

**Implementation of explicitly taught science of reading-based curriculum in a Spanish immersion K-3 classroom**

by

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B.A., University of Delaware, 1999  
M.Ed., Wilmington University, 2001

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF EDUCATION

Department of Curriculum and Instruction  
College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

2024

## **Abstract**

The purpose of this study was to investigate how the teachers adjust and adapt to implementing a Science of Reading-based curriculum and how four Spanish Immersion (SPIM) English teachers have adapted to this new approach. This study took a close look at the K-3 Spanish Immersion classrooms in a suburban public school in a suburban town in DE. For this research, I used a qualitative case study methodology to critically evaluate how Spanish Immersion (SPIM) English teachers adapted and adjusted to a new SOR-based curriculum. I interviewed four teachers in grades K-3 who were teaching a scripted and prescribed SOR-based curriculum, Core Knowledge Language Arts (CKLA) by Amplify. The interviews took place three times throughout the winter and spring of the 2023-2024 school year. The two theoretical frameworks that will guide this study will be Bridges (1986, 2000) Transitional phases of managing organizational change and Rogers (1995) Diffusion of Innovations theory.

This research investigated the following questions: 1.) In the context of implementing the Science of reading-based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic, and structured literacy programs? 1.a.) How are Spanish Immersion teachers making sense of the SOR-based curriculum? 1.b.) How are Spanish Immersion teachers managing the challenges and changes of using a SOR-based curriculum?

Initially teachers expressed feeling overwhelmed with the idea of letting go of their old curriculum and learning something new. As the year progressed and the teachers became more familiar with CKLA, they gained confidence and adjusted. The study suggested that teachers felt less apprehensive when they were provided with adequate professional development, time, and collaboration with colleagues to get used to the changes with the new curriculum. The teachers also began adjusting and supplemented where they felt necessary.

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Approved by:

Major Professor  
Dr. Suzanne Porath

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I also would like to acknowledge many friends and colleagues who have been helpful throughout the research and writing of this project. Some by listening, others by allowing me to ask many questions. I appreciate all the feedback.

## **Dedication**

I would like to dedicate this dissertation to my children, Maggie and Owen. I am incredibly grateful to be your mom and am immensely proud of you both every day. I hope this dissertation demonstrates that with hard work and perseverance, you can accomplish anything you set your mind to.

## **Chapter 1 - Introduction**

There have been many approaches deemed as the best way to teach reading over the years. Many debates have ensued as to the best approach to teach reading in the elementary classroom as well as the best way to prepare teachers to instruct reading in the classroom. This debate is a hot topic in education due to the decrease in reading proficiency over the years. Referred to as the ‘reading wars’, over the past decades this debate has led to many different approaches to reading instruction.

Most recently, in 2022, NAEP (National Assessment of Reading Progress) found fourth graders to be 33% proficient in reading. This is a drop from 35% in 2019. This low percentage is alarming and causes concern for all educators. By fourth grade students should have made a shift from learning how to read to reading for meaning. Educators need to re-evaluate how reading is taught and ensure that research-based practices are being used in the elementary classrooms as well as teacher preparation programs. As Hindman et. al. state, “educators, particularly those new to the field, need more specific, precise guidance on how exactly to bring the SOR into their classrooms” (2020, p. 199). Professional development for preservice teachers in SOR is essential for student success.

### **Statement of the Research Problem**

The debate over which model of teaching reading is ongoing and probably not going to end soon. The drop in student’s reading proficiency is alarming, especially considering the proficiency rate was only at 35% three years ago (NAEP, 2022). Schools must do better to teach reading in our elementary classrooms, in particular grades K-3. These are the foundational years where students learn the basics of learning how to read.

Instructors must also do a better job of teaching science-based reading instruction approaches to the teacher candidates in higher education. As Hindman et. al. states, “preservice teachers need more deliberate practice with tools that show them how to use SOR ideas in actual classrooms” (2020). To do this, we must determine what approach to teaching reading is best and produces greater student outcomes in the area of reading.

Teachers across the Nation are encouraged to change their instruction to focus on SOR based practices. As Hindeman et. al. explains, “Organizations such as the National Council on Teacher Quality have highlighted a lack of coursework and hands-on experience with the SOR for preservice teachers” (2020, p. 198). Teachers are learning new curricula to implement in the classroom based on the Science of Reading. However, most of the research on implementing SOR-based curricula have been in a traditional monolingual classroom. This study took a case study approach and looked closely at the implementation of an explicitly taught Science of Reading in K-3 Spanish Immersion classrooms. Spanish Immersion (SPIM) setting is a dual language classroom where students are learning core subjects in both languages in an equal part of the day.

## **Context**

Research for this study was conducted in a large suburban school in Apple Blossom, Delaware. Pseudonyms are used to protect the privacy of the participants. At the time of this research study Delaware had 141,729 students enrolled in K-12 public schools. The school district, where the study took place, had an enrollment of 9,132 students. The student population is about 1050 in grades K-5. The SPIM program is a choice program where parents need to register separately prior to Kindergarten. There are currently 48-56 students at each grade level

(K-5). Each grade level has two homerooms, one in Spanish and one in English. The students alternate either daily or mid-day so that there is equal instruction in both languages.

### **Purpose of the Study**

The purpose of this study was to investigate how the teachers adjust and adapt to implementing an SOR-based curriculum and how Spanish Immersion (SPIM) English teachers have adapted to this new approach. This study looked closely at the K-3 Spanish Immersion classrooms. This information is helpful to many stakeholders. Classroom teachers, literacy leaders, school district curriculum leaders, higher education teacher preparatory programs, higher education curriculum leaders, elementary school administrators and literacy researchers could all benefit from this research. All agents can see the implementation of a SOR-based reading curriculum through the lens of the Spanish Immersion classroom teacher.

### **Research Questions**

When reviewing the research on the Science of Reading, many gaps appeared in the available literature. Much of the research had been completed based on the National Reading Panel's report and the curricula that was supported by this research. There are not many research articles directly about the SOR and the impact on instruction in the classroom. There are also not many articles discussing the implementation of a SOR-based curriculum and how educators make sense of it in a Spanish Immersion setting. For my research I investigated the following question:

1. In the context of implementing the Science of reading-based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic, and structured literacy programs?
  - 1.a. How are Spanish Immersion teachers making sense of the SOR-based curriculum?

1.b. How are Spanish Immersion teachers managing the challenges and changes of using a SOR-based curriculum?

Since much of the recent research is based on many prepackaged programs, not many research articles are found on the implications to teaching reading based on SOR strategies and how teachers implement these curricula and strategies in a SPIM setting. I feel that we are just beginning to see a shift in instructional practices toward an SOR approach.

## **Methodology**

For this research, I used a qualitative case study methodology to critically evaluate how Spanish Immersion English teachers adapt and adjust to a new SOR-based curriculum. I interviewed teachers currently teaching a scripted and prescribed SOR-based curriculum in the SPIM classroom grades K-3.

### **Methods (Research procedures)**

I conducted interviews with four teachers who were implementing SOR-based curricula. The teachers were the English teachers in the SPIM program in grades K-3. I interviewed the teachers three times over a six-month period and asked questions such as:

- In your own words, can you describe what you understand to be the SOR?
- How does CKLA embody SOR as you know it?
- Describe any collaboration time you have taken part in while implementing CKLA.
- What changes or adaptations have you made for CKLA instruction?

I also examined artifacts that teachers and schools sent home to families about the Science of reading-based curriculum. The combination of interviews and research gave me a broader lens to evaluate the progression and evolution of the teaching of reading and the



influence of the SOR approach from the teacher's perspective. Each interview was conducted in person for about 20-30 minutes each session.

### **Selection of Participants**

I conducted interviews with four SPIM teachers that teach ELA (English Language Arts) at the elementary level and that were teaching a SOR-based curriculum. I selected the teachers from the school district I was working in at the time of conducting the research in the state of Delaware. The school I selected to conduct the research was the same school I was working in at the time. The school was implementing a new SOR-based curriculum and had a SPIM program.

### **Data Collection & Data Analysis**

I collected and analyzed the interviews and used primary and secondary documents. Primary documents included legislation and policies. Secondary documents included documents such as curriculum materials and research articles. I transcribed and coded the interviews to analyze my findings. I then organized the research into topics or themes. I recorded each interview to ensure the transcription was accurate and asked my participants to member-check my transcriptions as an extra measure to ensure validity.

### **Researcher Subjectivities and Positionality**

As an elementary educator of twenty-three years, most of my career has been in the area of literacy. I have held many roles including first and second grade teacher, Reading Specialist for grades K-5, ELA Instructional coach grades K-5, Special educator in grades 1-5 and now I am currently a teacher of English Language Learners in grades K-5. I have developed and fostered my passion for teaching reading.

Through the many trainings, International Literacy Conventions, and various literacy-based workshops I have attended, I have furthered my knowledge on how to effectively teach reading and literacy. Over the years, the approaches and research of how to best teach reading have changed. The pendulum has also swung back and forth numerous times in the area of reading instruction. As I have witnessed this happening throughout my career, all this information and approaches have molded my view of how to teach reading.

As I have also worked with many struggling readers in the primary grades as a Reading Specialist, I have seen first-hand how various approaches work for some and not for others. This has impacted my thoughts on the subject. Due to my passion for teaching reading, I have been guided to the topic of the SOR. This is the latest research guiding instruction in my current position in an Elementary school. We are using a literacy program that claims to be based on the SOR in my current school from Amplify called Core Knowledge Language Arts (CKLA). Viewing this instruction through my role as an ELL teacher, I have developed possible biases as well as witnessed successes in the classroom.

In my current role as an ELL teacher, I am inside the classroom and able to see first-hand how the new curriculum is being implemented. I work with the classroom teacher in the SPIM classrooms and can instruct alongside the English teacher portions of the CKLA curriculum. I use a few different approaches such as pull-out, parallel teaching and co-teaching with grades K-3. This allows me to see first-hand how SOR based instruction is being implemented. This also allows me to develop relationships with the English SPIM teachers. This collaborative relationship has benefited my research when I interviewed the teachers. They felt more comfortable and at ease being honest with their responses since we have a positive established professional relationship already.

## **Limitations and Delimitations**

As with any research design, this study comes with possible limitations. The first possible limitation could be the fact that many programs and curricula can say that they are SOR based or ‘research based’ but may not be based on research or SOR. Marketing and using the latest “buzzwords” in education could possibly alter the real data and research of the effects of the SOR approach. Publishing companies tend to care more about selling their product than using a specific approach or model with fidelity when creating a reading and literacy curriculum. This could have been a potential challenge.

Since this was a qualitative study, which has the researcher as the main instrument, there is a potential for observer bias since the researcher was the only person collecting, analyzing, and interpreting the data. To address this limitation, there are considerations I kept in mind before, during, and after the interview process. Prior to conducting interviews, I crafted questions for the semi structured interviews ahead of time to ensure the questions were not biased in any way. During the interview process with the participants in the study, I attempted to keep the participants at ease by maintaining neutral body language and facial expressions throughout the interview. I also reminded the participants that I was seeking truthful and honest responses to the questions being asked to collect the most authentic data for the study. Lastly, I was mindful not to be subjective with the analysis and interpretation of the data to fit my particular beliefs.

Another possible limitation for this case study is the limited number of teachers to be interviewed. Since my focus is specifically on SPIM teachers in the K-3 classroom, the sample size of teachers to interview is low. At the time of this research, there were not many teachers in Delaware teaching in SPIM grades K-3 and utilizing a SOR-based curriculum.

## **Statement of the Significance of the Study**

The debate over which model of teaching reading is the most successful for student growth in the area of reading and literacy is ongoing and probably not going to end in the near future. The drop in student's reading proficiency is alarming, especially considering the proficiency rate was only at 35% three years ago (NAEP, 2022). We must do better to teach reading in our elementary classrooms, in particular grades K-3. These are the foundational years where students learn the basics of learning how to read.

Looking at other states where reading growth has been on the upswing, Mississippi comes to the forefront. Fourth-grade students there made the largest score gains in their NAEP reading scores from 2017 to 2019. According to the Mississippi Department of Education (RMC, 2019), the 2019 NAEP scores for Mississippi continued a ten-year trend of steady increase in reading and math with reading being up 10% since 2009. State Superintendent Dr. Carey Wright believes Mississippi's commitment to providing professional development for elementary teachers in the science of reading and a "laser-like focus on literacy that is really paying off for us" (Jacobson, 2019). In 2013, Mississippi lawmakers passed the Literacy-Based Promotion Act which prioritized professional development in evidence-based literacy practices grounded in the science of reading and early childhood literacy coaches to assist with the implementation.

This example in Mississippi shows us that we must also do a better job of teaching science-based reading instruction approaches to the teacher candidates in higher education to prepare them for the classroom as well as the current teachers in the field. As Hindman et. al. states, "educators, particularly those new to the field, need more specific, precise guidance on how exactly to bring the SOR into their classrooms" (2020, p.S199).

This research is significant because it will fill a gap in the research on SOR-based curricula. Most research is based on monolingual classrooms, not bilingual classrooms. This research will demonstrate how SPIM English teachers adapt and adjust to a new SOR-based curriculum.

This information will be helpful to many agents. Classroom teachers, literacy leaders, school district curriculum leaders, higher education teacher preparatory programs, higher education curriculum leaders, elementary school administrators and literacy researchers could all benefit from this research. All agents can see how the implementation of a SOR-based curriculum in a SPIM classroom is managed and successful.

### **Overview of the Issues**

When reviewing the literature in the area of the Science of reading based curricula in the K-3 classroom, many overarching topics have developed to support the transition to this new curriculum theory. The first being the National Reading Panel Report (2000) and the influence that this report had on the foundations, or pillars, of reading. Next, the Simple View of Reading (Gough & Turner, 1986) emerges as a theory that supports the idea that reading is simply knowing words and understanding what the words mean. Expanding this theory is the active view of reading (Cartwright & Duke, 2021), that adds to the simple view of reading that a skilled reader must not only decode words, comprehend them but also engaged and thinking about what they are reading. Built from this theory is a more complex idea of Scarborough's Rope model (2001). This model adds onto the ideas of word recognition and literacy knowledge and demonstrates the strategies necessary for skilled reading by weaving ropes together.

All four of these major reading research findings have laid the groundwork for the science of reading curricula that is the basis for the curriculum discussed in my research, Core

Knowledge Language Arts (CKLA). The next chapter will delve deeper into the literature about all four of these topics.

### **Definition of Terms**

**Active View of reading (AVR)-** A view of reading that considers the SVR but expands upon this concept to include self-regulation skills.

**ELL-** English Language Learner

**Parallel Teaching-** co-teaching occurs when co-teachers instruct, monitor, or facilitate the work of different groups of students at the same time in the classroom. (Villa, 2014, p.43)

**National Reading Panel Report-** Directed by the federal government, under President Bill Clinton and the U.S. Congress required a group of scientists, teachers, administrators, and teacher educators to determine what research had to say about reading and to use the research findings so schools could proceed to do what was best for children (2005).

**Scarborough's Reading Rope-**The Reading Rope consists of lower and upper strands. The word-recognition strands (phonological awareness, decoding, and sight recognition of familiar words) work together as the reader becomes accurate, fluent, and increasingly automatic with repetition and practice. Concurrently, the language-comprehension strands (background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge) reinforce one another and then weave together with the word-recognition strands to produce a skilled reader (2018).

**Science of Reading (SOR)-** The International Literacy Association (n.d.) defines the SOR as “a corpus of objective investigation and accumulation of reliable evidence about how humans learn to read and how reading should be taught.”

**Simple View of reading (SVR)**- A view of reading that uses a formula that reading has two basic components: word recognition (decoding) and language comprehension. This view proposes that a student's reading comprehension score can be predicted if decoding skills and language comprehension abilities are known.

**Spanish Immersion (SPIM)**- In the state of Delaware, we use a model where, “the elementary instructional day is split so that students spend 150 minutes with their Spanish language teacher and another 150 minutes with their English teacher. The Immersion-language teacher is responsible for teaching math, science, and Language Arts in the immersion language. The English language teacher teaches English Language Arts as well as social studies standards and concepts from the Delaware Recommended Curriculum. The English teachers also reinforce math and science content by planning collaboratively with their partner teacher. Dual Language Immersion students follow the same standards-based curriculum in all content areas that non-immersion students follow in the non-immersion classrooms in the school” (DDOE, 2021).

## **Chapter 2 - Review of the Literature**

### **Introduction**

Many debates have ensued as to the best approach to teach reading in the elementary classroom as well as the best way to prepare teachers to instruct reading in the classroom. Referred to as the ‘reading wars’, over the past decades this debate has led to many different approaches to reading instruction. As Riley (2020) states, “Those so-called wars pitted advocates for explicit phonics instruction against ‘whole language’ partisans. The fighting was fierce. Both sides claimed to have science on their side, and neither won an outright victory” (p.16). The debate continues with emphasis on Science of Reading based curricula.

