PHONOLOGICAL AWARENESS INTERVENTIONS IN FRENCH IMMERSION CLASSROOMS

by

Sonja Gowda

B.Ed., University of Alberta, 1995

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Abstract

In this research project, I examined phonological awareness interventions (PAIs) in primary French Immersion classrooms. In detail, I discussed current research on the importance of phonological awareness (PA) as a foundation for literacy skills and the transferability of these pre-literacy skills across languages. In a focus group setting, I invited primary French Immersion teachers to share their knowledge and understanding of PA as well as share effective interventions to teach this pre-literacy skill to second language learners. Subsequently, I delivered a questionnaire to teachers asking them to rate the listed interventions for effectiveness and frequency of application. Results indicated that teachers had a varying degree of knowledge of PA, and therefore, PAIs. PAIs identified in this study match the research of current PAI and addressed the “big ideas” of literacy such as phonemic awareness, fluency, comprehension, vocabulary and the alphabetic principle. PAIs that were highest rated in frequency and effectiveness included building words on mini-chalkboards, cutting sentence strips, and identifying rhymes in stories and poems.
# TABLE OF CONTENTS

Abstract ii

Table of Contents iii

List of Tables v

Chapter 1: Introduction 1

Significance of the Project 3

Background to the Project 4

Personal Location 6

Conclusion 8

Chapter Summary 9

Chapter 2: Literature Review 11

Response to Intervention (RTI) 12

Phonological Awareness Interventions 19

Cross-transfer of Linguistic Skills 27

Conclusion 32

Chapter 3: Research Design 34

Project Goals 35

Research Methodology 36

Participants 37

Ethics 38

Research Methods 39

Focus Group 41

Questionnaire 44
LIST OF TABLES

Table 1  Representation of the Coded Data by Theme and Codes Accompanied by a Key Quote  57
Table 2  Phonological Awareness Interventions Questionnaire- Frequency of Interventions  65
Table 3  Phonological Awareness Interventions Questionnaire- Effectiveness of Interventions  67
Chapter 1: Introduction

Phonological awareness (PA) is an essential foundational building block for the acquisition of reading skills. Children typically develop their receptive and expressive language skills and begin forming phonological representations for graphemes as they are introduced to print. PA is the ability to hear and manipulate sounds in language. Children typically access and apply this phonological knowledge during the initial stages of reading development. Numerous studies have revealed that PA is the most important specific mechanism that facilitates early reading success (Stanovich, 1986). Several studies concluded that strong PA skills in a child’s first language cross-transfer to their reading proficiency in a second language (Éva & Réka, 2013; Genesee et al., 2006; Geva & Genesee, 2006). Explicit universal instruction of PA skills is critical for all children.

Deficits in PA are a strong predictor of future reading difficulties; hence early identification of these delays is essential in tailoring specific interventions for at-risk students. For children identified as at-risk for reading difficulties, early preventative interventions in this domain are critical and impact future reading development and ability. These children need explicit instruction in accessing and manipulating these phonological representations of speech sounds in conjunction with formal reading instruction. Phonological awareness interventions (PAI) involve the specific teaching of literacy skills such as rhyming, segmenting and blending, identifying initial, middle and end sounds and manipulating phonemes. These interventions are usually done orally and may be as simple as singing rhyming songs or reading rhyming books and thus encouraging students to hear the rhymes and create some new ones on their own or together. Segmenting begins at the syllabic level, where syllables can be clapped and the
beats can be counted out. An adaptation is to have students jump on the floor or tap the syllables on their desk with a stick or pencil, or represent each syllable with a block or token. Blending complements segmenting and when the teacher claps out a word, students put the sounds together to say the word as a whole. Similarly when each block is touched as the syllable is spoken out loud, the student can push the blocks together and say the word as a whole. Songs with alliteration can help teach initial sounds. Songs or stories where the initial sound can be substituted for a new sound, thus creating a new word, also help highlight the position of the initial sound thereby allowing for easier identification by students. A further manipulation of end phonemes through song and rhyme allow for attention to be drawn to the end sound of a word.

According to Cárdenas-Hagan, Carlson, and Pollard-Durodola (2007), "(r)esearch indicates that phonological awareness is a necessary precursor to successful reading acquisition in all alphabetic languages" (p. 251). Students acquiring a second language need not only varied exposure to the second language phonological skills, but some studies indicated that phonological interventions in their first language will influence their reading proficiency in a second language (Bialystok, Luk, & Kwan, 2005; Cárdenas-Hagan et al. 2007; Éva & Réka, 2013; Genesee et al., 2006; Geva & Genesee, 2006). Bialystok et al. posited that although bilinguals may develop several fundamental literacy skills differently than monolinguals, they transferred learned skills from one language to another. This was particularly true of languages that share the same alphabetic principles, as the understanding of reading as a basis in the symbolism of print is readily transferred from one language to another. Cárdenas-Hagan et al. (2007) cautioned that while PA is an underlying foundation between reading acquisition in the
two languages, students who lacked vocabulary and conceptual knowledge in their first language and were immersed in a second language, did not always experience continued literacy development in their first language.

**Significance of the Project**

Reading achievement in the later elementary grades is often conditional on the skills acquired in the early elementary grades, and this has promoted an increased awareness of the need for effective early childhood education programs (Dahmer, 2010). According to the provincial Early Development Index (EDI) for 2014, 30% of children in the geographical region under study entering kindergarten are vulnerable on one or more scales in the domains of physical, social, emotional, communication and language skills (Offord & Janus, 2000). Students entering French Immersion kindergarten often exhibit at risk language skills which impact their second language acquisition, namely in the areas of literacy. From an early age, children begin developing pre-literacy and language skills that form the foundation for future reading skills. Numerous studies have revealed that PA is the most important specific mechanism that facilitates early reading success (Stanovich, 1986). PA is a very strong predictor of future reading success and as a greater understanding of this essential early literacy foundation has evolved, its significance to later reading success has been realized (Dahmer, 2010). This strong foundational base needs to be in place at an early age in order to support the learning and acquisition of literacy skills, hence reducing the frequency of reading difficulties and identifying possible disorders.

In an effort to address these deficits in pre-literacy skills, schools in the target region are now encouraging primary teachers to join a primary project where literacy and
numeracy skills are the focus. Under this model, teachers focus 120 uninterrupted minutes of instructional time towards building the foundational skills necessary for successful reading, writing and numeracy skills. With this overall expectation of increased literacy competence, teachers must teach and reinforce basic literacy skills such as PA skills and develop a personal repertoire of phonological awareness interventions (PAI). Professional workshops of PAI exist; but, these seem elusive or non-existent for the majority of teachers. French Immersion teachers who do not benefit from this specialized instruction are left to develop PAI based on their own interpretations of PA and teach the skills they feel might be needed in a literacy program. Conversely, there may exist a gap between the increased PA knowledge gained through these workshops and the application of this knowledge in classroom instruction. By facilitating a discussion of PA among French Immersion colleagues, the hope was that teachers gained a better understanding of PA through a sharing of ideas and were able to evaluate effective PAI applicable in a Response to Intervention (RTI) model.

**Background to the Project**

The significance of PA as an essential building block in the development of reading proficiency and reading comprehension was the driving motivator in this project. During professional training, teachers are educated in a multitude of subject areas, but often lack specific instruction and practice in teaching the skill of reading. While it is becoming commonly understood that students need a firm foundation in strong PA skills, there seems to be a gap in consistent and explicit application of strategies and interventions to teach to this area. As an added challenge, French Immersion teachers instructing in a second language need to develop literacy skills among students in a
second language despite possible linguistic discrepancies in the students' first language. As such, my interest in this domain turned towards second language studies and various PAIs in a RTI model.

This school district employs a pre- and post-screening tool for students in kindergarten in order to assess pre-literacy skills such as PA. The information from the pre-screen is intended to direct specific Tier 2 interventions with the expectation that the intensive instruction will result in improved results in the post-screen at the end of kindergarten. Primary teachers are expected to teach PA skills in a whole class Tier 1 setting, with additional Tier 2 interventions given to those students who need extra support and practice. Students whose results indicate significant discrepancies in PA, highlighting possible future learning difficulties, receive Tier 3 interventions with the Speech and Language Pathologist (SLP). Due to the lack of second language resources, much of the Tier 2 or Tier 3 support is delivered in English to French Immersion students.

The diversity of experience, teaching style, and PA knowledge among primary teachers at the target school led to a varied understanding of what PA was in addition to a broad understanding and varied application of interventions aimed to explicitly teach this essential building block of reading acquisition. Currently, teachers are under increasing pressure to have students acquire literacy skills at a younger age. This school district has embarked on a primary project where, through intensive literacy instruction, the vision is that 90% of students entering Kindergarten in 2013 acquire reading and writing fluency by Grade 4. Primary teachers are being encouraged to provide PAI through a RTI framework in order to respond to the needs of students with pre-literacy difficulties.
These interventions would typically be delivered first in a universal setting, Tier 1, and for at-risk students, in a small group setting, Tier 2. Expectations of providing specific PAI tailored and modified to respond to students’ learning needs may possibly present a challenge for the average classroom teacher who has typically not received specialized PA training.

The goals of this project were to gain a better understanding of PA through a sharing of ideas among colleagues, to explore research on the transferability of language skills and the impact this has on PAI, and to evaluate effective PAI delivered in a RTI model. Through this study, I attempted to bridge the gap between the theory and the application of PAI in a RTI framework. The essential question driving the research was: To what extent do French Immersion teachers use RTI to address PA in the French Immersion classroom? Supporting questions included: What other PAI do teachers use? How frequently do teachers use a particular set of PAI?; and How effective do they find these PAI in the French Immersion classroom?

Personal Location

The target school was located in Northern British Columbia and offered French Immersion, in a dual-track setting, from kindergarten to Grade 7. Students in French Immersion typically receive 100% of their instruction in French, including all subject areas until they reach Grade 3. In this school district, French Immersion students begin receiving one hour of English Language Arts instruction per day as of Grade 3. There are approximately 250 students in the program, from kindergarten to Grade 7, normally being supported with a 0.5 French Immersion Learning Assistance Teacher (LAT), depending upon the current need of the student body. The majority of specialized interventions,
such as SLP, some PA interventions and Reading Recovery, are offered exclusively in English.

I have been both a French Immersion classroom teacher and French Immersion LAT at the target school over the past 17 years. For the past eight years, I have been working as the French Immersion LAT. This year I served as a Grade 3 French Immersion teacher and therefore, I was no longer in a resource role. In my role as the French Immersion LAT, I assisted in French Immersion classrooms to provide guided reading support, PAI for kindergarten students, and later, literacy support to intermediate students, in addition to conducting academic assessments. At the start of the 2014 school year, my assignment changed to that of classroom teacher, as I had been for the years prior to undertaking the more specialized LAT role. With a growing appreciation of the importance of PA and its influence on reading proficiency, my interest in this domain had turned towards second language studies and various PA interventions in a RTI model as encouraged by the school district.

My role in this research was that of resource facilitator. I wanted to mediate a discussion with primary French Immersion teachers. The aim of the discussion was to recognize and enhance teachers' current knowledge of PA and PAI, and to identify the RTI strategies they employed and found effective in order to teach PA. Following a focussed discussion, I generated a questionnaire asking teachers to both rate the frequency of the specific PAI as well as to evaluate their effectiveness in the classroom. Some of the primary teacher participants were either in their first or second year of the district's primary project. Therefore, they had received recent instruction on PAI, and were currently being supported through mentorship with a strong literacy focus.
To draw enough participants into the study, I invited primary French Immersion teachers from within the district, but located in two separate cities, to participate. The inclusion of these colleagues ensured a broader spectrum of information and perspectives on the topic. Additionally, I anticipated that teachers would benefit from an increased awareness and knowledge of PA delivered through RTI. Due to geographic location and the transitory nature of the nearby French Immersion staff, some of these colleagues were unknown to each other and were able to provide fresh points of view on the topic.

My belief was that the majority of teachers lacked either specific knowledge or confidence about PA or PAI, and consequently, were unsure and uncomfortable about applying explicit PAIs in order to address this foundational literacy skill. Following this project, I anticipated that teachers would increase their knowledge of PAIs and be able to concretely apply interventions to teach PA, moving them from theory to effective, confident and consistent practice.

**Conclusion**

PA skills are directly linked to reading proficiency. Students with deficits in PA manifest a variety of reading difficulties unless they receive explicit instruction and interventions. Explicit teaching of this skill is necessary to ensure that students acquire the foundational skills to develop into fluent readers. Students in the French Immersion program in the area of study are taught exclusively in French for the first three years of the program. As a result, PAI are typically delivered in the French Immersion classroom in this second language, with the exception of some Tier 2 or Tier 3 interventions that are delivered in English. A better understanding of the transferability of PA language skills is essential in determining the effectiveness of specific PAI. Highlighting current PAI
employed in the primary French Immersion classroom and assessing their perceived effectiveness is a valuable step in the sharing of knowledge and the expansion of teachers’ personal repertoire of strategies. The goal of this project was to enhance teachers’ knowledge of PA and identify effective interventions applied in the classroom in an effort to develop this foundational literacy skill.

Chapter Summary

The initial chapter of this paper situated the project and validated the goal. PA is an essential foundation to reading acquisition, and explicit PAI need to be applied in the classroom following a RTI model of delivery. The second chapter highlights current research surrounding the importance of PA as a foundation for reading proficiency. There is extensive research in the domain of PA and its importance to the acquisition of these skills as a basis for reading proficiency. Given that the target audience was French Immersion students and teachers, the discussion surrounding the cross-transfer of linguistic skills was extensively researched and reviewed. Research surrounding RTI was identified in order to indicate the intensity and duration as well as the depth of effective interventions currently in practice. The interventions uncovered during the focus group were categorized according to their level of delivery within the RTI model.

The third chapter of this paper outlines the project design and research methods. The combined qualitative and quantitative research methods included a focus group, a ratings questionnaire, and a reflexive journal. Selected participants were invited to take part in the project based on specific criteria. This process is elaborated upon in the section regarding participants. The design section thoroughly discusses and expands upon the focus group interview, questionnaire, and reflexive journal.
I present and discuss results in the fourth chapter. I outline data from the focus group transcription in a table to identify major themes and key concepts. Based on the PAI revealed during the focus group discussion and highlighted through codes revealed in the transcript, I generated a questionnaire asking participants to rate the PAIs and their specific effectiveness and frequency of use.

The concluding chapter of the project serves to evaluate the research design and methods and suggests possible improvements. In this last chapter, I indicate how the results answered the driving research question exploring the extent that French Immersion teachers used RTI (to address PA) in the French Immersion classroom, and how these data might add to the current research in the field of French Immersion PA and PAI. I note additional observations that increased my knowledge on this topic and influenced my practice. I further discuss limitations of the study and its results and possible implications for future research. I conclude with a few unanswered questions that may lead to further investigations by other researchers.
Chapter 2: Literature Review

Phonological awareness (PA) skills are essential foundational building blocks for the acquisition of reading skills. Children normally develop oral receptive and expressive language skills and then begin forming phonological representations for graphemes as they are introduced to print. Explicit universal instruction of PA skills is critical for all children. This phonological knowledge is then typically accessed during the initial stages of reading development. Deficits in PA are a strong predictor of future reading difficulties. Early identification of PA delays is essential in tailoring specific interventions for at-risk students. For children identified as at-risk for reading difficulties, early preventative interventions in this domain are critical and impact future reading development and ability. In conjunction with formal reading instruction, these students need explicit instruction in accessing and manipulating these phonological representations of speech sounds. Students with speech-language deficits benefit from phonological awareness interventions and typically these deficits resolve over time as the students make gains in their reading abilities. Many studies support the argument that children can improve their reading abilities through early specific phonological awareness interventions (PAI) (DeThorne, Petrill, Schatschneider, & Cutting, 2010; Muter & Snowling, 2009; Stanovich, Nathan, & Zolman, 1988).

