Building Content Knowledge in Elementary English Language Arts:

How a Shift in Curriculum Affects Teacher Perception of Reading

by

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ABSTRACT

Desert Elementary is a suburban Phoenix K-5 school. The school has undergone a significant change in its approach to reading instruction due to the Common Core State Standards (CCSS) instructional shift of building knowledge through content rich nonfiction. Teachers implemented this shift in their classrooms through a 16-month professional development program called Students Talking for a Change (STFAC). This qualitative action research study explored how teacher perception of reading instruction was affected by this change in instructional practice. Data collection comprised of classroom observations, teacher interviews, planning artifacts, professional development session artifacts and student work in order to determine teacher understandings about reading comprehension and perception of classroom practice. Prior to the professional development, teachers understood reading comprehension to be answering questions correctly and acquiring skills dictated by a basal reader. The texts teachers once used to teach reading lacked topical coherence. As teachers learned how to integrate content into language arts through long-term planning and sustained exposure to a topic of study, teachers changed their understanding about reading instruction. The perception was that content, discussion and multiple interpretations were central components to comprehension. Further, planning documents evolved from student packets to unit plans based on social studies, science and literature.

DEDICATION

       As I have become older, it has become clearer to me how lucky I was to be close to my grandparents. As a child, I went over to their house nearly every day after school. Unlike most kids, I preferred to spend time with them rather than with friends. My grandpa loved history, particularly Arizona history, and we would spend hours reading books or watching documentaries about it. My grandma was more appreciative of the arts, taking me to plays and musicals from the time I was about five. She was always willing to take me to all of the movies nominated for Academy Awards, even if my parents did not approve. They both were devoted fans of professional tennis, which we would watch every summer when they took care of me. Simply put, they were the consistent force in my life and it was because of them that it was never a question that I would attend college. They are not here today and I am saddened that they were not able to witness this time in my life. I dedicate this work to the memory of my grandparents, Don and Marvene Ellis, Arizona State Teacher's College Graduates and longtime Tempe residents. I owe everything that my life currently is to them.

ACKNOWLEDGMENTS

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Chapter 1

INTRODUCTION AND CONTEXT

"Now, we also need to encourage more schools to rethink not just what they teach, but how they teach it." -President Barack Obama, January 30, 2014.

A major educational issue often in the public realm is the gap in reading achievement between white students and students of color. We have seen improvement from all students in terms of reading scores on standardized tests since the 1990s, but the achievement of white students has continued to outpace their non-white and often low-income peers (Thomas, Aletheiani, Carlson, & Ewbank, 2014). On the National Assessment for Educational Progress, reading scores have overall improved for all students, however black and Latino students are still lagging behind their white peers (Hemhill & Vanneman, 2011; Vanneman, Hamilton, Anderson, & Rahman, 2009). From these reading scores, one might conclude President Obama is correct in his assertion that we need to rethink what and how we teach. This conclusion, however, looks at the issue much too simply. Due to the shift towards standardization, the "teaching to the test" movement transpired. During the latter part of the 20th century, teacher professionalism and autonomy advanced, but has recently been impeded by state mandated scripted curriculums, limiting the role of the teacher as a decision maker (Serafini, 2009). With school districts relying heavily upon mandated reading programs to develop student literacy, dialogue during instruction has taken a backseat. This is unfortunate, as teacher-student interaction drive both reading comprehension and critical thinking. Instead of rethinking how we teach to get students to "achieve" on standardized tests, many literacy researchers advocate for more student-centered discussion during reading instruction in

order to enrich and improve their educational experience (Nystrand, 2006; Serafini, 2009). As Serafini (2009) pointed out, "It is through talk that we create and re-create our identities, develop relationships with others, come to understand the world, and share our experiences with others" (p. 45).

Research suggests the importance of classroom talk, or discourse. Discussion that takes place in both small group and whole-class contexts fosters literacy development and does so more powerfully than a scripted program (Nystrand, 2006). The challenge with promoting more discourse is teachers understanding its importance and prioritizing it. Though multiple researchers support classroom talk, it still has a minimal role (Chi & Wylie, 2014; Corden, 1998; Geoghegan, O'Neill, & Petersen, 2013; Juzwik, Borsheim-Black, Caughlan, & Heintz, 2013; Myhill & Warren, 2005; Nystrand, 2006; Serafini, 2009; Wells, 2009). The issue is that teachers and curriculum developers generally do not see the value in talk or understand how it affects learning. Perhaps this means that teachers need professional development and mentoring to understand how discourse fosters literacy development. Until they see the importance of talk in student learning, teachers will undoubtedly do the majority of it in the classroom (Barker, 2015; Serafini, 2009). Given that politicians, educators and the general public have been historically dissatisfied with student reading achievement, there is an opportunity to begin informing educators and the public about the importance of discourse during instruction (Mraz & Vacca, 2012).

