collier & Thomas, 2014). Grade 3 assessment data was also chosen because the schools in this study use AIMSWeb assessments for kindergarten, 1st, and 2nd, grades and AIMSWeb and MAP assessment for 3rd grade. MAP assessment shows student reading comprehension in English. AIMSWeb and Yugtun R-CBM assessments show student oral reading levels without comprehension measures. A comparison of assessments showing oral reading proficiency, as well as a measure of English reading comprehension, paints a broader picture of overall reading proficiency during students' fourth year of reading instruction in either or both languages.

Table 4 provides oral reading fluency from Fall to Spring during the students' 3rd grade (4th year of reading instruction). All school sites studied used 50:50 DLE instruction in grades 2 and 3, but two of the four sites studied used 90:10 DLE instruction in kindergarten and grade 1 and two sites studied used 50:50 DLE instruction in kindergarten and grade 1.

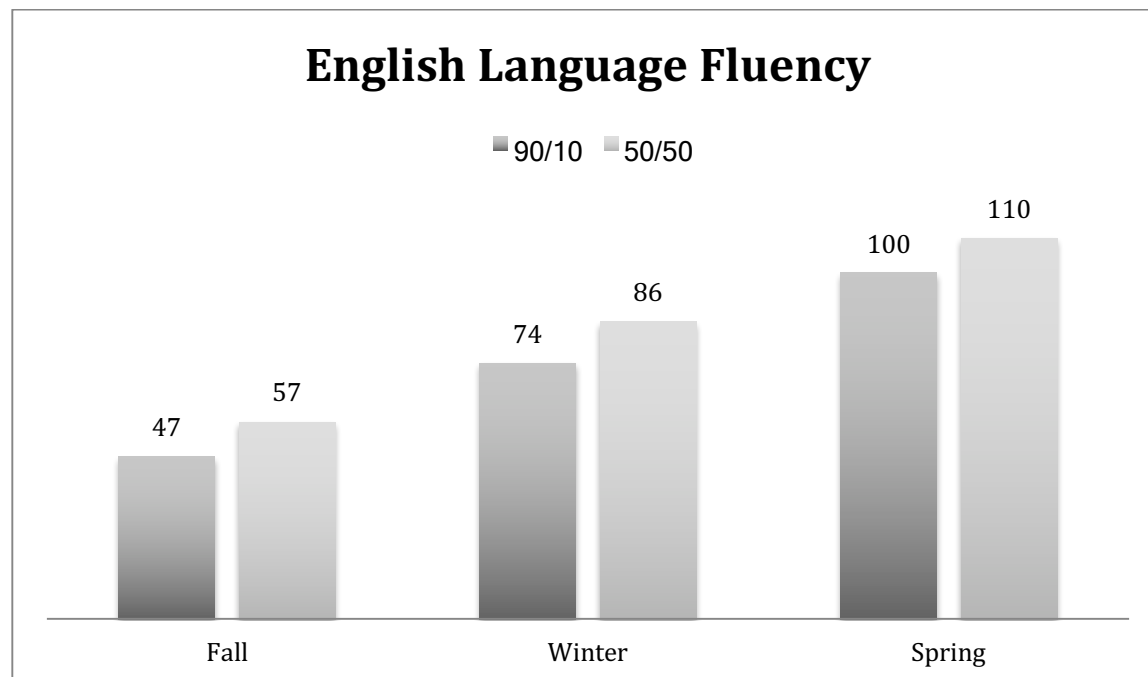
Table 4

AIMSweb English Reading Fall to Spring Growth

(Numbers indicate 3rd Grade Level words read in 1 minute, minus errors.)

Data Source	School A 50:50	School B 90:10	School C 90:10	School D 50:50
Fall-Winter-Spring Aimsweb Oral Reading Mean	35-48-56	28-43-58	19-31-42	22-38-54
Growth of Words Read Fall to Spring	+21	+30	+23	+32

When the English reading fluency scores from the 90:10 schools are combined and the English reading fluency scores from the 50:50 schools are combined and the scores are compared, a noticeable difference can be seen. Figure 2 shows the English reading fluency 3rd grade scores compiled and arranged to compare 90:10 and 50:50 DLE instructional models.

*Figure 2.* English reading fluency comparison.

Yup'ik reading fluency proficiency measures from grade 3 students shows students receiving instruction during their first two years using the 90:10 model at sites B and C scoring 71.191 points on the Y-CBM test. Students receiving 50:50 DLE mode instruction at sites A and D during their first two years of schooling scored 70.571 points on the Y-CBM test. The comparison of 90:10 and 50:50 model instruction shows a 0,62 point difference in Yugtun reading proficiency at the 3rd grade level.

Students at the four sites studied took Measure of Academic Progress (MAP) Reading assessment for the first time in grade 3. MAP reading assessment is a measure of reading comprehension, unlike AIMSWeb that is a measure of reading fluency. Reading fluency assessment does not indicate students' levels of comprehension when reading. Comparison data of reading comprehension using MAP scores was included in this study as a point of interest to add depth to qualitative data. Figure 3 shows reading comprehension assessment scores of students who had received 90:10 DLE model instruction during their first two years of schooling compared to students who had received 50:50 DE model instruction during their first two years of schooling.

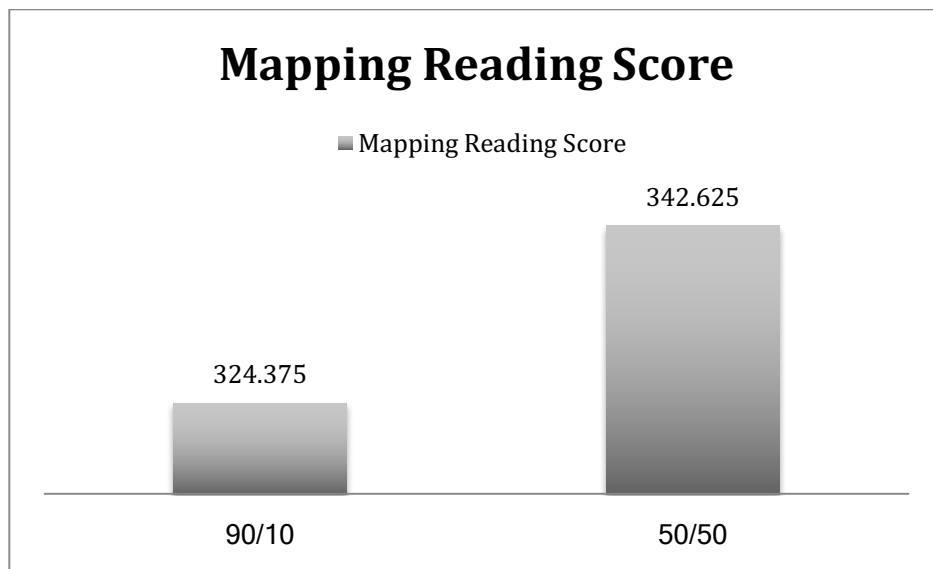


Figure 3. MAP assessment reading score comparison.

Scores from three reading assessments in two languages were combined for comparison of 90:10 and 50:50 DLE model instruction. The scores are a compilation of RIT measures of reading comprehension and raw scores of grade level words read in fluency measures in two languages. The composite scores of 90:10 DLE model sites were 128.912. The composite scores of 50:50 DLE model sites were 133.363. Comparison reading assessment of 90:10 and 50:50 DLE model instruction shows a significant difference of 4.451.