French Immersion is a program with the purpose of teaching non-Francophones to become bilingual in English and French (British Columbia Government, n.d.). There are two such immersion program models offered in Canada: Early French Immersion and Late French Immersion. Both models share the same goal of educating students to
become bilingual. The Early French Immersion program begins in kindergarten while
the Late French Immersion program typically begins between Grade 4 and Grade 6.

Given that the project focus lies in Early French Immersion literacy development,
I focused on studies and the implications involving second language and bilingual PA
skill acquisition, as well as Tier 1 and Tier 2 PAI. In this section, I outline the
professional literature relevant to these domains. First, I will discuss Response-to-
Intervention (RTI), in general, as an increasingly more-common remedial framework,
clarifying the distinction between the levels of intervention and the intensity of
instruction. Next, I will elaborate on the importance of PA skills as an essential
foundation for reading acquisition. I will explain the sequential progression of these
skills and identify examples from the literature to teach these competences. I will then
review practical and effective classroom techniques with an emphasis on components of
successful Tier 1 and Tier 2 PAIs. Finally, I will conclude by examining research that
demonstrated the cross-transference of these foundational PA skills from one language to
another.

Response to Intervention (RTI)

The RTI model refers to a three-tier framework for the delivery of instruction.
RTI has been adopted in many school districts as an intervention strategy that aims to
support struggling students and presents the opportunity for early identification of
persistent difficulties. RTI facilitates early detection of learning disorders. Fuchs and
Fuchs (2006) specified in their research, that the RTI framework was developed and
implemented in response to an increasing number of students with learning difficulties
outnumbering the services available to support them. In essence, RTI was developed to
encourage the classroom teacher to become the first interventionist at an early stage in the
student's academic career, addressing academic discrepancies before the student left the
primary grades and before greater learning difficulties developed. The first tier of
instruction focuses on general or whole-classroom instruction (Dunn, 2010). The
majority of students typically learn new skills and strategies through universal instruction
in a classroom setting, which is identified as Tier 1. Once a lesson has been delivered
and students begin their task or the demonstration of their skills, the teacher can, by
means of continuous assessment, or universal screening, identify those who require
additional, more intensive instruction through a Tier 2 intervention. Following Tier 1
instruction, Dunn (2010) considered the bottom 20% of students to be candidates for Tier
2 intervention. Tier 2 interventions are intended to alter or supplement this universal
instruction by increasing the intensity of instruction. These interventions may take the
form of more systematic and explicit instruction, often as a teacher-centred scripted
instruction, increased duration or frequency of a lesson, smaller group size, reliance on
instructors with greater expertise, increased practice time with the target skill and skill
reinforcement stations (Fuchs & Fuchs, 2006).

Dunn (2010) conducted a study with teachers trained by project staff in delivering
targeted skill instruction in a small group setting. Following whole class instruction and
universal screening of reading skills such as decoding, fluency and comprehension, they
gathered low-achieving students at work stations within the classroom, or joined them
with other students in another locale for Tier 2 interventions. These interventions were
offered to two to three students twice a week in 30-minute sessions with the goal of
intense instruction directed at areas of weakness followed by weekly assessment using
address the changing needs of the students (Coyne et al., 2013). Coyne et al. specifically studied “systematic and standardized procedures for monitoring progress, regrouping students based on curriculum mastery, and adjusting the progression through the curriculum to ensure sufficient content exposure, review, and practice” (p.39). They concluded that adjusting intervention support based on student response resulted in improved achievement as compared to students who did not receive modified interventions.

Similar to Vygotsky’s Zone of Proximal Development (ZPD) model, RTI encourages the diverse needs of students to be met through scaffolding or differentiated lesson plans, thereby addressing their individual learning needs (McLeod, 2010). Vygotsky’s ZPD model parallels the cyclical process within Tier 1 and Tier 2 of the RTI model, where curriculum based assessments influence the differentiation of instruction. Students benefit from instruction and scaffolding. Once they have mastered the given task, the scaffolding is removed and the student is able to complete the task independently thereby advancing their individual learning. Through whole class instruction, it is expected that on average 80% of students who immediately understand the concepts will be able to work on their own. This allows for the teacher to respond to, and support, the remaining 20% of students by teaching specific skills to a smaller group or reviewing these skills through more practice. Small group preventative interventions or extra practice and review, are delivered to a smaller, at-risk population in a Tier 2 setting. Teachers can support and respond to student learning by adjusting their intervention based on student strengths and responses to the specific instruction. These adjustments may include changes in dosage, grouping and pacing variables (Coyne et al.,
The RTI environment encourages all students to work within their individual ZPD, thus encouraging children to succeed rather than waiting for them to fail before providing supports and interventions.

Within the RTI model, universal screening and identification of at-risk students can begin at the Tier 1 level, thus allowing for early detection of students experiencing difficulties grasping the whole class instruction. In 2009, Ukrainetz, Ross and Harm found that the majority of children identified as at-risk for reading in the beginning of their kindergarten year, were able to learn these foundational reading skills through specific and explicit PAI delivered in a whole class setting. Student progress and acquisition of PA skills could thus be systematically assessed and interventions modified accordingly (Coyne et al., 2013). Ukrainetz et al. (2009) examined different treatment schedules to address phonemic awareness skills among at-risk kindergarten children. Specifically, Ukrainetz et al. compared dispersed treatment sessions with intensive treatment sessions. Based upon other research studies, and supported by research for the RTI framework, they concluded that while there were some possible advantages to treatment spread out over longer time periods, students yielded better immediate and long-term results with intensive treatment sessions delivered over a shorter time period. In Dunn’s (2010) study, 84% of low-achieving kindergarten students who were offered literacy interventions in a Tier 2 setting, measured within the average range for literacy by the time they reached third grade, thus indicating that reading difficulties could be competently and effectively reduced by providing students with specifically tailored interventions as early as kindergarten.
One of the core components of RTI is based in high-quality instruction, beginning with high-quality instruction in the general classroom (Coyne et al. 2013; Gilbert et al., 2013; Kraayenoord, 2010). Typical whole-class reading instruction includes: phonemic awareness, decoding skills, word attack skills, fluency in text processing, and construction of meaning, vocabulary, spelling and writing (Dunn, 2010). Dunn posited that classroom teaching practice needed to be modified in order to allow for literacy acquisition by all students, including those at-risk, by providing more intense and explicit instruction through small-group interventions. The implication based on Dunn’s conclusion is that subsequent interventions are specific, dynamic and responsive to the students’ particular needs. In a Tier 2 intervention, or second wave of instruction, classroom teachers typically respond to students’ needs by reinforcing target skills, or attempting to teach the concept in a different way, often relying upon scripted instruction as found in some reading intervention kits or programs (Fuchs & Fuchs, 2006). Dunn further supported this statement by indicating that the RTI model is effective in encouraging growth among students struggling with literacy skills. In Tier 3, specialists deliver the intervention, therefore there is a good chance of high-quality, research-based instruction to target a specific skill. Mesmer and Mesmer (2008) stated that RTI requires that interventions be “scientifically valid, public, implemented with integrity, and systematically evaluated” (p. 284). Specifically, the content of the intervention must be clear, the person responsible for delivery identified, assessments determined and results shared and discussed with any team members who implemented the interventions. They explained the RTI model as offering instruction to a small group of students, possibly following a whole class lesson, wherein interventions were specifically tailored to
enhance specific skill development. Mesmer and Mesmer identified the key component of the RTI model as the continuous connection between assessment and intervention, in such that interventions are constantly evaluated and tailored to the students growing needs based on the analysis of the frequently accumulated assessment data, therefore directly benefiting the student. They posited that this model focuses on providing more immediate and supportive services early in a student’s career in order to prevent the possibility of later difficulties.

Limitations within the RTI framework include a lack of opportunity and experience among teachers to customize and modify interventions based upon student progress (Coyne et al., 2013). In addition, as the changing interventions rely upon continuous data collection, the time required for this data collection and analysis is physically time consuming for classroom teachers. The assumption based on the literature reviewed is that teachers often lack specialized training in specific interventions to target literacy skills, thereby lacking the knowledge to effectively modify interventions according to the students’ progress and changing needs. Furthermore, teachers must be dedicated to collect relevant information about students’ progress in order to specifically tailor these interventions to respond to individual areas of need.

RTI frameworks typically feature providing students with high-quality whole classroom instruction identified as Tier 1, followed by a universal assessment to identify students who are experiencing difficulties and additional support. These students then benefit from additional small group interventions delivered in a Tier 2 setting where interventions are developed based upon the analysis of the data collection, and are delivered by the classroom teacher. These selectively targeted interventions are delivered
in an intense format with the goal of mastery. If difficulties persist as identified in the on-going assessments, students are referred to specialist interventions in a one-on-one, Tier 3 setting. Continuous assessment and adjustment of instruction allows all students to learn at their own pace, within their ZPD. RTI thus allows for early attention, instruction and intervention in the beginning of a student’s academic career, before allowing persistent difficulties to develop and encumber a student’s future learning.

**Phonological Awareness Interventions**

Early Phonological Awareness Interventions (PAIs) are critical in preventing future reading difficulties. Reading ability impacts academic achievement and success throughout a student’s school career and life. Numerous studies have revealed that PA is the most important specific mechanism that facilitates early reading success (Stanovich, 1986). “We can measure phonological processes in children and we can predict who will fail to acquire reading easily. The reading failure of a high-IQ individual is expected if the person is low in phonological awareness” (Stanovich, 1998, p.18). Phonemic awareness, a subset of PA, comprises one of the five big ideas of literacy, the others being fluency, comprehension, vocabulary and the alphabetic principle. Phonemic awareness is the ability to hear, identify and manipulate the smallest sounds in words. This strong foundational PA base needs to be in place at an early age in order to support future learning and acquisition of literacy skills, hence reducing the frequency of reading difficulties and identifying possible disorders. Once children have been identified as at-risk for reading through universal screening, early PAI need to occur in order to teach to these critical foundational skills.
PA is defined as the metalinguistic skill of being able to recognize and manipulate sounds in language. This skill consists of three forms of awareness or methods of segmenting words into sounds; syllable awareness, intrasyllabic units called onset and rime, and individual phonemes and typically develops alongside print experience (Cisero & Royer, 1995). These skills develop in a progression organized by linguistic complexity from the easiest to the most difficult. The most basic skill involves recognizing a syllable as a unit of speech. The second phase results in dividing each syllable of a word into intrasyllabic segments called onset and rime. Onset refers to the phoneme that comprises the beginning consonant or consonant cluster while rime comprises the final sound or the vowel (Cisero & Royer, 1995). The final phase is to segment words into individual phonemes, or their smallest unit of sound. Other skills include identifying and producing rhymes and substituting or omitting certain phonemes to create new words. Phonemic awareness is a component of phonological awareness and involves the ability to identify and manipulate individual sounds in words (Wise & Chen, 2010). The ultimate goal of PA acquisition is phonemic awareness.

As children develop their ability to communicate orally, they naturally begin to distinguish, analyze and manipulate the sounds of spoken language. Before reaching first grade, children continue to develop their expressive language skills, often making minor speech errors such as incorrect pronunciation of specific sounds in certain words, omission of difficult sounds, and the addition or substitution of complex phonemes or phoneme blends. In conjunction to developing oral vocabulary, children are introduced to the written code, where visual symbols represent these speech sounds. They need to be able to mentally represent these phonological structures onto the alphabetic code as well
as form and manipulate them within their working memory (Stothers & Klein, 2010). Thus begins the mapping of phonological representations, which form a resource base for future reading. Hatcher, Hulme and Ellis (1994) posited that for children to be able to develop a phonic decoding reading strategy, they needed to grasp the alphabetic principle through both phoneme awareness and knowledge of letter identity (p.43). Knowledge of the alphabet, early literacy concepts and phonological awareness are important indicators of early reading acquisition. Once children enter Grade 1, they have typically acquired most of the receptive and expressive phonological skills necessary to successfully embark on their academic endeavors (Byrnes & Wasik, 2009). Children typically develop their receptive and expressive language skills and begin forming phonological representations for graphemes as they are introduced to print. They normally access and apply this phonological knowledge during the initial stages of reading development.

Reading is defined as the concept of identifying a written symbol, or grapheme, as a representation of a spoken sound, or phoneme, in order to obtain a message. These representations of events or experiences are coded onto separate verbal and non-verbal systems (Strothers & Klein, 2009). Both the connectionist model and the simple reading model stress the significance and application of orthographic skills, language comprehension skills, including phonological processing, and background knowledge in reading development (Byrnes & Wasik, 2009). The dual route theory proposed by Coltheart (1997) suggested that there are two processing routes for the retrieval of print information. One route processes from orthography to semantics and is described as the lexical route, whereas the other non-lexical route processes from orthography through phonology and then to semantics through the use of the grapheme-phoneme system.
Through the lexical route, words are primarily recognized on a whole word basis. This route relies on feedback from the semantic system to distinguish homophones within context. In the non-lexical route, letters are mapped onto a grapheme-phoneme system and decoded into a speech representation. This route is accessed when decoding low frequency or unfamiliar words and when sounding out pseudo words.

As summarized by Beech (2005), Ehri’s framework of learning to read outlines four phases of reading progression. The initial pre-alphabetic phase involves forming a connection between visual symbols and their semantic representation. The partial alphabetic phase relies strongly on phonological information, including short-term storage and retrieval, to assist in drawing connections between written words and their pronunciations. PA skills are most important during these initial phases of reading acquisition as these skills assist children in remembering a set of words after a delayed recall (Beech, 2005; Vandewalle et al., 2012). The full alphabetic phase has the fundamental role of cementing the connections between the graphemes and the phonemes. Children at this phase typically learn to process and store the letters, and connect them to the phonemes of sight word vocabulary. They gain knowledge of breaking unfamiliar words into their graphemes to form sounds. This decoding and recoding strategy is a phonological skill frequently applied during reading. Phonological components that impact reading are phonological awareness, verbal short-term memory and lexical access (Vandewalle et al., 2012).

According to Stanovich (1986), conscious access to and manipulation of phonemes in speech is a potent predictor of future reading ability. Before developing the ability to consciously reflect on sounds, children rely on an automatic and implicit way of
processing sounds in words. In order to be able to access this phonological knowledge, children need to shift their thinking from a more global outlook to a more specific and conscious analysis of speech sounds (Byrnes & Wasik, 2009). Additionally, early assessments such as letter knowledge and phonemic awareness early in the student’s career provide valuable information regarding possible future delays in literacy skills. Given their importance, these abilities need to be in place early in a child’s language and literacy development, hence early assessment and intervention strategies such as explicit phonological awareness instruction, need to be provided for students prior to, and upon entry into school. Children who are deficit in expressive or receptive phonological skills typically experience future difficulties in learning to read if specific interventions are not put into place (Byrnes & Wasik, 2009). Without explicit instruction in this domain, this deficit will continue to affect these at-risk children’s’ reading ability and they will typically continue to experience difficulties throughout their elementary school career (Lonigan, Allan & Lerner, 2011). This persistent deficit in phonological awareness in children, will possibly further impact reading comprehension as students continue to struggle with word identification (Strothers & Klein, 2009).