Acknowledging that discourse is a crucial aspect of the reading classroom is one issue; the process of fostering it within classrooms, however, is another. The Common Core State Standards, known as the CCSS, dedicate one strand to speaking and listening

skills alone, making it clear to educators that discussions and collaboration with peers is a significant part of English language arts. Being able to develop the skills that the speaking and listening standards call for, however, require teacher understanding and training. The writers of the standards themselves acknowledge that it is necessary for educators to clearly understand how the CCSS differ from previous standards. The authors have therefore identified three major instructional shifts in English language arts that the CCSS require: "1) Regular practice with complex text and their academic language; 2) Reading, writing, and speaking grounded in evidence from texts, both literary and informational; [and] 3) Building knowledge through content rich non-fiction" (Common Core State Standards Initiative, 2016). This means that educators will not only need to understand these changes in instruction, but also determine how their previous practices differ.

The third shift, building knowledge through content rich non-fiction, requires that students are immersed in the historical, scientific, and artistic information that makes up our world. This provides students with the contextual knowledge and vocabulary that promote independent learning. This shift, above others, is arguably the most difficult for teachers to transition to, as it departs significantly from previous practice (Cervetti & Hiebert, 2015a). Having background knowledge is incredibly important for students, as comprehension of a story or text is heavily dependent on what a student already knows about that topic, and is especially helpful for students who struggle with reading (Cervetti & Hiebert, 2015a; Fisher, Frey & Lapp, 2012; Hirsch, 2006; Neuman, Kaefer & Pinkham, 2014; Willingham, 2015). Having a contextual understanding of many topics equips students to share their ideas from both their experiences and new learning that

prompts conversations with peers. These conversations allow children to collaborate and come to a deeper understanding than what they would be able to accomplish alone, something that would be much more difficult without the background knowledge. The CCSS recognizes the connection between talk and knowledge building by supporting primary students to read or listen to a series of texts on the same topic in order to have analytical discussions concerning multiple sources of information (Cervetti & Hiebert, 2015a). With this substantial change in English language arts instruction, there is room for showing teachers how the instructional shift towards building knowledge should improve the quality of discourse in the classroom around text.

Situational Context

Desert Elementary is a K-5 school located in a large suburban school district in the Phoenix metropolitan area. The district is rated as an A by the Arizona Department of Education (Arizona Department of Education, 2014). Within the state of Arizona, the district is thought of as a higher income school district with great schools. One does not often hear ineffective and this district in the same sentence; the common assumption is that all of the schools serve mostly white, privileged children who always achieve at high levels on standardized and non-standardized assessments. The demographics of Desert Elementary, however, suggest this is an inaccurate stereotype. In this school, 34% are eligible for free or reduced lunch, 53% are students of color, and the proportion of black students is well above the state average. Despite students of color being the majority, only 3 of the 35 full-time teaching staff are non-white. At the end of the 2014-15 school year, the school decreased students identified as well below benchmark on the DIBELS assessment (Dynamic Measurement Group, 2016) by only 1% in grades K-3, starting at

11% and ending at 10%. Though this is a slight improvement, when comparing this school to other schools with similar populations, this is considered below average progress. Grades 4 and 5 saw an increase in the number of students being labeled as well below benchmark, with a 1% increase in grade 4 (from 13% to 14%) and a 4% increase in grade 5 (from 8% to 12%). These results indicate that more students in the upper grades end the school year in the lowest achieving category than at the beginning. These results are considered well below average progress by the district.

The number of students scoring in the highest category from the beginning to the end of the year is also a concern. In grades K-3 overall, the number of students in the highest category increased by just 3%, from 75% to 78%, indicating below average progress. In grade 4, there was a 9% reduction in students reaching the highest category from 73% at the beginning of the year to 64% at the end. Fifth grade results were similar, with 74% of students being in the highest category at the beginning of the year and decreasing to 66% at the end, an 8% reduction. For 4th and 5th grade, this translates to well-below average progress. The principal, along with the instructional coaches, are aware of these disparities and have participated in numerous hours of professional development around how to best support the diverse student population. In short, the data from our primary reading assessment suggest that students are not improving, so we must take a closer look at our instruction in order to improve it.