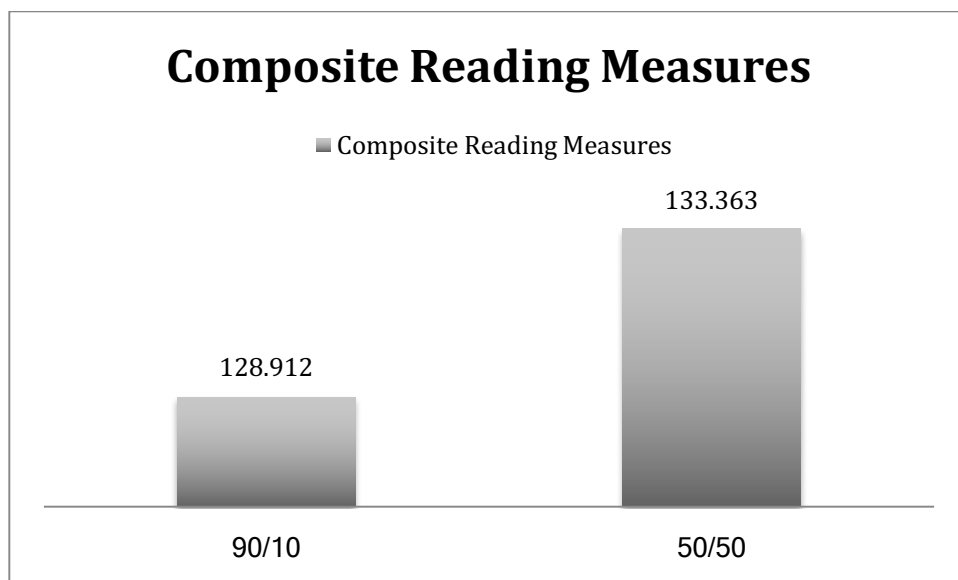


Figure 4. Composite English/Yup'ik reading measures comparison.

Summary of Data Results

Language proficiency test data coded with teacher training and experience show correlation between third grade students' average language proficiency and amount of teacher experience, quality of training, and teacher credentials. Site A with three certified teachers had students' reading scores 10.65% percent higher in English and Yugtun proficiency combined than schools with two classified and two certified teachers. Figure 2 showed students in Sites B and D having greater growth from Fall 2016 to Spring 2017 in English AIMSWeb oral reading assessment. Sites B and D have third grade teachers with more experience and training than Sites A and C which have teacher in their first year of DLE and received two days of district training in DLE.

Figure 3 illustrated Site A and Site B at slightly higher levels of Yup'ik reading proficiency. Site A and Site B had three Yup'ik/English speaking teachers in kindergarten, first, and second grades and Sites C and D each have two Yup'ik/English speaking teacher and two English-only speaking teacher in kindergarten, and grades 1, 2, and 3.

Figure 4 showed Sites A and D, both 50:50 DLE in kindergarten and first grade, almost equal in MAP Reading Assessment, which was a measure of English reading comprehension. Figure 5 illustrated combined English and Yup'ik reading assessment comparison in which the sum of three assessments was averaged and the differences are most visibly apparent showing Site A students reading level in both languages higher than Sites B, C, and D.

Table 5 shows reading proficiency scores in English from students in grade 3. Students in Sites A and D have been instructed in 50:50 (two-way) DLE beginning in kindergarten. Students in Sites B and C were instructed in 90:10 (one-way) DLE in kindergarten and grade 1 and then transitioned to 50:50 DLE in grades 2 and 3.

Table 5

English Reading Proficiency from Measures of Academic Progress (MAP) Test, NWEA Grade 3 Spring 2017

School A 50/50	School B 90/10	School C 90/10	School D 50/50	District	National Norm
171.5	162.5	161.875	171.125	176.21	198.6

Sites A and D had reading proficiency scores totaling 523.855 using 50/50 DLE instruction in kindergarten and first, second, and third grades. Sites B and C had reading proficiency scores totaling 502.946 using 90/10 DLE instruction in kindergarten and first grades and switching to 50/50 instruction in second and third grades. Yup'ik reading proficiency scored 10 points higher in 50/50 sites.

Summary of the Results

This study used explanatory sequential design to interpret how qualitative results explain quantitative results. Quantitative data collection of English and Yup'ik reading proficiency tests

were collected from four dual language enrichment schools in one school district. The test scores were analyzed to determine the explanation for the results. Interview questions regarding bilingual language instruction were given to teachers, community members, and school administrators. The interviews were analyzed according to Wolcott's (2008) recommendation for common themes. Qualitative results were obtained that show relevance as factors for language proficiency of 3rd grade students.

Language proficiency test data coded with teacher training and experience show correlation between third grade students' average language proficiency and amount of teacher experience, quality of training, and teacher credentials. Schools with 3 certified teachers had students' reading scores 10.65% percent higher in English and Yugtun proficiency than schools with 2 classified and 2 certified teachers.

Interview research and observational data of DLE-trained teachers in grades kindergarten, 1, 2, and 3 showed the following factors that may affect language proficiency scores: teacher DLE training, teacher experience, teacher credentials, teacher efficacy (belief of the teacher in DLE methods to have positive results in student language proficiency). The factors are included in data analysis graphs.

Analysis of test scores showed significant correlation between higher language proficiency and level of teacher certification and training. School A had three out of four certified teachers. Schools B, C, and D had two teachers each who were certified and classified. School A had three out of four teachers trained through Gomez' DLE and site visits to DLE schools for observation of DLE protocol. Site A had more teachers who had observed DLE protocol in use at a school with bilingual Spanish/English speaking students.

Summary of Analysis

Throughout this chapter, information was presented about how students' reading proficiency in Yugtun and English relate to the perceptions of stakeholders in four communities where dual language instruction is used in public school. Observations of classroom instruction where DLE protocol is used has been the third leg to balance seemingly unrelated stakeholder perceptions and student test scores. Observational data informs this research of stakeholder perception versus test scores. Through carefully analysis of what is really taking place in the classroom, measuring instructional practices against student reading proficiency in both languages, and then examining the impact of stakeholder perception, this study provides a deep broad perspective of the complex factors affecting bilingual instruction. Dual language enrichment model instructional methods have research-based best practice elements. But factors of teacher training, experience, efficacy, buy-in, community history and belief in bilingual language instruction, community support for language learning, and administrative value for literacy in both languages are affecting student progress and outcome. Chapter 5 will delve into the conclusions that could be reached through this study, the summary of results, and how the results of this study relate to the literature on bilingual instructional methods and outcomes. Limitations of this study were discussed, as well as implication of the results for practice, policy, and theory. Finally, recommendations for further research were made based on the information brought to light in the field of bilingual education.

Chapter 5: Discussion and Conclusion

Introduction

This study examined literacy acquisition of 3rd grade students in English and Yup'ik as well as historical and attitudinal factors about language in this population, which may or may not affect literacy acquisition. The research included observational data of instructional practice in kindergarten through 3rd grade classrooms from four public schools in western Alaska, interviews of stakeholders the same four communities regarding their perceptions of the value of bilingual instruction, and language proficiency test scores from students.

Chapter 5 summarized and discussed the results of the data analysis presented in Chapter 4. The results were discussed in relation to recent literature on the topic of bilingual instruction. Limitations of the study were discussed, as well as implications of the results for practice, policy, and theory. Finally, recommendations for further research about dual language instruction were made based on the researcher's findings. Discussion of triangulation of data enabled a complete picture of perception of language, instructional practices in place, and student reading proficiency at the 3rd grade level for Yup'ik/English bilingual language learners. Each of the three lenses; perception, practice, and proficiency, allows insight into the complexity of ethnographic, methodology, and assessment factors that affect language learning in the Yup'ik culture of rural western Alaska.

The research questions for this study were derived from curiosity about factors influencing students' development of proficiency in two languages. The Yup'ik culture has adapted to environmental changes for millennia. Adapting to English language and western culture during the past 120 years is part of an organic process for a previously remote society to evolve their language and customs to an imposed system of education. The complexity of an

ethnographic study of language acquisition in a marginalized culture has been tapped by this study. Deep understanding of ethnographic factors were developed by immersing in the culture studied, but the challenge presents itself in relating this understanding to readers of this study who have little or no experience with the Yup'ik culture. Referring to this generalized cultural background in Chapter 1 is beneficial for reminding the reader of communication differences inherent in Yugtun and English.

The primary research question guided this study:

RQ1: How does language proficiency compare between 3rd grade students instructed in dual language enrichment Yugtun and English with varying levels of language immersion?

The following secondary questions were addressed:

RQ2: How does the value of speaking the Yup'ik language motivate learning to read and write in Yugtun?

RQ3: How does the value of English as the academic language motivate learning to read and write in English?

Value-added bi-literacy has been the central topic of research for many studies of bilingual educational models (Christian, 2016; Collier & Thomas, 2004; Gomez, 2006). Whether the researcher is focused on the reasoning behind bilingual education or the value of teaching a heritage language, the common framework rests on the value that a non-dominant language holds for a community or culture. The framework is pertinent to this research because Yugtun is an indigenous language in danger of becoming extinct unless commitment by community and/or schools leads to using and teaching the spoken and written language. Meyer et al. (2015) posited content and language integrated learning systematically and strategically remedies functional

illiteracy issues among some dual language learners. Studies have shown improved academic achievement of dual language students (Lindholm-Leary & Genessee, 2014; Marian et al., 2013; Umansky & Reardon, 2014).