According to Lundberg (2009, p. 614), PA is a “highly modifiable ability” that can be improved through explicit teaching in the form of early intervention. As delineated in Lundberg’s preschool study, specific PAI resulted in significant improvement to children’s phonological performance. Dahmer (2010) posited that with the increased pressure placed upon primary teachers to produce fluent readers, some of these foundational skills may be overlooked and therefore result in subsequent reading deficits. Dahmer further pointed out that teachers who have a greater understanding of
PA are better equipped to meet the varying literacy needs of primary students because they can assist in this transfer of oral language knowledge into an understanding of written communication. Cisero and Royer (1995) posited that increasing awareness of the developmental progression of PA skills would enable educators to accurately assess students at their developmental level and serve to guide their reading instruction in a systematic order. Furthermore, this increased awareness could then be used to identify the specific instruction needed to reduce the possibility of future reading difficulties. PA training does not need to be lengthy to be effective (Phillips, Hayward, & Norris, 2011; Ukrainetz, et al., 2009), but it must focus on prevention-instruction models and be explicitly taught to students. Children with mild to moderate deficits in phonemic skills benefit significantly in this targeted skill area through an intensive phonological treatment schedule as seen in Tier 2 of the Ukrainetz et al. study of the RTI.

In this study, authors Ukrainetz et al. (2009) compared dispersed treatment sessions with intensive treatment sessions to address phonemic awareness skills among at-risk kindergarten children. They concluded that while there were some possible advantages to treatment spread out over longer time periods, students yielded better immediate and long-term results with intensive treatment sessions delivered over a shorter time period. Forty-one kindergarten students who scored below grade level, at the beginning of the school year, on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and the Initial Sound Fluency subtest, were recruited to participate in the study. Based upon their test results, students were identified as presenting with a mild or moderate deficit in phonological awareness. Whereas, students with moderate deficits required more intensive interventions through either a dispersed or concentrated schedule
of intervention as specified by the RTI model, learners with mild deficits in phonemic awareness improved regardless of the delivery or schedule of intervention. All of the children in this study showed significant improvements in their PA. Only a few students with moderate deficits in PA continued to demonstrate delays in this area despite specific interventions. The benefits of this short-term intensive treatment schedule, in comparison to year long classroom instruction, were that they allowed for earlier detection of persistent difficulties, thus indicating the need for more in depth assessments and remedial interventions in a Tier 3 setting, and highlighting the possibility of a learning disorder.

Consistent with the phonological linkage theory, interventions combining PA and reading skills are the most effective form of intervention for children identified as at-risk (Hatcher et al., 1994). Students were trained in segmentation and blending at the syllabic and phonemic level. They learned to identify initial and final phoneme sounds, experiment with phoneme deletion and substitution, and could match and produce rhyming words. When taught in collaboration with graphemes as visual supports, children began to make connections between the letters and the sounds they represented. Thus, as they became more proficient with accessing and applying phonological skills, children began to “break the code” between written language and spoken language (Caravette, 2011).

Phonological awareness (PA) deficits that persist past the stages of early reading development are characteristic of more specific cognitive disruptions distinguished as reading disorders or phonological dyslexia (Stothers & Klein, 2010). According to Spear-Swerling (2011), there are three patterns of reading difficulties. Students identified
early with difficulties in segmenting and blending, later demonstrate good
comprehension, but have difficulties with specific word recognition and reading pseudo
words. A phonological deficit has been suggested for these students and interventions in
phonics and phonemic awareness would support their reading. Students with good word
recognition and decoding skills but poor reading comprehension require different
intervention needs. Thirdly, students with a combination of both word recognition and
comprehension difficulties require more complex interventions such as phonics and
phonemic awareness in addition to comprehension strategies and vocabulary
development. These difficulties are highlighted through application of the RTI
framework; wherein specific preventative interventions did not yield marked progress in
the student’s learning. As a result, formal assessments and a possible learning disorder
diagnosis would follow with remediation strategies delivered in Tier 3 of the RTI
framework.

Older readers with these specific disorders that haven’t received phonological
interventions, experience difficulties with their phonological processes or cannot access
their phonological representations, and begin to rely on compensatory skills namely
knowledge sources such as contextual information, rich vocabulary and/or cognitive
skills to gain meaning from text (Stanovich, 1988). Oral language abilities are thought to
supplement and provide top-down support for phonological decoding (DeThorne, Petrill,
Schatzneider, Cutting, 2010). These readers tend to shift from using the sound
structure of words to the use of meaning and context, or the lexical route as opposed to
the non-lexical route. Therefore, reading comprehension is not dependent on
phonological representation but rather the emphasis is on semantics. Improving oral
language skills provides support for and compensates for phonological decoding deficits (DeThorne, et al., 2010).

Cooke, Kretlow, and Helf (2010) concluded that readiness interventions delivered over the course of the full year and beginning early during the kindergarten year, as compared to interventions delivered later in the same year, positively influenced students' early academic literacy skills. These readiness skills included interventions specifically tailored to the students' areas of weakness such as language and communication development, and early literacy skills including explicit phonological training. Activities and instructional practices that combined the teaching of print and encouraged oral language skills were beneficial for these at-risk students during their first year of schooling (Lonigan et al., 2011). As Hatcher et al. (1994) stated, children need to grasp the alphabetic principle through both phoneme awareness and knowledge of letter identity in order to develop a phonic decoding reading strategy. Several studies concluded that strong PA skills in a child's first language, cross-transfer to their reading proficiency in a second language (Éva & Réka, 2013; Genesee et al., 2006; Geva & Genesee, 2006).Explicit universal instruction of PA skills is critical for all children.

**Cross-transfer of Linguistic Skills**

Cross-linguistic transfer refers to the access of linguistic resources from one language to another. Students schooled in a second language where both first and second languages share the same alphabetic system or correspondence between phonemes and graphemes, can access a cross-linguistic transfer of literacy skills (Bialystok, Luk & Kwan, 2005). PA is important in alphabetic reading and depending on the similarity of the language systems, both the phonological structure and the writing
system, this skill transfers to reading in another language (Cárdenas-Hagan, Carlson & Pollard-Durodola, 2007; Comeau, Cormier, Grandmaison & Lacroix, 1999). Immersion instruction gives students the opportunity to achieve proficiency in another language. While French Immersion differs from other approaches in bilingual education, due to the fact that the second language is explicitly taught as well as being the core medium of instruction, many linguistic studies involving bilinguals can provide insight into the cross-linguistic transfer of PA skills. Given that both English and French share a similar writing system, phonological transfer is evident and even relates to reading in the second language for French Immersion students whose first language is English.

Gaining an understanding of the mechanisms of cross-linguistic transfer assists in guiding interventions for second language learning and specifically for bilingual students experiencing literacy difficulties. Bialystok, et al. (2005) stated that the three skills necessary for literacy development are oral proficiency, metalinguistic awareness and general cognitive development (p. 44). Bilinguals develop these skills differently than monolinguals due in part to a smaller vocabulary. Additionally, children who learn to read in their first language acquire a general understanding of reading and the concept of print. When two languages share a similar alphabetic system, the essential model of reading and decoding is readily applied from one language to another.

There exist two current frameworks in the understanding of cross-linguistic transfer; linguistic interdependence and contrastive analysis (Genesee, Geva, Dressler & Kamil, 2006; Geva, 2006; Melby-Lervåg & Lervåg, 2011). Within the linguistic interdependence framework, the premise is that both the primary language and the secondary language rely on a common central processing system in which both languages
function. According to this reciprocal theory, second language acquisition and manipulation is linked with and influenced by first language proficiency and the ability to solve language tasks. In the contrastive analysis framework, the focus on linguistic similarities is primarily in the domain of language structures such as phonology, syntax and semantic. According to this theory, languages that share common structures might result in easier acquisition of and greater transfer of linguistic abilities. As a result however, these structural similarities may result in a transfer of errors as second language structures become built upon similar erroneous features in the primary language (Melby-Lervåg & Lervåg, 2011).

Cárdenas-Hagan et al. (2007) described cross-linguistic transfer as the process of accessing and using linguistic resources from one’s primary language when learning another language. Melby-Lervåg and Lervåg (2011) conducted a meta-analysis of the various linguistic studies surrounding cross-linguistic transfer in an attempt to interpret and analyze the large variation in results across studies. Their findings concluded that there is a moderate to large correlation between primary and secondary PA and decoding. Oral language and comprehension however, resulted in a zero correlation. Some studies have been conducted to indicate that first language PA skills will predict, transfer and impact a student’s reading proficiency in a second language (Éva & Réka, 2013; Genesee et al., 2006; Geva & Genesee, 2006). Éva and Réka (2013) reviewed a variety of research in order to confirm this strong correlation between first language PA skills and second language reading acquisition. They stated that two essential components in the foundation for reading, or the breaking down of the alphabetic principle, was phonemic awareness, the ability to identify and manipulate sounds in the oral language, and
orthographic familiarity, or alphabetic letter knowledge (Éva & Réka, 2013). Geva and Genesee (2006) reviewed research that posited a central framework that includes cognitive and linguistic skills essential to the acquisition of literacy proficiency. Their theory highlighted important elements of linguistic transfer in the domain of word reading skills, specifically word identification and non-word reading. They concluded that where reading comprehension improved in one language, the same improvement could be observed in a second language (Éva & Réka, 2013). Children with limited second language vocabulary are typically impeded in their PA acquisition abilities. Consequently, children with strong linguistic skills in their first language will more readily acquire those same skills in a second language. Research supported the cross-transfer of linguistic skills therefore it is essential to further examine how this impacts PAI in a French Immersion setting.

Cárdenas-Hagan et al. (2007) stated that intensive immersion could be beneficial to literacy acquisition when first language vocabulary and conceptual knowledge was highly developed. Their study focused on Spanish and English students. Children who were aware of phonemes more readily learned orthographic-phonologic correspondences (Cárdenas-Hagan et al., 2007). Conversely, those children who lacked the vocabulary and conceptual knowledge in their first language, and were additionally without support from their environment outside of school, risked delaying this first language development when immersed in a second language. Furthermore, when reading is introduced in a second language, it can present some obstacles since children cannot relate the literacy skills to their maternal language. Cárdenas-Hagan et al. further stated that “phonological awareness is a necessary precursor to successful reading acquisition in all alphabetic
languages” and is a skill that transfers from a child’s first language to their second (p.251).

Wise and Chen (2010) examined studies involving interventions for French Immersion at-risk readers and demonstrated that systematic and explicit PA training resulted in an improvement in reading skills for at-risk French Immersion students. They found that French Immersion students typically do not receive assessment or interventions in reading until Grade 2 or 3. The authors provided possible reasons for this apparent delay which included classroom instruction that focused on French listening and speaking skills prior to beginning formal reading instruction. As a result of this practice, French Immersion students who may be at-risk for future reading difficulties, do not always receive timely instructional interventions due to primarily a delay in assessment of literacy skills (Wise & Chen, 2010). Unfortunately, this delayed identification of reading difficulties often leads parents to transfer their child from French Immersion to the English program prior to Grade 3 in order to access support for their child’s educational needs. Based on cross-linguistic transfer research, Wise and Chen stated that assessments in English PA skills could be administered earlier in a student’s academic career hence predicting future reading ability in French and addressing appropriate interventions earlier. They implemented a 20-week reading intervention to Grade 1 French Immersion students. The two main components of their intervention were that it be rich in literacy activities and student engagement, and was delivered first in English for 10 weeks then in French for 10 weeks. Their findings indicated that interventions provided in English or in French to French Immersion students during their
primary years could explicitly teach a skill that would then successfully transfer into both languages (Wise & Chen, 2010).

Phonological awareness (PA) is in itself acquired in a developmental progression. This sequential progression is “organized by linguistic complexity from syllable and rime awareness, to awareness of single consonant onsets, consonant cluster onsets, and to awareness of ending phonemes” (Cisero & Royer, 1995, p.276-277). Cisero and Royer stated that cross-linguistic transfer could be detected in skills that were still in the emergent stages. Their study focused on this PA developmental progression where skills began with syllable to rime awareness, followed by an awareness of single consonant onsets, cluster onsets to final phonemes. They posited that studies analyzing the cross-transfer of these skills depended upon timing, since PA skills varied in cognitive complexity along the developmental continuum. They cautioned that studies needed to examine the developmentally appropriate skill at the right time in the child’s linguistic progression. This knowledge of developmental progression can then be beneficial in guiding educators to develop appropriate assessment tools and criteria in order to identify the student’s PA progress along the continuum and consequently tailor literacy instruction.

Conclusion

The studies summarized and analyzed herein serve to highlight the importance of PA in both languages as a foundation for literacy. Explicit universal instruction of PA skills is critical for all children. Deficits in PA are a strong predictor of future reading difficulties; hence early identification of any delays are essential in tailoring specific interventions for both the class in a universal setting and for struggling students in
targeted interventions. Early preventative interventions in this domain are critical and impact future reading development and ability. Children need explicit instruction in tasks designed to encourage the manipulation of phonological representations of speech sounds in conjunction with formal reading instruction. The RTI model allows teachers to continually vary and adapt their instruction to better meet the changing needs of their students. Effective interventions need to be tailored to the student’s learning needs by modifying the delivery method and intensity of instruction based on results of assessments. This can be accomplished through RTI. The research supporting the transferability of PA skills from a first to a second language, indicated that PA could serve as a predictor for reading achievement and acquisition regardless of the language of acquisition or intervention. In this respect, interventions provided in English or in French to French Immersion students during their primary years can explicitly teach a skill that will then transfer into both languages (Wise & Chen, 2010). Furthermore, these types of PAIs additionally serve to reduce the possibility of linguistic delays in the student’s first language. Core features of RTI rely upon high-quality instruction and possible limitations may involve the lack of specialized knowledge and understand among teachers in the delivery of Tier 1 and Tier 2 interventions. PAIs necessitate a solid understanding of the sequential progression of PA skills in children. The research supports PAIs for French Immersion students, delivered through an RTI framework in either language.
Chapter 3: Research Design

In this project, I explored primary French Immersion teachers’ understanding and application of phonological awareness interventions (PAIs) delivered in a Response-to-Intervention (RTI) framework. My literature review served to state the importance of PAIs on reading acquisition. In particular, I studied literature on second language literacy skills and PAIs, and their impact and application in a French Immersion setting given that this is my area of interest. Through this project, I explored current teaching practices by inviting primary French Immersion teachers to participate in a focus group and share their phonological awareness (PA) knowledge and experiences with related teaching strategies. This chapter serves to detail the project methodology, the research design including the nature of the focus group, the questionnaire and the data analysis methods.

In this chapter, I clearly state and explain the project goals and the research methodology applied in order to reach these objectives. I invited select participants who satisfied the subject sample criteria to take part in the project. I elaborate upon this process in the section regarding participants and then continue to explain the ethics approvals necessitated in this study involving human subjects. The combined qualitative and quantitative research methods included a focus group, a ratings questionnaire and a reflexive journal as a means to collect relevant data. The design section allowed me to thoroughly discuss and expand upon the process of a focus group interview, questionnaire and reflexive journal. In the data analysis section, I explain how the data was collected and analyzed. Through this process I endeavoured to achieve the project goals of enhancing teacher knowledge surrounding PA and sharing effective PAIsS in the
French Immersion classroom, thereby responding to the essential questions driving this research project.

**Project Goals**

The theoretical goal of this project was to identify effective practices within an RTI framework that build the PA foundation necessary for reading proficiency in a second language. The practical goal was to increase teachers' knowledge of the importance of PA and identify hands-on interventions in a RTI model intended to address PA deficits in the French Immersion classroom.

Dahmer (2010) stated that teachers who were more knowledgeable about PA skills in the context of reading development, were better able to meet the individual learning needs of their students. Dahmer continued to posit that with the growing expectations on reading achievement at a young age, primary teachers may focus solely on the outcome of producing fluent readers, and therefore may not place enough emphasis on some essential foundational skills linked to reading success such as early PA. If students were hurried through the reading acquisition process without developing a strong understanding of these foundational skills or without sufficient development of their language skills they may present reading deficits later in their academic careers. As a result, it is imperative that educators are knowledgeable about PA in reading development and that they are equipped to meet these early learning needs of students with the appropriate interventions.

Specific goals for this research were to identify effective and practical PAIs in a variety of RTI settings, collected from a variety of teachers’ experiences and research
materials, and to then share this knowledge with teachers so that they could apply this understanding to their practice.