This debate is a hot topic in education due to the decrease in reading proficiency over the years. Most recently, in 2022, NAEP (National Assessment of Reading Progress) found fourth graders to be 33% proficient in reading. This is a drop from 35% in 2019. This low percentage is alarming and causes concern for all educators. By fourth grade students should have made a shift from learning how to read to reading for meaning. As educators, we need to evaluate how we are teaching reading and ensure we are using research-based practices in our elementary classrooms, as well as higher education classrooms.

The science of reading is most often represented in traditional classrooms where English is the first and only language taught. However, using the Science of Reading in dual language, or Spanish immersion settings is not as well represented. Much of the research has been completed based on the National Reading Panel’s report and the curricula that was supported by this research. There are not many articles discussing the implementation of a SOR-based curriculum and how educators make sense of it in a Spanish Immersion setting. For my research I investigated the following questions:



1. In the context of implementing the Science of reading-based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic, and structured literacy programs?

1.a. How are Spanish Immersion teachers making sense of the SOR-based curriculum?

1.b. How are Spanish Immersion teachers managing the challenges and changes of using a SOR-based curriculum?

Since much of the recent research is based on many prepackaged programs, not many research articles are found on the implications to teaching reading based on SOR strategies and how teachers implement these curricula and strategies. After conducting extensive evaluation of the current literature, I have found that not much is known about teacher's implementation of SOR-based curricula in the SPIM setting. I feel that we are just beginning to see a shift in instructional practices toward an SOR approach.

Throughout this chapter I will be explaining the background and theories that have helped to develop the Science of Reading. I will describe how the SOR based curricula are being implemented in the nation, my state of Delaware, my district and my school. I will also describe the Spanish Immersion program and my theoretical framework that will guide my research.

## **Science of Reading**

Over the past three decades, research in reading instruction has been debated. Of the many approaches that have been popular over the past thirty years, balanced literacy, and the Science of Reading (SOR) have been at the forefront of the hot debate. Many models of reading instruction use the overarching term of the SOR which is a culmination of research in the area of reading instruction.

Snowling & Hulme created a Science of Reading handbook (originally in 2005, second edition in 2022) that brings together the research from all scientific experts from the field of reading. Their goal with the first edition, “was to bring together scientific studies of reading into a state-of-the-art review” (Snowling, Hulme & Nation, 2022). The reaction to this collaborative handbook motivated the authors to write a second addition,

Our aim in this second edition remained the same – to bring together scientific studies of reading into an updated overview of the field; as we shall see, old questions have been answered and new questions have arisen as understanding of the complexities of reading has deepened, driven by theoretical insights and methodological advances (2022).

The focus with the second addition was to add to the research and to also help practitioners, the teachers teaching literacy in the classroom, apply this knowledge of literacy instruction to practice. The original edition of this handbook was where the term *Science of Reading* began emerging in the literacy instructional world.

Other organizations and instructional companies have defined the SOR as well. The Northwest Evaluation Association (NWEA) defines SOR as, “converging evidence of what matters and what works in literacy instruction, organized around models that describe how and why” (2022). The SOR is a widely and loosely used term, but the premise of the SOR is that it is a compilation of research based on best practices of teaching reading. Petscher et. al. states, “The science of reading should be informed by an evolving evidence base built on the scientific method. Decades of basic research and randomized controlled trials of interventions and instructional routines have formed a substantial evidence base to guide best practices in reading instruction, reading intervention, and the early identification of at-risk readers.” (2020,

p.S267). Much of this research was gathered when the National Reading Panel released a report of the five pillars essential to teaching reading.

### **National Reading Panel**

Prior to the SOR Handbook, in 1997, the National Reading Panel (NRP) was created by Congress with the charge of cumulating research that guided reading teachers for many years. This research all began in an effort to address common instructional practices for all teachers in the U.S. The panel composed a report that was released in 2000 that determined five pillars, or components, of reading which included phonemic awareness, phonics, comprehension, fluency, and vocabulary. Many models and approaches emerged to follow this research.

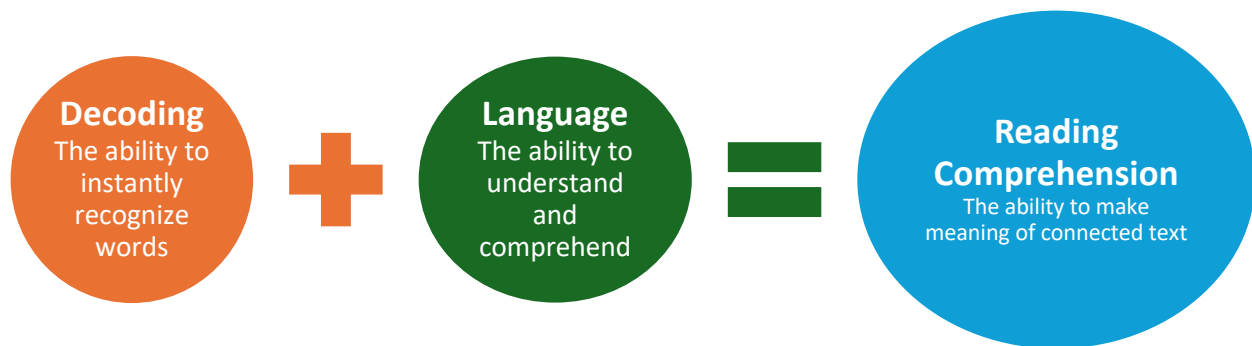
The National Reading Panel's report brought on a surge of curricula that focused on not just decoding and comprehension but foundational literacy skills such as phonemic awareness and fluency. The Reading First program is one example of an approach that emerged from this research as well as the No Child Left Behind Act (Gamse et. al., 2008). Another program/curricular movement that came out of the NRP report was the balanced literacy approach. This approach blends phonics and whole language approaches into one. As Seidenberg states, "The 2000s saw the emergence of a compromise called "Balanced Literacy," said to incorporate the best aspects of the two approaches [whole language and phonics]" (2014). These five pillars, or components, were used as the basis of many instructional models throughout the early 2000's. During the same time the NRP was disseminating the five components, other research on reading was being done that furthered our understanding of how readers learn to read.

## **Simple View of Reading**

Three models stand out in the past thirty years when looking at the SOR. Beginning in 1986, Gough and Turner promoted the Simple View of Reading (SVR) that utilized scientific research to guide the instructional strategies. SVR proposes that reading comprehension ability can be predicted by two components: decoding, and linguistic comprehension (Hoover & Gough, 1990). This view of reading is the basis of many instructional programs and strategies such as explicit instruction over the years.

Many reading experts have found fault with this SVR over the years. Young et. al. state that, “this view [SVR] and its components are not complete. There is a need to consider and include the artful and affective dimensions of reading and learning to read” (2022). The SVR has been the predominant model over many decades and has also received much criticism in the continued debate. It has also been the basis of other models of reading instruction such as Scarborough’s reading rope.

**Figure 2.1 A diagram of the Simple View of Reading**



## Simple View of Reading

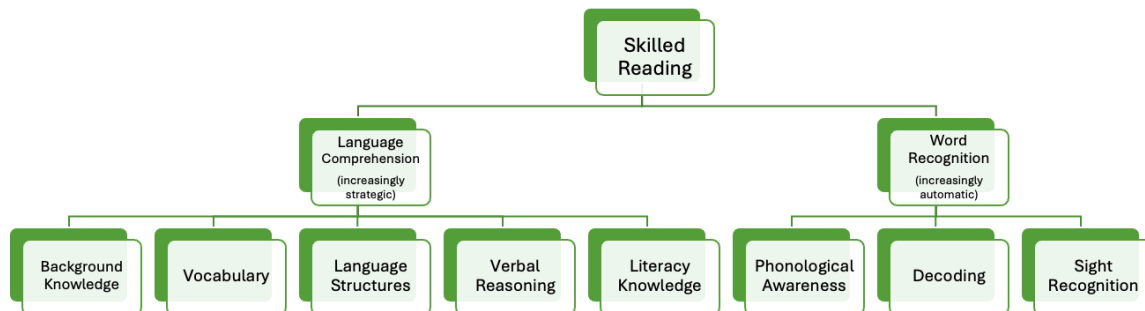
Recreated from Gough & Turner, 1986

### Scarborough's Reading Rope Model

At the same time the NRP was releasing the five components, others were promoting different approaches such as the reading rope model by Scarborough (2001). This model also utilized scientific research to base the strategies essential to teach reading. The rope's visual helps demonstrate how the different strands of reading need to work together for a reader to be successful. The model combines language comprehension skills (background knowledge, vocabulary, language structure, verbal reasoning, and literacy knowledge) with word recognition skills (phonological awareness, decoding and sight recognition) to produce what they feel would be a successful reader (Scarborough, 2001). This model is based on many of the same components of the National Reading Panel report and the simple view of reading. It expands to

incorporate more foundational elements to successful reading. The rope model includes eight components, more than previous models of reading. The design of the rope also emphasizes the need for all eight of these elements to be intertwined, not in isolation to achieve skilled reading. Below is a graphic that identifies the model's components.

**Figure 2.2 Overview of Scarborough's Reading Rope Model**



A fourth model that emerged in the early 2020's is the Active View of Reading (Duke & Cartwright, 2021) which adds to the Simple view of reading and has more of an emphasis on self-regulating reading strategies and the readers ability to engage with the text.

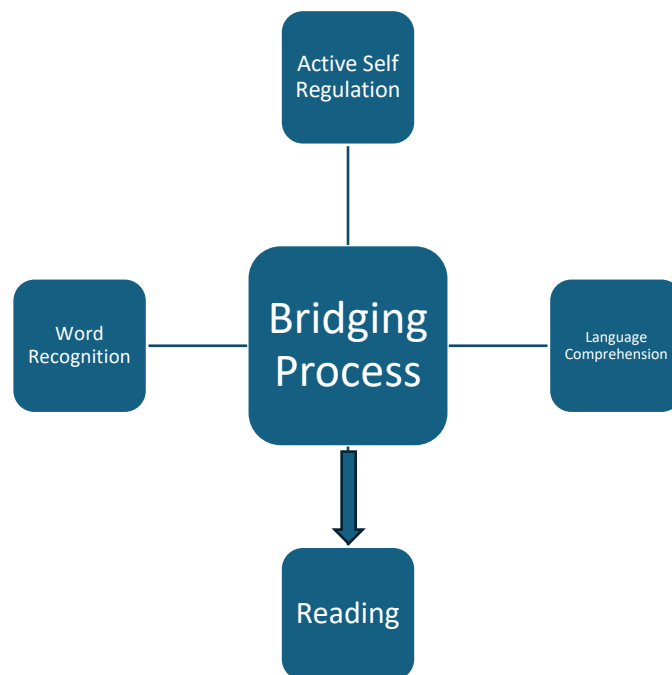
### Active View of Reading

The Active View of Reading (AVR) developed by Nell Duke and Kelly Cartwright (2021) takes elements from both SVR and Scarborough's rope model and expands upon these strategies. AVR takes a more complex approach to SVR and adds the importance of self-regulation skills when reading. Advocates of this model stress that the explicit teaching of reading strategies and self-regulation strategies, increases the student's reading achievement. As Duke and Cartwright state, "Of particular value for practitioners is that each element within the active view of reading has been shown, when taught, to improve reading comprehension through scientific research" (2021).

This model takes into consideration that readers need to be engaged and motivated to read to be good readers. A study by Georgiou and Das (2018) suggests, "that models of reading

comprehension need to consider the role of EF (executive functioning) components and specify the possible direct and indirect connections between them and reading comprehension at different developmental stages" (p.254). This study found that in order for students to comprehend the text, they need to apply the strategies that they have been taught independently as the student actively reads.

**Figure 2.3 A Diagram of the Active View of Reading**



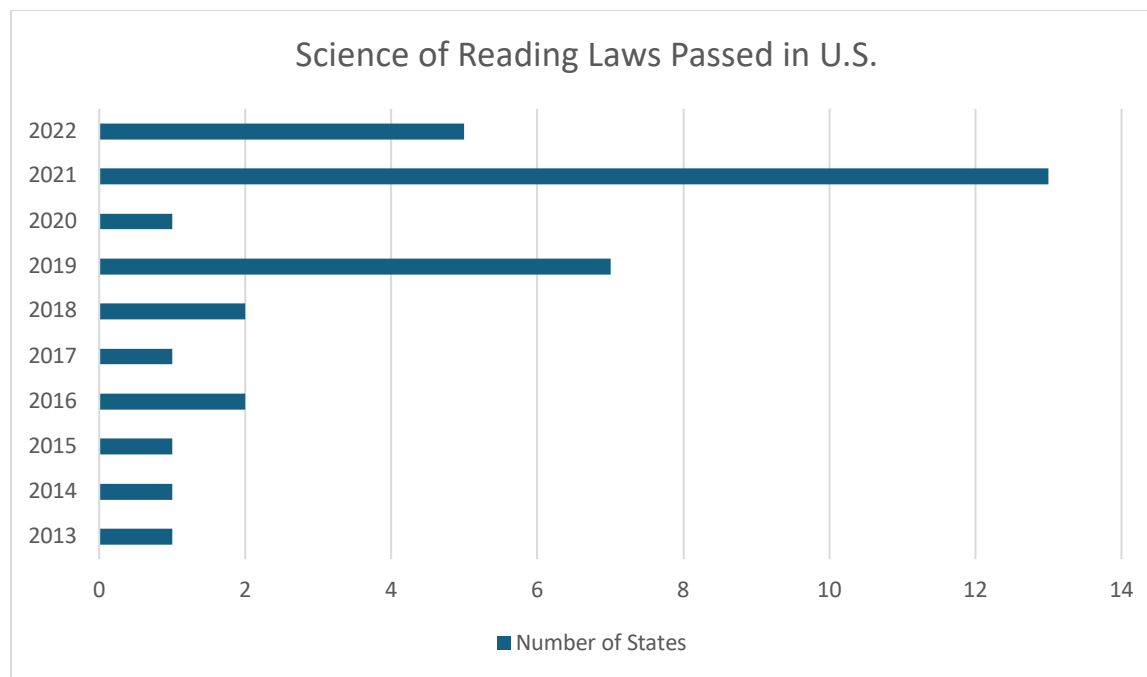
| <b>Active Self-Regulation</b> | <b>Word Recognition</b>       | <b>Bridging Process</b>                                                              | <b>Language Comprehension</b>         |
|-------------------------------|-------------------------------|--------------------------------------------------------------------------------------|---------------------------------------|
| Motivation & engagement       | Phonological Awareness        | Print concepts                                                                       | Cultural & other content knowledge    |
| Executive function skills     | Alphabetic principle          | Reading fluency                                                                      | Reading-specific background knowledge |
| Strategy use                  | Phonics knowledge             | Vocabulary knowledge                                                                 | Verbal reasoning                      |
|                               | Decoding skills               | Morphological awareness                                                              | Language structure                    |
|                               | Recognition of words at sight | Graph phonological-semantic cognitive flexibility (letter-sound-meaning-flexibility) | Theory of mind                        |

These three models have been guiding most of the instruction in the elementary classroom for the past three decades. While each has attributes and strengths, not one has been the predominant approach to teaching reading. Educators are continuing to seek the most effective ways to instruct students how to read.

### **SOR based Curriculum Implementation in the United States**

Science of Reading based requirements have been implemented across the country for the last five to ten years. According to a report from Education Week, (2022), the author states the first state to issue a law in support of the use of a SOR research was Mississippi in 2013. Below is a graph identifying the states and years that laws were passed. This graph has the state of Delaware as pending due to the article being written just weeks before the state law passed.

**Table 2.1 Science of Reading Laws Passed in the U.S. by State**



Recreated from Education Week Reporting, Schwartz (2022)

According to Schwartz (2022), “The legislative movement gained steam after Mississippi passed a series of laws, starting in 2013, that overhauled the state’s approach to teaching reading



and preparing future reading teachers. In 2019, Mississippi saw its students' reading scores improve on the National Assessment of Educational Progress" (p.1). Many of the states that began passing laws about SOR, did not include many specific curriculum regulations. As Samuels (2021) states, "Mississippi was the only state that saw a statistically significant increase in elementary reading scores in 2019 compared to 2017. The test [NAEP] is administered every two years. Mississippi had launched its own reading instruction overhaul in 2013". Many other states followed by adding SOR laws.

Of the 36 states that have a law by the end of 2022, only 16, "Puts forth requirements for the type of curricula and other materials that schools can use to identify reading difficulties or measure reading progress, or mandates that schools undergo a review process when selecting these materials" (Shwartz, 2022). In a report by California's Reading Curriculum Coalition (2021), the coalition found, "Significant work will need to be done if we want to introduce more science of reading and knowledge-building programs to California" (p.18). Although California adopted SOR regulation laws in 2021, they did not institute a regulation on SOR curricula that should be used. The report further recommends that,

"First, the CDE should be required to collect information on curriculum, supplement, intervention, and assessment usage from all districts and present annually to the Legislature and SBE (as well as release publicly). Curriculum is vital to student success; tracking what is being used and how it relates to outcomes is a key job that only the CDE can do" (2021, p.19).