Discussion and Conclusion

The problems that precipitated this study began with the researcher's realization of students' level of reading proficiency being far below grade level in rural Alaskan villages where Yup'ik language and English language are taught through dual language enrichment instruction. Research shows that bilingual students in DLE model schools take three to five years to catch up and surpass monolingual students on national reading proficiency assessments (Christian, 2016). However, students in grades 5 and higher were generally far below grade level in the public school system studied. The questions generated by concern of low reading proficiency sought research into factors influencing reading proficiency at these schools. In its simplest terms, the researcher wanted to know how DLE was working for Yup'ik/English instruction and whether DLE showed promise in closing the gap in achievement for Yup'ik/English students as research had shown it to accomplish for Spanish/English bilingual students.

The researcher felt that analyzing student test scores in both languages would provide data showing the proficiency gap. However, looking only at test data would not explain the causes for the gap in language proficiency. Interviewing stakeholders about their perceptions of bilingual instruction and DLE methods in particular would provide a deeper understanding of the value for each language in the community. Stakeholder perceptions would help to explain support or lack of support for literacy in either or both languages. But language proficiency and test data would still not explain what was really happening in bilingual classrooms to promote or decrease learning to read, write, and speak in either or both languages. The informative method

of observational data was needed to support the research and analysis of test data and stakeholder perception. Classroom observation was the third view providing support to the research and analysis into what drove student language proficiency. The question the researcher strove to address through observation was, did classroom instruction align with the perceptions of stakeholders to promote bilingual literacy for Yup'ik/English speaking students?

Summary of the Results

The results of the quantitative component of students' reading proficiency in English and Yugtun, when looked at through the lens of classroom observation of DLE protocol, show higher levels of reading proficiency in English for those students taught by teachers with more DLE training and experience. Teachers using the most consistent DLE elements in grades kindergarten through third have students with slightly higher reading proficiency scores than teachers using fewer DLE elements in grades kindergarten through 3rd grade. Site A has three certified teachers and one classified teacher. Three of the four teachers have been trained in DLE, visited DLE classrooms to observe highly competent teachers using DLE methods, and have been implementing DLE for three or more years. Sites B, C, and D have varying levels of teacher experience, training, and two teachers each in grades K, 1, 2, and 3 who are certified or classified. Site C had an inexperienced 2nd/3rd grade teacher with no certification teaching Yup'ik language, Social Studies, and Science. Students showed higher growth in English reading in grade 3 from the beginning of the year to the end of the year at sites B and C where 3rd grade English teachers were experienced, certified, and trained in DLE. Site A had teachers using peer observation and DLE coaching in place for part of the school year. Teachers in site A had higher levels of DLE elements in place in their classrooms overall than sites B, C, and D. Site C has two out of four teachers using more elements of DLE, however observational data showed lack of

overall rigor of instruction. Site D has the smallest population and smallest class size of all four sites studied. Students' English reading proficiency at site D in English on MAP and English AIMSWeb assessments were second highest of all four sites.

Comparison of reading assessment scores in both Yugtun and English for third grade students determined that no clear difference in the use of 50/50 and 90/10 instructional methods could be made based upon student test scores alone. Sites A and D using 50/50 DLE instruction had statistically significant higher composite reading proficiency scores in Yugtun and English compared to sites B and C using 90/10 Yup'ik and English DLE instruction. Yup'ik reading proficiency alone was 10 points lower in sites B and C where Yup'ik is taught as the L1 in 90/10 instruction; which is contrary to what assumptions would be made when instructing in Yup'ik language as the L1. Triangulation of the test data with classroom instruction observation makes clear the assumption that more factors than 50/50 or 90/10 DLE methods determine student reading proficiency in either language. Sites B and C had overall less instructional rigor and fewer elements of DLE in kindergarten, first, second, and third grade classrooms.

All four sites studied used 50/50 DLE instruction in third grade. Sites A and D, which used 50/50 DLE instruction in kindergarten and first grade, had students in grade three gain 53 points from the fall assessment to the spring English oral reading assessment. Sites B and C, which used 90/10 DLE instruction in kindergarten and first grade, also had students in grade three gain 53 points from the fall English oral reading assessment to the spring English oral reading assessment. It cannot be determined that instructing students in Yup'ik as their L1 in kindergarten and grade 1 created a significant difference in Yup'ik language development by the spring of third grade. Sites A and D scored 18.25 points higher on MAP English reading assessment than sites B and C, yet sites A and D scored 17.341 lower on AIMSWeb English oral

reading than sites B and C. These results seem logical due to MAP reading assessment focus on comprehension of English vocabulary and text which students with more English instruction would be expected to score with higher levels. AIMSWeb English oral reading does not test comprehension. Oral reading is a measure of decoding skill. It makes sense that students who are instructed in Yup'ik would have slightly higher decoding skills because Yugtun reading is a language dependent upon syllabication and phonemic awareness and those decoding skills would transfer to English reading without vocabulary comprehension. Teacher interview data supported this conclusion. ET9 articulated the transfer of decoding skills without comprehension "our students can say, or pronounce words in English, but that doesn't mean they know the meaning of the words they are reading (ET9). It is worthy to note that schools with the highest overall language proficiency scores had site administrators who attended Gomez training and visited DLE schools in Texas to view exemplary DLE model practice.

Research supports the conclusion of this study which found students in dual language bilingual instruction took three to five years to catch up to their English-only peers in reading proficiency (Collier & Thomas, 2014). Students in this study who were in 50:50 DLE in Kindergarten Grade 1 and Grade 2 were further ahead of their peers at the beginning of Grade 3. But by the end of Grade 3 the students in 90:10 DLE during Kindergarten, Grade 1, and Grade 2 had caught up to their peers after a full year in 50:50 DLE. Yugtun and English share fewer cognates than Spanish and English, so 50:50 DLE would seem to be of greater benefit because bilingual Yup'ik/English students cannot transfer from one strong language directly into the other. Decoding skills would transfer, in that once a student has acquired the phonemic awareness and phonics skills for decoding written words in one language, they can use that skill to decode written words in the other language. However, comprehension of one language would

not necessarily transfer to the other language because of far fewer cognates between English and Yugtun.

Qualitative data from stakeholder interviews had the following themes emerge as highly contributing factors for the success of bilingual language instruction: community and teacher buy-in, teacher training, parent participation and support, value held for bilingual literacy and history of language usage and instruction. Figure 5 illustrates the themes derived from interview, observation, and test data in a cause and effect system that helps explain the complexity of interrelated factors on student language acquisition and outcome.