Role of the Researcher

I spend approximately 16 hours per month at Desert Elementary School in my role as the Language Arts Curriculum Specialist for the district. I provide professional development on the teaching of language arts through formal trainings, modeling lessons

in classrooms, co-teaching, observing, providing feedback and mentoring teacher teams on curriculum planning and instructional techniques. When I interact with teachers, I am responsible for modeling The Art and Science of Teaching framework (Marzano, 2007). I regularly give specific feedback to teachers on their practice relative to the framework, though this is not evaluative. Additionally, I am responsible for providing mentorship and guidance to the 10 literacy coaches who support 25 schools across the district. Further, I frequently research the latest practices in language arts, review curriculum and lead special committees to improve literacy instruction.

My deep passion for reading instruction made me eager to go into classrooms and observe what was happening. Through roughly 100 informal observations throughout the fall of 2014 and spring of 2015, I witnessed that most classroom reading instruction was very skill-based, meaning that lessons focused on teaching reading skills such as predicting, finding the main idea and summarizing the text. What was most noticeable was that the ideas of the texts were secondary to the instruction. Instead of selecting connected texts that built upon one another within a unit of study, text selection was determined from whatever reading passage was available that "taught" a certain skill. Due to required standardized tests that assess these skills, this was not surprising. According to Hanford (2014), this approach has been "widely used at schools across the country, particularly poor schools where lots of students struggle" (p. 1). In a typical lesson, the teacher begins by stating the skill students will be focusing on that day, such as inferring, finding the main idea, identifying cause and effect patterns or drawing conclusions. Critical thinking, such as engaging in inquiry, challenging others' assumptions, and critiquing what is happening in the world, was absent. In my role as a

curriculum specialist, this was very troubling to me. The more I observed, I realized that I needed to form a compelling argument as to why we needed to shift the way we teach reading from being skills based to knowledge based. Doing so would not only build contextual knowledge about the world our students live in that would trigger more talk in the classroom, but also give children the critical thinking abilities that afford stronger test results.

Personal Context

Coming to a research topic as a K-8 educator has been a messy process. Herr and Anderson (2015) attested, "the questions we pursue in action research are often related to our quandaries or passions . . . Many action research questions come out of a frustration, a practice puzzle, or a contradiction in a workplace" (p. 92). One of the consistent frustrations throughout my career has been our approach to reading instruction. Since I began teaching, the vast majority of teachers, coaches and administrators whom I have encountered view reading as a "skill" to be mastered. As a new teacher, I did not think about this much. After all, it made absolute sense to listen to my more experienced superiors. After a year of experience and master's coursework in teaching English language learners under my belt, I began asking questions. I distinctly remember one day in my second year opening up the page in our textbook to teach a lesson on allusions using Martin Luther King's *I Have a Dream* and thought, how can I teach this lesson without my students understanding the civil rights movement? How can they understand the significance of King's words without knowledge of the history of oppression for people of color in America? I knew it would not be possible for them to identify the allusions to Lincoln's Gettysburg Address without full awareness of the significance of

that speech or just basic knowledge of the Civil War. In that instance as a reading teacher, I decided that in order for my students to understand these texts, we would have to read and discuss black oppression in America at a much deeper level over a longer period of time. From that defining moment, I began placing less importance on the "skills" sequence of my textbooks and wrote my own language arts units that focused on building student background knowledge on real-world issues.

After teaching in multiple schools in both New York and Arizona, however, I have found that my approach to teaching reading is mostly the exception. Within my district currently, our curriculum maps in reading solely focus on skills that students need to "master." To my own delight, however, the writers of the Common Core standards have made the point that building student background knowledge of real world topics is crucial. In them, they state:

> *By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades.* (Common Core State Standards Initiative, 2015).

Teaching reading in this content-driven way is incredibly important to me and informs the conversations I have with teachers and staff. At the same time, I have learned about other aspects of effective reading instruction. My coursework has given me an increased awareness of how discourse, or social interaction, fosters learning and development. The originator of this theory was the Russian psychologist-theorist Lev

Vygotsky. He viewed individual development "to be a profoundly social process...it is through social interaction that certain important developmental spaces are in fact created" (Chin, 2007, p. 270). What I have seen transpire in my setting, however, is a large disconnect between theory and practice. As part of my first cycle of action research, I conducted a large number of observations. In my data analysis, I saw the need for more discourse in the classroom. The themes I identified were: students staying silent during whole group instruction and seatwork; reading, listening or watching a video without doing anything else; teacher-provided explanations, and students taking dictated notes. Overall, learning was not social but rather, mostly passive.

In the spring of 2015, I implemented several initiatives to address this problem. The first cycle of action research involved a cycle of observe, model, reflection and feedback for 15 teachers. The observations were scripted without a protocol. For the modeling of lessons, I met briefly with the teacher beforehand to let them know to pay attention to how often I stopped to pose a question to students, the level of rigor of the question, and the content of the question itself. A post-lesson debrief occurred to get thoughts on the lesson and identify practices observed that they could implement in the future.