Since the implementation of SOR is still fairly new to most states, such as the state of Delaware, it is too soon to see the implementation data. It takes at least three to five years of implementation of a new reading program to see how it will affect test scores.

## **SOR-based curriculum Implementation in the State of Delaware**

In the state of Delaware, we have begun to adopt a SOR based curriculum for reading instruction. Within the last year, laws have started to incorporate the SOR. The Delaware Department of Education defines the Science of Reading as,

A vast, interdisciplinary body of scientifically based research about reading and issues related to reading and writing. This research has been conducted over the last five decades across the world, and it is derived from thousands of studies conducted in multiple languages. The science of reading has culminated in a preponderance of evidence to inform how proficient reading and writing develop; why some have difficulty; and how we can most effectively assess and teach and, therefore, improve student outcomes through prevention of and intervention for reading difficulties. (The Reading League, 2022, paragraph 1).

This scientific approach to teaching reading will now be the predominant approach in the state of Delaware. In Spring of 2022, Senate Bill 4 was signed stating,

Senate Bill No. 4 requires the Department of Education (Department) to maintain and publish a list of evidence-based, reading instruction curriculum for grades kindergarten through 3. Each curriculum on this list must align with the essential components of literacy, known as the “science of reading” and use high-quality instructional materials. School districts and charter schools must provide an annual report to the Department regarding the implementation of these requirements and the Department must produce an annual report summarizing this information.

This Bill makes it so that each and every district in the state will be utilizing a curriculum that has been evaluated and seen as evidenced-based. This also means that teachers across the state

will be using many of the same curricula that may or may not be new to them. Many districts have chosen the same curriculum making collaboration across not only schools, but districts possible. This can help with professional development and training staff.

At the same time, House Bill 304 was signed into action addressing the connection to the curriculum and the need to provide a universal screener to identify the reading needs of students in grades K-3 in the state of Delaware. The Bill states, “This Act recognizes advancements in the science of reading and literacy instruction by requiring that all public-school students in kindergarten through grade 3 participate in a universal reading screening three times each year to identify potential reading deficiencies, including dyslexia, and allow for early intervention and prevention” (2022).

With these laws just taking effect in 2022, school districts across the state are looking for a curriculum to fit the needs of their students and the parameters set out by DDOE. The law states that all districts have until the 2027-2028 school year to implement an approved SOR-based curriculum from a list developed by DDOE.

### **Teacher’s Experiences with Implementing SOR based curriculum**

Understanding the SOR and teaching teachers to understand it is the easy part. Knowing how to instruct based on the SOR is another matter. As Seidenberg et al., (2020) state, “we know more about the science of reading than about the science of teaching based on the science of reading” (p. S121). Teachers must be trained and taught how to implement SOR strategies and to utilize the new curricula based on the SOR in order for them to be effective. Most models of reading are not pedagogical (Shanahan, 2020), meaning they are not teaching them how to teach. Research can identify the statistical significance of a cognitive skill in learning to read but

not necessarily suggest that it should be taught or how (Jenson, 2021). How then are teachers doing with implementing an SOR-based curriculum?

Since the SOR mandates in 35 of the states are more recent and states like Delaware still have three to five years to follow the regulations, not much research is out there on the implementation of SOR based curriculum. Much of the research is based on what teachers should do in terms of what curriculum or programs to use and not how to implement them. Another struggle is the fact that curricula need at a minimum five-year implementation to see the impact on student learning. Starting an SOR based curriculum in one or two school years will not be enough time to see the effect of the curricula.

There is also the issue with how an SOR based approach to teaching and the teachers actual craft of teaching. As Paige et. al. state (2021), “the SOR and teacher craft are individually insufficient for effective reading instruction but, when properly blended, become powerful allies that lead to improved reading outcomes for all students”. Teachers need to have time planning and implementing a curriculum to develop their art and craft. More veteran teachers need time to adapt to the changes any new curriculum may bring and to adjust their instruction using new knowledge, materials, and resources. Since most SOR based curricula are still new, teachers need more time to implement with fidelity while still maintaining their craft.

### **Spanish Immersion Program**

In the state of Delaware, all school districts have started implementing programs for dual language learning in the last five to eight years. The state of Delaware’s Dual Language Immersion program (2021) states, “In grades K-5, Elementary Immersion students spend 50% of their instructional day learning in their immersion language. They learn math, science, and language arts in the immersion language from one teacher and learn social studies and English

language arts from another. The students acquire a broad base of content area knowledge and language across the elementary program”. The state explains that the starting of the dual language immersion in kindergarten, a critical cognitive period for children, enhances their ability to learn multiple languages. As Warner (2022) supports, “individuals who are exposed to two languages at an early age, on average, outperform their monolingual peers on tests of cognitive function in adolescence and adulthood”. Another study done by Barac & Bialystok supports this as well. They state, “bilingualism has positive effects (metalinguistic awareness, cognitive development) on development” (2011). Their study was a comprehension review of multiple studies on the benefits of bilingualism.

With this idea in mind, the school districts began implementing the program mostly with Spanish as the dual language. My district began the Spanish Immersion program stating that, “Spanish is the second most widely spoken language in the United States, and according to a recent Bloomberg report, the fourth most important international business language after English” (Colonial School District, 2023). My current elementary school was selected to host this choice program for grades K-5. The program is for anyone to enroll through a choice application in advance to the school year starting in kindergarten. Any students that enroll after kindergarten will only be admitted if they are native Spanish speakers and there are open spots. Majority of the students in the program are native English speakers learning Spanish for the first time.

My school’s Spanish Immersion Program (SPIM) follows the state's model of 50/50 with the English teacher instructing English Language Arts (ELA) which includes foundational skills in reading and writing as well as social studies. The English teacher is also responsible for content transfer in the areas of math and science. Content transfer lessons can be integrated into

morning meeting, calendar time or a separate stand-alone mini lesson. The amount and specific content that is taught during that time varies depending upon how the students are acquiring skills in the Spanish classroom so there is not a prescribed time allowance for this portion of the day.

The SPIM program being very different than the English Language Learners (ELL) or English as a Second Language (ESL) programs that have been in schools for many years. These programs provide support for students who are learning the English language. The instructional purpose of an ELL/ESL program has traditionally been to catch the students up on their English language skills. Bilingual programs are not outside supports, but instruction throughout the day in two languages. In the context of this study, the immersion program was mostly comprised of students that speak English only with maybe a couple students that are already bilingual speaking both Spanish and English when they enter Kindergarten.

Although there are so many benefits to the SPIM program, there are also challenges. The challenge that SPIM teachers, both the English and Spanish, face is finding the balance of time on instruction for all content. Only having the students for half of the school day makes it different to allocate time to accomplish all the learning goals. Teachers in this program in my district are given extra planning time to help with planning and collaboration but not much can be done about the times of the student school day. There is also the challenge of finding bilingual teachers. During a time where teachers are in high demand, finding certified teachers that are fluent in Spanish can pose a problem. To keep with fidelity of the Spanish language, the teachers must be fluent speakers and proficient readers and writers in both languages. In certain areas, that can be hard to find.

On a personal note, my son was a part of his districts SPIM program from kindergarten through 8<sup>th</sup> grade. I saw first-hand how learning another language through an immersive environment helped challenge my son and gave him opportunities that he would not otherwise have. I also saw the way he and his peers would code switch or switch from the Spanish environment to the English classroom and switch languages easily depending on which teacher was addressing him. I was a teacher at the time in the same school, so I had the advantage of seeing my son and his peers daily.

I also felt like the immersion experience helped him to learn the Spanish language at a much faster pace than my daughter who was not in immersion and just took Spanish language classes once a week in 1<sup>st</sup> through 5<sup>th</sup> grade. Not only was my son learning to speak the Spanish language, but he was also learning to write and read in both languages simultaneously. From kindergarten to 5<sup>th</sup> grade all his math instruction was taught in Spanish. From kindergarten through 8<sup>th</sup> grade all his science instruction was also taught in Spanish. When he entered middle school at 6<sup>th</sup> grade, he was also taught social studies all in Spanish. This allowed him to expand his content vocabulary in these areas in both languages.

There were also additional benefits that had nothing to do with the language itself. Since my son's teachers were from all around the world, he learned a lot about different cultures. He had teachers from Spain, Mexico, Ecuador, Puerto Rico and Guatemala. Each of these teachers brought not only a different dialect of Spanish but also a wealth of knowledge of their culture. He got to experience these cultural differences from teachers that were from these areas of the world and not just from a book. I was very happy with all the benefits I felt my son was able to take advantage as being part of the SPIM program.

## **Theoretical Framework**

Teachers are faced with many new curricula throughout their years of teaching. Much of the decision making for the new programs teachers will use to teach their students are not made by the actual teachers themselves but by districts and states. Making sense of the implementation of any new curriculum takes time and trust that the curriculum will be beneficial for their students. In a study by Burke et al. (2008), the authors stated, “Teachers' knowledge and the materials, methods, and strategies employed are essential factors in students' abilities to read” (p. 168). This trust in a new program or curriculum must be earned. Teachers need to experiment and implement the curriculum with fidelity to see if their students are successfully learning to read.

My study examined the change and transitions those teachers made to implement a prescribed Science of reading-based curriculum. The two theoretical frameworks that guided this study were Bridges (1986, 2000) Transitional phases of managing organizational change and Rogers (1995) Diffusion of Innovations theory.

### **Diffusion of Innovations Theory**

#### **Background and Diffusion of Innovation Theory in Education**

Rogers (1995) theory of Diffusion of Innovations in the area of education has roots going back to the 1950<sup>2</sup>s. In 1953, Paul Mort's, a Professor at Columbia University for Teachers, found that, “the average American school lags twenty-five years behind the best practice”. His research found that there was a considerable amount of time required for widespread ideas to develop in education (Rogers, 1995, p.64). Mort and other researchers at his university continued to research the rate of which education innovations were adopted.



In the 1960's and 70's, Havelock began researching education innovations. He was asked to conduct a survey for the National Institute of Education (1973) to determine what innovations teachers are adopting and what barriers are getting in the way of implementing the innovations. Havelock and his researchers surveyed 353 teachers. They found that teachers ranked the following elements as essential when implementing a new initiative: 1. Persistence, 2. Planning, 3. Providing a climate conducive to sharing ideas, 4. A competent staff, 5. Adequate recognition of needs, and 6. Diagnosis and definition of needs. (Havelock, 1973, p. 177).

Most educational studies that looked at the diffusion of innovation were completed at Columbia University. Research found that the best single predictor of school innovativeness was educational expenditure per student. In other words, the schools that had the most monetary support were the schools that showed the most diffusion of innovativeness.

### **Rogers' Theory of Diffusion of Innovation**

Everett Rogers' based his theory of *Diffusion of Innovation* based on many researchers such as Havelock & Morte. In his 1995 book, *Diffusion of Innovation*, Rogers explains the four main elements of Diffusion of Innovation which include, innovation, communication channels, time, and social systems (p.10). The figure below demonstrates the connection of these four main elements

**Table 2.2 Rogers' Diffusion of Innovation Theory**

| Rogers' Diffusion of Innovation Elements |                        |
|------------------------------------------|------------------------|
| 1                                        | Innovation             |
| 2                                        | Communication Channels |
| 3                                        | Time                   |
| 4                                        | Social System          |

The first element, innovation, is the idea, practice or object perceived as new by an individual (p.11). The second, communication channels, is the process by which participants create and share information with one another to reach a mutual understanding (p.12). The third element, time, is the decision period or the length of time required to pass through the innovation decision making process. This process involves five steps and usually occurs in a time-ordered sequence beginning with knowledge, persuasion, decision, implementation, and confirmation (p.21). The fourth element, social system, is defined as a set of interrelated units that are engaged in joint problem solving to accomplish a single goal (p.23).

Rogers discusses the three types of innovation decisions: optional, collective and authority innovation decisions. In the case of my research, the innovation decision that fits best is authority decision making. Because teachers are typically told what programs and curricula they will teach, the decision is not usually up to them (optional or collective decisions). Schools, districts, and states are usually the authority that decides on which innovation (in this case, curriculum) the teachers will use.

### **Bridges' Transitional Phases of Managing Organizational Change**

When diffusing an innovation, it is important to take into consideration the transition or process that one goes through. Bridges' theory focuses on the phases of transition (1986). In his research, Bridges clarifies the difference between change and transition. He defines change as when something starts or stops happening. Transition is, "a three-part psychological process that extends over a long period of time and cannot be planned or managed by the same rational formulae that work with change" (Bridges, 1986, p.25).

The transition begins with letting go of the old situation. This first phase is essential to let go of their old role or purpose to be able to begin a new purpose. The second phase is what

Bridges calls the *neutral zone*. This is a time between the old reality and the new reality that may still be unclear (Bridges, 1986, p.25). The third phase of transition is what Bridges names the *new beginning*. As Bridges explains, "The new beginning may involve developing new competencies, establishing new relationships, becoming comfortable with new policies and procedures, constructing new plans for the future, and learning to think in accordance with new purposes and priorities" (p.26). This new beginning is the area where my research will address the most. The transition and adapting to the new curriculum and how the teachers are navigating this change.

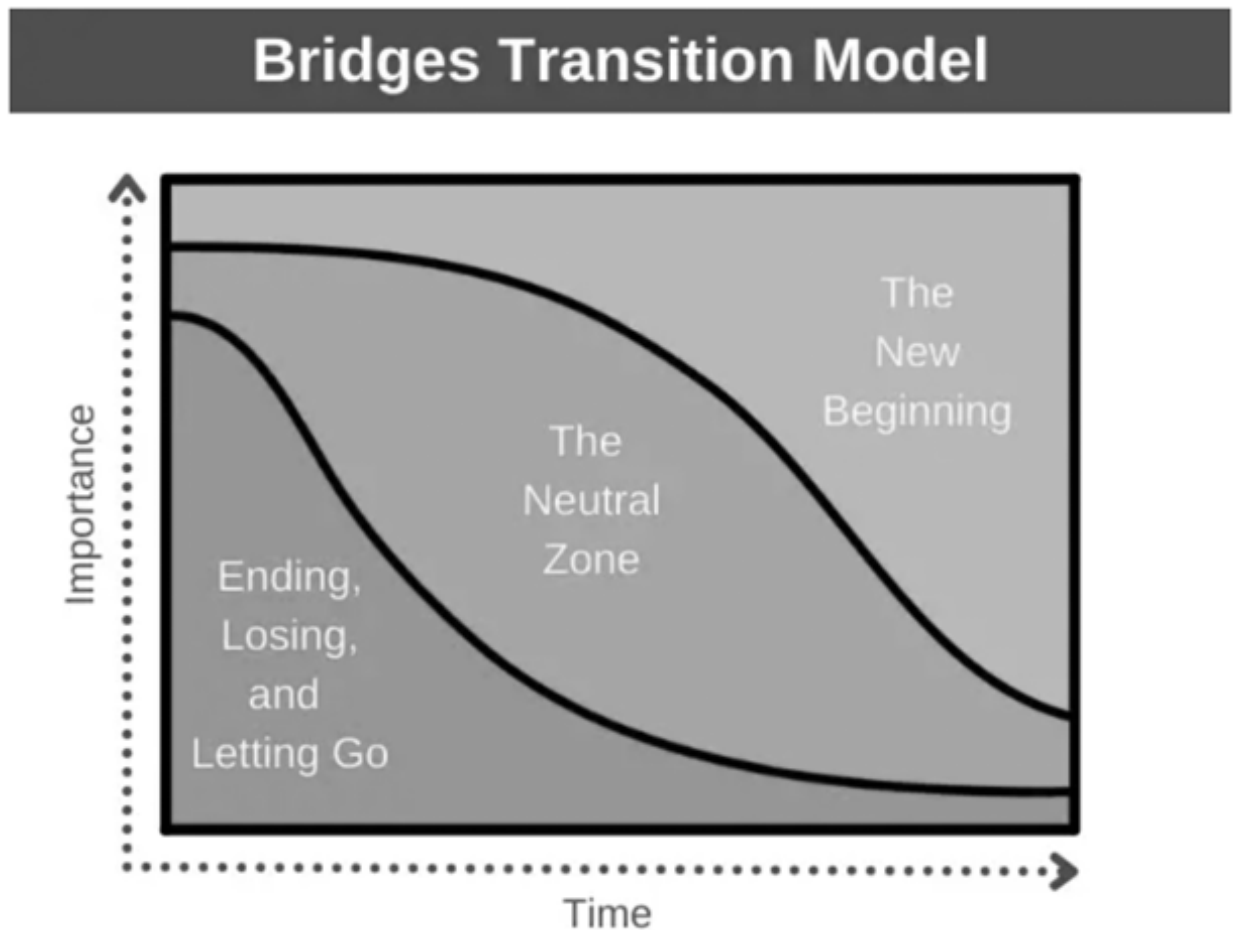
### **Bridges and Mitchell: A New Model for Change**

Bridges along with Mitchell (2000) adds to the previous model of transition. They state that "change is external while transition is internal" (p.2). The three phases stated previously by Bridges are refined to endings, the neutral zone (explorations), and new beginnings. As Bridges and Mitchell explains, "The trouble is, most leaders imagine that transition is automatic -- that it occurs simply because the change is happening" (2000, p.2). Transition takes much more time and adjustment. The phase of the neutral zone is one of exploration of the new and can be uncomfortable to explore (Bridges & Mitchell, 2000). Below is a model of the phases of transition.