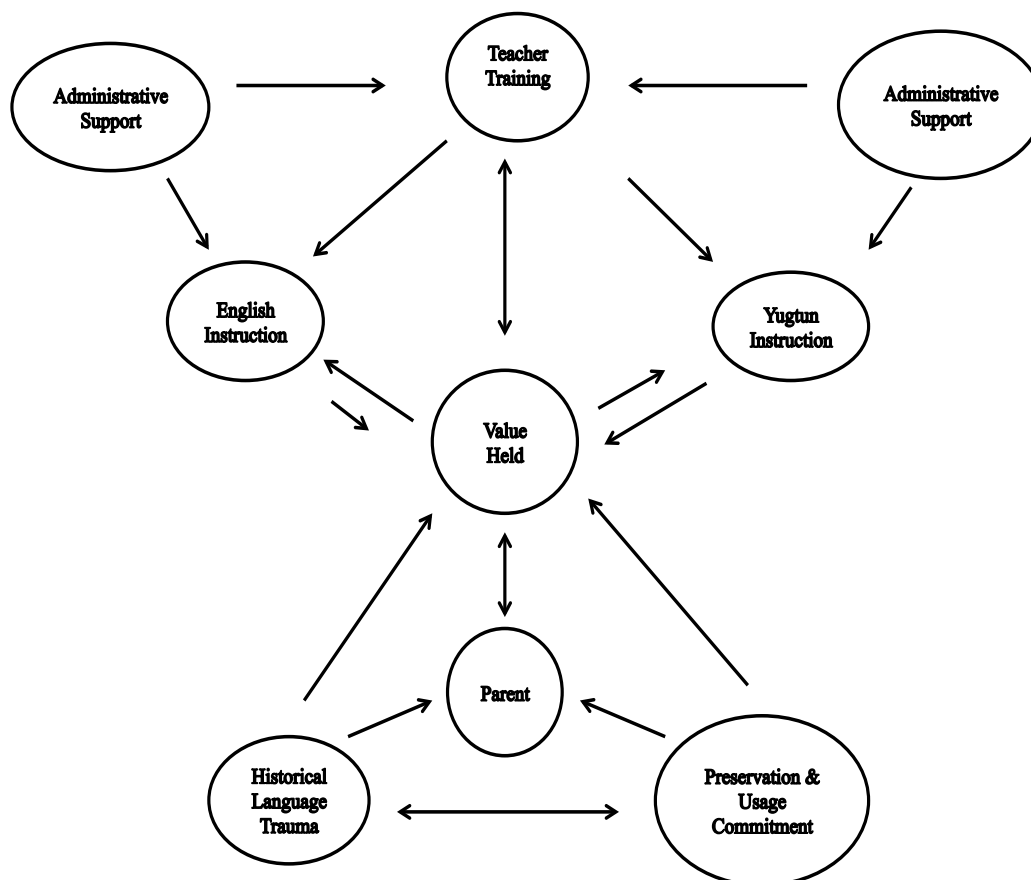


Figure 5. Interrelationship of factors affecting language proficiency.

Figure 5 showed equal value for English instruction and Yugtun instruction. Equal value is assumed because DLE promotes equal value of both languages. The case for each teacher and site administrator sharing equal value for instruction in both languages is one factor shown by the arrow length between Value Held and English Instruction. Interview data coded greater value of English teachers for English instruction. Interview data coded fairly equal value of Yup'ik teachers for both languages. Administrative Support is shown giving equal value to English and Yugtun teacher training. As reported in Chapter 4 results, all of the English-speaking teachers in kindergarten, 1st, 2nd, and 3rd, grades at the sites studied were certified teachers, while four out of 11 Yup'ik-speaking teachers in grades kindergarten through 3rd were certified.

Figure 5 used a larger sphere of Preservation and Usage Commitment than Historical Language Trauma affecting the Parent sphere because many young parents do not hold the Historical Language Trauma that their parents and grandparents experienced during the BIA schooling decades of the 1950s through 1970s. However, some parents were more committed to preserving the Yup'ik language and show greater dedication to using the language with their children than others. Having a strong L1 is important for dual language instruction so the Preservation and Usage Commitment would create a larger influence in students' success in dual language instruction.

Discussion of the Results

The assumption for this study was students receiving 50:50 dual language enrichment instruction with fidelity from kindergarten through grade 3 would show higher levels of language proficiency in Yugtun and English reading, writing, speaking, and listening tests. This assumption is based on research showing positive correlation between student language proficiency and bilingual enrichment protocol instruction combined with teacher efficacy in

students' ability to learn two languages simultaneously. The hypotheses of the secondary question of language value affecting proficiency is the value the community, family, teacher, and school shows for a language will increase proficiency and use of the language

Rationalization of the results of this study of bilingual language proficiency, value of literacy, and cultural factors of language usage used induction and deduction from a theory, with interconnections between data analysis of norm-referenced proficiency tests and observational and anecdotal data analysis in the form of ethnographic research. The use of ethnographic case study research allowed language proficiency assessment data comparative analysis along with ethnographic study describing the core values influencing literacy proficiency in two languages triangulated with observational data showing consistency and quality of instruction. Qualitative research methods examined language attitudes and values from the perspectives of students, parents, teachers, and administrators' perspectives. The story and analysis of language values, community use of both languages, and factors beyond classroom instruction work to identify cause and effect connections influencing proficiency in either or both languages of instruction.

Discussion of the Results in Relation to the Literature

This study attempted to determine how English/Yup'ik learners in 50:50 and 90:10 dual language education programs performed on reading assessments in English and Yugtun. This study also attempted to determine why English/Yup'ik language learners performed at greater or lesser levels of proficiency than English/Spanish students in similar DLE programs. Participants' scores from 50:50 and 90:10 instructional models were analyzed to determine significant differences between the performances of students at four school sites (Genesee et al., 2006). Qualitative analysis of attitudes exhibited about Yupik and/or English language acquisition provided rich descriptive support for student language proficiency levels. Uncovering historical

and ethnographic beliefs about language and communication in Yup'ik culture provided understanding of the complexities of cultural identity gained by fluency in the indigenous language. As Teddlie and Yu (2007) advocated, the use of qualitative case study with quantitative support provides meaningful integration and brings a broader perspective to data interpretation. Through use of ethnographic case study with quantitative lens, this study provided data analysis with background cultural perspectives.

Results of this study indicated need for attention and focus on early language instruction before kindergarten entrance. Three of the four sites studied do not have pre-school programs in place. The one site with a preschool program in place has been engaging 4-year-old students with language-readiness for the past three years. The preschool program at this site did not affect the 3rd grade scores because 3rd grade students did not have preschool available to them. Recommendations are made for all sites using DLE methods to enroll students in a language rich preschool environment to strengthen students' L1. Research of Dual Language Learners (DLLs) posits students who become fully proficient at English in early elementary grades do better throughout school so language proficiency should be a primary goal for these students and should begin before entrance into kindergarten (Kim et al., 2014).

Aylward's (2010) study of dual language in Nunavut parallels Yup'ik language issues in almost every aspect - cultural, value, community, and parental commitment to language acquisition. The highest overall effect was for interventions that were designed to help parents or other community members support children's learning at home and school and that simultaneously provided teachers with professional development. This professional development was directed at promoting teaching that was aligned with, informed by, and supportive of community funds of knowledge and parent contribution (Robinson, Hohepa, & Lloyd, 2009). L2

competence of bilingual students can be improved if teachers are explicit and systematic in content instruction and integrating language consistently across grade levels (Lindholm-Leary & Genesee, 2014). Many English teachers held belief consistent to Cummins (2007) study that brought attention to five inter-related assumptions underlying much English language teaching in global contexts. English teachers' overall expressed the belief that the more English is taught, the better the student will be prepared for future education and success in life.

Previous research on dual-language learning has principally compared bilingual children in single-language versus dual-language programs, showing that overall, children benefit from learning in two-way dual-language programs compared to single-language (Collier, 1992; Cummins, 1992; Genesee, 1989; Kovelman et al., 2008; Krashen, 2005; Lindholm-Leary, 2001; López & Tashakkori, 2004; Oller & Eilers, 2002; Rolstad et al., 2005; Thomas & Collier, 2002). Studies comparing two-way dual-language learning to transitional learning have also shown the advantages of students learning in two-way dual-language programs (De Jong, 2006; Friedenberg, 1984; Gertsen & Woodward, 1995; Hofstetter, 2004; Proctor et al., 2005; Ramírez et al., 1991; Slavin & Cheung, 2003, 2005). Several studies compare learning in the two main types of two-way dual-language learning, 50:50 and 90:10. In the one study comparing two-way dual-language, transitional, and single-language learning, Thomas and Collier (2002) posited children enrolled in two-way dual-language programs (50:50 or 90:10) showed the best mastery in English. However, the two main types of two-way dual-language programs were not directly compared, leaving open the question about which two-way dual-language learning context is best for majority and minority language learning. Furthermore, there is the need for studies of bilingual language learners in which two languages are equally valued and not labeled as majority or minority languages.

In the 90:10 dual-language learning context, children are exposed to both languages orally from teachers and classmates and introduced to printed reading material in both languages but in different proportions of time and not during the same developmental time period and school grade. The 90:10 programs are based on the learning theory assumption that children learn best by first establishing knowledge in the one domain they are most comfortable. After building a strong foundation, similar skills in a new domain can be acquired (Cummins, 2005). Children in families who speak the minority language learn reading better through building skills in the home/dominant language first and then transferring these skills to learning the new/majority language (Berens et al., 2013). However, further study focusing on bilingual families with no clear first language would be beneficial for a better understanding of the needs for students from bilingual language backgrounds. Cummins (2005) research of the effectiveness of 90:10 dual language are expanded in this study. The majority of students in this study did not come from a strong foundation in their first languages; therefore 90:10 may not be the most effective model for beginning language instruction. Rather, 50:50 models, used at two of the four sites in this study showed students with higher oral reading proficiency in English at the beginning of grade 3. This study is limited to reading decoding in the YCBM (Yugtun Oral Reading) and AIMSWeb assessments. MAP assessment shows proficiency in comprehension of English. The two sites in this study, Sites A and D, had measurably higher MAP scores using 50:50 DLE model bilingual instruction than the two sites, Sites B and C, which used 90:10 Yugtun/English instruction in the first two years of schooling. This study indicates higher reading comprehension development for students enrolled in 50:50 DLE model Yup'ik/English instruction.