The central research question was: To what extent do French Immersion teachers use RTI to address PA in the French Immersion classroom? This study began with a focus group discussion clarifying PA, and identified surrounding strategies and activities that primary teachers used in order to build foundational reading and language skills. Supporting questions guiding the study included: What other PAIs do teachers use? How frequently do teachers use a particular set of PAIs?; and How effective do they find these PAIs in the French Immersion classroom?

**Research Methodology**

The guiding methodology for this project entailed ethnographic research as it dealt with a specific cultural group and included observations, interviews, and the collection of detailed data within a naturally-occurring, everyday setting (Arthur et al., 2012). Ethnography was a suitable methodology for this type of study as the focus topic of the research was being studied within a natural context among individuals in their normal educational environment. I studied contexts, in this case PA and PAIs in French Immersion settings, and individuals as a whole, getting to know and interact with participants personally to represent their views, impressions and feelings about the research topic. In order to increase awareness surrounding possible personal bias, I maintained a reflexive journal throughout the study. Ethnography allowed me to work in the midst of the topic of interest, while my reflexive journal assisted in maintaining an awareness of my own perceptions and ideas (Arthur et al. 2012).
Participants

The first step of the project was to assemble participants and invite them to participate in a focus group discussing PAIs within an RTI model. Participants played an active role in the research process, contributing different perspectives and viewpoints on the given question. Qualitative research can be intrusive and requires specifically-targeted participants who can provide the necessary information (Berg & Lune, 2012).

For this project, I specifically required primary French Immersion teachers as participants. I invited select participants to actively participate in the project during two intervals, over the period of three months. Potential participants were individually approached based on their position as teachers of French Immersion at the primary level, intermediate teachers were excluded from the project as they did not respond to the specified project criteria. I shared the project details with potential participants unofficially and in person at first, and then in an informal e-mail (Appendix A). Depending upon their responses, I sent them a more formal invitation to participate, along with a written explanation of the project and an informed consent inviting them to officially participate in the focus group and subsequent questionnaire (see Appendix B).

This study was conducted in Northern British Columbia. For purposes of confidentiality, I will refer to the participants within the school district as the target population. The selection pool for this targeted population was limited, therefore, I chose participants based on a purposive sample, selected in a non-random method and drawn from the French Immersion schools within this area. Field study participants who agreed to the project included a selection of six primary French Immersion teachers. Six out of seven teachers who were approached agreed to participate in the project, the one teacher
declined due to being out of the area at the time of the focus group. Participants had varied teaching experience influencing their familiarity with RTI and PAIs. I describe these characteristics in further detail in the following paragraphs. No other school districts were approached to seek teacher participants since the minimum number of participants was reached to conduct a focus group.

In my introductory letter, I informed participants of the purpose of the study and the commitment required over the course of the approximately three months of the project. In order to ensure honest discussion during the focus group, I required that participants sign a statement of confidentiality prior to the focus group session (see Appendix C). This contractual statement included all group members. Confidentiality was assured; however, given the limited target population available in the research location, I explained that anonymity could not necessarily be guaranteed. I reminded group members who were fearful about confidentiality, that they had the option of dropping out of the discussion, however this did not occur during the project and all participants were involved in all aspects for the entire duration of the research and data collection.

Ethics

Given that the project involved human subjects, I addressed ethical concerns through application to the Research Ethics Board (REB) at the University of Northern British Columbia (UNBC), and I obtained subsequent approval on June 11, 2015 (Appendix D). These ethical concerns included mediating possible conflict between participants during the focus group, responding to feelings of discomfort surround their practice, and informing participants of the possibility that anonymity could not be
guaranteed due to the size of the target population. As moderator, I was prepared to diffuse arising conflict, and establish clear ground rules during the focus group and project evolution. I obtained permission to conduct this research from the School Superintendent of the target area. I asked participants who agreed to the study to sign two separate information and consent forms prior to the focus group and again prior to the questionnaire, to allow for the use of their data (see Appendices C and E). Once consent was obtained, I determined the focus group date and location and then approximately three months later, I distributed and collected the questionnaire, completing the field data collection portion of the study. I discussed and clarified ownership of the data at the end of the project and reminded participants that they could withdraw from the study at any time without giving a reason and without any negative impact on their professional environment. Any transcripts and personal records will be destroyed within two months of the completion of the project.

**Research Methods**

My research objective was to explore teachers' knowledge of PA and evaluate their application and perceived effectiveness of PAIs in the classroom. I used both qualitative and quantitative data simultaneously so that the overall strength of the study was greater than had it relied on only one approach (Creswell, 2003). I conducted a focus group session that took the format of a normal, semi-structured conversation as opposed to a more formal, structured interview. I used ideas generated during this discussion to develop items for the PAIs questionnaire. I noted personal bias and perspectives and took this information into account during data analysis, recording any observations in my reflexive journal throughout the project.
This data analysis began in conjunction with my data collection during the focus group. To demonstrate complementarity and collect sufficient information to validate the study, I collected data from the focus group session transcripts and observations, questionnaire results, and my reflexive journal kept over the course of the duration of the project. My initial data collection began with a focus group surrounding PA and PAIs. I opened the discussion with the guiding statement “I’d like to begin our discussion with a general conversation about what is phonological awareness”. This led to an exploration of teachers’ knowledge of PA. The focus group session also aimed to draw out a list of effective PAIs for French Immersion students delivered in a RTI model. Both the transcripts that I obtained from the focus group, and the observation log offered data on the behaviours and values of teachers. As researcher, I undertook the neutral role as conversation mediator, and by staying self-aware and reflexive, I attempted to minimize personal values influencing the final document (Arthur et al., 2012). The unpredictable nature of the focus group responses to the open-ended questions, served to provide me with natural impressions and perceptions and therefore was a candid method of data collection.

Based on the most-frequently coded themes for PAIs from the focus group, I developed a 10-item questionnaire to distribute to participants to rate the effectiveness and frequency of PAIs. Through this questionnaire I encouraged participants to rate both the frequency of use and perceived effectiveness of each PAIs on a 5-point scale. I distributed the questionnaire through the mail system to the participants within two months of the focus group and thus allowed them to anonymously respond to the project topic, thereby contributing valuable data towards achieving the project goal. In addition
to these rated questions, I included an open-ended question offering the opportunity for teachers to add any further thoughts or reflections on the topic of PA and PAIs in the French Immersion classroom.

I coded the transcript of the focus group discussion and any observations recorded in the reflexive journal based on Saldaña’s (2009) first and second cycle coding. Coding is an inductive approach where the researcher selects particular words or phrases within the transcript to determine themes within the data. Researchers typically proceed from coding, to creating categories and themes. This process allowed me to remain aware of any filters of personal involvement, the nature of questions and responses noted and any other detail of the data notes (Saldaña, 2009).

This mixed method approach allowed for the triangulation of data sources, resulting in a convergence of quantitative and qualitative methods and thereby neutralizing possible biases of any single method (Creswell, 2003). For example, the results of one method, the focus group, informed and helped develop the second method of the questionnaire, consequently providing insight into different levels of analysis. Observations and thoughts that I collected simultaneously in the reflexive journal assisted in my interpretation of the data. PAIs

**Focus group.** A focus group is a means of collecting qualitative data on a specific topic of interest through an informal group setting with selected participants who share a similar concern on a given topic (Berg & Lune, 2012). Greenbaum (1997) stated that there are three different types of focus groups; a full group, and mini-group and a telephone group. Both the full group and the mini-group are comprised of a 90 to 120-minute discussion led by a trained moderator, and include participants recruited for the
session based on their common demographics, attitudes or buying patterns. The mini-
group includes a smaller selection of participants than the full group, selecting four to six
participants for the study. This study used a mini-group with six participants who were
recruited based on their experience teaching French Immersion primary classes.

I used data from the focus group discussion to help shape and formulate the
subsequent questionnaire. Participants joined in this structured focus group surrounding
PA knowledge and interventions on June 22, 2015. As suggested by Greenbaum (1997), I
established fewer than a dozen probes ahead of time, and these served merely as a
guideline to lead the group in a focused discussion in response to the essential questions
guiding the project.

The driving question was open-ended, “what is phonological awareness?”
allowing for a variety of responses from the focus group. My intention was to gain an
understanding of teachers’ understanding of PA and by including them in a focus group,
my hope was to also increase their knowledge base and expand their tools to teach PA. I
encouraged teachers to feel comfortable and secure during the session by maintaining a
light atmosphere, thereby encouraging them to freely discuss their ideas and thoughts on
the topic in a non-threatening environment. I attempted to view the topic of PAIs in
immersion classrooms from the participants’ perspective, leading the group through a
series of guiding questions and taking on the role of observer.

The purpose of the discussion was very clear. I needed to maintain an emphasis
on the exploration of teachers’ current understanding of PA and an identification of
interventions they used in their classroom to teach this pre-literacy skill. My initial intent
was to provide primary teachers a comfortable atmosphere in which to share their
thoughts, beliefs, and practices surrounding PA. I informed participants that the main goal of the focus group was to collect ideas and thoughts on PA and PAIs; therefore, I explained that while I expected to conduct the discussion in English, I invited participants to speak in French if they couldn’t express themselves accurately in English. Otherwise the discussion occurred mostly in English. My initial questions served to set group members at ease, provided introductions to other participants and determined their years of experience teaching at the primary level. I then followed this up with a probing question that prompted a general discussion on the given topic; “What is phonological awareness?” From these initial questions, I subsequently guided the discussion into more specific areas “Describe phonological awareness” and “What interventions have you used in the past to address PA?” In order to clarify strategies and activities surrounding PAIs effectiveness, I posed questions such as “Describe whole class interventions that you have used in the past to address and teach PA skills”, “Explain a strategy you have successfully applied in the classroom to address PA deficits”, “Explain a PAIs strategy that might assist a small group of students in Tier 2.”

Group interaction is one of a focus group’s advantages. Probes and the addition of various questions such as “do you have anything else to add?” were dictated by the response of the group in order to elicit enough information. A challenge of conducting a focus group is that there may be some underlying conflicts between participants that may influence the way they respond, and some participants may be inclined to dominate the discussion (Berg & Lune, 2012). Greenbaum (1997) stated that the moderator be trained in leading the discussion during a focus group. My role as the moderator in this project was assisted by my previous training as a Coach Mentor where I was trained to listen and
paraphrase in order to elicit further clarification or conversation on a given topic. Additionally, various prior leadership roles provided me with some experience to working with a group of individuals. Prior to the commencement of the discussion on PA knowledge, experiences and interventions, I established clear ground rules and attempted to maintain a focus on the discussion topic with the goal of tactfully avoiding possible tensions. I used questions to direct the conversation on the focus of PA and PAIs.

In this case, I worked among colleagues, some with whom I had been working for more than a decade. My role during that time had evolved from peer teacher to the role of resource teacher, and back to peer teacher. This peer relationship with my colleagues allowed me to ask them questions regarding their practices and beliefs in a non-threatening context. Following the focus group, I presented a paragraph summary of the main points of the focus group discussion to participants for review and verification in order to validate the data and allow participants to correct possible biases or misinterpretations of the discussion. Through these means, I invited participants to review the discussion and to give their input on the topics presented therein (Appendix F).

Questionnaire. Rohrmann (2007) stated that questionnaires, using a rating scale as a response mode, were the dominant data collection method in psychology and the social sciences. This method allowed for the establishment of a general pattern from a representative sample of French Immersion primary teachers (Arthur et al., 2012). The advantage of using a questionnaire, over perhaps an interview, was that it allowed participants to disclose perceptions and practices related to PA and PAIs in an anonymous, non-threatening manner. Data from the focus group served as a basis during
my development of a PAIs ratings questionnaire that I submitted to teachers individually within approximately three months of the focus group. Creswell (2012) stated that a mailed questionnaire needed to include several components such as a cover letter, a questionnaire instrument that was of appropriate length, and an opening beginning with demographic information, a series of closed-ended questions, and closing statements. Berg and Lune (2012) stated that questionnaires allow participants to indicate their commitment to a position independent of other members. Creswell affirmed that this method could provide data that was easy to describe and report. The use of a questionnaire provided me with a means for a structured collection of subject specific information that I could then quantified.

The literature review revealed a lack of a previously-designed appropriate instrument pertaining to PAIs in French Immersion classrooms. Therefore, I based my mail-in, non-standardized questionnaire on the discussion of PAIs generated from the focus group. The questionnaire included a cover letter included with the questionnaire consent. In this study, due to the small size of the sample group I did not include an opening item intended to identify demographic information as I wanted to maintain participant anonymity, and such identifiers would have served to pinpoint specific participants. I distributed the researcher-constructed paper-based PAIs questionnaire delivered in this project to all participants through either School District board mail or through Canada Postal Services (see Appendix F) and asked them to rate PAIs frequency and effectiveness was distributed on paper to all participants. This bank of 10 questions was developed based on the information gathered during the focus group and in alignment with the goals of the project.
Once transcription was complete, I listed all the identified PAIs in a separate document and then used this information to generate the 10 questions for the questionnaire. I described the PAIs in detail according to the teacher’s initial description during the focus group; as a result, all the participants had an understanding of the activities and interventions prior to their mention in the questionnaire. These interventions from the focus group addressed and taught rhyme creation, identification of same sound at the end of a word, identification of rhymes in poems and stories, identification and isolation of syllables and phonemes, segmenting syllables through clapping and cutting familiar words and the oral manipulation of sounds to create new words.

Each PAI statement included two rating scales in order for teachers to indicate both frequency of intervention use and perceived effectiveness of the intervention. A five-point scale was well suited to these perception statements since it allowed participants to indicate, on a continuum, the level of agreement that they had toward a specific topic. This five-point rating scale provided the respondents with an opportunity to indicate their level of agreement for the frequency of use and the effectiveness of PAIs. My original intention was to create a 10-point rating scale; however, in order to facilitate the interpretation of the questionnaire and to simplify ratings from the teacher’s perspective, the scale was reconfigured to a five-point Verbal Qualifier Scale (VQS). Teachers shared how frequently they personally practiced these PAIs and were asked to rate this regularity on a VQS from one to five where five indicated “Always” and one indicated “Never” (Rohrmann, 2003). Furthermore, teachers were asked to rate the
effectiveness of the given PAIs on a VQS scale from one to five where five indicated "Excellent" and one indicated "Ineffective".

The items on the questionnaire included interventions such as the "Echo game", where students responded with various rhyming words to a spoken word and "Identifying rhymes in stories, where students listened to a read-a-loud story and identified common patterns such as rhymes". I described the PAIs in a similar language and detail as surfaced in the focus group in order to avoid possible confusion. Each intervention was followed by two separate rating scales, each identified with the consistent questions; "Frequency that I use this intervention in my classroom" and "Effectiveness of this intervention to teach PA skills". The questionnaire was returned to me in a sealed self-addressed envelope within two weeks of distribution and in order to ensure confidentiality of results, only once all the questionnaires were returned did I open and read them to begin my quantitative data analysis.

Data Analysis

As researcher, I maintained a reflexive journal throughout the course of the study to note personal feelings, biases, responses and questions and applied this information to guide the data analysis process. A reflexive journal is a means for a qualitative researcher to record thoughts and observations during the research process, therefore attempting to guard against their own biases and values. In this manner, I was able to review entries to analyze decisions and reflections. Smith (1999) stated that the reflexive journal allowed for the development of an internal dialogue to analyze and consider important issues in the research project. This self-scrutiny assisted in grounding the research results. The purpose of this journal was to assist in identifying my personal
perspective and beliefs, so that these possible biases could be put to the side encouraging and maintaining an open, reflective mind when conducting the focus group and collecting and analyzing data. This reflexive journal allowed me to develop an awareness of my internal dialogue for understanding and interpreting important issues and encouraged an enhancement of the credibility of my methods and findings by acknowledging possible bias to the result interpretations (Smith, 1999).