Despite these initiatives, the level of student discourse happening in classrooms still did not improve. In conducting an analysis of my observations, one of the themes was consistent with my earlier observations: most student engagement was passive. This meant that students participated in activities that did not require overt evidence of thinking, such as reading independently, listening to the teacher speak or simply watching a video. Another theme that emerged was that there were interactions about non-content

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related ideas, such as the teacher asking, "class" and the students replying, "yes?" to indicate they were giving attention. There were questions that the teacher posed, but few points that students made provoked further conversation. For example, when students provided responses, it was followed by teacher evaluation of their response; was it right or wrong and why? After telling the students their thoughts about this response, the teacher would move on to another activity. What I concluded was that there were few times in which students explained their thinking, interacted with others or defended their points. Any student statements were classified into a category such as "very good" or "needs work" by the teacher.

I started to wonder why my efforts did not seem to be working; instruction was just not changing. Perhaps student engagement was still mostly passive as having discourse about a reading "skill" is not compelling to students. As the educational psychologist Jerome Bruner (1996) noted, "Stories worth telling and worth construing are typically born in trouble" (p. 142). How could our students talk to one another in our classrooms if the content of their lessons simply focused on a skill? How could students form opinions and defend them if the texts they were reading did not build knowledge about the troubling realities of our world? Further, how could they even make comments on readings if they had no context for what was being read? Student talk happens when our lessons are coherently structured and based on thought-provoking real-world ideas. Most reading programs, including the ones used at Desert Elementary, do not offer coherent readings on a sustained topic, resulting in a fragmented understanding of the world (Hirsch, 2006). Thoughtfully sequenced, context building literacy units help students understand references to things that writers take for granted and do not explicitly

explain to their readers (Hirsch, 2006). If students learn about the world in which they live during reading, they can start thinking about what they can do to contribute to society, as well as be more likely to understand the texts they encounter throughout their lives. This knowledge base will allow students to construct meaning from the texts they read and the conversations they have with others, as well as evaluate the perspectives of others, and defend their own assertions. Therefore, I came to the hypothesis that if we change our approach to reading instruction through topic-based and context building units, meaning teachers understand and value the building knowledge instructional shift in the CCSS, then instruction will have a better chance of being more discourse-centric. Early in this process, a professor helped me realize that addressing current teacher understandings about reading instruction is the first step in making this change in curriculum. Literature also told me that I could not expect teachers to change practice without comprehending their beliefs first. Asking teachers to describe how they understand a concept and what they do to implement it reveals how teachers think about a practice.

My 10 years of experience as a teacher, reading specialist, literacy coach and language arts curriculum specialist have brought me to promote a knowledge-oriented approach to the language arts classroom. I now believe that literacy classrooms should center on readings and discussions that build a systematic contextual understanding of the world they live in. This means that children participate in conversations that help them construct meaning of their own reality with the support of texts that build their background knowledge. I believe that educators must confront the lack of content in their reading curriculum. Working with teachers to enable them to make their literacy

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instruction more knowledge-oriented is the first step in this process and the driving force of this study.

Purpose Statement and Research Questions

Information from national, situational, and personal contexts suggested the following purpose statement and research questions. The purpose of this action research study was to examine how teacher perception of reading instruction was affected by a shift in the focus of reading curriculum to content-based units. This means that teacher notions about reading comprehension, as well as impressions of reading instruction in classrooms, were explored. The method used to examine this was through a training program I developed around knowledge-oriented literacy pedagogy and instructional planning called Students Talking For A Change, STFAC. STFAC is based on three fundamental principles that can be traced back to Vygotsky and E.D. Hirsch. The first is that we need to change teacher practice to allow for more student talk, which fosters learning and development. The second principle is that student talk is promoted by a content-rich literacy curriculum that builds the knowledge base children need in order to be strong comprehenders of all texts (Hirsch, 2006; Hirsch, 2010). The final principle is that talk allows students to learn more deeply about the world they live in, equipping them to be agents of change and help improve the lives of all.

The following research questions guided the pathway of this action research project. The research questions are:

1) How is teacher perception of reading instruction affected by a shift in the focus of reading curriculum?

a. How has teacher understanding of reading comprehension evolved since professional development in the CCSS instructional shift of building knowledge?

b. How does professional development on building background knowledge during reading instruction affect teacher perception of classroom practice?