Parent participation and support for developing a strong L1 and building early literacy is vital for the success of dual language students. Young children's sense of self and social-emotional functioning is developed and maintained through the home language. Developing a second language with a strong and sustained cultural and familial tie that supports cultural identity is favorable for highest academic achievement (Halle et al., 2014). Since the 1960s parental buy-in has been encouraged through the findings of increased academic achievement in outcomes of two-way dual language education (Umansky & Reardon, 2014). This study supports the need for early language development of the home language. Community support for early literacy development in the heritage language is recommended for optimal early bi-literate proficiency.

The need for teacher training, support, and emphases on teacher certification are clear goals resulting from this study. Previous studies of DLE effectiveness had focused on Spanish/English speaking student population. DLE had shown to be more effective than immersion with Spanish/English learners when done with fidelity (Collier & Thomas, 2004; Trevino Mendez, 2015). The necessity of rigor in classroom instruction is inherent in the enrichment of dual language pedagogy using bilingual pairs. Classroom environment should be language-rich, meaningful, and highly engaging. Teachers should work to improve student time-on-task and the efficient use of classroom instructional time for enriched learning experience with student participation. Pacific Policy Research Center (2010) defined two-way dual immersion bilingual programs sharing, "three key characteristics: a. instruction in two languages, b. one language at a time, c. peer-to-peer facilitated language sharing" (p. 2). Previous research showed greater language proficiency after three to five years of consistent high-level dual language instruction for students in Spanish and English bilingual programs (Nascimento, 2012).

Ethnographic and historical significance of this study opens awareness of the voices of marginalized groups not reliably included or responded to during the process of Westernized educational development. Standardization movement can pose a threat to distinctive local communities. This threat is particularly significant for indigenous communities, which have lived for millennia in a locality and have often been colonized and marginalized by Western cultures and which struggle to maintain their traditional languages and cultures (Gewirtz, 2001; McCarty, 2003; Street, 1996). "The issue of indigenous language preservation is global. There is a moral and human rights issue at stake – communities have a right to preserve and practice their cultural and linguistic traditions, and change should not be imposed from outside" (Muniz, 2007, p. 4).

Limitations

This study investigated the claim that dual language instruction model is more effective than immersion instruction for Yup'ik/English language learners (Christian, 2016; Collier & Thomas, 2014). This study further investigated the perceptions of value for language acquisition and the relationship of students' language proficiency to stakeholders' value for each language. This study was limited in time to qualitative data from observations and immersion into Yup'ik culture from 2011 through 2017. This study investigated the value of indigenous language acquisition on indigenous language proficiency and the value of English language acquisition on English language proficiency. Epistemology in this study focused on ethnographic belief in an observable and spoken form. Interpretation of observations and transcriptions through coding and analysis were applied to justify belief from opinion.

This study was limited to test scores of 3rd grade students in a representative sample of four schools out of 17 schools using DLE methods of instruction. Students were not given the

MAP assessment prior to grade 3. Students at some schools are not given AIMSWeb oral reading beyond grade 3. Comparison of student oral reading scores in English and Yugtun from the same sample of students in prior grade levels was not shown in this study because validity was not ensured due to variations in testing procedure.

DLE 50:50 and 90:10 instructional methods are not strictly adhered to in kindergarten through 3rd grades at the schools in this study. This study did not show remarkable differences in comparison of 50:50 and 90:10 DLE instructional outcomes for reading fluency. English reading comprehension assessment scores showed statistically significant differences between students instructed in 50:50 model DLE and students instructed in 90:10 model DLE protocol. However, comparable assessment data for Yugtun reading proficiency is not available for comparison analysis in this study. Factors affecting student language proficiency other than the use of 50:50 and 90:10 instruction were determined through this research.

Implication of the Results for Practice, Policy, and Theory

Implications from this research make clear the need to emphasize the added time students need for proficiency in two languages. Christian (2016) stated, “Unlike other bilingual education models, dual language programs take a long-term view to developing high levels of proficiency in both languages of instruction” (p. 4). Currently, bilingual students in rural Alaska taught with DLE methods are expected to meet grade level proficiency on nationally normed reading assessments in 3rd grade; however dual language research showed that dual language students may take three to five years of DLE instruction to become proficient at either language.

Realized from this study is the need to consider alternative types of assessment for dual language learners. Because research shows that dual language learners take three to five years to catch up to their mono-lingual peers in language proficiency, giving English nationally norm-

referenced achievement tests at the 4th and 5th grade levels may be counter-productive to students' confidence in their ability and teacher efficacy. The need to address equitable and reasonable assessments for Yup'ik/English dual language learners is a practice needing to be addressed. Bilingual language learners, like students across the United States, are expected to excel at 3rd grade nationally normed assessments in English. When English is not the L1 and students are taught in two languages in DLE the emphasis on assessment must be adjusted for students to develop full proficiency.

This study brought to light the need for increased focus for professional development, instructional coaching, and administrator attention to rigorous classroom instruction. Classroom observations carried out and analyzed in this study showed inconsistency in use of DLE pedagogy. Key elements of DLE, such as the use of bilingual pairs throughout subject areas, bilingual learning centers in use, and learning materials in both languages at the reading level of the students were lacking in almost half of the kindergarten through 3rd grade classrooms observed during this study. Administrators, instructional coaches, and district curriculum specialists must attend to helping teachers acquire the methods and materials needed for rich, rigorous bilingual instruction.

This study showed how peer observations of teachers using exemplary methods of DLE increases quality of DLE instruction. Once teachers see DLE in practice they are more likely to use the elements effectively in their classrooms. Peer observations in which teachers ask the observing peer teacher to provide reflective feedback on particular elements of DLE instruction were found to be a valuable for improving practice. The study sited using peer observations score higher in reading proficiency and have more elements of DLE pedagogy in place in their classrooms.

Recommended implementation of approaches shown to have a high positive effect on student outcomes including interventions designed to help parents or other community members support children's learning at home and school, while simultaneously providing teachers with professional development. Professional development should be focused on promoting teaching aligned with, informed by, and supportive of community knowledge and parent contribution. Interventions should include phonological awareness books and activities for use at school and at home. The activity involved students in naming items, identifying sounds in words, and then connecting sounds to letter shapes. Training parents and in-school peer tutors to support the reading young children may benefit literacy acquisition. Yup'ik language learning would be promoted through use of audio-recordings of books, made by elders, to support children's language learning and reading at school and at home. In addition, training parents and teachers to work together in identifying and addressing behavioral and learning difficulties in primary and elementary students would allow greater time-on-task for students frustrated with classroom interruptions due to behavioral issues.

Culturally relevant curriculum, improved teacher training for working with students from this unique culture, and an understanding of instructional practices most beneficial Native Alaskan students are needed as reforms (Kanu, 2007). These issues run counter-culture to the common core curriculum and standardized testing culture of the past 20 years in the United States educational system.

Recommendations for Further Research

The need for further research on the effectiveness of 50:50 DLE and 90:10 DLE instruction for Yup'ik and English language learners is recommended because of the limits of this study. Longitudinal studies involving students' reading proficiency in both languages

through grade 6 is recommended for a clearer picture of factors affecting language acquisition and development. Further research using greater numbers of school sites would increase validity and reliability of quantitative data analysis. Parent language surveys are a unique subject recommended for further study by this researcher because of questions and interest in the interpretation of the survey by parents and whether or not the surveys are filled out accurately. The decision at each school site to use 90:10 or 50:50 DLE model instruction is based on the pre-kindergarten parent home language surveys. Questions persist about the parents' understanding and honesty when filling out the information about their child's home language use.