A characteristic of a focus group is that the discussion is recorded either with an audio-tape or a digital device in order to preserve a permanent record of the proceedings (Greenbaum, 1997). The focus group participants were digitally recorded using two devices, an Olympus Digital Voice Recorder model WS-802 and my MacBook Pro laptop. I informed the participants of the purpose of recording the discussion for further data analysis. Two devices were used in order to ensure transcription validity. I used recordings, saved as an audio file, to compare and transcribe the discussion prior to the coding process. I did not use any transcription software. According to Saldana (2009), coding is the practice of selecting specific words or phrases and linking them together to determine key themes or patterns in the data. There are several layers to the coding process and it began with a comprehensive analysis of the transcription to identify key words and phrases that related to the driving question of the study. Once I identified these codes within the transcription, I could then link and organize them into like groups or categories that subsequently led to the recognition of central themes of the discussion. The ideas from the focus group served to generate the items in the questionnaire.

The use of this survey questionnaire allowed me to quantitatively collect data on teachers’ individual application of PAIs as well as perceived effectiveness of specific
PAIs in their classroom. At the end of the questionnaire, an open-ended reflective question encouraged teachers to reflect on the various PAIs, and to add anything else that may add to the results of the project. This reflection provided the opportunity for teachers to privately and anonymously share new or previously mentioned details. This final question had the intention of eliciting possible anecdotes or information from teachers surrounding their experience with PAIs delivered in an RTI framework. I collected this data from participant responses to support the qualitative information with numerical values for the descriptive statistics.

In the subsequent chapter, I present these data results through the use of a table to indicate primary codes revealed in the focus group, and in two subsequent tables to identify the frequency of PAIs and their effectiveness. I also analyze the results and discuss their connection with the literature review.

Conclusion

The objective of this research was to identify effective PAIs for French Immersion classroom teachers. Results of this project served to clarify the definition of PA, and identified the various PAIs currently used by French Immersion primary teachers in Northern British Columbia, thereby attempting to bridge the gap between the theory and the application of PAIs in a RTI framework. Through this ethnographic project, I invited and observed primary French Immersion teachers as field participants in a focus group discussing PA and PAIs.

The mixed-methods approach allowed me to collect a variety of data to support the project goals and strengthen the interpretation of results. The discussion during the focus group allowed me to highlight collective views on the research topic and provided
participants with an opportunity for a sharing of ideas and interventions. Following the transcription of the discussion, I was able to reveal key concepts and themes and then use these to generate an instrument that allowed teachers to rate specific PAIs for frequency and effectiveness. In particular, I focused on the theme of PA skills as this understanding lay at the core of the PAIs, and these strategies were the intended topic of research. The focus group allowed teachers to share personal current practice and discuss PAIs.

I generated the questionnaire based on PAIs discussed in the focus group and from the coded themes. Following a brief description of the PAIs, I included two rating scales for teachers to indicate the frequency of use of particular strategies in their classroom, in addition to their perceived effectiveness. I concluded the questionnaire with an open-ended question, allowing respondents an opportunity to elaborate on their responses in a manner that would not restrict them to a specific response, allowing for final thoughts and ideas in an anonymous setting.

My data analysis and subsequent discussion were additionally guided by thoughts and observations made in my reflexive journal throughout the study. "Ethnography is not about observing, but about understanding" (Berg & Lune, 2012, p. 205). The final stage of the study involved interpreting the entire data. An analysis of the reflexive journal entries, the coded transcript, and the questionnaire results allowed me to better interpret the results and the understanding of PA among French Immersion primary teachers and PAIs in the French Immersion classroom.

By recognizing and discussing a variety of intervention strategies to address PA deficits in the classroom, I anticipate that French Immersion teachers will become more aware of the importance of PA as a foundation to literacy and consequently will employ
appropriate interventions to address the individual literacy needs of their students. I will share the final results with all participants by providing them with a copy of the completed project.
Chapter 4: Results and Discussion

In this chapter, I focus on the results of the project and discuss connections and links to current research. My goals for this project were to gain a better understanding of phonological awareness (PA) through a sharing of ideas among colleagues, to explore research on the transferability of language skills and the impact this has on phonological awareness interventions (PAIs) and to evaluate effective PAIs delivered in a Response-to-Intervention (RTI) model. At the onset of this project I stated my belief that the majority of primary teachers lack either specific knowledge or confidence about PA or PAI, therefore they may be unsure or uncomfortable about applying explicit PAIs in order to address this foundational literacy skill. Through this study, I invited French Immersion primary teachers to share in a focus group their knowledge of PA, and any PAIs they employ in their classroom. Secondly, I used a questionnaire to identify frequency and effectiveness of specific PAIs used in the French Immersion classroom of the participants.

In this results section, I present the main themes derived from the focus group transcription and the frequency and effectiveness ratings of PAIs from the questionnaire responses. Then in the discussion section, I evaluate and interpret the findings derived during the data collection phase of the study and discuss the relevance to either support or reject existing information in this field as outlined in the literature review section of Chapter 2. In this chapter, I also evaluate the research design and any possible contributions that could be made to the knowledge in this field.
Data Analysis

I collected the qualitative and quantitative data through various strategies of inquiry including a focus group, a questionnaire, and a reflexive journal. This mixed-method approach allowed me to triangulate the data sources, and by converging quantitative and qualitative methods, I attempted to neutralize possible biases of any single method (Creswell, 2003). For example, I used the results of the focus group which is an important technique in qualitative research, to inform and develop the second method of data collection, the questionnaire, consequently providing insight into different levels of data analysis (Greenbaum, 1997). I simultaneously collected observations and thoughts in my reflexive journal and used these data to assist in the interpretation of the data and to strengthen the results.

The role of the focus group was to respond to the project goal of identifying teachers' understanding and knowledge of PA and to share PAIs that they use in their classroom to teach this foundational skill. I digitally recorded the focus group participants using two devices, an Olympus Digital Voice Recorder model WS-802 and my MacBook Pro laptop. I informed the participants of the purpose of recording the discussion for further data analysis. I used two devices in order to ensure transcription validity. I compared both recordings, saved as an audio file, and used these to transcribe the discussion prior to the coding process. I did not use any transcription software.

Coding is the practice of selecting specific words or phrases and linking them together to determine key themes or patterns in the data (Saldaña, 2009). There are several layers to the coding process and I began with a comprehensive analysis of the transcription to identify key words and phrases that related to the driving question of the study. Once I
identified these codes within the transcription, I then began to connect and organize them into like groups or categories that subsequently led to the development of central themes of the discussion. This process allowed me to view the relationships and connections between the data. I reviewed the codes and the themes within the transcription thoroughly until the big picture emerged revealing the point of saturation. I recorded additional observational and reflexive notes during the focus group in an observation journal.

I transcribed and coded the focus group interview using Saldaña’s (2009) model for first cycle and second cycle coding. I identified and presented the broad concepts or categories that surfaced from the focus group discussions in the form of a table. I highlighted the central categories and these served to identify teachers’ PA and PAIs knowledge and application. I analyzed and interpreted entries in the reflexive journal and included these observations as results in the discussion section of the study. This qualitative data assisted in my interpretation of the results and helped identify personal biases, values and perceptions. An increased self-awareness on my part allowed me to develop a clearer understanding of the results from the focus group and questionnaire, and assisted in elaborating on the discussion and conclusion section of the project.

I will share the final results with all participants by providing them with a copy of the completed project. The intention was that the project be presented to teachers within a year of the final questionnaire, allowing for, and possibly prompting self-reflection and further discussion surrounding PAIs in a RTI framework.

**Focus group themes.** During the focus group session, I encouraged primary French Immersion teachers to share their knowledge of PA and to discuss PAIs strategies
that they employ in the classroom. The focus group was held at a school within the target population area for a period of 60 minutes on June 22, 2015. All the local participants were present. One participant contributed to the group discussion via Skype. Five of the teacher colleagues knew each other, but the level of familiarity among them was varied. One participant was new this year to the district and therefore also new to the other participants. I opened up the discussion with a general question asking for an introduction from everyone including their name and their experience.

My research topic required participants to have experience teaching primary French Immersion. The teaching experience among participants varied greatly, from a first year of teaching French Immersion to having taught in the program for 26 years. All teachers had a minimum of three years previous teaching experience. For one teacher, this was her first year teaching in French Immersion, but she had three years of previous experience teaching French to primary students in France. Another teacher was in her second year of teaching immersion, but had 13 years of experience teaching at a Francophone school in Ontario. Three teachers had two to four years of experience, one teacher had six years of experience and the remain two teachers had 13 and 26 years of experience. All of the teachers were women ranging in age from 25 years old to over 50 years old. Five of the six participants were Francophone. All of the participants had experience teaching at the primary level, however their familiarity and knowledge of PA and PAIs was varied.

It is important to understand the demographics of the focus group because although the participants varied in age and teaching experience, they all had specific common characteristics that related to the topic question. All participants were primary
French Immersion teachers with an interest in expanding or sharing their knowledge of PA and PAIs. These qualities met with my project criteria for the sample selection.

I revealed several key findings in the focus group in response to the research questions: To what extent do French Immersion teachers use RTI to address PA in the French Immersion classroom? What other PAIs do teachers use? How frequently do teachers use a particular set of PAIs?; and How effective do they find these PAIs in the French Immersion classroom? The key categories that I identified included: PA skills, PAIs, teacher challenges and RTI as outlined in Table 1. Table 1 classified these themes, the number of references to these themes, the codes associated therein and one key quote from the focus group that stood out the most as a representation of the individual themes.

The primary theme that I revealed through almost three times the number of codes as the next common theme was simply the identification of PA skills. I began the discussion with a question to clarify a definition of PA, and for some teachers this was a new field and an explanation was required on what exactly comprised PA. My guiding statement was “I’d like to begin our discussion with just a general conversation about what is phonological awareness”. Participants shared their knowledge and some chose not to give input claiming inexperience. Participants needed some clarification regarding the difference between phonemic awareness, PA and phonics, and I contributed in the discussion to ensure that everyone was working with the same basic understandings. A key quote that summed up the PA definition that was agreed upon was “…to me it’s to be able to play with the language, the sound, to be able to manipulate the sound in a language. And basically, I think that’s what it is. And to be able to hear distinctive sounds in the language, to pull it apart to put it back together, to substitute maybe a few
Table 1

Representation of the Coded Data by Theme and Codes Accompanied by a Key Quote

<table>
<thead>
<tr>
<th>Themes</th>
<th>Total Codes</th>
<th>Top Codes in Category</th>
<th>Key Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA Skills</td>
<td>133</td>
<td>Segmenting (14)</td>
<td>&quot;...to be able to play with the language, the sound, to be able to manipulate the sound in a language. And basically, I think that's what it is. And to be able to hear distinctive sounds in the language, to pull it apart to put it back together, to substitute maybe a few sounds to create new words. So it's really about play with the language.&quot;</td>
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<td></td>
<td></td>
<td>Developmental (11)</td>
<td></td>
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<td></td>
<td></td>
<td>Hear sounds (9)</td>
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<td></td>
<td></td>
<td>Rhyme (9)</td>
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<td>Writing (9)</td>
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<td></td>
<td>Isolate (7)</td>
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<td></td>
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<td>Basic Skill (7)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Reading (6)</td>
<td></td>
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<td></td>
<td></td>
<td>Generate new words (6)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Oral manipulation (5)</td>
<td></td>
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<tr>
<td>PAIs</td>
<td>48</td>
<td>Rhyme games (13)</td>
<td>&quot;We're using that to rhyme, to clap the syllables, to sound the first sound, the last sound, the middle sound and then we substitute the sound, we substitute syllables, and we've done that so much that when they read they notice the pattern in the language.&quot;</td>
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<td></td>
<td></td>
<td>English first (7)</td>
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<td>Clapping (5)</td>
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<td>Vocabulary development (4)</td>
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<td>Stories (4)</td>
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<td>Global to specific (2)</td>
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<td>Book (2)</td>
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<td>Centres (2)</td>
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<td></td>
<td></td>
<td>Parking lot/Sound box (2)</td>
<td></td>
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<td></td>
<td></td>
<td>Taught explicitly (1)</td>
<td></td>
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<tr>
<td>Teacher</td>
<td>33</td>
<td>No training (4)</td>
<td>&quot;...come and teach us what you want us to teach them. ... come and teach us how to teach them this. And they don't pass and they don't pass. Well, they don't pass because I don't know what you want them to do.&quot;</td>
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<tr>
<td>Challenges</td>
<td></td>
<td>Limited vocabulary (4)</td>
<td></td>
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<td></td>
<td></td>
<td>No understanding (4)</td>
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<td>Memory (3)</td>
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<td>Professional development (3)</td>
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<td>Practice skills (3)</td>
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<td>Time consuming (2)</td>
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<td>Difficulty expressing (2)</td>
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<td></td>
<td>Confident (2)</td>
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<tr>
<td></td>
<td></td>
<td>Resources (1)</td>
<td></td>
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<tr>
<td>RTI</td>
<td>26</td>
<td>Assessment (10)</td>
<td>&quot;It's the biggest component to make sure that you assess, because they might play one game in that centre for a few weeks, it doesn't mean that they got it, that's when you have to do Tier 2, and then it's one on one.&quot;</td>
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<td></td>
<td></td>
<td>Trained EA (5)</td>
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<td></td>
<td></td>
<td>Small group (4)</td>
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<td></td>
<td>Guided reading (2)</td>
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<td></td>
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<td>Reading Recovery (2)</td>
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sounds to create new words. So it’s really about play with the language”. Following this explanation, teachers began to generate a list of skills such as segmentation, blending, hearing the sounds within words, oral manipulation, rhyme, generating new words through substitution or deletion, isolating specific phonemes and syllables, and finding patterns in language. The code for “segmenting” appeared more than 10 times, and most frequent of all the codes throughout the discussion. I identified the code “developmental” as appearing third most-frequently throughout the entire discussion and I noted that this indicated the sequential nature of PA acquisition. All of the participants were in agreement about the importance of these basic foundational literacy skills in the development of reading.

There was some discussion about whether PA transferred into writing as well, and then teachers agreed that it impacted writing specifically when students needed to rely upon hearing the distinctive sounds in the language in order to write new or spoken words. Participants were in agreement that PA served as the cornerstone of typical literacy development and that without explicit instruction these skills could not be successfully mastered, hence negatively impacting reading and writing skills in the student’s future. Another quote that supported this theme was “They always say that it’s before they can read, they have to have this as the base. So I suppose it’s pretty important for their language, for their reading.” The participants’ understanding about how to go about teaching these PA skills varied based on their training and experiences.

The second key concept that I revealed from the focus group was the PAIs that French Immersion teachers used to address PA in their classroom. This category generated the most discussion as participants shared ideas, activities, strategies and
resources. Interventions that I connected with this theme were; rhyme games, clapping, stories, global to specific, books, centres, parking lot, movement, blocks, sentence strips, poetry and modeling. Each intervention relied on student engagement and oral manipulation of the language and fell into Tier 1 or Tier 2 of the RTI framework. I used these themes as the source for the generation of the questions for the follow-up PAIs questionnaire. “Rhyming games” were most often mentioned as an example of an intervention and this code was most frequently discussed throughout the focus group conversation. Rhyming games are interventions that address the PA skill of “hearing sounds” and “rhyme”, and each appeared nine times and was among the top four codes that I associated with the PA skills category.