As you can see by the model, there is a connection between time and importance in Bridge's Model of Transition is that time is not a fixed element within each stage. The duration of each stage can vary greatly depending on the individual and the nature of the change. What's important is that people go through each stage at their own pace and in their own way. The importance of each stage lies in how individuals come to terms with the change, let go of the

past, and ultimately move forward. For example, the higher the importance paired with less time, the faster one moves through the three phases to the new beginning.

**Figure 2.4 Bridge's Transition Model**



#### **Bridge's Transition Model in Educational Studies**

Bridges theory has been used in multiple studies in the field of education. One study completed by Joseph & Vadiye, (2021), based on a change of science pedagogy during the pandemic concluded that "A collaborative approach with peer support and professional development webinars on remote teaching/learning helped this transition in the pedagogy of science teaching, which became a new normal. "(p. 85). This study supports Bridges theory that when the new change is of utmost importance, the transition time does not need to be long to be a successful transition. The teachers in this situation needed to quickly adjust to remote and

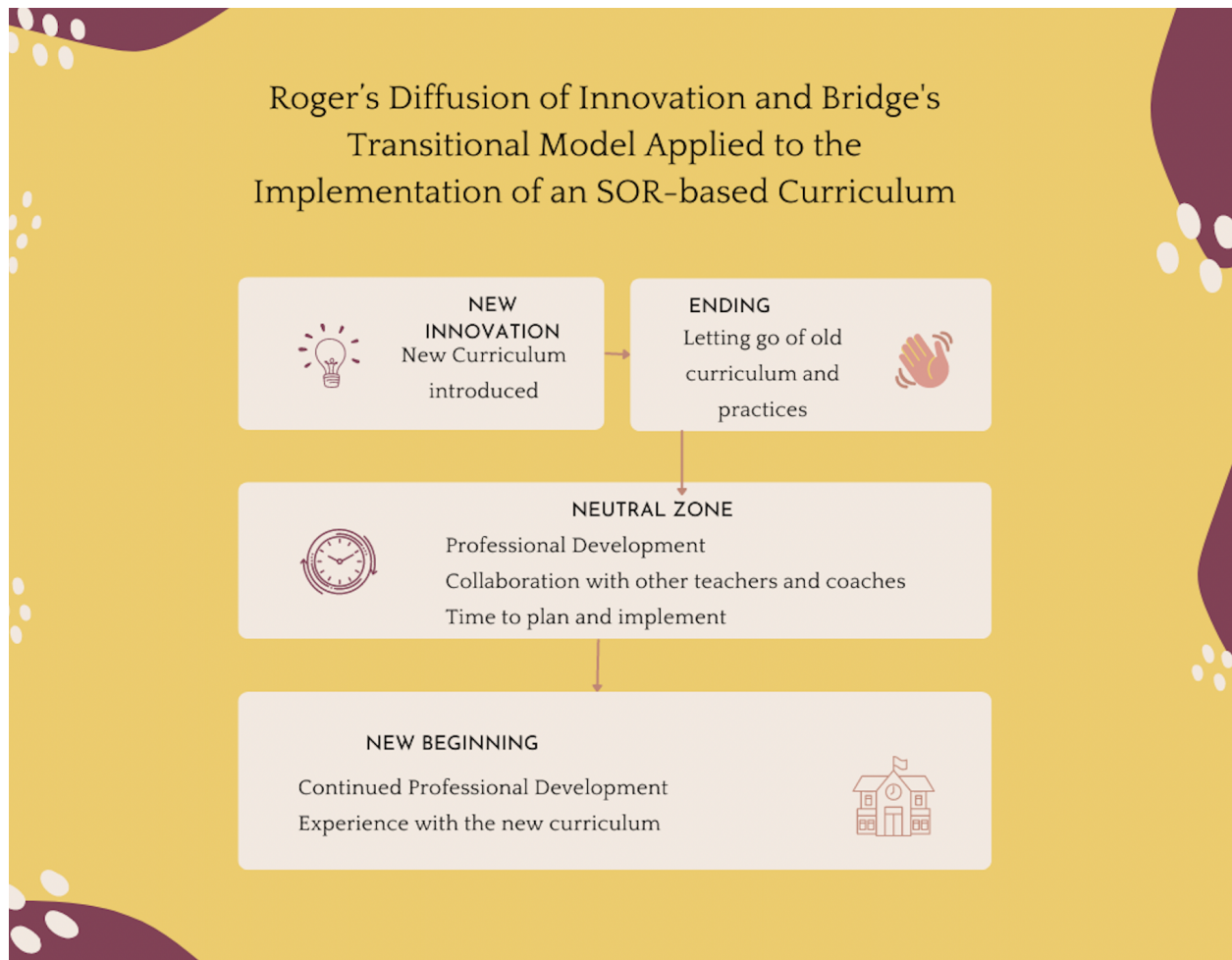
hybrid learning yet still maintain the fidelity of the Next Generation science standards. The teachers had to move through the three stages of transition quickly and were successful.

Another study by Miller (2017) looked at Butler University library transformative change of their management system. The author found that, “The biggest leadership challenge in effecting change is the human element: helping employees to embrace and implement the changes necessary for transformation” (p.357). Bridge’s theory of transition is seen throughout the case study and has demonstrated the importance of letting go of the old (in this case the previous management system) and embracing the new system. The study found that using the model for successful organizational change presented in *Managing Transitions* (Bridges, 1986) and an instrument they developed, the leadership team at Butler University Libraries developed an effective process for minimizing disruption and discord during a transformative system migration (2017, p.364).

### **Bridges Transitional Model Applied to My Research**

Bridges theory of Transitional Phases (Bridges,1986; Bridges & Mitchell, 2000) also gives a guide to the transitions that teachers go through to adjust to a new curriculum. First, teachers must let go of the old curriculum. Then, teachers must explore the new and feel a little discomfort in this exploration. Last, teachers need to embrace the new Amplify curriculum and get used to the different implementation methods, protocols, assessments, and style of instruction. Below is an infographic explaining how the two theories connect to the implementation of a new SOR-based curriculum.

**Figure 2.5 Two Theories Connection to my Research**



### **Application of the Two Models to My Research**

For my research, I fused these two models for a better understanding of the experience of teachers transition to a new curriculum that considers both the diffusion of an innovation and the transition that teachers need to make. Both theories provided a framework for my research. First, Roger's theory of *Diffusion of Innovation* (1995) gave a framework to understand the deployment of the innovation. In this case, the *innovation* is the Science of Reading (SOR) based curriculum, Core Knowledge Language Arts (CKLA) by Amplify. The *communication channels* would be the professional development received on the SOR and CKLA. The *time* it will take to adjust to the new. The last element is the *social system* which in

the case of my study is the collaborative planning of teachers for implementation of the SOR-based curriculum CKLA. The table below explains the blending of the two theories and their connection to my research.

**Table 2.3 Two Theories and their Application to my Research**

|                               |                                                                                                                                                                                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>innovation</i>             | <b>SOR &amp; Amplify CKLA</b>                                                                                                                                                                                                             |
| <i>communication channels</i> | <b>PD for SOR &amp; Amplify CKLA</b>                                                                                                                                                                                                      |
| <i>time</i>                   | <b>K-2 SOR (2021-2022)</b><br><b>K-2 – Amplify CKLA (2022-2023)</b><br><b>3-5 SOR (2022-2023)</b><br><b>3-5 – Amplify CKLA (2023-2024)</b><br><b>With PD continuing for 3 years</b><br><b>Amplify CKLA Curriculum support for 5 years</b> |
| <i>social system</i>          | <b>SOR</b><br><b>Amplify CKLA</b><br><b>Weekly Grade Level PLCs</b><br><b>Tier 1 Team - monthly</b><br><b>Monthly district level PD</b>                                                                                                   |

### **Contribution of the Study**

My research gives insight, from the teacher's perspective, on the implementation of a systematic and explicit SOR-based curriculum in the Spanish Immersion setting.

## **Summary**

In the area of teaching reading in the K-3 classroom using a Science of Reading based curriculum, not much is known about the teacher perspective. In particular, the English teacher in a Spanish Immersion setting. I conducted a qualitative intrinsic case study approach (Stake, 2003) and utilize teacher interviews. The teachers I interviewed were the English partners in a K-3 SPIM setting in the state of Delaware that were utilizing a SOR based curriculum. The methodology for my research on this topic will be further discussed in chapter 3. In chapter 4 of my research, I share my results and analyze my data. In the last chapter, chapter 5, I discuss my findings, conclusions, and recommendations for future research in this area.



## **Chapter 3 - Methodology**

### **Introduction**

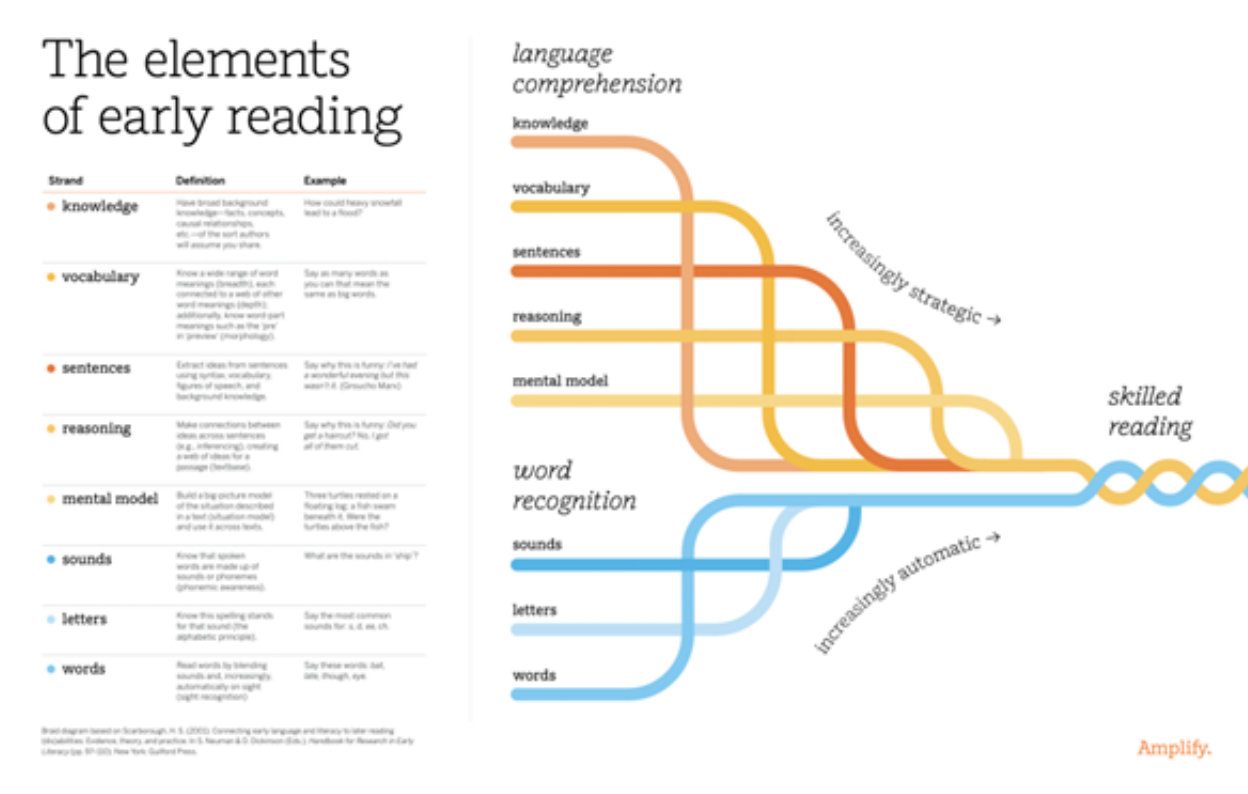
There have been many approaches deemed as the best way to teach reading over the years. Many debates have ensued as to the best approach to teach reading in the elementary classroom as well as the best way to prepare teachers to instruct reading in the classroom. This debate is a hot topic in education due to the decrease in reading proficiency over the years. Referred to as the ‘reading wars’, over the past decades this debate has led to many different approaches to reading instruction.

Educators need to re-evaluate how reading is taught and ensure that research-based practices are being used in the elementary classrooms as well as teacher preparation programs. As Hindman et. al. state, “educators, particularly those new to the field, need more specific, precise guidance on how exactly to bring the Science of Reading into their classrooms” (2020, p. 199). In this research study, I asked teachers that were implementing a Science of reading-based curriculum, how they are making sense of the curriculum.

### **SOR-based curriculum Implementation in my School District**

Many of the Northern Delaware school Districts have chosen a curriculum from Amplify, called Core Knowledge Language Arts (CKLA), to adhere to the new Delaware law. This curriculum is based on the Science of Reading. Below is a graphic used by Amplify to demonstrate how their curriculum fits in with the strands of Scarborough's reading rope model and the SOR.

**Figure 3.1 Amplify graphic demonstrating how the reading rope strands connect to the CKLA curriculum**



Research for this study was conducted in a large suburban school in Apple Blossom, Delaware. Pseudonyms are used to protect the privacy of the participants. At the time of this research study Delaware had 141,729 students enrolled in K-12 public schools. The school district, where the study took place, had an enrollment of 9,132 students. The student population is about 1050 in grades K-5. The SPIM program is a choice program where parents need to register separately prior to Kindergarten. There were 48-56 students at each grade level (K-5). Each grade level has two homerooms, one in Spanish and one in English. The students alternate either daily or mid-day so that there is equal instruction in both languages.

My district began implementing this new Core Knowledge Language Arts (CKLA) curriculum in the 2022-2023 school year, with K-2. The following year they started implementation in grades 3-5. Many training and professional development have been available for the teachers in K-2 starting the spring before the 22/23 SY. The first training that Amplify

suggests, and my district made mandatory, was a 90-minute PD on the Science of Reading. This was a first step in the professional development plan that continued through the summer of 2022 and throughout the school year. The Amplify company also has a SOR podcast available for all teachers to learn weekly about topics related to SOR.

## **Purpose of Research**

The purpose of this study is to investigate how the Spanish Immersion (SPIM) English teachers adjust and adapt to implementing an SOR-based curriculum and how they have adapted to this new approach. This study looked closely at the K-3 Spanish Immersion classrooms. This information will be helpful to many stakeholders. Classroom teachers, literacy leaders, school district curriculum leaders, higher education teacher preparatory programs, higher education curriculum leaders, elementary school administrators and literacy researchers could all benefit from this research. All agents can see the implementation of a SOR reading curriculum through the lens of the classroom teacher.

## **Research Questions**

For my research I investigated the following question:

1. In the context of implementing the Science of reading-based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic and structured literacy programs?
  - 1.a. How are Spanish Immersion teachers making sense of the SOR-based curriculum?
  - 1.b. How are Spanish Immersion teachers managing the challenges and changes of using a SOR-based curriculum?

Since much of the recent research is based on many prepackaged programs, not many research articles are found on the implications to teaching reading based on SOR strategies and

how teachers implement these curricula and strategies in a SPIM setting. My hypothesis after conducting extensive evaluation of the current literature, would be that not much is known about teacher's implementation of SOR-based curricula in the SPIM setting. I feel that we are just beginning to see a shift in instructional practices toward an SOR approach.

## **Methodology**

For this research, I used a qualitative case study methodology to critically evaluate how Spanish Immersion English teachers adapt and adjust to a new SOR-based curriculum. I interviewed teachers that were teaching a scripted and prescribed SOR-based curriculum in the SPIM classroom grades K-3.

I conducted a qualitative intrinsic case study approach (Stake, 2003) and utilized teacher interviews as well as collect artifacts. The four teachers I interviewed were the English partners in a K-3 SPIM setting in the state of Delaware that are currently utilizing a SOR-based curriculum. I interviewed the teachers three times each over a six-month period.

I also examined artifacts that teachers and schools sent home to families about the Science of reading-based curriculum. The combination of interviews and research gave me a broader lens to evaluate the progression and evolution of the teaching of reading and the influence of the SOR approach from the teacher's perspective. Each interview was in person for about 20-30 minutes each session.

I chose a qualitative approach because qualitative research focuses on meaning making and to achieve an understanding of how people interpret what they experience (Merriam & Tisdell, 2016). A qualitative approach to this study was appropriate since I wanted to understand the teachers experience with implementing a SOR-based curriculum. Creswell (2018) described how qualitative researchers strive to develop a complex picture of the research question being

studied by reporting multiple perspectives, identifying the various factors involved in a situation, and sketching a large portrait of what emerges.