Teacher, parent, and community buy-in are vital to the success of dual-language acquisition. Recent research in dual-language instruction has shown students' success depends on teacher agency and parent and community commitment (Ray, 2009). Whether those two factors are present and fully engaged remains a question in most Yup'ik villages. This study emphasizes the need for further research into how attitudes can be changed toward developing biliteracy and early childhood support from families for language learning. Dual-language instruction is looked at as another "white person" initiative to save the Yup'ik language. How can parents become active partners when the schooling of their children is viewed as someone else's responsibility? Parent involvement in their children's literacy success has long interested many teachers. How can teachers engage parents in their children's learning? Methods used to involve community members, parents, and teachers in dual-language instruction in order to establish a culture that values literacy are up for discovery.

Research into how a culture moves from an oral language emphasis to value for reading would deepen and broaden understanding for Yup'ik/English bilingual learners. How do communities move toward valuing reading aloud to children, opening libraries, teaching young

children songs and rhymes that promote language learning? In a culture transitioning from hunting and gathering for subsistence and depending upon family cooperation for survival, the researcher recognized a move toward greater autonomy and focus upon technology. What does this highly contrasting transition in behavior and belief systems mean for the value of language and generational communication?

Christian (2016) posited the need for further research in dual language to “examine outcomes and impacts beyond achievement reflected in standardized test performance, such as narrative writing development and students’ perceptions of bilingualism. Further studies should look inside classrooms at teacher pedagogy and use of instructional languages by students and teachers” (p. 2). As Christian (2016) recommended, further research should be conducted with middle school students in two-way dual language education to examine the attitudes of bilingual education on the long-lasting effects of influence for their affective, cognitive, and social perspectives. If Yup’ik dual language learners are required to take reading and writing proficiency tests in English beginning in 3rd grade and Yup’ik has been the first language in a 90/10 DLE model school for grades Kindergarten through 2, how do students perceive the value of Yup’ik language verses English language? Students at three of the sites studies do not have systematic English reading instruction until 2nd grade, yet in grade 3 they are expected to read the MAP and AIMSWeb nationally normed assessments at the 3rd grade reading level. Assessment practices that run counter to dual language outcome research are a worthy subject for further research.

Research investigating types of teacher training, the use of locally-trained teachers, and effects of teacher certification would be beneficial as the district in this study seeks to fill teacher positions with Yup’ik-speaking community members. “[The school district in this study] is

making a big push to create more homegrown teachers. Isabelle Dymant has worked as a nontraditional classroom teacher and is one of a handful selected to be paid while going to college full-time to earn her teaching degree (Demer, 2017). Alaska requires teachers to be certified and licensed with the exception of some districts, including the district in this study, who are allowed to hire speakers of the local language as regular classroom teachers without a college degree. The district in this study is somewhat unique because district is unique to rural Alaska because it has lower teacher in part by hiring locals without a college degree. “About 20 percent of its almost 300 certified teachers are Alaska Native, the highest proportion in the state. It also has 56 Yup'ik-speaking associate teachers” (Demer, 2017). Whether or not these community members working as teachers are systematically and effectively building students’ reading skills in the early grades would be welcome research.

Conclusion

This study set out to determine in part whether 50:50 or 90:10 DLE instructional methods showed different outcomes in student reading achievement and proficiency. Through comparison of reading assessment scores of third grade students and triangulation of qualitative interview and classroom observation data it is determined there may be greater factors beyond 50:50 and 90:10 DLE method protocol that affect students’ reading proficiency levels. Observational and interview data provided insight into factors affecting language instruction. The results of this study of students’ reading proficiency in English and Yugtun, when looked at through the lens of classroom observation of DLE protocol, show higher levels of reading proficiency in English for those students taught by teachers with more DLE training and experience. Irrespective of whether instruction was done in 90:10 or 50:50 DLE protocol, teacher training and teacher efficacy showed the greatest impact on student language proficiency.

Qualitative data from observations and interviews indicate factors of rigor of instruction, teacher training, community support for bilingual instruction and belief in students' ability to become proficient at reading in two languages at an early age affect student reading progress and achievement. The intent of further research in this area was to increase awareness of successful methods to help students succeed in becoming literate in two languages. Results of this study indicate need for attention and focus on early language instruction before kindergarten entrance. Three of the four sites studied do not have pre-school programs in place. The one site with a preschool program in place has been engaging 4-year-old students with language-readiness for the past three years. The preschool program at this site did not affect the 3rd grade scores because 3rd grade students did not have preschool available to them.

This study of dual language enrichment (DLE) model instruction on academic achievement may be seen as one of several methods necessary to close the achievement gap for Yup'ik students. Culturally relevant curriculum, improved teacher training for working with students from this unique culture, and an understanding of instructional practices most beneficial for "caste-like minority" status Native Alaskan students are needed as reforms (Kanu, 2007). These issues run counter-culture to the common core curriculum and standardized testing culture of the past several decades in the United States educational system. While DLE uses pedagogical practices recommended for instruction of Aboriginal students, DLE should not be seen as a panacea to cure all academic and social inequalities (Kanu, 2007).

Recommendations

The need for teacher training, support, and emphases on teacher certification are clear goals resulting from this study. Previous studies of DLE effectiveness had focused on Spanish/English speaking student population. DLE had shown to be more effective than

immersion with Spanish/English learners when done with fidelity (Collier & Thomas, 2004; Trevino Mendez, 2015). The necessity of rigor in classroom instruction is inherent in the enrichment of dual language pedagogy using bilingual pairs. Classroom environment should be language-rich, meaningful, and highly engaging. Teachers should work to improve student time-on-task and the efficient use of classroom instructional time for enriched learning experience with student participation.

The purpose of this research using ethnographic study and comparison data analysis was to examine the beliefs, behaviors, and shared perspectives of a Yup'ik population group on the topic of bilingual literacy in English and Yugtun. The purpose of a quantitative component of language proficiency was to test the theory of dual language enrichment (DLE) instruction compared to transitional bilingual education (TBE) instruction controlling for students enrolled in two-way dual language program and transitional bilingual education language program from kindergarten through grade 3 at a school district in western rural Alaska. Results of this study showed students in Yup'ik/English dual language enrichment instruction are still mostly far below proficient in reading Yup'ik and English language at the end of grade 3.

Recommendations are made for all sites using DLE methods to enroll students in a language rich preschool environment to strengthen students' L1. Research of Dual Language Learners (DLLs) posited students who become fully proficient at English in early elementary grades do better throughout school so language proficiency should be a primary goal for these students and should begin before entrance into kindergarten (Kim et al., 2014).

The unique need of Yup'ik/English learners brought to light through this study include family support, higher levels of instructional engagement and efficiency of instructional time, and a richer language environment for pre-kindergarten children. The necessity of building a

strong L1 has become relevant through the results of this study. The philosophical goals defining DL programs; high academic achievement in two languages, development of bilingualism and biliteracy, high levels of self-efficacy, and positive attitudes across cultures (Lindholm & Fairchild, 1990), are currently not being met in the four sites studied here. However, the cultural background of bilingual language learners was viewed as a resource instead of a deficit.

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Appendix A: Dual Language Priorities

Students must be screened prior to kindergarten instruction to determine the strongest language (L1) and language of instruction (LOI) for early literacy.	Use W-APT test and YPT. Complete screening of incoming Kindergarteners the previous spring. Send all screening documents to Betty Gilman. The L1 will be recorded in PowerSchool.
The DLE Lesson Plan Cycle must be used with fidelity for planning and instruction.	New DLE teachers must attend Dual Language Teacher Training I in August. Second year and beyond attend ongoing professional development at DWIS, and attend site or grade-level specific VTC groups, and topic-specific K100s.
Both the classroom environment and instructional processes listed on the DLE classroom elements protocol is expected to be in place and fully implemented.	See DLE Elements in Dual Language Handbook.
Students work in bilingual pairs all day every day.	Students must be explicitly taught how to interact meaningfully in pairs.
The separation of languages for instruction and the relative time requirements for each language and content area must be adhered to.	Multiple sample schedules are available in the Dual Language Handbook. General content area times are available in Instructional Framework.
Assessment and benchmarking requirements are followed.	Aimswest, Yugtun CBMs, MAP, WIDA. See section on Data & Assessment in Instructional Framework.
Students must write every day in every subject, i.e., journaling.	
Time is provided for conceptual refinement after each content area lesson.	See DLE Lesson Cycle in Dual Language Handbook.
Site Administrators of Dual Language schools use DLE Observation Protocol in DLE classrooms.	DLE Protocol is available in Instructional Framework and Dual Language Handbook