Four out of the six participants proposed that interventions be delivered in English first in order to ensure the successful mastery of specific skills without possible language impediments due to a lack of second language vocabulary. This code was referred to more than half as often as that of “rhyming games”, and was the second most frequently mentioned code. Additionally, PAIs that simultaneously encouraged vocabulary development in French were suggested, responding to the need for increased vocabulary. The code for “clapping” is an intervention that specifically responds to the most frequently mentioned code in PA skills, that of “segmenting”. Two key quotes supported this theme of PAIs, the first in reference to the types of interventions; “We’re using that to rhyme, to clap the syllables, to sound the first sound, the last sound, the middle sound and then we substitute the sound, we substitute syllables, and we’ve done that so much that when they read they notice the pattern in the language.” In support of the teaching of these PA language skills in the student’s first language the key quote was “I think it’s
important even if they are in French Immersion that they are doing it in English first to know what is a rhyme, what is a... okay, you clap a syllable, but what is a syllable?"

The third concept that I identified encompassed teacher challenges. In general the codes that I related to this theme supported the concept of challenges that teachers encounter, both professionally and on the part of the students they work with. Four out of the six participants discussed their lack of specific PA training and their lack of familiarity, confidence and experience with PAIs. Frustrations with their own lack of skill and expertise were evident in teachers’ tone and were perceived in this supporting quote from the focus group “...come and teach us what you want us to teach them. ...come and teach us how to teach them this. And they don’t pass and they don’t pass. Well, they don’t pass because I don’t know what you want them to do.” Participants discussed PA training and professional development as needs that seemed not to be readily accessible nor directly offered within the district. Within this theme, I included the codes of no training, limited vocabulary on the part of the student, no understanding, poor memory skills, a lack of professional development, practice skills, time consuming and difficulty expressing themselves. While all of these codes appeared up to four times in the coded data, they did not occur with as much frequency as other codes supporting the two main concepts. I overlapped the code for “vocabulary development” in the PAIs theme, with the code of “limited vocabulary” as categorized within teacher challenges. Together these codes referring to student vocabulary appeared eight times in the data and indicate sufficient importance to respond to through PAIs. Teachers seemed encouraged by the majority of students’ progress but continued to seek out a means to better support students and teachers, either through more professional development training, increased
practice with new skills, or through external resources to address the constraints of time and realize an improvement in students' memories.

The fourth theme that I revealed through the coding process surrounded the RTI framework and components. I found that codes within this concept represented 10% of the overall codes and given that a goal of this study was to identify the tiers of the RTI model in which PAIs were applied in the French Immersion classroom, I resolved these as being necessary to include in the results. As moderator, I reviewed the RTI framework during the focus group and gave one example of a possible strategy for each Tier, such as whole class instruction as Tier 1, small group Guided Reading lessons as Tier 2, and Reading Recovery as Tier 3. The majority of the PAIs discussed in the focus group represented Tier 1 and Tier 2 strategies with the exception of Reading Recovery and the Cog Med Working Memory Training Program that were Tier 3 supports. Components of RTI that I highlighted during coding included mostly on-going assessment, followed by an educational assistant trained in PA, small group, Guided Reading, Reading Recovery, one-on-one, at risk students and the Cog Med Working Memory Training Program.

I examined at length the subject of assessment, as a method to evaluate each student's continuous learning in order to adapt instruction in response to growing needs, and I gave it value as it surfaced as one of the top four overall codes discussed. I sorted this code under the RTI theme as its essential function forms the essence of instruction within RTI. The code of "assessment" appeared 10 times, and was a theme that I could have dually categorized as a teacher challenge. In view of the fact that on-going assessment is the cornerstone of RTI, I organized it under this heading rather than as a teacher challenge, although during the discussion I refer to assessment as a challenge for
teachers working within the RTI framework. The nature of assessment is a considerably time consuming process and presents an overwhelming challenge within the confines of the school day. The key quote indicates the true reason behind assessment as outlined in RTI framework and helped me link this code into the relevant category; “It’s the biggest component to make sure that you assess, because they might play one game in that centre for a few weeks, it doesn’t mean that they got it, that’s when you have to do Tier 2, and then it’s one on one.” Additional data that I gathered from observations noted during the focus group discussion contributed to the discussion section of the data analysis.

In general, the focus group discussion flowed well and participants stayed on topic, allowing each member the opportunity to contribute ideas. They interacted well and were respectful of each other’s varied opinions. In order to maintain the flow of the discussion, as moderator, I sometimes paraphrased key ideas and then redirected the conversation onto the next guiding question. Prior to the focus group, I was apprehensive about how the participants would view my role and each other’s comments during the discussion. The self-reflection before and after I had conducted the focus group was evident in the following entry recorded in my reflexive journal:

I felt strange acting in the role of moderator because of my relationship with the participants who knew me in my role as LAT and might have thought I was an expert in PA and PAIs. I was also apprehensive about one participant’s strong personality and perspectives and I knew I needed to remain aware of that and how to diffuse a possible conflict. I thought it would be a bit awkward and not like an equal conversation, but actually I was surprised that we were all able to contribute without any seeming discord or obvious judgments on each other. We just sat
around and discussed PA and PAIs issues, as I mostly listened and paraphrased. I stuck to the guiding questions. I did probe and I did give some examples. I did restate and clarify because although I wanted to take a back seat, I recognized that in order to proceed along the right track, we all needed to begin with the same basic understandings (on PA and RTI). (Reflexive journal 05/11/15)

**Questionnaire findings.** I analyzed and tabulated the PAIs information from the focus group to determine into which RTI tier the interventions fell. The main themes that emerged in the PAIs category formed the basis for the items in the questionnaire and provided data to highlight current interventions and their effectiveness. I presented these data in the following section displaying questionnaire results.

I developed the PAIs questionnaire based on the most-frequently discussed interventions identified in the focus group. I wrote out all the strategies shared during the focus group and linked them to the PA skills that they taught. For example, the “echo game” was proposed by one participant with the purpose of teaching rhyming skills and specifically listening for end sounds in words. The strategies that I chose to include in the questionnaire were similar to ones that I had read about in the reviewed literature as well as connecting to the PA skills that were repeatedly coded during the focus group session.

I limited the questionnaire to 10 interventions to be evaluated by respondents. These 10 items were presented in the questionnaire to learn the frequency of use and effectiveness of specific PAIs in the French Immersion classroom. Each question included a brief description of the intervention as discussed during the focus group session. When compared to the literature review, the PAIs that I revealed during the
coding process and that I included in the questionnaire were among those suggested in PA research as practical intervention strategies, thus strengthening the construct validity of the questionnaire. These 10 PAIs examples included two separate rating scales, one based on frequency and the other based on effectiveness. For each of these components, I provided a separate five-point scale where the verbal qualifiers were different for each scale. Verbal qualifiers were generated based on the Rohrmann (2003) 5-point Verbal Qualifier Scale (VQS). For the purpose of clearly displaying the data, I used the numeric value of the VQS to represent the data results.

All of the participants received the questionnaire September 1, 2015 and 100% returned their completed form within the requested two-week time frame.

I used a VQS for questions rating the frequency of PAIs use in the classroom (1 = “never”, 2 = “seldom”, 3 = “sometimes”, 4 = “often” and 5 = “always”). I displayed the data from this initial section of the questionnaire in Table 2. All the participants responded to 100% of the questions surrounding frequency of PAIs use in their classroom. I calculated the median for each response and linked the highest rated PAIs to their origin within the focus group. Where the median fell between two numbers, I included the calculated half number with the understanding that both verbal qualifiers would be taken into account during interpretation of the results. I found that the intervention that met with the most frequent use by most of the teachers was the PAIs from question seven; clapping words in a sentence, or syllables in a word. This intervention was rated as always used by 67% of participants, and often used by 33% of respondents. I connected this strategy with the skill of segmenting, that was among the
### Table 2

**Phonological Awareness Interventions Questionnaire- Frequency of Interventions**

1=never, 2=seldom, 3=sometimes, 4=often, 5= always

<table>
<thead>
<tr>
<th>Question</th>
<th>Median Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Echo game (Students respond with various rhyming words to a spoken word)</td>
<td>3</td>
</tr>
<tr>
<td>II. Poetry (Students identifying same family sounds or rhyming words in poems)</td>
<td>2.5</td>
</tr>
<tr>
<td>III. Names (Students invent rhymes associated with student names)</td>
<td>2</td>
</tr>
<tr>
<td>IV. Sound boxes (Students isolate and identify syllables and phonemes in words through the use of tokens in sound box or a car in parking lot)</td>
<td>3</td>
</tr>
<tr>
<td>V. Blocks (Students use different coloured blocks to represent different phonemes/syllables in a word)</td>
<td>3</td>
</tr>
<tr>
<td>VI. Mini chalkboards (Students build on phonemes or word stems to write new words)</td>
<td>4</td>
</tr>
<tr>
<td>VII. Clapping (Students clap words in a sentence, or syllables in a word)</td>
<td>5</td>
</tr>
<tr>
<td>VIII. Word creation (Students orally manipulate sounds in words to create new words through phoneme substitution or omission)</td>
<td>3</td>
</tr>
<tr>
<td>IX. Identifying rhymes in stories (Students listen to a read-a-loud story and identify common patterns such as rhymes)</td>
<td>3</td>
</tr>
<tr>
<td>X. Cutting sentence strips (Students segment common words by cutting them into syllables with scissors)</td>
<td>2</td>
</tr>
</tbody>
</table>

The top three PAIs discussed during the focus group and the most frequently discussed code within PA skills. I noted that this strategy was also fairly easy to implement and a simple
method of teaching segmenting. I found that the second most-frequently used
intervention was the strategy of mini-chalkboards and I linked this to the PA skill of
writing that appeared nine times during the discussion. I found the responses were
divided with 33% of respondents rating their frequency of use for this intervention as
"always", 33% of respondents replied with "often", and the two remaining participants
rated the frequency of use at "seldom" and "never" respectively. I found that the least
frequently used PAIs was from questions three and ten and involved generating rhymes
with student names and segmenting words or sentence strips. Oddly, I noted that these
interventions were linked to the most frequently mentioned top code within PA skills, and
the top code within PAIs, segmentation skill and rhyming games. I found that these
results negatively correlated with the rate that rhyme, within PA skills, and rhyming,
within PAIs, were mentioned during the focus group. As an intervention they were not
rated with a high frequency of use even though they had been repeatedly mentioned by
the same participants during the focus group session.

I displayed results of the effectiveness of interventions in Table 3. Not all
teachers responded to each question and I calculated a 92% completion rate in total
responses. Teachers three and four left some interventions unrated, thus leaving gaps in
the results for questions two, four, five, six, and ten. I calculated median responses based
on the actual responses, therefore based on five rather than six answers. Questions rating
the effectiveness of PAIs in the classroom used one to indicate "ineffective", two for
"poor", three for "fair", four for "good" and five represented "excellent". I found that
similar to data on most frequently used, the intervention that received 100% completed
Table 3

*Phonological Awareness Interventions Questionnaire - Effectiveness of Interventions*

1 = ineffective, 2 = poor, 3 = fair, 4 = good, 5 = excellent

<table>
<thead>
<tr>
<th>Question</th>
<th>Median Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Echo game (Students respond with various rhyming words to a spoken word)</td>
<td>4</td>
</tr>
<tr>
<td>II. Poetry (Students identifying same family sounds or rhyming words in poems)</td>
<td>4 *</td>
</tr>
<tr>
<td>III. Names (Students invent rhymes associated with student names)</td>
<td>3</td>
</tr>
<tr>
<td>IV. Sound boxes (Students isolate and identify syllables and phonemes in words through the use of tokens in sound box or a car in parking lot)</td>
<td>4 *</td>
</tr>
<tr>
<td>V. Blocks (Students use different coloured blocks to represent different phonemes/syllables in a word)</td>
<td>4 *</td>
</tr>
<tr>
<td>VI. Mini chalkboards (Students build on phonemes or word stems to write new words)</td>
<td>4 *</td>
</tr>
<tr>
<td>VII. Clapping (Students clap words in a sentence, or syllables in a word)</td>
<td>5</td>
</tr>
<tr>
<td>VIII. Word creation (Students orally manipulate sounds in words to create new words through phoneme substitution or omission)</td>
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</tr>
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<td>IX. Identifying rhymes in stories (Students listen to a read-a-loud story and identify common patterns such as rhymes)</td>
<td>4</td>
</tr>
<tr>
<td>X. Cutting sentence strips (Students segment common words by cutting them into syllables with scissors)</td>
<td>5 *</td>
</tr>
</tbody>
</table>

**NOTE:** * indicated that the median was calculated based on five [actual] responses rather than six.
responses and that was rated as the most effective, was question seven. This intervention had 83% of respondents rating it as “excellent” and the remaining 17% rating it as “good”. These PAIs involved clapping the words in a sentence or syllables in a word. I positively correlated this strategy with the code for segmentation that appeared most frequently among the PA skills discussed.

Fifty percent of the respondents rated question ten as an excellent intervention. I calculated the median response rating as excellent based on actual responses. One response rated this strategy as fair while another rated it as ineffective and one respondent did not rate the strategy at all. This intervention involved students cutting or segmenting common words on paper strips into syllables or phonemes. As with question seven, I noted that this intervention, also involving segmentation, correlated positively with the code of segmentation that appeared most often in the category of PA skills.

Questions one, two, four, five, six and nine were all rated as good interventions. These interventions included: poetry, sounds boxes, blocks, mini-chalkboards and identifying rhymes, and were all mentioned at least once under the theme of PAIs. I found that these approaches aligned with the top five codes discussed within PA skills; segmenting, hearing sounds, rhyme and writing. As with the rating for frequency of use, I found that question three, involving the PAIs of rhyming with students’ names rated the least effective intervention with approximately 30% rating it as good and 50% of respondents rating it as fair. Again I found these results negatively correlated to the rate of mention of rhyme and rhyming during the focus group.

I collected additional data from the open-ended reflexive question at the end of the PAIs questionnaire. When invited to add anything that may be of value to the study
of PAIs in the French Immersion class, two teachers responded. One response focused on rhyming interventions and mentioned the challenges that occurred when teachers asked students, with a limited vocabulary in their second language, to generate rhymes. She suggested that recognizing rhymes is therefore much easier. As well, in response to the intervention of generating rhymes based on students’ names, she cautioned that this strategy could lead to future teasing incidences. These comments offered a possible explanation for why the interventions generating new words through phoneme substitution or omission, and generating rhymes based on students’ names were rated as a seldom or sometimes used intervention and fair to good in effectiveness. These comments suggested that these strategies may present possible challenging for students or simply be of a delicate nature.

The second respondent simply thanked me for inviting her to participate in the study as she felt like it provided her with some practical PAIs. She stated, “I want to thank you. I think you were more help to me than I was to you. Being a new teacher this was an eye opener of tools I need to add.” I was pleased to see this comment as it indicated to me that at least in part I achieved one of my project goals of increasing teachers’ understanding of PA and PAIs. This comment might additionally offer a reason for the lack of data in several question responses.

Discussion

To provide an effective literacy program, early childhood educators, such as primary teachers, should have a good understanding of essential reading skills, including PA. It is also beneficial for primary teachers to demonstrate an awareness of how to implement an effective, developmentally appropriate reading program that includes
explicit PAIs. A review of the literature showed that RTI was developed to encourage the classroom teacher to become the first interventionist at an early stage in the student's academic career, addressing academic discrepancies before the student left the primary grades and before greater learning difficulties developed. Research by Dunn (2010) stated that a core component of RTI is that the teacher provide high-quality instruction, including within the domain of literacy; phonemic awareness, decoding skills, word attack skills, fluency in text processing, and construction of meaning, vocabulary, spelling and writing.

My study revealed that the majority of participants did not feel they had adequate training in PA, nor that they were offered support in knowing what specific foundational skills were expected to be taught in the primary classroom. Four out of the six participants discussed their lack of detailed PA training and their lack of familiarity, confidence and experience with PAIs. Their frustrations were obvious in their tone of voice as observed and noted in the research journal during the discussion. I identified a disparity in the high-quality instruction demanded by RTI and the importance of PA as an essential foundational reading skill and the reality of an apparent lack of professional development and a lack of PA understanding by teachers' self-admissions. I linked this finding with the limitation of the RTI framework where Coyne et al. (2013) posited that teachers working within this model often lacked the experience and the opportunity to customize and modify interventions based on the student's progress.