A case study design was chosen because this study focuses on examining a bounded system of a particular group completing a particular program (Merriam & Tisdell, 2016). As Dyson & Genishi (2005) state, “case study researchers seek multiple views on the world they are exploring, they also include data from interviews, on a continuum from formal to informal” (p.75). Since I conducted interviews from teachers about their experience with implementing an SOR-based curriculum, a case study approach would fit best. Stake (1995) describes educational case studies as being interesting for “both their uniqueness and their commonalities. We seek to understand them. We would like to hear their stories” (p.1). In this study, I sought to understand how teachers are making sense of a new SOR-based curriculum.

When interviewing the teachers for this study, I used a semi-structured interview process. I captured common information from all participants which would require some level of a structured format. As Merriam & Tisdell (2016) explain, “in a semi-structured interview, either all of the questions are more flexibly worded, or the interview is a mix of more and less structured questions” (p.110). They also note that this format allows the researcher to respond to the situation at hand and in the moment (Merriam & Tisdell, 2016). Utilizing this format for questioning helped me see a clearer picture of the interviewees experiences and allow me to expand when needed.

During each interview, I asked no more than five questions to each interviewee per session. I used primarily interpretive questions during each session. As Merriam & Tisdell (2016) explain, “interpretive questions provide a check on what you think you are understanding, as well as offer an opportunity for yet more information, opinions, and feelings to be revealed”

(p.120). Since the research questions in this study are seeking to garner the teachers' opinions and experiences using the SOR-based curricula, interpretive questions were the most appropriate when interviewing the participant teachers.

I piloted the questions to get feedback from a classroom teacher from the same school that did not participant in the study. Appendix A contains the questions and interview protocol for each session. Below is a graphic timeline of my research.

**Figure 3.2 Timeline of my research study**



### **Participant selection**

I conducted interviews with four teachers in the K-3 Spanish Immersion English teacher that were teaching a SOR based curriculum. I selected the teachers from my current school

district in the state of Delaware which both implement a SOR-based curriculum and have SPIM programs.

The English teachers in the SPIM program in grades K-3 were all selected to teach in the program by volunteering. All the teachers interviewed have varied ranges of teaching experience but are all considered experienced teachers.

The table 3.1 below describes the years of experience that each teacher interviewed has had in education as well as how many years they have taught in Spanish Immersion. The table also includes how many years they have implemented the SOR-based curriculum and the format which they teach. Two of the teachers teach in a half day split where the English teachers see two homerooms each day (one in the morning and one in the afternoon). The whole day format is where English teachers have one homeroom all day and the other homeroom the next day. The teachers SPIM format is based on the school schedule and how easily the instructional time can be divided in half so that each homeroom receives equal amounts of instruction in English and Spanish.

**Table 3.1 Teacher Experience**

| <b>Teacher</b> | <b>Grade</b> | <b>Teaching experience</b> | <b>SPIM experience</b> | <b>Implementation</b> | <b>SPIM format</b> |
|----------------|--------------|----------------------------|------------------------|-----------------------|--------------------|
| Mary           | KN           | 17 yrs.                    | 5 yrs.                 | 2nd yr.               | Half day split     |
| Ruby           | 1st          | 29 yrs.                    | 6 yrs.                 | 2nd yr.               | Whole day          |
| Michelle       | 2nd          | 3 yrs.                     | 3 yrs.                 | 2nd yr.               | Whole day          |
| Daisy          | 3rd          | 26 yrs.                    | 5 yrs.                 | 1st yr.               | Half day split     |

## **Research Setting**

Research for this study was conducted in a large suburban school in northern Delaware. At the time of this research, Delaware had 141,729 students enrolled in K-12 public schools. The school district where the study took place, Northern School District, had an enrollment of 9,132 students. The student population was about 1050 in grades K-5. There were about 48-56 students at each grade level (K-5). Each grade level has two homerooms, one in Spanish and one in English.

The SPIM program began about eight years ago and is a choice program where parents need to register separately prior to Kindergarten. About 45-55 students are admitted to the SPIM program in kindergarten and very few, if any are added in grades 1-5. If they are coming from another SPIM school or speak Spanish at home, they can be permitted to join SPIM in grades 1-5. Majority of the students' first language is English. There are five or so students that speak Spanish as well as English when entering the program at each grade but varies grade by grade. The program runs through middle school until 8<sup>th</sup> grade.

Students learn literacy, Social Studies and math and science content transfer in the English portion of their day. In the Spanish portion, students learn Spanish literacy, science, and math. Each grade level divides the instructional day as evenly as possible so that 50% of the students' instructional day is in English and 50% is in Spanish. The students alternate either daily or a mid-day split so that there is equal instruction in both languages. The teachers in the Spanish homerooms must be bilingual and fluent in Spanish as well as English. The English teachers, the participants for this research, need to only be fluent in English.

Both Spanish and English teachers teach literacy in their languages. They call the Spanish literacy instruction, Spanish language arts (SLA) and English literacy instruction,



English language arts (ELA). The English teachers are also charged with what they call content transfer. This is a short instructional time when the English teachers reinforce a math or science concept in English. For example, if the Spanish teacher is teaching the students shapes, the English teacher will review the names of the same shapes in English.

The SPIM classrooms are located down one hallway or wing of the school. This means there is only the two homerooms for each grade level. The other non-SPIM classrooms are down the other three hallways in the building where you will see another five to seven same grade level classrooms next door to one another.

### **Data Collection and Procedures**

The intent of this research study was to use data from two sources. The main source of data comes from the one-on-one interviews conducted with the interview participants. Each interview participant was interviewed three times throughout the study. The first interview took place after the first four months of school. The second interview took place two months later. The last interview took place two months after the second interview. This was the last full month of school.

The second source of data was artifacts that the teachers were given to explain to the families and to help them understand the new CKLA curriculum. The artifacts were referenced in the interviews but not analyzed.

I served as the main data collection instrument. Merriam and Tisdell (2016) state “the researcher is the primary instrument for data collection and analysis. Since understanding is the goal of qualitative research, the human instrument, which can be immediately responsive and adaptive, would seem to be an ideal means of collecting and analyzing data” (p.16). My main

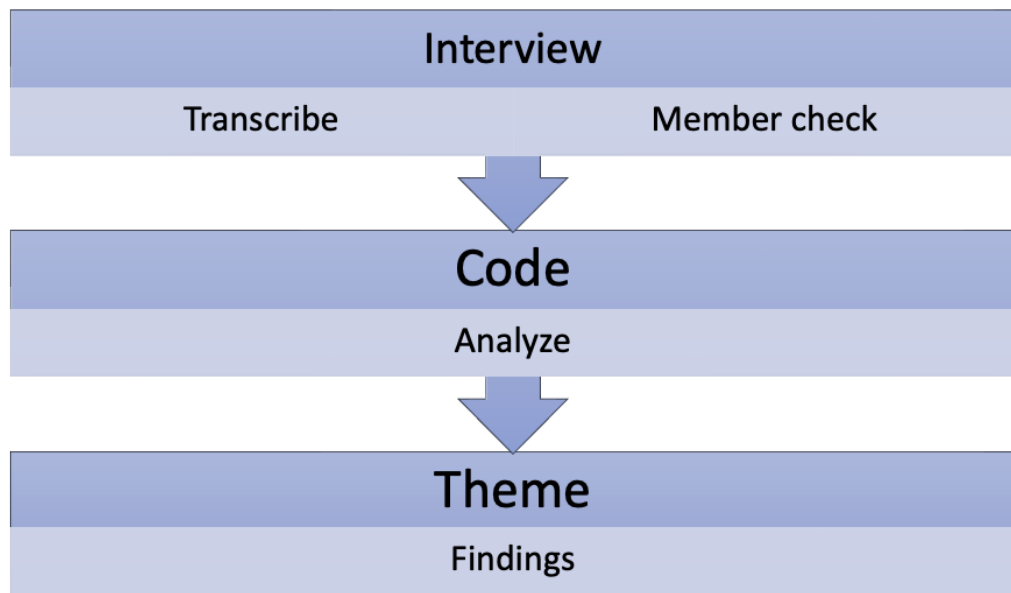
source of data came from the interviews where the participants' attitudes, beliefs, and what they valued was captured through their responses and analyzed.

## **Data Analysis**

I analyzed the interview data by transcribing the interviews and coding. Once the data was coded, I found common themes from the transcripts of the interviews as they relate to each research question. As Saldaña (2021) explains, "A code in qualitative analysis is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (p.5). In this case study, the language-based data is the interview transcripts.

Coding the interview transcripts is an important step in the process. As Dyson & Genishi (2005) agree, "through analytic coding, researchers aim to figure out the conceptual importance of the human actions and reactions that have been inscribed in the data set" (p.84). I coded the interviews two times. The first time I used in vivo coding and wrote the phrases on index cards, such as, "deep dives", "no set curriculum" and "dip in and move on". According to Saldaña (2021), in vivo, "as a code refers to a word or short phrase from actual language found in the qualitative data record" (p.137). The second round of coding, I used a descriptive coding method where I placed the first coding cards under a one-word topic such as, "curriculum", "supplement", and "PD". Descriptive coding, "summarizes in a word or short phrase-most often a noun-the basic topic of a passage of qualitative data" (Saldaña, 2021, p. 134). This coding process led to common themes throughout the interviews and amongst the different teachers interviewed. These common themes led me to the findings and results of the study expanded upon in the next chapter. Below is a flow chart of my data analysis.

**Figure 3.3 My research process**



### **Trustworthiness**

After each interview session, I transcribed the interviews and conducted member checks with the participants. As Merriam & Tisdell (2016) explain, “to ensure internal validity or credibility, member checks, or respondent validation, is used to solicit feedback on your preliminary or emerging findings from those you interviewed” (p.246). This helped me ensure that no bias or misunderstanding had occurred during the interview and transcription process. As Stake (1995) agrees, “[member checking] is when the *actor* [interviewee] is asked to review the material for accuracy and palatability” (p.115). This process also helped ensure the accuracy of the transcription before coding began.

### **Conclusion**

This study aimed to address a gap in the understanding of Science of Reading (SOR)-based curriculum implementation, particularly from the perspective of English teachers in a Spanish Immersion setting. By conducting a qualitative intrinsic case study with teacher

interviews, this research shed light on the experiences and insights of K-3 English teachers using SOR-based curriculum in Spanish Immersion programs in Delaware. The findings from this study contribute valuable knowledge to the field of reading instruction and guide future research endeavors in this important area of education.

**Table 3.2 My research theoretical constructs connected to my research questions**

| Research Questions                                                                                                                                                                     | Interview Questions                                                                                      | Theoretical Construct                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------|
| In the context of implementing the Science of Reading based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic and structured literacy programs? | Thinking back to the first PD on CKLA what you remember from that PD?                                    | Rogers' Innovation & Communication channels |
|                                                                                                                                                                                        | Since that initial training, what types of follow-ups have you experienced?                              |                                             |
|                                                                                                                                                                                        | Describe what CKLA looks like in your Spanish Immersion classroom.                                       |                                             |
| How are Spanish Immersion teachers making sense of the SOR based curriculum?                                                                                                           | In your own words, can you describe what you understand to be the SOR?                                   | Roger's Innovation & social system          |
|                                                                                                                                                                                        | Thinking back to before we adopted CKLA, we had a PD on the SOR, what do you remember from that session? |                                             |
|                                                                                                                                                                                        | How are you communicating the SOR to families?                                                           |                                             |
|                                                                                                                                                                                        | How does CKLA embody SOR as you know it?                                                                 | Bridge's Transition Model                   |

|                                                                                                         |                                                                                                                                                |                                          |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
|                                                                                                         | Describe any collaboration time you have taken part in while implementing CKLA. In your opinion, is the collaboration helpful? Why or why not? |                                          |
| How are Spanish Immersion teachers managing the challenges and changes of using a SOR based curriculum? | Before CKLA, describe what your literacy instruction looked like in your Spanish Immersion classroom.                                          | Roger's Innovation, time & social system |
|                                                                                                         | Based on the literacy instruction you mentioned in the first interview, how does CKLA differ from what you did before?                         |                                          |
|                                                                                                         | When comparing CKLA to the literacy instruction mentioned in the last interviews, what are the differences?                                    |                                          |
|                                                                                                         | What changes or adaptations have you made for CKLA instruction?                                                                                | Bridge's Transition Model                |
|                                                                                                         | Tell me about any challenges you have encountered.                                                                                             |                                          |
|                                                                                                         | Tell me about any benefits of using CKLA.                                                                                                      |                                          |

## Chapter 4 - Results

This research delves into how Spanish Immersion teachers interpret and implement a structured Science of Reading-based curriculum, Core Knowledge Language Arts (CKLA), aligning with Bridge's Transitional Phases: Letting Go, Neutral Zone, and New Beginning. Prior to this new SOR-based curriculum, without a set curriculum, teachers relied heavily on district maps, their own resources, and creativity, selecting literature and engaging with families through various communication channels such as open houses and parent letters from workbooks. Professional development days allowed for "deep dives" into the units, fostering a collaborative environment where teachers could share insights and strategies.

As teachers navigated the Neutral Zone, they often felt overwhelmed by the sheer volume of units and materials introduced. Webinars and social media became essential communication channels, providing support and information. However, the apprehensive pace of implementation posed significant challenges, requiring teachers to adapt quickly. In the New Beginning phase, teachers managed these challenges through innovations like teacher talk, engagement strategies such as Kagan, and supplemental programs like Heggerty. Despite logistical difficulties, collaboration remained a cornerstone, with some grade levels sharing resources effectively. Positive changes emerged, including a well-defined scope and sequence, an emphasis on foundational literacy, and the integration of science and social studies, which contributed to higher reading levels in kindergarten and a more cohesive educational approach.

## Letting Go

When answering the first research question: *In the context of implementing the Science of reading-based curriculum, how did Spanish Immersion teachers make meaning of an explicit, systematic and structured literacy program?* The interviewees were asked what the curriculum was like prior to this new one. This question was connected to the theoretical framework of Bridge's Transitional Phases of Letting Go. For the teachers interviewed, the Letting Go phase is switching away from their previous curriculum prior to implementation of the new SOR-based curriculum. This also involves beginning to learn about new curriculum while still using the old curriculum.

### No Set Curriculum

The transition to the Science of Reading (SOR)-based curriculum marked a shift for Spanish Immersion teachers who previously navigated their instruction without a prescribed curriculum. All four teachers interviewed stated that there was no set curriculum. They referenced using district provided maps that helped them navigate a general scope and sequence. When 1<sup>st</sup> grade teacher, Ruby, was asked what curriculum they used prior, she states, "We didn't have one. We had no curriculum. So, we had we only had maps that told us the skills we were to teach. But there was no curriculum to use to teach those skills". Daisy concurs when she states, "Just whatever was on Schoology. No prescribed curriculum per se". This reliance on district maps and the absence of a formal curriculum made for a significant change brought on by the new SOR-based program for these educators.

The teachers interviewed also pointed out that although they were given district guides, or maps to follow, they needed to provide their own resources prior to implementation of the new SOR-based curriculum. As 2<sup>nd</sup> grade teacher Michelle explains, "So before we used some

Story town and then like district just kind of gave us what we were supposed to teach, and we could find our own resources or use their resources”. This lack of a structured curriculum necessitated a high degree of creativity and resourcefulness from teachers as they prepared for the adoption of the new literacy program.

## **Creativity**

The absence of a set curriculum prior to the implementation of the SOR-based program allowed teachers to design their own instructional materials, fostering a creative teaching environment. Another teacher interviewed, Mary, a Kindergarten teacher, agreed that there was no set curriculum prior to SOR-based. She states that, “we were lucky enough that we were able to almost design our own curriculum, which I enjoy because we got to be creative and bring in some books for the kids that helped get their attention, that’s my favorite”. The teachers interviewed also felt that they had an opportunity to be more creative with a less scripted curriculum. Ruby supports this when she says they had, “more time to be creative and do some more fun things that we would normally have done like during centers in the other days”. Ruby also stated, “we didn’t have any sort of story readers or anything like that. So, all of that we had to find on our own activities. Sometimes they [the district] would give us books but there was only one copy”. This flexibility enabled teachers to tailor their lessons to harness creativity, making the most of the resources they were given or created.

## **Communication Channels- Families**

As discussed in chapter 2, the other guiding framework for this research, along with Bridge’s transitions phases is Roger’s theory of *Diffusion of Innovation* (1995). This gives a framework to understand the deployment of the innovation. Below is a table that summarizes how the elements of Roger’s theory and this research are connected.