Chapter 2

THEORETICAL FRAMEWORKS AND RELATED LITERATURE

The first chapter provided context for how I arrived at researching how teacher perception of reading comprehension is affected by the building knowledge instructional shift in the English language arts classroom. This chapter includes three parts: the theoretical framework for this action research study, a conceptual framework that informed the innovation I conducted, and the literature related to knowledge-oriented reading instruction and discourse. In the first section, I provide an overview of theory that supports the beneficial role talk can play in classroom instruction. In the second section, I provide a conceptual framework around knowledge-based reading instruction that directed the intervention I employed with participants. In the third section, I review literature on the importance of building knowledge and discourse within the reading classroom and describe how these concepts relate to one another. The specific themes uncovered in the literature were discourse and literacy acquisition, beliefs about reading comprehension and the effect on instructional practices, building knowledge, the role of prior knowledge, the barriers to implementing the building knowledge instructional shift, and anticipated outcomes of this action research.

This study is rooted in the idea that learning is dependent on the quality of interactions in the classroom. Meaningful social interactions within a reading classroom do not happen when the content of literacy instruction is solely based on skills like finding the main idea or writing a summary. Rather, students will engage in discourse when they have a coherent knowledge base about various real-world topics. In other

words, students cannot have a meaningful discussion about text when they do not have the background knowledge to infer or question the troubling issues that are presented in texts during reading class.

Theoretical Frameworks

The theoretical perspective that is at the foundation of my action research is Vygotsky's sociocultural theory. Proponents of this theory have argued for a more social interactive approach to learning that will inform the intervention for this action research: professional development for teachers on the CCSS instructional shift of building knowledge as a means to improve discourse in the classroom.

Vygotsky's Sociocultural Theory

Much of what we know from how individuals learn has come from the work of Russian psychologist-theorist Lev Vygotsky. Vygotsky was a social psychologist who wanted to demonstrate that relevant social interactions among individuals affected student learning and served as a scaffold for individual development (Ferraz de Castillo Dourado Freire, 2000). Relevant social interactions indicate that conversations have to be meaningful to the individual to foster construction of new knowledge based on previous understandings. Not only do children learn new vocabulary, concepts, and content knowledge through this mechanism, but they also learn those skills and values that are specific to the culture in which they were born. As Wells (2009) attested, "it is in the course of interaction that occurs during jointly undertaken activities that children encounter the concepts, skills and values of the culture in which they are growing up and, with adult assistance, gradually make them their own" (p. 55).

Vygotsky argued that children primarily learn through social interaction. As a child's first point of contact with the world is with the culture that surrounds them, initial learning takes place within their own home and community. Children have acquired language, how to communicate with others, how to utilize objects, and how to interpret everyday activity through the interactions they have had with those surrounding them. Thus, from the very earliest stages of life, learning is a social process before it becomes an individual one (van de Pol, Volman & Beishuizen, 2010). This is logical, as we often make sense of the world collaboratively, rather than in isolation. Learning is therefore a process of co-constructing the meaning of new information.

Vygostky did not intend that the collaborative nature of learning to be one in which children needed to be in agreement with one another. Rather, the perspective of another person can add to what a learner already knows, challenge their own assumptions or those of a peer, while developing critical thinking skills in the process. In a meaningful Vygotskian discussion, participants come to common understandings through back and forth exchanges, allowing the student to acquire new, more sophisticated knowledge that they would not be able to do on their own (van de Pol et al, 2010). As one cannot learn from another person without a common means of communicating, Vygotsky believed language to be the way generations pass on information to the future as well as the mechanism through which cultures make sense of the world they live in (Bodrova & Leong, 1994). Vygotsky believed language was at the foundation of the learning process by having a more knowledgeable peer or adult present to provide assistance. According to Myhill and Warren (2005):

[Vygotsky] foregrounds not only the importance of language, but also the

importance of the social conditions which enable learning to occur: and, in

particular, [he] foregrounds the importance of the teacher in supporting

learning. An individual's capacity to learn can be enhanced if appropriate

cognitive support or assistance is given by the teacher (or other expert). (p.

56)

From this, we can conclude social interaction allowed our children to acquire

language, leading them to use it as a means to develop logical thought and construct

meaning of the world. Engaging with another person about what they think has allowed

learners to develop.

As educators, we can learn from Vygotsky that oral language provides a means to

construct meaning for any subject area. It has been crucial to interact with one another to

advance our thinking as learning happens in a social context first before it can be

internalized (Corden, 1998). This means that in order to produce thinking orally or in

writing, individuals reference their internalized thoughts that are derived from discourse

with others. Vygotsky believed this process of making meaning involved the use of inner

speech, which was constructed through thinking collaboratively. In this view, individuals

gradually take their discourse with others and transform it into a resource that supports

their individual thinking (Wells, 2009). Ensuring that sufficient meaningful dialogue has

taken place will allow students to externalize their inner speech to convey their

knowledge about a topic.