While I believe that teachers typically modify instruction and scaffolding to support students in their new learning, Dunn (2010) and Fuchs and Fuchs (2006) stated that a key feature of RTI was the continuous assessment to monitor and track students'
progress with targeted skills and interventions. This assessment allows for the adaptation of the intervention and instruction to better meet the changing needs of the student. I revealed that assessment was one of the top four overall codes discussed in the focus group. Teachers referred to this as an essential component of RTI and as a key basis for the modification of instruction. By the same token, they seemed overwhelmed by the time needed for this intensive data collection within the instructional day. One teacher commented that over the past year she felt that she had spent less time teaching her students and observing their social play interactions and more time keeping them occupied at centres so that she was able to assess students on a continuous basis. In addition to assessment, a clear understanding of PA and the sequential progression of these skills is essential in guiding the development of appropriate interventions. Teachers who stated that they had a deficient understanding of PA, may for that reason possibly have a limited capacity for tailoring literacy interventions based on a student’s progress along the continuum of PA skills. My findings reinforced the importance of encouraging a deep understanding of PA acquisition and development among students, so that teachers are armed with the knowledge to impact learning in a positive way, consequently addressing a limitation of the RTI model.

The participants all seemed to have something to contribute when it came to discussing PAIs despite claiming little knowledge of PA itself. Review of the literature showed that educators have the opportunity to build upon children’s prior phoneme knowledge base by making purposeful connections between oral communication and written communication. Hatcher et al. (1994) stated that the most effective interventions combined both PA and reading skills. Cisero and Royer (1995) and Hatcher et al. posited
that PA awareness and the development of the alphabetic principle through both phoneme awareness and knowledge of letter identity were crucial components of an enriched literacy program. During the focus group, teachers spoke of the oral-to-written connection that they encouraged among students. Skills that were considered part of emergent reading included print awareness, phonological awareness such as identifying and producing rhymes and substituting or omitting certain phonemes to create new words, initial awareness of grapheme-phoneme relationships, and vocabulary development. Through the coding process, I identified these skills at the root of the PAIs suggested.

PAIs that were among the highest rated in frequency and effectiveness were building words on mini-chalkboards, cutting sentence strips, identifying rhymes in stories and poems and address the big ideas of literacy such as phonemic awareness, fluency, comprehension, vocabulary and the alphabetic principle. These PAIs that I identified in this study directly corresponded with interventions and skills identified in the PA literature indicating that children needed to be able to identify and produce rhymes and substitute or omit certain phonemes to create new words.

Providing the language structures that bridge the gap between oral communication skills and written communication skills is a vital component of the primary French Immersion reading program. During the focus group teachers often mentioned the challenge of low vocabulary among students and that this impeded PA acquisition in certain cases. They stated that children often had difficulty with expressing themselves, as they typically continue to develop these expressive skills in their first language prior to Grade 1. As a consequence, interventions first delivered in English were mentioned
seven times within the concept of PAIs, and were supported in the research by Wise and Chen (2010) who recommended interventions delivered in a child's first language prior to the reinforcement of these skills in a second language. The literature reviewed indicated that children who lacked the vocabulary in their first language, or had a limited vocabulary in their second language were typically impeded in their PA acquisition abilities (Éva & Réka, 2013). This deficiency was also observed by teachers during the focus group, and I coded this as low vocabulary. Wise and Chen stated that classroom instruction in French Immersion primary classes was typically focused on French listening and speaking skills prior to beginning more formal reading instruction. Many of the PAIs proposed by participants in this study, such as the echo game of call and answer, listening to rhymes in stories and creating new words on mini-chalkboards, encouraged this second language vocabulary development and listening skills. According to Bialystok et al. (2005) literacy development included oral proficiency, metalinguistic awareness and general cognitive development and they stated that bilinguals typically had a smaller vocabulary through which to develop reading skills. PAIs presented in this study supported increased vocabulary development through strategies such as language games, rhyming games, picture cues and visual supports and through story development.

All qualitative research has some limitations and this study is no exception. Since the data collected within my study contained a lot of qualitative and quantitative feedback, this allowed some limitations to surface. A focus group is very content-specific and therefore I cannot generalize these results to other contexts. The participants continue to develop through their own reflective practice, through communication and collaboration, and this discussion shows a snapshot of their development along a
professional continuum. Additionally, the participants may have shared idealistic perceptions of PA rather than realistic perceptions associated with their true classroom practice. If I were to repeat this study using the same methodology and research design, these data will never recur in the same way.

Since a current instrument of measure to determine PAIs effectiveness and frequency in French Immersion classrooms was not available at the time of this study, I developed the PAIs questionnaire with consideration given to the clarity of the information presented and the vocabulary utilized, as well as basing the examples of PAIs to the samples in the literature reviewed. This instrument was not standardized as the participant sample size proved too small and I was limited in the size of my project. The sample used was representative of the population targeted for this research and for each of the 10 items in the questionnaire there were a minimum of five responses thus providing some validity to the results.

The themes that I revealed through an analysis of the discussion are significant in the interpretation of findings as they supported the hypothesis of my project. Participants were able to come to a consensus on a universal definition for PA. Teachers were in agreement that second language acquisition and manipulation was linked with and influenced by first language proficiency and the ability to solve language tasks. PAIs that were highly rated for frequency and effectiveness by respondents also supported current research in the field of French Immersion reading acquisition and the cross-transference of PA from one language to another.
Conclusion

In this chapter, I collected and organized data, analyzed them, and presented results in the form of tables. First, I transcribed and coded the focus group recordings, adding any relevant observational data from my journal. I classified these data in a table to identify central themes. These themes were PA skills, PAIs, teacher challenges and RTI. Then, I used the PAIs discussed in the focus group to generate a 10-question questionnaire asking teachers to rate both how frequently they used the specific intervention and how effective they perceived the specific intervention.

I displayed the final data from the questionnaire in two tables, Table 2 indicating frequency and Table 3 indicating effectiveness. The PAIs that respondents rated the highest in frequency and effectiveness were interventions involving segmentation, a PA skill that I coded most frequently and was repeatedly discussed during the focus group.

I presented these data to answer my central research questions surrounding the frequency of use and the effectiveness of specific PAIs in the French Immersion classrooms.

Through this study, I met my goals of encouraging French Immersion teachers to share their knowledge of PA and PAIs in the classroom. In the concluding chapter, I will discuss how the supporting data answers the essential research questions.
Chapter 5: Conclusion

The purpose of this study was to develop an awareness of phonological awareness (PA) among primary French Immersion teachers as well as identify effective phonological awareness interventions (PAIs) within a Response-to-Intervention (RTI) framework. In this section, I summarize and review the study methodology and indicate how the results responded to the central research question exploring the extent to which French Immersion teachers used RTI to address PA in the French Immersion classroom. Then I discuss how these data might add to the current research in the field of French Immersion PA and PAIs. I further note how these study results are linked with current research and examine my own developing knowledge on this topic and how this study has influenced my practice. In this concluding chapter of the project, I evaluate the research design and methods and suggested possible improvements. I further discuss possible implications for future research in this domain. I conclude with a few unanswered questions that may lead to further investigations by other researchers.

Summary of Findings

My project goals were to explore PA as a foundation for literacy acquisition. I wanted to explore the cross-transference of literacy skills across two languages. Through this project, I attempted to discover the most effective PAIs to support struggling students and identify how these strategies applied to the French Immersion primary classroom. With these goals in mind, I wanted to study this topic within the educational setting where French Immersion teachers practiced these literacy skills on a regular basis. My ethnographic research included a focus group, a questionnaire, and a reflexive journal. I
invited primary French Immersion teachers to participate and inform my study with the anticipation that they would take away some new learning for themselves.

My review of the literature showed that PA is the essential foundational base that needs to be in place for successful literacy acquisition. This skill is acquired in a developmental progression and this sequential progression is organized by linguistic complexity that cross-transfers from one language into another. The literature reviewed stated that while the majority of typical students learn PA skills in a whole class setting, those students who experience difficulties benefit from explicit intensive interventions delivered in a small group setting to encourage the development of these essential literacy skills. The literature that I reviewed supported the necessity of explicit phonological instruction, which is systematically, consistently, and deliberately taught, skillfully delivered, and regularly monitored for effectiveness (Phillips et al., 2011).

My study findings revealed that the majority of the primary French Immersion teachers who participated in this project expressed a lack of specific training and practice to explicitly teach this foundational literacy skill. Many of the teachers expressed frustration at this gap between their knowledge and training of PA and the ability to develop an enriched literacy environment in order to encourage strong readers. In fact, given these findings, along with a growing awareness of the great importance of PA in literacy acquisition, it would stand to reason that this training be mandatory for all teachers in the primary years and offered to any teacher who requires it. Despite the participants' varied background knowledge of PA, they were each able to suggest valid and relatively easy to implement interventions that taught this basic foundational skill. Review of the current literature revealed that interventions combining PA and reading
skills were among the most effective for at-risk readers. The PAIs that teachers in this study identified as using most frequently in the classroom were clapping to segment words and building words on mini-chalkboards based on phonemes or word stems. An enhanced understanding of the sequential progression of PA skills would possibly increase teachers' confidence and allow for possible modifications of interventions based on a student's progress along the PA continuum.

In my review of the literature of RTI, Coyne et al. (2013) stated that a limitation within the RTI framework included a lack of opportunity and experience among teachers to customize and modify interventions based upon student progress. Most good teachers scaffold instruction for students and then gradually remove the support when the student is able to complete the task independently thereby advancing his or her individual learning. This is different than RTI in that it is not based on systematic assessment and intervention modification. RTI relies on continuous data collection to influence changes in intervention. Participants in my study stated that the data collection and subsequent analysis required to adapt interventions was extremely time consuming within the constraints of the instructional day.

Based on the literature reviewed and the findings of my study, I propose that teachers not only felt inadequately equipped to teach specific interventions targeting literacy skills, but they also lacked the training and support to effectively modify interventions according to the students' progress and changing needs based on continuous assessment.
Research and Educational Implications

This study adds to the current literature as it highlights effective PAIs that can be applied in a French Immersion classroom. Teachers additionally supported the concept of applying early English interventions in the classroom with the knowledge that a cross-transfer of language and literacy skills would allow for reading progression in either language. Wise and Chen (2010) stated that interventions provided in English or in French to French Immersion students during their primary years could explicitly teach a skill that would then successfully transfer into both languages. These findings have created a shift in my thinking and practice and as a result I will encourage French Immersion students to take part in English PAIs offered in kindergarten, rather than wait for later French interventions, with the knowledge that these early skills will cross-transfer and support a student's French or English literacy acquisition. This early intervention offered in English will benefit at-risk French Immersion students, who would typically not receive remedial support until later identification of reading difficulties, possibly as late as Grade 2 or 3.

The results of this study additionally reinforce the need for enhanced training and professional development offered to teachers in the domain of PA. While the teachers were able to readily identify and share PAIs used in the classroom, the majority of teachers expressed a frustration at the gap between their knowledge of PA and their repertoire of skills to teach these foundational skills. As I stated in the opening chapter of this study, the school district in the area of interest has invited teachers to participate in a primary project offering training and support to classroom teachers, with the goal of enhancing PA skills among students, and thereby increasing reading skills by Grade 3. It
was apparent through the discussion, however, that participants did not feel that specific PA training was readily available, and perhaps this belief is due to the introductory stages of this primary project.

**Recommendations for Further Research**

Given that PA is the cornerstone of literacy acquisition, effective interventions in this domain are fundamental in the primary grades. Further research could investigate the relationship between early PAIs and the cross-linguistic transfer of later literacy skills for French Immersion students. Further research could also be longitudinal in its approach, following at-risk French Immersion kindergarten students, identifying the PAIs they participated in, and how these impacted literacy scores in the intermediate years.

Future research could expand upon this study by including a larger sample size. In this study, there was only one focus group involving six teachers, and the questionnaire was not standardized as the participant sample size proved too small. In future research, if more participants contributed to the discussion and this instrument were to be distributed to a larger target sample size, then descriptive data, such as years of teaching experience or whether teachers had PA training, could be included thus allowing for possible correlations between the years of teaching experience or explicit PA training, and the frequency and effectiveness of PAIs.

**Concluding Remarks**

The results of this study enhanced my knowledge of PA and PAIs for primary French Immersion classes. I feel confident that the French Immersion teachers involved in this project increased their understanding of PA and were exposed to effective PAIs to implement in the classroom. The results of the data collection suggested that my
hypothesis was correct. While teachers expressed frustrations at the gap between their experience with PA and the expectations of teaching this skill in the classroom, they also shared a variety of strategies to teach PA skills. In order to effectively modify interventions in an RTI framework however, teachers need to be experienced in the PA and PAIs as well as have a good understanding of assessment and how this tool modifies their application of interventions to teach at-risk students. In sum, explicit PA professional development will provide teachers with the tools necessary to effectively address PA deficits within an RTI framework
References


Apland-Lim, S. (2012). *Meeting the needs of all students, including those with exceptionalities, in the kindergarten French Immersion program in Nanaimo, British Columbia* (Master's project). Vancouver Island University, Vancouver Island, Canada. Retrieved from http://viuspace.viu.ca/handle/10613/491


Appendices

Appendix A: Introductory e-mail
Appendix B: Letter of Introduction
Appendix C: REB Approval
Appendix D: Focus Group Information and Consent
Appendix E: Focus Group Summary
Appendix F: Questionnaire Information and Consent
Appendix G: Phonological Awareness Interventions Questionnaire
Appendix A: Introductory e-mail

“Chères profs d’immersion,
Je m’excuse que ce courriel vous trouve à un temps d’année très occupé, mais je viens de recevoir mes permissions de l’université hier. Vu que vos réflexions sur l’année sont aux bouts des doigts, j’aimerai profiter pour suggérer une discussion pendant la dernière semaine d’école. Cela me donnera aussi la chance de commencer une interprétation des données pendant l’été ainsi que de formuler ma questionnaire. S’il vous plait, lisez l’explication ci-dessous, et répondez si vous êtes intéressées à participer dans mon projet. Merci”

Bonjour! As you may know I am completing my Master’s project through UNBC. I am exploring Phonological Awareness Interventions in the French Immersion primary classroom. I am interested in learning what teachers know about phonological awareness (PA), what interventions they use in their classrooms to address PA, in addition to an assessment of the effectiveness and frequency of these interventions. I am hoping to conduct a focus group discussion, which would last about 60 minutes and involve up to 4 other colleagues from within SD59, followed a few weeks later by a “10 question” individual questionnaire. Given your considerable experience and knowledge surrounding this topic, I would really appreciate it if you could participate in my focus group and questionnaire. Please reply to this e-mail address if you would be willing to participate in this project.

Translation:
Dear Immersion teachers,
I apologize that this e-mail finds you at a very busy time of the year, however I just received my project approval from the University yesterday. Seeing as your reflections on the past year are at the tips of your fingers, I would like to suggest a discussion during the last week of school. This would allow me the chance to begin an interpretation of my results during the summer in order to then develop a questionnaire. Please read the brief explanation of the project below and let me know if you would be interested in participating in my project.
Thank you
Appendix B: Letter of introduction

UNBC UNIVERSITY OF
NORTHERN BRITISH COLUMBIA

Letter of Introduction

June 17, 2015

Dear French Immersion Primary teacher,

I am contacting you to ask for your brief participation in a research project exploring Primary French Immersion teachers' knowledge of phonological awareness and the effective interventions currently used in primary immersion classroom.