Appendix B: Dual Language Training Institute – Classroom Elements of the Gómez & Gómez Dual Language Enrichment

Model

Grade Level	Heterogeneous Instructional Grouping	Separation of Languages for Content-Area Instruction	Computer/Science Lab Instructional Support	Vocabulary Enrichment	Conceptual Refinement & Academic Rigor
PK	Content-Area Instruction & Bilingual Learning Centers conducted in Bilingual Pairs/Groups	Language Arts in Student's Native Language Mathematics (English) Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Learning Center activities conducted in LOD	Instructional Software in LOI	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics
K	Content-Area Instruction & Bilingual Learning Centers conducted in Bilingual Pairs/Groups	Language Arts in Student's Native Language Mathematics (English) Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Learning Center activities conducted in LOD	Instructional Software in LOI	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics
1st	Content-Area Instruction & Bilingual Learning Centers conducted in Bilingual Pairs/Groups	Language Arts in Student's Native Language Mathematics (English) Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Learning Center activities conducted in LOD	Instructional Software in LOI	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics
2nd	Content-Area Instruction & Bilingual Learning Centers conducted in Bilingual Pairs/Groups	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Learning Center activities conducted in LOD	Instructional Software in LOI	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics
3rd	Content-Area Instruction, SVE Activities & Bilingual Research Centers conducted in Bilingual Pairs/Groups	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Research Center Materials in Both Languages	Instructional Software and Science Labs in Opposite LOI : Math: <i>Yugtun</i> SS & Science: <i>English</i>	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. SVE 7. Computer/Science Labs 8. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics Specialized Voc. Enrichment (SVE) ○ <i>English</i> : SS & Science ○ <i>Yugtun</i> : Mathematics
4th	Content-Area Instruction, SVE Activities & Bilingual Research Centers conducted in Bilingual Pairs/Groups	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Research Center Materials in Both Languages	Instructional Software and Science Labs in Opposite LOI : Math: <i>Yugtun</i> SS & Science: <i>English</i>	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. SVE 7. Computer/Science Labs 8. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics Specialized Voc. Enrichment (SVE) ○ <i>English</i> : SS & Science ○ <i>Yugtun</i> : Mathematics
5th	Content-Area Instruction, SVE Activities & Bilingual Research Centers conducted in Bilingual Pairs/Groups	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Yugtun) (Language of the Day: MWF=Yugtun / TTh=English) Morning Activities, P. E., Library, Music, Computers, RR Breaks LOD Activities: Journal, Read-Alouds, DEAR, Read Room Bilingual Research Center Materials in Both Languages	Instructional Software and Science Labs in Opposite LOI : Math: <i>Yugtun</i> SS & Science: <i>English</i>	1. Content Integration 2. Thematic Planning 3. Bilingual Pairs 4. LOD 5. BLCs 6. SVE 7. Computer/Science Labs 8. Cognates	CR at end of each lesson cycle: ○ <i>Yugtun</i> : YLA, SS, Science ○ <i>English</i> : ELA, Mathematics Specialized Voc. Enrichment (SVE) ○ <i>English</i> : SS & Science ○ <i>Yugtun</i> : Mathematics

Appendix C: Gomez and Gomez Dual Language Model

<i>Teacher:</i> _____	<i>Campus:</i> _____	<i>District:</i> _____	<i>Grade:</i> _____	<i>Subject:</i> _____	<i>Date:</i> _____	<i>Observer:</i> _____
<u>Dual Language Classroom Environment</u> ◆ Items in classroom labeled in <u>both</u> languages-PK-5 (English: Brown / Yugtun: Green) <i>Strengths:</i> <input type="checkbox"/> Plenty of items clearly labeled (large print) in both languages & color-coded <input type="checkbox"/> Plenty of items labeled at or above grade level (to be reviewed in LOD) <input type="checkbox"/> Some items labeled at student eye level ◆ Word walls posted in both languages <i>Strengths:</i> <input type="checkbox"/> Word Walls are color-coded & clearly posted (large print) <input type="checkbox"/> Word Walls are robust with high frequency & student-generated words (over 60-90 words each) <input type="checkbox"/> Word Walls are accessible to students & interactive (to be reviewed in LOD) \ ◆ Student-generated alphabets posted in <u>both</u> languages (PK-5) <i>Strengths:</i> <input type="checkbox"/> SG Alphabets equally posted in both languages <input type="checkbox"/> SG Alphabets are clearly posted (large print) or at student eye level (to be reviewed in LOD) <input type="checkbox"/> SG Alphabets' vocabulary at or above grade level ◆ Student's work prominently displayed in <u>both</u> languages <i>Strengths:</i> <input type="checkbox"/> Plenty of student work displayed in classroom <input type="checkbox"/> Student work is displayed in both languages <input type="checkbox"/> Student work is displayed in both languages in hallway ◆ Instructional materials accessible and equitable in <u>both</u> languages <i>Strengths:</i> <input type="checkbox"/> Plenty of learning materials available <input type="checkbox"/> Learning materials accessible to students in both languages <input type="checkbox"/> Learning materials <i>equitable</i> in both languages ◆ Literature accessible and equitable in <u>both</u> languages <i>Strengths:</i> <input type="checkbox"/> Plenty of reading books available <input type="checkbox"/> Plenty of reading books <i>accessible</i> to students in both languages <input type="checkbox"/> Reading books <i>equitable</i> in both languages <input type="checkbox"/> Reading books are <i>culturally relevant</i> for children ◆ Clear and visible list of assigned <u>bilingual pairs</u>: <i>Strengths:</i> <input type="checkbox"/> List of assigned bilingual pairs clearly posted <input type="checkbox"/> Bilingual pairs posted are color-coded <input type="checkbox"/> Pocket chart or other system used to change bilingual pairs based on content-area ◆ Content-Area bulletin boards & charts are in language of instruction (LOI) <i>Strengths:</i> <input type="checkbox"/> Content-area bulletin boards posted are in LOI <input type="checkbox"/> Content-area bulletin boards list content vocabulary in LOI <input type="checkbox"/> Content-area <i>charts</i> posted are in LOI ◆ Desks or tables arranged to promote interactive/group lessons <i>Strengths:</i> <input type="checkbox"/> Desks/tables used for bilingual pairs/groups (groups of 4...2 pairs) <input type="checkbox"/> Desks/tables arranged for face-to-face interaction ◆ Bilingual Learning Centers (PK-2)/Bilingual Research Centers (3-5) in <u>both</u> languages <i>Strengths:</i> <input type="checkbox"/> Bilingual Learning Centers (PK-2) or Bilingual Research Centers (3-5) <i>defined & clearly labeled</i> <input type="checkbox"/> Bilingual Learning Centers in Science, SS, <i>Math</i> and Reading have academic-based activities <input type="checkbox"/> Bilingual Learning Center's activities in both languages (bilingual pairs select activity in LOD) <input type="checkbox"/> Effective <i>Management System</i> for rotation of bilingual pairs during Bilingual Learning Centers <input type="checkbox"/> Bilingual Research Centers used <i>during</i> content-area instruction (project-based learning...3-5) <i>Comments:</i> _____ _____ _____ _____ _____ _____ _____				<u>Instructional Process & Student Learning</u> ◆ Teacher consistent in language of instruction (LOI); no translation/clarification in L1 <i>Strengths:</i> <input type="checkbox"/> Teacher uses LOI for teaching <input type="checkbox"/> Teacher-aid uses LOI for teaching (if applicable) <input type="checkbox"/> Teacher and teacher-aid assist students in LOI ◆ Teacher adheres to the Language of the Day (LOD) Circle LOD: M T W R F Yugtun // English <i>Strengths:</i> <input type="checkbox"/> Sign on door announcing LOD is <i>correct</i> <input type="checkbox"/> Teacher & Students follow LOD (if observed) / LOD Helper of the Week? Yes No <input type="checkbox"/> Teacher conducts following <i>LOD activities</i> : 1. Routines 2. Journal Writing 3. Read-Alouds 4. DEAR 5. Read Room ◆ Learners provided authentic, meaningful opportunities to read and write (no worksheets) <i>Strengths:</i> <input type="checkbox"/> Lesson activity engages learners in reading and writing <input type="checkbox"/> Lessons engage learners in "content journal writing reflection" (YLA/ELA, Math, Science, SS) <input type="checkbox"/> Evidence of "writing in all subject areas" (<i>connected writing</i>) ◆ Learners use language of choice (PK-1); <u>strongly</u> encouraged to use language of instruction (2-5) <i>Strengths:</i> <input type="checkbox"/> Learners use language of choice (PK-1) <input type="checkbox"/> Learners reminded to use LOI (PK-1) <input type="checkbox"/> Learners are strongly encouraged to use LOI (2-5) ◆ Evidence of hands-on meaningful learning, use of visuals, objects <i>Strengths:</i> <input type="checkbox"/> Lesson is hands-on and cooperative <input type="checkbox"/> Lesson uses effective visuals, objects, <i>realia</i> <input type="checkbox"/> Content learned is authentic, meaningful, motivating and relevant ◆ Evidence of group and individual accountability used for assessment <i>Strengths:</i> <input type="checkbox"/> Assessment includes informal <i>kid watching</i> <input type="checkbox"/> Evidence of authentic assessments <input type="checkbox"/> Opportunities for students to assess one another <input type="checkbox"/> Assessment includes individual, pair and group grades ◆ DLE Lessons are challenging; go from comprehension to higher level on Blooms' Taxonomy (Rigor) <i>Strengths:</i> <input type="checkbox"/> Lesson engages bilingual pairs <i>comprehension level</i> (activity #1) <input type="checkbox"/> Lesson engages bilingual pairs at <i>application</i> level or higher (activity #2) <input type="checkbox"/> Learners engaged in Higher Order Thinking Skills (HOTS)/Rigor ◆ Instructional grouping in bilingual pairs/bilingual groups; <u>minimal</u> use of whole group instruction <i>Strengths:</i> <input type="checkbox"/> DLE Lesson goes from whole group-to-bilingual pairs/groups learning (H-M / M-L) <input type="checkbox"/> Bilingual pairs clearly support each other's learning (pairs learn <i>through one assignment</i>) <input type="checkbox"/> Bilingual pairs follow "gradual release;" one bilingual pair supports the other bilingual pair at table ◆ Evidence of Conceptual Refinement activity (Conceptual Refinement (CR): PK-5) <i>Strengths:</i> <input type="checkbox"/> Conceptual Refinement listed in daily schedule (PK-5) <input type="checkbox"/> Consistent implementation of Conceptual Refinement at end of each lesson cycle (PK-5) ◆ Evidence of Specialized Vocabulary Enrichment activity (Specialized Vocabulary Enrichment (SVE): 3-5) <i>Strengths:</i> <input type="checkbox"/> Specialized Vocabulary Enrichment (SVE) listed in daily schedule (3-5) <input type="checkbox"/> Use of pocket chart or other system to display targeted Specialized Vocabulary for the week <input type="checkbox"/> Clear implementation of Specialized Vocabulary Enrichment activities on a weekly basis <i>Comments:</i> _____ _____ _____ _____ _____ _____ _____		