Vygotsky's theory did not only concern language. Vygotsky believed that the

social environment, as well as the tools and artifacts present in that environment,

provoked thinking in the individual (Commission on Behavioral and Social Sciences and Education: National Research Council, 2000). Vygotsky contended that we look at human thought as connected to the objects that mankind has produced in our world (Cole, 1996). We cannot understand how our students think in isolation from the tools and artifacts from our world, implying that exposing students to those things and discussing them, is necessary.

The conceptual framework of the academic literary critic E.D. Hirsch explains how building student knowledge of the world is a key, yet often overlooked, component of strong reading instruction.

Conceptual Framework

Before describing how the conceptual framework of literary critic E.D. Hirsch has informed this study, it is important to first note that Hirsch's earlier seminal work, *Cultural Literacy* (1987), has since caused him to be a controversial figure in the academic community. There are prominent educators, Diane Ravitch (2010) most notably, who agree with Hirsch in his call for a coherent reading curriculum based in liberal arts. Despite this, his critics accuse him of identifying certain facts that all Americans should know as well as only respecting the so-called "literary canon", resulting in him being labeled "offensive" and "conservative". Hirsch has stated himself that this "list" of essential knowledge published in *Cultural Literacy* has been misinterpreted (Hirsch, 1993), but his name remains inflammatory to many academics. Although the Hirsch name might have a negative connotation to some due to his past work, he has since written numerous books that critique the way reading is taught in our schools and how it has not helped low-income students in particular. In his more recent

popular works (Hirsch, 2006; Hirsch, 2009; Hirsch, 2016), he does not argue for students to read a set canon of literature, but rather, urges educators to approach literacy instruction in a knowledge-oriented manner. As his insistence on teaching content as a means to support reading comprehension has since been embraced by the CCSS, we cannot ignore the influence of Hirsch's work.

Hirsch's argument is to revise the way in which we teach reading in our schools. In typical American classrooms, students read from an anthology of readings or short passages about different subjects on a daily basis (Hirsch, 2006; Hirsch, 2009). With these texts, students are taught reading "skills" or "strategies" such as main idea, predicting, summarizing, and clarifying. What this type of reading instruction implies is that reading is a skill and regardless of the subject matter, students can apply those skills to any task (Hirsch, 2006). In many classroom settings, learning these strategies is more important to becoming a better reader than the actual content of the reading itself.

Hirsch (2006) wrote that the skills and strategies based approach to teaching reading is the biggest barrier to student reading achievement. Instead, he has argued that the systematic learning of broad knowledge about history, science and the arts is the most crucial aspect in becoming a good reader (Hirsch, 2006). The large amount of time spent on teaching reading strategies will not improve reading comprehension, especially since this indicates that time is being taken away from building the knowledge base.

Building the knowledge base means that teachers develop a coherent and logically structured topic-based curriculum to implement for reading class. Many commercial reading programs that are marketed to school districts disregard the systematic building of content knowledge. Hirsch (2006) contended that this does not align to the consensus

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among cognitive scientists, who "agree that reading comprehension requires prior 'domain specific' knowledge about the things that a text refers to" (p. 17). Instead, comprehending involves integrating this background knowledge with the words in a text in order to create a mental situation. It is important to note that Hirsch has supported students learning a systematic phonics sequence and a knowledge-building reading curriculum concurrently. He argued that if we applied similar principles of a logically sequenced phonics program to reading comprehension, it would be more likely that student achievement in reading comprehension would improve (Hirsch, 2006). Therefore, educators must sequence the topics of student reading in a coherent manner in order to support understanding of new ideas as well as the cultural and historical references that will come as they encounter increasingly complex text.

By reading the CCSS, it is clear that Hirsch's work has influenced the writing of the standards. David Coleman, the so-called architect of the CCSS, has stated that Hirsch's framework of building background knowledge to acquire literacy "is absolutely foundational to the construction of the standards" (Politico Magazine, 2014, para. 2). Knowledge-oriented researchers Cervetti and Hiebert (2015b) contend that the CCSS bring about a significant curricular change in acknowledging that knowledge development is part of reading development. This idea is exemplified on page 33 of the CCSS, which calls for the systematic building of knowledge for everyone (Liben & Liben, 2013). As we learned from Hirsch, building knowledge is not prevalent in American classrooms, which is why it has been identified as an instructional shift in the adoption of the CCSS. The building knowledge shift is in opposition to the more traditional type of reading instruction that frequently jumps from topic to topic on a daily

basis. This approach privileges students who already have the background knowledge from elsewhere and prevents those who do not from making sense of the topic (Liben & Liben, 2013). As the writers of the CCSS recognize, knowledge and comprehension are connected to one another (Cervetti & Hiebert, 2015a). Specifically, Cervetti and Hiebert (2015b) argue, "the CCSS provide an opening act upon the understanding that knowledge matters for reading development…the new standards foreground knowledge development as a focus and outcome of ELA instruction" (p. 549). This is not to say that foundational skills such as phonics do not play a role in reading development, but rather, background knowledge also has a significant impact on an individual's ability to comprehend.