The purpose of this research project is to explore the current understandings of phonological awareness as a foundation to literacy acquisition. Additionally, a variety of phonological awareness interventions currently being used in the classroom will be identified and ranked for frequency of use and perceived effectiveness. The objective of the researcher is to attain a greater awareness of how knowledge and understanding, pertaining to phonological awareness and interventions, is being reflected in classroom practices, in the primary context.

Your participation in this project would entail a 30-45 minute focus group session followed a few weeks later by a short questionnaire ranking perceived frequency and effectiveness of phonological awareness interventions. The focus group will involve 4-5 fellow primary French Immersion teachers from School District 59. The session will involve a sharing of understandings surrounding phonological awareness and it's role in literacy acquisition, in addition to the generation of a list of phonological awareness interventions for primary French Immersion classrooms. The questionnaire will be sent to you in confidence, individual names are not required, and all responses will remain completely confidential. I will provide self-addressed stamped envelopes through the school board mail for those located in Chetwynd or by hand to teachers at École Frank Ross and returned in a sealed envelope. Responses will be combined to produce an overall descriptive profile of phonological awareness interventions, their frequency and effectiveness.

If you are interested in participating in the focus group and the questionnaire, I will supply informed consent forms for each once I have received your agreement to participate.

Participation in this project is entirely voluntary. Confidentiality will be assured, however given the limited target population available in the research location, anonymity may not be possible to guarantee. Group members who are
fearful about confidentiality, have the option of dropping out of the discussion at any time. If you choose to participate in the project, your input will contribute to a greater understanding of effective phonological interventions in primary French Immersion classrooms. The benefits of participation include developing a greater understanding of phonological awareness and identifying phonological awareness interventions in our primary French Immersion classrooms.

If you have any questions or concerns about participating in this project, you may contact Sonja Gowda at (250) 784-4562 or farago@unbc.ca or her supervisor, Dr. Andrew Kitchenham at (250) 960-6707 or Andrew.kitchenham@unbc.ca.

Thank you. Your cooperation is greatly appreciated.

Sonja Gowda
MEMORANDUM

To:    Sonja Gowda
CC:    Andrew Kitchenham
From:  Michael Murphy, Chair
       Research Ethics Board
Date:  June 11, 2015
Re:    E2015.0506.032.00
       Phonological Awareness Interventions in French Immersion Classrooms

Thank you for submitting revisions to the Research Ethics Board (REB) regarding the above-noted proposal. Your revisions have been approved.

We are pleased to issue approval for the above named study for a period of 12 months from the date of this letter. Continuation beyond that date will require further review and renewal of REB approval. Any changes or amendments to the protocol or consent form must be approved by the REB.

If you have any questions on the above or require further clarification please feel free to contact Rheanna Robinson in the Office of Research (reb@unbc.ca or 250-960-6735).

Good luck with your research.

Sincerely,

Dr. Michael Murphy
Chair, Research Ethics Board
Appendix D: Focus Group Information and Consent

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Information Letter / Consent Form (Focus Group)

June 15, 2015

Phonological interventions in the French Immersion Classroom

Project Lead: Sonja Gowda
University of Northern British Columbia
Prince George, BC V2N 4Z9
farago@unbc.ca and/or (250) 784-4562

Purpose of Project

This project is part of my requirements for the Master of Education in Special Education degree.

You are being invited to take part in this research project because you are a primary French Immersion teacher in Peace River School District 59.

- I want to learn more about how to help students gain phonological awareness skills.
- This study will help me learn more about what primary French Immersion teachers already know about phonological awareness and will allow me to compile a list of effective phonological awareness interventions.
- I am inviting people like you who have experience with primary French Immersion students and phonological awareness instruction to help me.
- I am doing this study to learn more about effective phonological awareness interventions for French Immersion classrooms.

What will happen during the project?

Your participation in this project would entail a 30-45 minute focus group session followed a few weeks later by a short questionnaire ranking perceived frequency and effectiveness of phonological awareness interventions (separate consent will be sought). The focus group will involve 4-5 fellow primary French Immersion teachers from School District 59. The session will involve a sharing of knowledge and understandings surrounding phonological awareness and its role in literacy acquisition, in addition to the generation of a list of phonological awareness interventions for primary French Immersion classrooms. The subsequent questionnaire will be sent to you in confidence, individual names are not required, and all responses will remain completely confidential. Responses will be combined to produce an overall descriptive profile of phonological awareness interventions in French Immersion classrooms, their frequency and effectiveness.

Risks or benefits to participating in the project

Participation in this project is entirely voluntary, involving little to no risk. If you choose to participate in the project, your input will contribute to a greater understanding of effective phonological interventions in primary French Immersion classrooms. The benefits of
participation include developing a greater understanding of phonological awareness and identifying phonological awareness interventions in primary French Immersion classrooms.

I do not think there is anything in this study that could harm you; however, some of the questions may seem sensitive or personal. You do not have to answer any question if you do not want to. I urge participants not to discuss the content of the focus group to people outside the group; however, I cannot control what participants do with the information discussed.

Confidentiality, Anonymity and Data Storage

The focus group session will be recorded for the purpose of analysis and I will transcribe the responses. This transcript will allow for themes and central ideas pertaining to the project to be identified and analyzed. Only I will have access to the raw data and only my supervisor, Dr. Andrew Kitchenham, will have access to the anonymized comments as the committee members will see the analyzed and themed data. A focus group is an open forum that will be moderated by me so participants can be identified within the group. To this end, given the limited number of French Immersion primary teachers in this school district, I cannot guarantee anonymity as there is a slight risk that your comments could identify you even though I will mask all comments to the best of my ability. Please note that confidentiality and anonymity cannot be guaranteed.

Data will be securely stored on a personal password-protected computer and any paper copies will be stored in a secure folder within a locked filing cabinet; both of which are in my personal residence. All transcript data will be securely destroyed within two months of the completion of the project.

Study Results

The results of this study will be reported in a graduate project paper. A copy of the paper, including a report of and analysis of the findings, will be shared with study participants upon request.

Questions or Concerns about the project

If you have any questions or concerns about participating in this project, you may contact Sonja Gowda at (250) 784-4562 or farago@unbc.ca or my supervisor, Dr. Andrew Kitchenham, at (250) 960-6707 or Andrew.kitchenham@unbc.ca.

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the UNBC Office of Research at 250-960-6735 or by e-mail at reb@unbc.ca.

Participant Consent and Withdrawal

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact on your professional environment. If you choose to withdraw, any information you have provided will be withdrawn and destroyed.

Your signature below indicates that you consent to participate in this study.
CONSENT

I have read or been described the information presented in the information letter about the project:

YES  NO

I have had the opportunity to ask questions about my involvement in this project and to receive additional details I requested.

YES  NO

I understand that if I agree to participate in this project, I may withdraw from the project at any time up until the report completion, with no consequences of any kind.

YES  NO

I consent to the researcher keeping my comments if I withdraw from the study.

YES  NO

I have been given a copy of this form.

YES  NO

I agree to be recorded

YES  NO

Follow-up information (e.g. transcription) can be sent to me at the following e-mail or mailing address:

YES  NO

Signature (or note of verbal consent):

Name of Participant (Printed):

Date:
Appendix E: Focus Group Summary

Bonjour chères profs d’immersion,

Thank you for your participation in my focus group on Phonological Awareness Interventions (PAI) during such a busy time in June. I have written up the transcription of our focus group discussion and would like to share a summary of some of the main ideas with you as well as the attached questionnaire.

- Phonological awareness (PA) is the oral manipulation of sounds in language such as: identifying distinctive sounds, substituting and deleting sounds, segmenting words into syllables, identifying patterns in language such as sound families and rhyming.
- PA is a basic foundation for reading and needs to be explicitly taught.
- With younger students, it is helpful to begin interventions in English and reinforce them in French once students understand the concepts.
- Teachers need access to training in order to be taught what PA skills they need to teach, and how to teach these skills.
- There are a variety of interventions to teach PA skills, it is knowing what to teach that is the key.

Please let me know if you agree with this representation of our discussion. Upon reflection, if there anything else you would like to add to enhance our knowledge about PAI please contact me and I will include it in my project.

Merci,

Sonja Gowda
farago@unbc.ca
Appendix F: Questionnaire Information and Consent

UNBC
UNIVERSITY OF
NORTHERN BRITISH COLUMBIA

Information Letter / Consent Form (Questionnaire)

September 1, 2015

Phonological interventions in the French Immersion Classroom

Project Lead: Sonja Gowda
University of Northern British Columbia
Prince George, BC V2N 4Z9
farago@unbc.ca and/or (250) 759-4397

Purpose of Project

This project is part of my requirements for the Master of Education in Special Education degree.

You are being invited to take part in this research project because you are a primary French Immersion teacher in Peace River School District 59.

• I want to learn more about how to help students gain phonological awareness skills.
• This study will help me learn more about what primary French Immersion teachers already know about phonological awareness and will allow me to compile a list of effective phonological awareness interventions.
• I am inviting people like you who have experience with primary French Immersion students and phonological awareness instruction to help me.
• I am doing this study to learn more about effective phonological awareness interventions for French Immersion classrooms.

What will happen during the project?

Your participation in this project would entail a focus group session followed a few weeks later by a short questionnaire ranking perceived frequency and effectiveness of phonological awareness interventions. The questionnaire generated based on the focus group session will be sent to you in confidence, individual names are not required, and all responses will remain completely confidential. The questionnaire will ask teachers to rate the frequency and effectiveness of specific PAI based on their own experience in the French immersion classroom. Responding should take 5-7 minutes, and your participation is critical to the success of the study. Responses will be combined to produce an overall descriptive profile of phonological awareness interventions in French Immersion classrooms, their frequency and effectiveness.

Risks or benefits to participating in the project

Participation in this project is entirely voluntary, involving little to no risk. If you choose to participate in the project, your input will contribute to a greater understanding of effective phonological interventions in primary French Immersion classrooms. The benefits of participation include developing a greater understanding of phonological awareness and identifying phonological awareness interventions in primary French Immersion classrooms.
I do not think there is anything in this study that could harm you; however, some of the questions may seem sensitive or personal. You do not have to answer any question if you do not want to.

**Confidentiality, Anonymity and Data Storage**

Following the focus group session, I will generate 10 questions based on the PAI discussion. I will deliver a paper copy of these questions to all participants in a sealed envelope within one month of the focus group. Questionnaire responses will remain completely confidential. Each respondent’s responses will be combined with the other responses to produce an overall descriptive profile of phonological awareness usage in the primary French Immersion classrooms. Completed questionnaires can be returned in the sealed envelope provided either in person, in my staff mailbox, or mailed to me with the self-addressed and stamped envelope provided.

Data will be securely stored on a personal password-protected computer and any paper copies will be stored in a secure folder within a locked filing cabinet; both of which are in my personal residence. All transcript data will be securely destroyed within two months of the completion of the project.

**Study Results**

The results of this study will be reported in a graduate project paper. A copy of the paper, including a report of and analysis of the findings, will be shared with study participants upon request.

**Questions or Concerns about the project**

If you have any questions or concerns about participating in this project, you may contact Sonja Gowda at my cell number (250) 784-4562 or farago@unbc.ca or my supervisor, Dr. Andrew Kitchenham, at (250) 960-6707 or Andrew.kitchenham@unbc.ca.

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the UNBC Office of Research at 250-960-6735 or by e-mail at reb@unbc.ca.

**Participant Consent and Withdrawal**

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact on your professional environment.

Your signature below indicates that you consent to participate in this study.
CONSENT

I have read or been described the information presented in the information letter about the project:

YES NO

I have had the opportunity to ask questions about my involvement in this project and to receive additional details I requested.

YES NO

I understand that if I agree to participate in this project, I may withdraw from the project at any time up until the report completion, with no consequences of any kind.

YES NO

I consent to the researcher keeping my comments if I withdraw from the study.

YES NO

I have been given a copy of this form.

YES NO

I agree to be recorded

YES NO

Follow-up information (e.g. transcription) can be sent to me at the following e-mail or mailing address (if applicable):

YES NO

Signature (or note of verbal consent):

Name of Participant (Printed):

Date:
Appendix G: Phonological Awareness Interventions Questionnaire

August 31, 2015

The following questionnaire should only take 5-10 minutes to complete. Using the following five-point scale, please rate each Phonological Awareness Intervention (PAI) below for how frequently you use the given intervention in your class and how effective you find the given intervention to teach PA skills. Once the questionnaire is complete, please return it in the sealed envelope provided either in person, in my staff mailbox, or mailed to me with the self-addressed and stamped envelope provided. I would greatly appreciate responses by September 15, 2015 so that I can begin my data compilation.

1. Echo game (Students respond with various rhyming words to a spoken word)
   - Frequency that I use this intervention in my classroom
     |   1  | 2  | 3  | 4  | 5  |
     | NEVER | SELDOM | SOMETIMES | OFTEN | ALWAYS |
   - Effectiveness of this intervention to teach PA skills.
     |   1  | 2  | 3  | 4  | 5  |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |

2. Poetry (Students identifying same family sounds or rhyming words in poems)
   - Frequency that I use this intervention in my classroom
     |   1  | 2  | 3  | 4  | 5  |
     | NEVER | SELDOM | SOMETIMES | OFTEN | ALWAYS |
   - Effectiveness of this intervention to teach PA skills.
     |   1  | 2  | 3  | 4  | 5  |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |

3. Names (Students invent rhymes associated with student names)
   - Frequency that I use this intervention in my classroom
     |   1  | 2  | 3  | 4  | 5  |
     | NEVER | SELDOM | SOMETIMES | OFTEN | ALWAYS |
   - Effectiveness of this intervention to teach PA skills.
     |   1  | 2  | 3  | 4  | 5  |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |
4. Sound boxes (Students isolate and identify syllables and phonemes in words through the use of tokens in sound box or a car in parking lot)
   - Frequency that I use this intervention in my classroom
     |   |   |   |   |   |
     | NEVER | Seldom | Sometimes | Often | Always |
   - Effectiveness of this intervention to teach PA skills.
     |   |   |   |   |   |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |

5. Blocks (Students use different coloured blocks to represent different phonemes/syllables in a word)
   - Frequency that I use this intervention in my classroom
     |   |   |   |   |   |
     | NEVER | Seldom | Sometimes | Often | Always |
   - Effectiveness of this intervention to teach PA skills.
     |   |   |   |   |   |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |

6. Mini chalkboards (Students build on phonemes or word stems to write new words)
   - Frequency that I use this intervention in my classroom
     |   |   |   |   |   |
     | NEVER | Seldom | Sometimes | Often | Always |
   - Effectiveness of this intervention to teach PA skills.
     |   |   |   |   |   |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |

7. Clapping (Students clap words in a sentence, or syllables in a word)
   - Frequency that I use this intervention in my classroom
     |   |   |   |   |   |
     | NEVER | Seldom | Sometimes | Often | Always |
   - Effectiveness of this intervention to teach PA skills.
     |   |   |   |   |   |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |

8. Word creation (Students orally manipulate sounds in words to create new words through phoneme substitution or omission)
   - Frequency that I use this intervention in my classroom
     |   |   |   |   |   |
     | NEVER | Seldom | Sometimes | Often | Always |
   - Effectiveness of this intervention to teach PA skills.
     |   |   |   |   |   |
     | INEFFECTIVE | POOR | FAIR | GOOD | EXCELLENT |
9. Identifying rhymes in stories (Students listen to a read-a-loud story and identify common patterns such as rhymes)

- Frequency that I use this intervention in my classroom

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- Effectiveness of this intervention to teach PA skills.

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10. Cutting sentence strips (Students segment common words by cutting them into syllables with scissors)

- Frequency that I use this intervention in my classroom

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- Effectiveness of this intervention to teach PA skills.

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As you reflect on these various interventions, and the focus group discussion, please feel free to add anything else that you think might be of value regarding phonological awareness interventions in the French Immersion classroom.

Thank you again for your valuable contribution to my Master's project.

Sonja Gowda (farago@unbc.ca)