**Table 4.1 Roger’s Diffusion of Innovation Theory as it applies to the research**

| <b>Element</b>         | <b>Connection to research</b>                                          |
|------------------------|------------------------------------------------------------------------|
| Innovation             | The new SOR-based curriculum, CKLA                                     |
| Communication Channels | Professional Development provided for new curriculum                   |
| Time                   | The time it takes to learn the new curriculum and begin implementation |
| Social System          | The teachers’ colleagues, coaches and administrators                   |

Communication with families at the beginning of implementation was mostly done through two channels. The first was at Open house when school began where parents were shown a video provided by the district literacy coach to explain the new SOR-based curriculum. As Ruby, 1<sup>st</sup> grade teacher explains, “When we first started CKLA, the night of open house there was a video we had to show them okay, just said what it was, what CKLA is, and what it's addressing.” This initial communication strategy helped parents understand the new curriculum framework and its objectives.

Second grade teacher Michelle also noted that there was information sent home after open house for those who could not attend in person. She states, “And then like during open house at the beginning of the year, our coach has that, she recorded something that's a pamphlet that they gave us. So, the parents watch that and if they don't come to open house and we send the pamphlet home so they [the parents] can read the information on it.” The teachers interviewed also noted that nothing else, to their knowledge, was shared from the district after open house.

The second channel of communication was through student workbook sheets provided within the curriculum. Second grade teacher Michele states, “So they actually come with like their own little parent letters that we sent home or like every so often in the workbooks I know

their spelling words coming out. So, like every five or six lessons, there's a like a family letter that goes that explains like our spelling words for the week.” Another teacher noted that the workbooks also provided take home opportunities so that families could see what skills and topics their students were working on. Daisy explains, “I send the take home things in their activity book. And they usually they have to do with what we did that day, so it just kind of reiterates what they [the students] learned.” These premade letters and activities help connect the families with the new SOR-based curriculum.

Effective communication with parents about the new CKLA curriculum was a challenge as noted by one teacher requiring teachers to find alternative ways to keep families informed. Kindergarten teacher Mary explains, “So there really hasn't been much explained to the parents about CKLA and what the kids are learning we do a newsletter in our classroom where we kind of tell them what topics are ahead of time just to kind of give them a heads up.” These newsletters became a vital tool for bridging the communication gap, ensuring parents stayed informed.

### **Communication Channels- First Professional Development**

The district where the research was conducted implemented the new SOR-based curriculum, CKLA, with a professional development prior to the first year of implementation to teachers in grades K-2. Amplify is the company that created CKLA and provided trainers both in person and online for the teachers in the district. The table below describes the topics of the professional development teachers received and who provided the PD.

**Table 4.2 Professional Development Provided for CKLA**

| <b>Audience</b> | <b>Topic</b>                | <b>When</b>           | <b>Presenters</b>                                     |
|-----------------|-----------------------------|-----------------------|-------------------------------------------------------|
| K-2 Teachers    | Science of Reading          | Spring 2022           | Amplify                                               |
| K-2 Teachers    | Launching CKLA              | Spring 2022           | Amplify                                               |
| K-2 Teachers    | CKLA Planning               | Summer 2022           | Amplify and District Staff (coaches, ELA specialists) |
| K-2 Teachers    | Unpacking CKLA Units        | Fall 2022-Spring 2023 | District Staff (coaches, ELA specialists)             |
| 3-5 Teachers    | Science of Reading Training | Spring 2023           | Amplify                                               |
| 3-5 Teachers    | Launching CKLA              | Spring 2023           | Amplify                                               |
| 3-5 Teachers    | Planning CKLA               | Summer 2023           | District staff (coaches, ELA specialist)              |
| 3-5 Teachers    | Unpacking CKLA Units        | Fall 2023-Spring 2024 | District Staff (coaches, ELA Specialist)              |

This professional development was the teachers first experience with the new curriculum. Third grade teacher Daisy recounts the first PD:

The first one I remembered specifically learning about the science of reading. I remember us I remember the presenter telling us about the science behind it, how they came up with it. And then I remember we did see it, practice reading ourselves. We looked at phonetic paragraphs that were written phonetically where we had to like look and figure out what the words meant and kind of experience like what a kid would see that was struggling to learn to read. I remember it was really book based. It wasn't like user friendly. It was a lot of like spitting a lot of information out so about the science of reading.

Ruby, a first-grade teacher interviewed remembers something similar,

Oh, the very first one that people the two ladies that talked to us, were like over the top excited. And they [trainers from Amplify] kept saying that this was just the best thing ever. The stories are so wonderful. The kids won't even want to stop reading to go to recess! I remember them saying that we were like, wow. So, they were very way over the top it was like a sales pitch.

These initial professional development sessions left a lasting impression on the teachers, blending enthusiasm and a substantial amount of information about the science of reading, but did leave them feeling overwhelmed and somewhat promotional.

The introduction of the CKLA curriculum was met with mixed emotions among the teachers, ranging from excitement to apprehension. Kindergarten teacher Mary remembers, “I remember they [the district] brought in people from CKLA I believe, and they sat us down and they [trainers from Amplify] went through what a CKLA looks like, and I remember it being overwhelming.” This feeling of apprehension at the first PD’s was also noted in an interview with second grade teacher Michelle,

Um, so I remember a lot of like, unknown apprehension people were unsure. Some people were very excited, like, we had not had a written curriculum to follow and so on. So, some people were really excited but then, after doing some deep dives, some people got nervous about Oh, this looks like it's going to be very intense. I was one of the excited people. I was really excited to actually have something to follow and like to understand how to teach how to read.

Despite some initial concerns, the detailed introduction to CKLA did help some teachers appreciate the structure and guidance it provided for teaching reading.

## **Neutral Zone**

When answering the second research question: *How are teachers making sense of the SOR-based curriculum?* The interviewees were asked questions about the professional development they received, and the supports given during implementation. This question was connected to the theoretical framework of Bridge's Transitional Phases of Neutral Zone. During this phase of adaption of the new SOR-based curriculum, CKLA, the teachers are simultaneously implementing the new while still learning and making sense of it.

### **Understanding the Science of Reading**

One of the first questions asked during the first session to address this research question was, "What does the science of reading mean to you?" The participants were split in their responses to this question. None of the teachers interviewed answered this question the same way. The professional development that began the year before implementation started with a webinar on the science of reading. All four teachers that participated in this research were in attendance to the PDs for the new curriculum.

Teachers' understanding of the Science of Reading (SOR) varied significantly, reflecting a range of interpretations and levels of familiarity with the concept. When first grade teacher Ruby was asked what the science of reading meant to her, she responded, "It's just the way the brain to me the way the brain is able to learn, learn information, and process information and the steps to get to being a successful reader." This varies from the response given by third grade teacher Daisy when she states, "Oh, they're the strings, right? They [the Science of Reading] are strings that's all I remember. I remember, comprehension is one of the strings and background knowledge. I don't remember I know there's two strings that are interconnected."

When asked the same question about SOR, KN teacher Mary responded, “I know that its New York based science of reading is a New York based idea.” And followed up by adding that, “it correlates with CKLA, it is based on the science of reading.” These varied responses highlight the need for consistent and comprehensive professional development to ensure all teachers have a clear and unified understanding of the Science of Reading.

The last teacher’s response for this question, Michelle, a second-grade teacher replied, “Oh, my goodness. I've taken so many classes. It's really like just how they read that it's a learned thing, you are not born knowing how to read we have to learn how to read.” Michelle's response emphasizes the fundamental principle that reading is a skill acquired through systematic instruction, reinforcing the importance of the SOR-based curriculum in teaching literacy.

### **Communication Channel- Professional Development during implementation**

After the initial training in the year before implementation, teachers received multiple professional development opportunities throughout the school year. The teachers also discussed the new curriculum and collaborated during their weekly PLC’s (professional learning communities). A couple of teachers noted that they also utilized social media and asynchronous webinars to further their understanding of the new SOR-based curriculum.

### **Examining CKLA**

Teachers implementing CKLA gathered throughout the school year during their first year of implementation to examine each unit. When asked what the professional development looked like to help the teacher make sense of the new curriculum during implementation, a couple stated that they met as grade level teams to do “deep dives” into each unit. The grade level team of teachers examined each unit and discussed the skills that would be taught, assessments for the unit, the pacing of the lessons and any resources they may need to gather for the new unit. Mary

states, “We have come together on multiple PD days to kind of “deep dive” into it and break down the skills lessons and then the knowledge portion and map it out. The district has mapped out when you should do it, of what day you kind of have a nice little chart to follow.” Michelle also noted, “So since the initial one we've done a lot of like “deep dives” into the different units, we've done some like, skills focus, dive and some knowledge focus dive so like, how can we make knowledge more engaging, how can we add in like, more fun to skills instead of just here's the workbook, here's your pages. Do it.”

Ruby mentions the importance of the professional development being relevant and most productive when it comes from fellow teachers that have used the curriculum. Ruby states, “I think the best ones have actually come from other teachers. When we met when the first-grade teachers that piloted it met with us, it was more practical PD it wasn't like looking through the manuals and it was more just think ways to implement it in your classroom.”

Daisy who teaches third grade has implemented CKLA for the first time this year. Her experience with follow-up PD is slightly different than the K-2 teachers that have an extra year of implementation of the new curriculum. Daisy explains:

I think this year we've had two PD days that have strictly been about CKLA. The first one was in the fall, and that one, we just looked at the upcoming unit and kind of dissected it a little bit because at that point, we'd only been in CKLA for like a month. So, we use that to kind of dig back in to understand the pieces and I actually I think that day two, after looking at the upcoming unit, we looked at Kagan structures, so our team broke off, took a unit and then created a document with what CKLA lesson goes with what Kagan structures we could add to the curriculum to make it more engaging.

The Kagan structures mentioned by Daisy are “are instructional strategies designed to promote cooperation and communication in the classroom, boost students’ confidence and retain their interest in classroom interaction “(Kagan, 2009). Kagan structures will be explained deeper in another section.

These "deep dives" during professional development days provided teachers with a structured approach to effectively understand and implement the new curriculum, ensuring a cohesive and engaging learning experience for their students.

### **Professional Learning Communities**

The district where the research was conducted requires weekly professional learning communities, or PLC’s, with each grade level team. The PLCs are a time of learning together as a community of teachers. Each PLC varies in their topics but include ELA, math, science, social studies instruction and data as well as other relevant topics to that grade level. ELA related topics have been a high priority on the agenda since the implementation of the new curriculum. Each grade level teams consists of 7-10 teachers and is joined by the content area coach when applicable. The teachers facilitate the conversation, and all contribute to the discussions. This PLC time is one of the only opportunities for Spanish immersion teachers to collaborate with the rest of team. As noted in chapter 3, the SPIM classrooms are separate from respective grade levels. PLCs include all members of the team, and all are required by the district to attend weekly during their planning period.

Participants for this research were split as to whether they felt the PLC collaboration was helpful or not. Ruby explains:

I'm not sure we're the biggest collaborators at our PLC to be honest, there's a lot of people don't always share as much and I can be guilty of that sometimes, too. I try to but



you know, it's we're far apart from each other. We're not really near which kind of makes it hard because I'll have something, and I'll forget to bring it with me. Like I'd make a conscious effort to remember to go over and put stuff in their mailboxes. Also, because I'm in immersion, I'm a little bit on I feel like I'm on a different schedule than them sometimes. Actually, I am ahead in some things behind in some things, but we do share some ideas in PLC.

This collaboration during PLC's has been helpful for other grade level teams. Second grade teacher Michelle commented, "A lot of PLCs and some of our PD days have been focused on CKLA, like, not too much district for like our school PLC PD days. We focus on how we can implement Kagan into not just doing the workbook page but how can we add something that gets them up and out of their seats." The teachers at this grade level focus on adding engagement to the CKLA lessons during their PLCs.

The PLCs also help keep the teachers together on the same lessons to enhance the collaboration. As Daisy points out:

And I think it keeps us somewhat or me even being all the way over here by myself. They see each other all the time know where they're at. So, having those times to check in, where are they in this unit? You know, are they you know, we're on what lesson where are they? And it helps to think ahead, because if they struggle for something or something, they thought, oh, we could have done this I can do it over here. So, it helps.

Daisy's third grade team as well as Michelle's second grade team find the collaboration and teamwork that happens during PLC's to be helpful and an invaluable tool for success with implementing CKLA.

## **Social Media and Webinars**

A few of the teachers mentioned using other means to provide themselves with the knowledge to implement the new CKLA curriculum. One of the communication channels that the participants mentioned was using social media as a tool for professional growth. Ruby mentions:

I think I've learned more about it [CKLA] just from my own what I learned from different Facebook groups or articles that I you know, been referred to by Facebook groups. I don't know if you should learn how to teach through Facebook. But a lot of people there do you know some things, or they share articles they've read that you know, to be honest, that is probably where I've learned a lot just from people sharing.

Mary, a kindergarten teacher, also looks beyond the structured curriculum for engagement ideas. She comments, “The slides that I have found I found some on Teachers Pay Teachers I use every unit because they are colorful, they are enjoyable for the students. They keep me on track. They keep them on track. I cannot stress enough that the kids enjoy them. They're colorful, their kid friendly as opposed to the ones CKLA provided.” Teachers noted that looking on social media and on teacher resource sites as being beneficial to their professional growth.

Another resource that one teacher mentioned to help them learn the new curriculum was webinars. Michelle explains, “I did like my own PDS off to the side like of science and reading. to really learn more about it. So, I did some on my own. Like kind of asynchronous. The one was through University of Delaware.” While this teacher chose to do virtual training from a local university, the company that created CKLA, Amplify, does offer extensive online trainings and webinars on topics such as the science of reading that are free to teachers that are using their curriculum.

### **Innovation-Materials**

Many of the teachers noted that they felt overwhelmed with the innovation of the new curriculum's quantity of resources. When first looking at CKLA, they mentioned many books and units that accompany the curriculum. As Mary states:

I remember being overwhelming with the amount of materials that you have. There's a lot of units and then there's the skills portion that you need to teach and then the knowledge portion that you need to teach. And then this year, we've introduced the writing piece which we have not done in the past. So, there's another little piece added into it. Their big push was that everything was there for you.

Mary, being a kindergarten teacher, was in her second year of implementation. The writing portion was added for the second year. Not having had a structured curriculum prior to CKLA and not many resources, being given so many books, workbooks, readers, etc....felt overwhelming for some teachers using CKLA for the first time.

### **Time-Fitting it all in**

One of Roger's elements of diffusion of innovation is the element of time. Teachers interviewed mentioned difficulty when first implementing with fitting everything in the school day. As mentioned in a previous chapter, Spanish immersion classroom have slightly less time due to the Spanish instruction they receive daily. This combined with the fact that they had never taught this curriculum before, the teachers were unsure how to time the lessons and what skills or lessons to speed up or slow down. When discussing fitting in other content Daisy states that, "because we're so pressed for a time with the CKLA, and we were told to teach it with fidelity." She states that it is difficult to fit it all in. Michelle supports by mentioning a similar struggle when asked about challenges:

Time. Time is a big one. Just making sure that I'm staying on pace with everybody else. Making sure we can get it all in because they're very like strict on okay, you need this much time to teach a skills unit and this much time to teach a knowledge unit. So, trying to stay within those timeframes, but also still stay on pace with everybody else in second grade so we don't end up behind.

This illustrates the significant impact of the element of time on the successful implementation of new curricula, highlighting the challenges educators face in balancing instructional fidelity with the constraints of their daily schedules.

### **New Beginning**

The third research question, *how are they managing the challenges and change?*

Connects with Bridge's final transition phase of New Beginning. During this phase of beginning with the new curriculum. Teachers are making daily adjustments and changes to their instruction. The teachers interviewed were asked how they are adjusting to CKLA and what challenges they may face. Their responses fell into two categories, challenges and positive changes.

#### **Challenges**

Some of the challenges mentioned were related to the innovation itself (CKLA) such as too much teacher talk in the lessons, lack of student engagement in the lessons, a need to supplement the curriculum, and insufficient creativity. Other challenges they noted were more related to Roger's element of time. SPIM teachers felt that they are already limited with their time in the English classroom, and they noted this as an added challenge to implementing CKLA. The teachers also shared that the pacing of the lessons was too quick to ensure students were learning the content. Collaboration was mentioned as both a challenge and a positive change. As a challenge, teachers felt their social system (other colleagues and school staff) did

not all collaborate equally. They also felt that due to their location in the school, they were not able to have as many collaboration opportunities.

One of the teachers interviewed, Mary, teaches Kindergarten and noted,

The challenge is to find time to do the fun things, that's what kindergarten is about. With CKLA being so rigid and just full and busy, that there isn't time to incorporate the fun things that we used to do the hardest part.

With the introduction of CKLA also comes the introduction of several significant challenges that impact the teacher's ability to balance structures lessons with engaging, flexible activities, especially in time-constrained classroom environments.

### **Teacher Talk**

Teachers noted that although CKLA came with a very scripted and guided lesson format, they felt that the lessons were too teacher directed and required them to talk at the students for long periods of time. In the primary classroom this proves as a challenge since the younger students have a shorter attention span. As Mary, a Kindergarten teacher noted, "There is also a lot of teacher talk throughout the lessons. It's hard for Kindergarteners to sit and listen so much." Other teachers mentioned the need to break up the lesson or add other engagement activities and strategies.