The reason why knowledge of a text's topic is such a strong predictor of comprehension is that it allows students to focus on making meaning of the text (Cervetti & Hiebert, 2015b), minimizing the possibility of focusing their attention on ambiguous information that authors assume readers already know. To build knowledge in the language arts classrooms means that educators need to incorporate content-vocabulary instruction in conjunction with the reading aloud of informational text from the beginning of formal school in order to foster comprehension in the long-term (Wright, 2014). Children who have had early exposure to informational read alouds and discussions with adults about that content are much more likely to have stronger comprehension due to their understanding of the words in a text (Wright, 2014). When students have limited early exposure to content-based vocabulary and informational texts, they are more likely to struggle with comprehension of these types of texts (Wright, 2014). Unfortunately, this has been true of many low-income students (Wright, 2014), implying that integrating content-rich curriculum within language arts can be helpful for this population especially.

Students are not supported, however, when the topics are disconnected from one another on a daily basis. When students have repeated exposure to texts about the same topic, they will inevitably see interconnected vocabulary, allowing them to use these words appropriately in discussion (Wright, 2014).

The CCSS call for a 50/50 balance of informational and literary text, meaning that there is far more emphasis on non-fiction than in the past. This change encourages educators to implement curriculum and instruction that is aligned to the well-researched Hirschean notion that knowledge plays a crucial role in the reading process, influencing what students learn from their reading (Cervetti & Hiebert, 2015b). Due to the link that background knowledge, vocabulary acquisition and reading comprehension have, it is impossible to disassociate Hirsch from the instructional shifts as called for by the CCSS.

In order for teachers to see this connection and to implement this instructional change requires significant training. My innovation will involve professional development for teachers to change our reading curriculum to address the CCSS instructional shift of building knowledge. Through this professional development and ongoing support, my goal is that teachers will value this shift and be able change their understandings about reading comprehension. In order to implement Vygotsky and Hirsch influenced pedagogical techniques, teachers will develop an understanding of what building knowledge looks like within instructional units. It is important for teachers to collaborate on this effort to establish how to best build knowledge and make it a focus of ELA instruction (Cervetti & Hiebert, 2015b). As a language arts curriculum specialist, what I value most is a logical reading curriculum and supporting teachers in implementing meaningful instruction. I am fearful of a world where students are

minimally literate, not conscious of what surrounds them or passively accepting reality. This means that we have to provide students with the background knowledge that equips them to participate in discussion about how things came to be, so they can make change. With the proper training, it is more likely that teachers will be able to make this type of instruction a part of everyday practice.

Related Literature

A professional development program on the building knowledge instructional shift of the CCSS to foster classroom discourse is necessary because of the limited knowledge that typical educators have on the issue. Though there were a large number of studies that support the ideas of Vygotsky and Hirsch, they were not accessible to teachers. This is not to say that teachers are to blame. In fact, many schools of education have not trained teachers about the importance of building knowledge during reading and have instead promoted a skills and strategies based instructional approach (Hirsch, 2009). To combat the current disconnected, anti-topic driven and passive nature of reading instruction in schools, this innovation will be rooted in what is known about building knowledge and classroom talk as illuminated by previous studies. Those ideas have been described below.

Discourse and literacy learning

Considerable evidence existed to support the claim that discourse, or talk, influences literacy learning. The use of classroom talk is correlated with student growth in reading comprehension, literary analysis and writing an argument (Juzwik et al., 2013). This correlation is logical, as children have learned to listen to stories before they read

them on their own. Additionally, children develop language from their conversations with adults. Discourse allows students to access more complex ideas as language itself is a scaffold. Dialoguing makes a task less difficult by allowing processing the information throughout the lesson, resulting in deeper consideration of the concepts being taught (Corden, 1998; Serafini, 2009). Teachers are often told in professional development sessions to use higher-level vocabulary with students, as the more they hear it in context, the more likely they will understand it when they read it. Further, the idea of discourse as a scaffold for language development allows for underserved populations to problem pose the world. Student talk about the content of the instruction is especially helpful for individuals of historically marginalized groups, as they are given the opportunity to express their unique voice (Juzwik et al., 2013). If students do not discuss concerns, they are less likely to be able to problematize issues that come up in the literature because they will have no frame of reference.