Appendix D: SIOP Checklist for Lesson Planning

Lesson Plan Checklist for The Sheltered Instruction Observation Protocol (SIOP)

Preparation

- Write content objectives clearly for students
- Write language objectives clearly for students
- Choose content concepts appropriate for age and educational background level of students
- Identify supplementary materials to use (graphs, models, visuals).
- Adapt content (E.g., text, assignment) to all levels of student proficiency
- Plan meaningful activities to integrate lesson concepts (e.g., surveys, letter writing, simulations) with language practice opportunities for the four skills

Building Background

- Explicitly link concepts to students' backgrounds and experiences
- Explicitly link past learning? And new concepts
- Emphasize key vocabulary (e.g., introduce, write, repeat, and highlight) for students

Comprehensible Input

- Use speech appropriate for students' proficiency level (e.g., slower rate, enunciation, simple sentence structure for beginners).
- Explain academic tasks clearly.
- Use a variety of techniques to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language).

Strategies

- Provide ample opportunities for students to use strategies (e.g., problem solving, predicting, organizing, summarizing, categorizing, evaluating, self-monitoring)
- Use scaffolding techniques consistently (providing the right amount of support to move students from one level of understanding to a higher level) throughout lesson
- Use a variety of questions types including those that promote higher-order thinking skills throughout the lesson (e.g., literal, analytical, and interpretive questions)

Interaction

- Provide frequent opportunities for interactions and discussion between teacher/students and among students, and encourage elaborated responses. Use groups configurations that support language and content objectives of the lesson
Provide sufficient wait time for student response consistently.
- Give ample opportunities for students to clarify key concepts in L1 as needed with aide, peer, or L1 text.

Practice/Application

- Provide hands-on materials and/or manipulatives for students to practice using new content knowledge.
- Provide activities for students to apply content and language knowledge in the classroom.
- Provide activities that integrate all language skills (i.e., reading, writing, listening, speaking).

Lesson Delivery

- Support content objectives clearly.

- Support language objectives clearly.
- Engage students approximately 90–100% of the time (most students taking part/on task). Pace the lesson appropriately to the students' ability level.

Review/Assessment

- Give a comprehensive review of key vocabulary
 - Give a comprehensive review of key content concepts.
 - Provide feedback to students regularly on their output (e.g., language, content, work).
- Conduct assessments of students' comprehension and learning throughout lesson on all lesson objectives (e.g., spot checking, group response).

Reprinted from Echevarria, J., Vogt, M. E., & Short, D. (2000). *Making content comprehensible to English language learners: The SIOP model*. Boston: Allyn & Bacon.

Appendix E: Informed Consent for Interview

CONSENT FORM

Research Study Title: Effects of Dual Language Protocol on Literacy Development for Yup'ik Language Speakers

Principal Investigator: Kristin Henke

Research Institution: Concordia University, Portland, OR

Faculty Advisor: Dr. Connie Greiner

Purpose and What You Will Be Doing

The purpose of this survey is to investigate how the history and perceived value of speaking the Yup'ik and/or English language affects literacy development in both languages. We expect approximately 28 volunteers. No one will be paid to be in the study. We will begin enrollment on December 1, 2016 and end enrollment on June 1, 2017. To be in the study, you will answer three open-ended questions about the history of your language learning and your values toward learning Yup'ik language and English language. Kristin Henke will record your responses.

Doing these things should take less than one hour of your time.

Risks

There are no risks to participating in this study other than providing your information. However, we will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption or locked inside the home of the Principal Investigator. When we, or

any of our investigators look at the data, none of the data will have your name or identifying information. We will only use a secret code to analyze the data. We will not identify you in any publication or report. Your information will be kept private at all times and then all study documents will be destroyed 3 years after we conclude this study.

The study will compare the aggregate group response from all participants with public data regarding test scores for this school's third graders. The test scores are reported in aggregate and not specific for any child and the test results are public data. The school children's test scores are public data and cannot be linked to any of your specific responses. The name of this school will not be identified in any publication or report.

Benefits

Information you provide will help educators and community members improve language education and the awareness of cultural identity value in learning Yup'ik and English. You could benefit this by sharing your language learning history and your views of the value of learning Yup'ik and/or English.

Confidentiality

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us abuse or neglect that makes us seriously concerned for your immediate health and safety.

Right to Withdraw

Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and

there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions.

Contact Information

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Kristin Henke at email. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch (email obranche@cu-portland.edu or call 503-493-6390).

Your Statement of Consent

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

Participant Name

Date

Participant Signature

Date

Investigator Name

Date

Investigator Signature

Date



Investigator: Kristin Henke; email: [researcher email redacted]

c/o: Professor Connie Greiner

Concordia University – Portland

2811 NE Holman Street

Portland, Oregon 97221

Appendix F: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously- researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of Academic Integrity

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test

- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University-Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*

Digital Signature Name Kristin Henke

Date August 3, 2017

Appendix G: Copyright Permission Letter

Re: Your Form Details Follows :Thank you for visiting the DLTi website!

Inbox x

📧 🖨️ 📧



Leo Gomez <leogomez@dlti.us>
to me

9:22 AM (3 hours ago)

🌟 ↩️ ▼

Hello Kristin!

First of all congratulations!! Yes, you have my permission to include the Gómez & Gómez DLE protocol form in the appendix of your dissertation. Please send me a final copy of your dissertation (link). I would love to read it.

Let me know if this email is sufficient documentation.

Thank you!

Dr. Leo Gómez

Dual Language Training Institute

University Professionals Committed to Dual Language Enrichment for all Students!

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