### **Need for engagement**

As mentioned in the previous section, teachers felt the need to add engaging activities for the students. CKLA lesson plans are notably heavy in teacher directed instruction. This required the teachers to come up with creative ways to break up the lessons or add engaging activities. Ruby mentions, "So I guess part of planning is I think making it more engaging. We will do Kagan structures to get them up and moving." Using Kagan structures to increase engagement

came up with all four teachers interviewed. As mentioned in a previous section, the district where the research took place uses Kagan structures at all schools. Teachers receive training on the structures in the summer and throughout the school year through staff meetings and PLC's. The structures are expected to be incorporated into all content area lessons.

The teachers interviewed expressed concern over the lack of engagement of the CKLA lessons in general. They utilized time during PLCs to help merge appropriate Kagan strategies with the units and lessons of CKLA. As Daisy, a third-grade teacher explains,

After looking at the upcoming unit, we looked at Kagan structures, so our team broke off, took a unit and then created a document with what CKLA lesson goes with what Kagan structures we could add to the curriculum to make it more engaging.

The need to add engagement into the CKLA lessons was also noted by 2<sup>nd</sup> grade teacher Michelle, “usually we use some Kagan. Like talk to your shoulder partner work with your face partner.” Shoulder partner and face partner refers to the students that sit to their right or left (elbow partner) or students sitting across from them (face partner). Sharing with a partner is a Kagan strategy that fosters engagement of all students.

### **Need to supplement**

Although the teachers interviewed mentioned that they had many resources and materials at their fingertips with CKLA, they also mentioned the need to supplement. Third grade teacher Daisy mentions, “I've added pieces to it. Like we add the fluency, or we do six minutes solution that we added to it just to practice their fluency.” She expressed a lack of fluency practice within CKLA. Ruby, first grade teacher also mentions the need to add fluency practice for her students. She states,

What I have done to make the CKLA a bit more we still do like little center group work even if it's just a group of fluency phrases with those boom cards in the middle and they have to put them all back if they get that they like those because they're practicing.

The boom cards that Ruby mentions is an app on the Smartboard where you can access slides that help practice skills such as fluency, phonic and math skills.

In Kindergarten and first grade, the teachers interviewed mentioned continuing with a phonemic awareness program they were already using called Heggerty. This is a foundational phonemic awareness program that is scripted and sequential for skills such as rhyming, isolating phonemes (sounds) and sound/symbol correspondence. Mary mentions, “We start our day with Haggerty, which gets us move in and it kind of gets the brain flowing for segmenting, blending, rhyming, all those kinds of things.” Although CKLA does have some instruction and practice with these same skills, the teachers felt the primary students needed more systematic instruction in this area. The teachers had seen growth with their students using this program with fidelity, so they wanted to continue using it with along with CKLA. They noted that many other kindergartens and first grade teachers in the district continued to use this program in conjunction with CKLA.

Another area that third grade teacher Daisy has felt the need to supplement is in the area of written responses. She explains:

I feel like if I was doing it the other way, from the old curriculum, my kids would be farther along in certain aspects than they are now. I feel like they [the students] would have been more prepared for the Smarter Balance because there's a lot of strategies that we would have taught them previously that aren't in CKLA, and because we're so pressed for a time with the CKLA, and we were told to teach it with fidelity that I'm not teaching

them the ACE strategy. They don't know how to do that. They still don't know how to structure answers, they think every answer wants to be one or two words and then they're done.

The ACE strategy that she mentions is a strategy used for written responses that third grade teachers in the district used to teach students how to compose a written response. The ACE acronym stands for: A: Answer the question – Start by directly answering the question being asked. C: Cite evidence – Provide specific evidence or examples from the text, lesson, or source material to support your answer. E: Explain – Explain how your evidence supports your answer, making connections and elaborating on your reasoning (Shawgo & Bireley (n.d.). This was a strategy she felt helped her students in the past and has decided to include with CKLA.

### **Insufficient Creativity**

Participants noted that their previous curriculum allowed for more creativity. In kindergarten Mary noted that, “We could be creative and pull literacy rich stories. That the children really were entertained by. I miss that.” Since CKLA gives them decodable readers and read aloud stories, the teachers are not able to add to their reading time with books that they choose that students have enjoyed in the past. Ruby also had a similar comment about creativity when she states that previously they had, “more time to be creative and do some more fun things that we would normally have done like during centers.” Both Ruby and Mary being primary teachers have had to adjust with CKLA and a diminished sense of creativity in their instruction.

### **Dip in and move on**

The teachers interviewed expressed a sense of surface coverage of certain skills taught in CKLA. They mentioned that they felt the curriculum just dips into a topic or skill and then moves on quickly to a new skill. Third grade teacher Daisy explains,



The amount that they [CKLA curricula] want you to do in one day is excessive. And I feel like the amount of time that they expect them to remember something can be heavy too. Like you'll do something in less than one day and then they're tested on at the end, but they don't really circle back to it very often. I feel like the skills they just move ahead. And I guess it's all in the spiraling I guess that's what they say but I feel like they move ahead, and we never really get good at anything. Just dip in and move on, dip in and move on."

Ruby, first grade teacher, also mentioned in her interview that she felt CKLA didn't go deep enough with one skill until it moved onto the next. She states,

I tried to fit in more in one day than the other classes do because I see them less, so I try to fit in at least two lessons a day. Okay, so I do, and I feel like CKLA goes through skill so fast. It's kind of a lesson one day and they move on to a new skill the next day.

All teachers noted the fact that CKLA moves fairly quickly and is based on a spiraling format where the students are exposed to the same skills over and over throughout the grades. Since this is new to them, the students have not seen some of the skills in previous years.

### **SPIM schedule**

A challenge that all participants mentioned was the different format to their schedule in the Spanish immersion classrooms. Since they have the students for either half a day or every other day, they do not have as much instructional time for ELA as the non-SPIM classroom. Ruby explains, "Also, because I'm in immersion. I'm a little bit on I feel like I'm on a different schedule than them sometimes. Actually, I am ahead on some things and behind on some things." This different schedule was also noted by kindergarten teacher Mary,

See, I look through the lens of Spanish immersion. We don't have as much time built in as a regular full day English program. So, I go, and I look through the scope and sequence and I look through the book and I pull out the meat of what's the important things, especially in the skills book.

To make up this loss of instructional time, the teachers mentioned doubling up on lessons to ensure their students are following the same pace as other classrooms at the same grade level.

In second grade since Michelle has her students every other day, she does double lessons. She explains,

We have to do double because we have full day for each classroom instead of halfway through the day, we split like everyone else does. Okay, so I do double lessons in order to keep on task with like everybody else.

This doubling up of lessons in one day is not the format that CKLA suggests so the teacher would be required to make adjustments to the lessons to make this format be beneficial to her students.

### **Collaboration**

In the area of collaboration with peers, the participants had mixed responses. Two of the teachers felt that either collaboration was not happening in their grade level teams or that it was not effective or helpful. Kindergarten teacher Mary explains,

Um, I wouldn't say it is helpful because nobody really wants to share their what they've created they kind of in the district have kept their kind of a hush hush on some things so it's hard to pull out. I find my team works really well. So more during PLC time than the whole district time is when I get the most beneficial the benefits from meeting and collaborating.

Collaborating both with grade level teachers in their school and with teachers in the same grade but in different schools has been the goal with the district. This collaboration should be occurring during grade level PLCs as mentioned in a previous section and in district professional developments.

Ruby also mentions a struggle with collaborating and sharing ideas and resources within the first-grade team. She explains, “I’m not sure where the biggest collaborators at our PLC to be honest, there’s a lot of you’ll see it people don’t always share as much and I can be guilty of that sometimes, too.” Ruby felt more positive about the collaboration within the district but did not feel her school’s grade level team collaborated very well. Again, as previously noted in another section, the location of the SPIM classrooms plays a part in easier collaboration.

### **Positive Changes**

The participants interviewed expressed a lot of positive changes with the inception of CKLA. Mostly teacher noted that the topics that the students learn about in grade K-3 have been interesting to the students. Daisy, third grade teacher mentions, “I find that for most of the units that kids are interested in the material.” This interest helps motivate and engage the students. Other positives noted by the teachers are the scope and sequence of the skills, the emphasis on foundational skills, kindergarten reading increase, the integration of social studies and science, and collaboration with peers.

#### **Scope and sequence**

Two of the teachers mentioned how they enjoyed the fact that CKLA is very systematic and follows a scripted scope and sequence. First grade teacher Ruby illustrates this when she says, “I like it being structured. I do like having the skills in an order that they’re supposed to be taught.” Second grade teacher Michelle also mentioned the ease of using CKLA. She explains,

“So, this one's very scripted. It tells you exactly what to do, what page you should be on.” The systematic and structured nature of CKLA, as explained by both teachers, enhances its usability, making it a reliable tool for guiding instruction in a clear and organized manner.

### **Emphasis on foundational literacy**

Although teachers noted in a previous section that they felt the need to supplement with a phonemic awareness program, two of the teachers felt that CKLA provided a good emphasis on important foundational literacy skills. Ruby details, “I do like that it focuses on the skills of learning to read the foundations of reading.” Michelle, a second-grade teacher agrees and further describes how the materials and resources provided with CKLA help her student to learn phonics skills. She describes, “A lot of phonics sounds like they have what is it called the individual code booklet, so each student has a code booklet with cards, and it gives you the sounds and the spellings for all the different sounds.” This code booklet is used in both first and second grade and is an individual resource for the students to utilize when unsure of certain letter sounds and more complex vowel combinations.

### **Kindergarten reading**

Specifically in kindergarten, Mary has seen an increase the ability of her students to read more after using CKLA for two years. She describes:

I do see that the kids are reading harder words they are reading words with blends and digraphs. Instead of just finishing kindergarten with CVC words, they're reading six to eight letters in a word and they're able to decode it and break it down. Pretty impressive for kindergarten.

The CVC words she is describing here stands for consonant-vowel-consonant such as the word ‘mat’. This is the typical level of decoding that kindergarten aims to teach. Her mention of her

student's ability to read much more complex words speaks to the higher rigor of CKLA in the kindergarten classroom.

### **Integrated science and social studies**

The teachers interviewed described how the integration of other content areas such as social studies and science as a positive with CKLA. Mary explains, "CKLA does bring in the social studies and science piece so that it isn't just in stories and things like that they're rich in content." This integration is also noted by Michelle in second grade. She illustrates this point when she explains, "We're getting ready to go on a field trip to wrap up our insect's unit for knowledge. And we're going to compare, like what we've learned about our insects and pollinators and plants in the lifecycle that we did in the knowledge unit before this one and putting it all together into a field trip to like, kind of wrap up those two things." The knowledge portion that she mentions is the read aloud and vocabulary development component to CKLA.

In first grade, Ruby also mentions the knowledge units being rich with integrating topics of a social studies nature. She explains,

I do like to teach social studies, so I do like the knowledge a little bit because it does have some fun topics, certainly not all areas of social studies that I like but it's got some fun things to do in there.

This fun helps engage the students and helps the teacher become more successful with instruction of CKLA.

### **Collaboration**

The four teachers interviewed had differing opinions on collaboration with peers. Two of the teachers felt it was more of a positive than a challenge. Daisy in third grade explains when asked if collaboration was helpful, "Yes, it's helpful, because we're all in the same boat. And we

all have ideas, and we all have ideas to add to the curriculum.” Michelle also mentions that collaboration is helpful. She illustrates, “To talk out with other teachers who are teaching the same things. And just hear how other people are differentiating the workbook pages like some people do. Teamwork.” These two teachers felt that collaboration enhanced their ability to effectively implement the curriculum, as it fostered the exchange of ideas and strategies, ultimately strengthening their teaching practices.

## **Conclusion**

The participants interviewed responded to my questions demonstrating their movement through Bridges transitional phases when implementing CKLA. They had to ‘let go’ of the old curriculum that was more creative and less structured. The teachers spent time in the ‘neutral zone’ where they needed to find their way through a productive challenge of learning CKLA and how to best implement instruction. Then, lastly, the teachers needed to embrace the ‘new beginning’ since the CKLA is the curriculum that was chosen by the district, and they need to embrace this change.

The participants relied heavily on their social systems, or their colleagues and district staff to help them navigate this new curriculum. They also needed to attend many professional developments both before, during and after school. This communication channel involving the companies training, Amplify and the district personnel was critical to their successful implementation. The teachers also need to learn about the innovation (CKLA), and how to best implement instruction. Of course, all teachers require a good amount of time to be able to process the new and get used to a different way of teaching.

## **Chapter 5 - Discussion and Conclusion**

### **Summary of the Study**

The purpose of this study was to investigate how the teachers adjust and adapt to implementing a Science of reading (SOR) based curriculum, Core Knowledge Language Arts (CKLA) from Amplify, and how Spanish Immersion (SPIM) English teachers have adapted to this new approach. This study delved deeply into the K-3 Spanish Immersion classrooms. Four teachers were interviewed three times throughout the winter and spring of 2024. Three of the teachers were in their second year of implementation of the SOR-based curriculum and one teacher was in her first year of implementation.

I chose this topic because there are not many research articles directly about SOR-based curriculum and the impact on teachers adjusting their instruction in the classroom. There are also not many articles discussing the implementation of a SOR-based curriculum and how educators make sense of it in a Spanish Immersion setting. Most research was conducted on monolingual classrooms. Having worked in schools and in classrooms as an English language teacher, I was personally invested in this topic. I have seen firsthand the time restraints and challenges that the SPIM teachers face. I have also witnessed many successes and have been amazed at how easily young student pick up a second language. I have always wanted to know more about best practices when teaching students to read. Since the topic of the science of reading has been prevalent in the elementary reading world, I felt it a great research topic to further investigate.

My research investigated the following questions:

1. In the context of implementing the Science of reading-based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic, and structured literacy programs?

1.a. How are Spanish Immersion teachers making sense of the SOR-based curriculum?

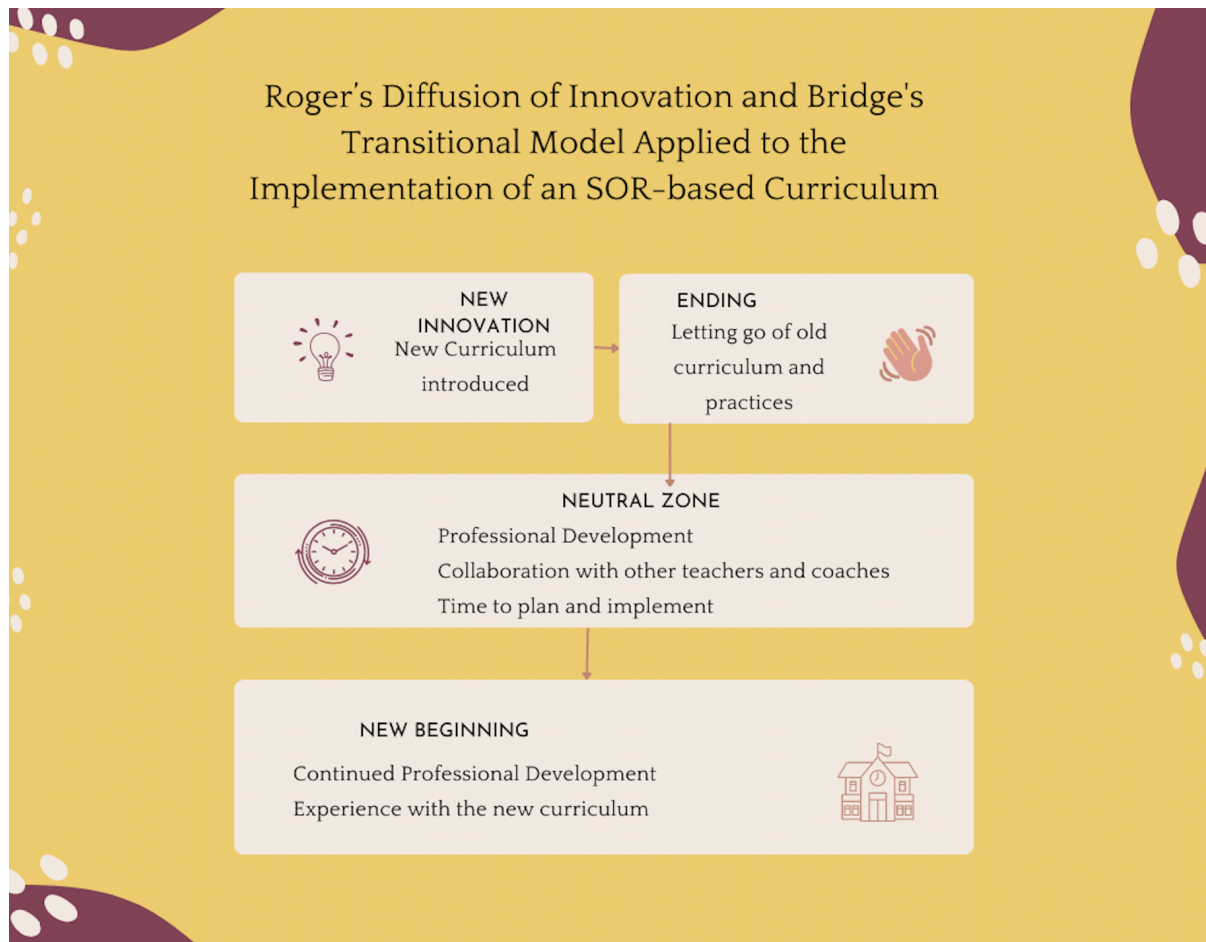
1.b. How are Spanish Immersion teachers managing the challenges and changes of using a SOR-based curriculum?

### **Summary of the Results**

When I investigated the three research questions, I found common themes that aligned with my theoretical framework of Bridge's Transitional Phases and Roger's Diffusion of Innovation.



**Figure 5.1 Theoretical Framework in relation to this study**



### **Research question 1**

**In the context of implementing the Science of reading-based curriculum, how do Spanish Immersion teachers make meaning of using explicit, systematic and structured literacy programs?**

The teachers that participated in this study made meaning by collaborating with colleagues and attending professional development. The teachers also used their prior knowledge of best practices of literacy instruction and child development to help them implement the new curriculum.

In the first interview that had questions about the science of reading, the teachers had mixed responses. Although they all attended a professional development from the company that created CKLA, Amplify, the teachers were not able to answer the question with confidence or clarity *What does the SOR mean to you?* It is difficult for the teachers to understand and make meaning of a curriculum based on something they are unsure of.

The participants' responses to the questions that directly related to this research question, were mostly connected to Bridge's (1986) transitional phase of 'letting go'. The teachers needed to let go of the old curriculum and begin to learn the new CKLA curriculum. They did this through Roger's (1995) theory of utilizing communication channels, or professional development on CKLA and the science of reading. They also needed the element of social systems or colloques and district staff to help them navigate the new innovation (CKLA).

### **Research question 1a**

#### **How are Spanish Immersion teachers making sense of the SOR-based curriculum?**

Participants made sense of the SOR-based curriculum, CKLA, by attending professional development (PD) sessions during PD days and weekly PLCs (or Professional learning communities) at their grade level. They worked with other similar grade-level teachers to dive deeply into the units of CKLA and help each other to think of ways to engage students and present the instruction. This teamwork and collaboration were beneficial to the teachers "owning" this new curriculum and making sense of it.

The teachers' answers to the interview questions that addressed this research question were directly connected to Bridges' (1986) transitional phase of 'neutral zone'. During this phase, teachers needed to navigate through the actual implementation of CKLA. They needed

Roger's (1995) element of time and communication channels (professional development and professional learning communities) to help them with this phase.

### **Research question 1b**

#### **How are Spanish Immersion teachers managing the challenges and changes of using a SOR-based curriculum?**

SPIM teachers revealed many challenges and changes they made while implementing the new SOR-based curriculum, CKLA. The biggest adjustment was getting used to a very structured and systematic way of teaching. The curriculum that the teachers were using previously, was much less explicit and teachers were able to create lessons based on a district-given curriculum map. They needed to come up with the resources and develop lesson plans that would align. The teacher participants had been doing their instruction in this manner for many years. For the veteran teachers in this study, this was a big change and hard for them to let go.

The teachers in this study also faced changes that were very beneficial to the students and to their instructional practices. Since they were given all the materials and resources and essentially all the scripts of what to say, the teachers did not have to spend as much time creating and developing lesson plans. They were also all on the same page with the new curriculum throughout the district so a lot of collaboration and sharing took place.

A major change for the teachers that they all mentioned in the interviews was lack of engagement. They all mentioned adding Kagan strategies or other ways to engage students since they all felt CKLA was lacking in that area. They felt CKLA was a lot of teacher talk and less movement and engagement for the students. The teachers spent many PLCs addressing this at each grade-level and sharing ways to make each unit and lesson more engaging.

A major challenge for the teachers in the study was the lack of time. They all mentioned at some point in the interviews that they lacked time to complete all the aspects of CKLA that the teachers should within a day's lesson. This made it challenging for them to select what to leave out of a lesson and what to make sure they include since they were new to implementing CKLA. One teacher mentioned that the pacing of the lessons got better the second year and that she was looking forward to the third year when she can really get it right. The participants all noted how hard it was to embrace the new beginning of a very structured curriculum.

The participants responses that answered this research question were connected to my theoretical framework in a few ways. First, the teachers were navigating through the final phase of Bridge's transition model (1986), 'new beginning'. It is during this new beginning that the real challenges and positive changes come from using the new innovation (CKLA). This also connects to Roger's Diffusion of Innovation Theory (1995) through the teacher's use of the actual innovation (CKLA), the importance of a communication channel (Professional development), the emphasis on being flexible with time and pacing, and lastly the use of their social system (grade level colleagues, coaches and administration).

## **Limitations**

### **Time of interviews**

While conducting my research, I found a few limitations. One being the length of the interviews. I conducted the interviews primarily during the teacher's planning period which is forty-five minutes in the school day. Since this is also the time for the teachers to use the restroom, make copies, talk with colleagues and any other personal business they need to attend to, I felt like the teachers may have rushed. I was anticipating a 30–40-minute session for each interview and they were mostly completed within 20 minutes. I gave the teachers the option of

before, during and after school and all chose their planning period. I feel that may have made them feel rushed since they knew they must get their students at a set time at the conclusion of the interview.

This feeling that the teachers rushed may have impacted the research. If they were not fully answering the questions in great detail, I was not able to get a clear picture on how the implementation of CKLA is going for them.

### **Choice Program**

In the district and the state of Delaware where the research was conducted, the SPIM program is what is called a choice program. This means that parents register and sign up in advanced for their child to be a part of this program. The registration begins prior and during kindergarten registration time. The registering students are also given a placement test prior to the start of school to ensure there are not any speech or language issues in their native language which is typically either English or Spanish. Because of this screening process, the students tend to be academically higher than a non-SPIM classroom. Parent involvement, which is known to be a pillar for student success, also tends to be higher in the SPIM classroom.

Another factor is the teacher selection for the SPIM classes. The principals of the immersion program schools in the district tend to place veteran, experienced teachers in the program. The teachers typically volunteer for this unique teaching role. This makes a difference when we look at the adjustment to a new curriculum. The SPIM teachers all have experience teaching other curricula and ELA.

### **Colleagues as Participants**

The participants chosen for this research were also my work colleagues. This can be viewed as an advantage or a slight disadvantage as well. The teachers interviewed knew me

outside of the context of this research, so they were comfortable talking with me. I have been a co-worker with all participants for three years at the time of this research. This familiarity can be viewed as an advantage because the teachers were willing to give their precious planning time to be interviewed. The participants were also much more honest with a colleague than a stranger when being interviewed. This rapport that had already been established as co-workers, was a benefit with the respondents answering more honestly. This was demonstrated when asked about what the Science of Reading meant to them. The participants answered honestly that they were unsure of what it meant and felt comfortable saying what they thought, even if they knew it was not accurate.

The disadvantage to interviewing participants known and familiar is that they may feel a sense of embarrassment or hesitance since they already have a rapport with the interviewer. As found in a study on interviewer-respondent rapport by Horsfall, et al. (2021), “When building rapport, or when it has already been established, respondents want to protect the existing level of rapport by avoiding any responses that might cause embarrassment or offense.” Since the participants are co-workers, they could have answered questions in a manner of what they thought I wanted to hear. This level of rapport between the interviewer and respondent can be seen as an advantage in the data results or a slight disadvantage.

### **Professional Development Considerations**

A limitation to consider for this study is the amount of professional development the participants received. During the interviews the teachers mentioned many different PD opportunities prior to and during implementation of CKLA. Many of the opportunities took place during a PD Day when the teachers were required to attend as part of their contractual obligations. Other PDs were optional because the professional development took place after

school hours. Some of the teachers attended this, others did not. One of the teachers interviewed was on maternity leave at the start of the year when CKLA was first being implemented so she missed out on some of the PD opportunities. This can influence the results of the study.

## **Implications**

### **Fidelity to CKLA**

The teachers interviewed in this study all mentioned supplementing CKLA with other programs or strategies such as Heggerty or ACES writing strategies. Since they were adding to CKLA, it's hard to determine if some of their responses were due to CKLA itself or because of the supplementation the teachers were adding to the curriculum. For example, three of the teachers interviewed used Heggerty phonemic awareness instruction daily. This program can take 15-20 minutes to implement each day. All teachers also mentioned lack of time to implement CKLA. Some of this lack of time could be due to supplementing with Heggerty or other instructional practices and not actually due to CKLA. Without implementing a new curriculum with fidelity every day, it's hard to say what is impacting their overall impressions of CKLA.

### **Implications for teachers**

Many things can be learned from this study that can benefit teachers. The teachers interviewed went through Bridge's phases of transition during the year before they implemented the new curriculum, when the teachers were letting go of the old curriculum. The teachers were adjusting and in the neutral zone where they relied on their colleagues and the staff of both the company Amplify that provided training for teachers and the district to help them make sense of CKLA.

Teachers should learn that it takes time and collaboration to implement a new curriculum. Teachers should also learn from this study that when implementing a new curriculum, you need to let go of the old ways if they were not working. It's important to teach with fidelity to be able to say whether a curriculum is working. You also must use your teacher judgment at the same time and do what is best for your students. The teachers in this study did continue to use supplemental programs such as Heggerty to ensure the students were receiving well-rounded phonemic awareness instruction. This was supported by the district but does not necessarily mean they were teaching CKLA with fidelity.

Teachers should also learn from this study that new does not mean better. Although there are aspects of CKLA that the teachers said they felt were an enhancement to their ELA instruction, the teachers also felt a sense of loss of creativity. Being a teacher requires flexibility and creativity. It also requires you to think on your feet and make decisions about instruction and management simultaneously. Embracing CKLA means that you have some of those decisions already made for you about instruction and assessment, but you lose the element of creativity and putting yourself as the practitioner into your instruction. For newer teachers this is helpful, for more veteran teachers, this maybe a tougher transition and the veteran teachers may have a harder time letting go of what they found has worked in the past.

### **Implications for SPIM schools**

Spanish Immersion schools can learn many things from this study. The most important concept to be learned is the interaction of Spanish and English literacy development. The third-grade teacher, Daisy, mentioned during an interview that she has noticed and been told that students that are in SPIM develop differently than non-immersion peers. She explained,



I find that for most of the units that kids are interested in the material I don't know if that's just an immersion thing because these kids' brains work a little bit differently because I have heard that for others it's harder for some of them. But these kids are I feel like a lot of them are like sponges, so they remember things and they really enjoy a lot of the nonfiction facts.

This interest and improved memory that she has noticed in comparison to the feedback she is receiving from other third grade non-immersion teachers, helps her navigate through the instruction at a faster pace and with a deeper understanding.

Other research has supported this notion of cognitive plasticity for immersion students. The Delaware Department of Education states, “Immersion students develop greater cognitive flexibility, demonstrating increased attention control, better memory and superior problem-solving skills, as well as an enhanced understanding of their first language” (2021). This comes from many research studies of two-way immersion programs. This is a great benefit when teaching literacy for both languages.

Another valuable concept that SPIM schools can learn from this study is the importance of building in a balanced schedule for the SPIM teachers to have the time they need to implement the new curriculum. As educators we never feel like we have enough time in the day to complete all the essential instruction we would like. For SPIM classrooms, since they are sharing time with another teacher, whether it be mid-day or every other day, this lessens their instruction time overall. SPIM schools should be mindful of creating a schedule that allows equal time in both languages. They must also consider the benefits of a mid-day or every other day switch. With younger students, it can be a long day in a classroom where they are just

learning the language. For younger students it may be more beneficial to divide each day instead of every other day for more equitable time in each classroom.

### **Implications for school districts**

Districts can also learn many things from this study. When implementing a new curriculum, it is important to phase it in so that teachers are not overwhelmed. The district in this study began professional development the year prior to implementation. This is helpful for the teachers to begin thinking about what changes they will need to make to their instruction before they need to do it.

Another aspect that districts should learn from this study is the importance of providing on-going professional development and support as the curriculum is being rolled out. If teachers and schools feel supported and know they have the ability to plan together and learn the new curriculum together, this will lighten the hesitance or reluctance to embrace the new.

A final concept that can be learned from this study for other districts is the importance of listening to the teachers. The district where the study was completed allowed multiple teachers to pilot or preview the curriculum before choosing a new curriculum. The district leaders had meetings with the teachers that were piloting at the district level and weighed the pros and cons of the CKLA curriculum. They decided as a team to move forward with adapting CKLA. This helped with teacher buy-in. With the support of their fellow teachers, all teachers, even some that may be reluctant, have a better chance of embracing CKLA. Teachers want to hear what other teachers in their school and district think about a new curriculum, not just a sales pitch from a company or district office staff. Providing teachers with this reassurance from fellow teachers would be beneficial for other districts when implementing or thinking about implementing a new curriculum.

## **Recommendations for Future Research**

### **Replication and Sample Size**

The results of this study provide many opportunities for future research. Given the limitation of sample size, replicating this study and including more than four participants would be a benefit and surely add to the results. Revisiting the same question protocol and interviewing more teachers would help enhance the results. Also, interviewing the same teachers after another year of implementation would also add to the results. Three out of the four teachers were in their second year of implementation of CKLA and one teacher was still in her first year. Interviewing the same participants after three years of implementation may give different results.

### **Mixed-Methods Quantitative Approach**

Another opportunity for further research is to take a mixed method approach and gather quantitative data on how the students are performing after two or more years of Science of Reading-based instruction. This would expand the results to not only include how the teachers felt and changed, but also adding the effects of the student's success with the new curriculum. This could be done by analyzing the CKLA assessments at the end of each unit or by progress on district benchmarks in literacy. Adding a quantitative approach would add the question, *is a SOR-based curriculum working?*

### **Spanish Literacy**

Yet another opportunity for future research would be to take a closer look at the Spanish side of literacy. The students in the classrooms of the Spanish Immersion program are also receiving Spanish literacy instruction. Replicating a similar study but interviewing the Spanish literacy teachers would be an interesting study to investigate. The Spanish teachers are not using the same curriculum, CKLA, but they are utilizing a lot of the same Science of Reading

components within their Spanish literacy curriculum. It would be interesting to see any similarities and/or differences when asked similar questions. Adding to that, a mixed method approach that looked at both languages and the students' progress towards reading and writing proficiency in both English and Spanish would add another element to the research and results.

## **Conclusion**

This study looked at how teachers in Spanish Immersion classrooms grades K-3 adjust and adapt to a new Science of Reading-based curriculum. This study interviewed four teachers to see how they made sense of the new curriculum, CKLA, and how they adapted to the systematic and scripted curriculum. The teachers interviewed shared many aspects of CKLA that they felt were positive changes and the participants also shared some challenges.

Overall, the teachers felt they have adjusted and supplemented the curriculum to make it their own and to help their students be successful with learning literacy skills. At the first interview sessions, I felt a sense of overwhelming feelings about CKLA and learning something new. Three of the teachers interviewed had been teaching for many years and have fine-tuned their instruction over the years. It is sometimes hard to let go of what you know has worked and embrace something new that you are unsure of. These feelings of apprehension seemed to dilute with each interview session. As the teachers became more confident in their instruction and have made changes to fit them and their students, they were more adjusted.

This study provided a deeper look at the ways in which teachers in SPIM adjust to the new, let go of the old and embrace the new despite the challenges and adjustments the teachers had to make.

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## Appendix A - Interview Questions

### Session 1: *SOR PD and what they have been given*

1. Before CKLA, describe what your literacy instruction looked like in your Spanish Immersion classroom.
2. In your own words, can you describe what you understand to be the SOR?
3. Thinking back to before we adopted CKLA, we had a PD on the SOR [K-2: 3/11/22, 3rd gr: 9/13/22], what do you remember from that session?
4. How are you communicating the SOR to families?  
*(Elicitation techniques, handouts, PD, PowerPoints)*

### Session 2: *CKLA PD*

1. Thinking back to the first PD on CKLA [K-2: 5/13/22 & 6/15/22, 3rd gr: 2/17/23] what do you remember from that PD?
2. Since that initial training, what types of follow-ups have you experienced? *(PLC)*
3. How does CKLA embody SOR as you know it?
4. Based on the literacy instruction you mentioned in the first interview, how does CKLA differ from what you did before?
5. Describe any collaboration time you have taken part in while implementing CKLA.
6. In your opinion, is the collaboration helpful? Why or why not?

**Session 3:** *How it is going in the classroom*

1. Describe what CKLA looks like in your Spanish Immersion classroom. (*structure, grouping of students*)
2. When comparing CKLA to the literacy instruction mentioned in the last interviews, what are the differences?
3. What changes or adaptations have you made for CKLA instruction?
4. Tell me about any challenges you have encountered.
5. Tell me about any benefits of using CKLA