The idea that discourse helps develop literacy is logical and consistent with learning theory. In relation to Vygotsky, one person cannot dominate discourse; rather, it is the exchange of experiences between multiple parties that was critical to better learning. Thus, the National Association for the Development of Young Children (2009) proposed that it is the ongoing interaction of different experiences that fosters learning and development. This has suggested all stakeholders in the classroom benefitted from learning the perspectives of others. The idea that we learn from all who surround us was supported by a long list of academics. The renowned educational psychologist and contributor to cognitive learning theory, Jerome Bruner, claimed, "we learn an enormous amount not only about the world but about ourselves by discourse with Others" (Bruner,

1996, p. 93). Literacy education and children's literature professor Frank Serafini (2009) supports this idea by arguing, "It is through the sharing and reconsideration of new ideas that we learn and grow" (p. 26). From this, we can conclude that just exposing students to history and science topics will not be enough for students to actually learn its significance; rather, they must also discuss those concepts with one another at length.

Beliefs on reading comprehension and effect on instructional practices

The literature supports that teacher understanding of reading affects instructional practice. Although we know talk and the content of that talk is important for reading development, educators seemed to have different goals for literacy instruction based on different beliefs about comprehension. Moreover, they have held preconceived notions based on how they thought students developed literacy. Literacy involves the acquisition of reading, writing, listening and speaking skills. To be proficient in these four areas, students need to have both knowledge and skill-based instruction (Lesaux, 2013). Skill-based competencies, such as spelling, phonics, and the alphabetic principle, can be mastered by third grade (Lesaux, 2013). Knowledge of ideas and vocabulary, however, were conceived as an ongoing process and should have been present in instruction starting in kindergarten. Lesaux (2013) recommends that teachers implement topic-based units of study that incorporate both knowledge and skills based instruction. Reading instruction that builds knowledge for students allows children to make sense of the world by making connections across texts, fostering student ability to engage in discourse. This leads students to develop their own viewpoints on these issues and ask questions of classmates about those views. Literacy interactions should happen throughout the day in small groups, talking about stories, and providing for rich interactions meaning that there

was "extended discourse, conversation between child and adults on a given topic sustained over many exchanges" (National Association for the Education of Young Children, 2009, p. 7). This socializing around common texts allows students to develop their own opinions and consciousness about world issues.

Unfortunately, not all educators are in agreement on achieving literacy in this way. In many contexts, the belief about reading instruction among most teachers is a modernist perspective, in which: 1) meaning only comes from the text itself; 2) comprehension depends solely on decoding skills; and 3) reading is regarded as a skill to be mastered (Hirsch, 2006; Serafini, 2003). In this perspective, comprehension is the simple recalling of what happened in a text. Seeing comprehension as being able to give literal details about a story or article alone has an impact on the quality of conversations in classrooms (Beach, 1993). Moreover, reducing comprehension to pure recall suggests students should only focus on the text itself and discourages them from making their own personal connections. Unfortunately, the primary means of demonstrating understanding of reading standards is in the form of a multiple-choice test, which calls for only one correct answer. An unintended consequence of this manner of assessing comprehension is the implication that everyone should agree on what the words in a text mean (Serafini, 2009). The commercial programs that are often found in schools whose primary purpose is to raise standardized test scores (Putney, Green, Dixon, & Kelly, 1999) reinforce this practice.

Educators cannot move away from this instructional approach without first interrogating our own understandings and assumptions as literacy educators (Walmsley, 1992). Teachers need a shift to a transactional or critical approach to comprehension,

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both of which support multiple interpretations of text and making connections to the world we live in. In the transactional approach, literature is used in order for students to make connections to their surrounding world and share individual interpretations of the explored text (Short, 1999). The critical approach to reading instruction rests on the belief that texts are a reflection of the historical, political and social contexts in which they were created, causing the reader to interpret the text in a particular way (McKormick, 1994). In this model, the comprehension of the text cannot be separated from the context in which it occurred (Serafini, 2003).

One way to approach reading instruction in the transactional or critical perspective is through children's literature, which helps students know the world and provides a space for critical conversations (Short, 1999). This action research study, however, aligns to the perspective that individuals cannot gain knowledge about the world through fictional children's literature alone. Rather, children's literature must be taught in conjunction with related texts within an instructional unit to deepen student understanding of a topic. This study supports the knowledge-oriented, context-building literacy pedagogy that Hirsch (2006) advocates. For example, how can a 2nd grader appreciate the power of Jane Yolen's *Encounter* (1992), about how European explorers decimated indigenous populations, without a knowledge base of what Europe is, who our indigenous people are, and what both groups were doing? Without this background knowledge, it will be challenging for students to discuss texts beyond the modernist-based pure recollection of facts approach. The memorization of lots of facts is a frequent misperception of Hirsch's work and he instead advocates learning broad general

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knowledge in the liberal arts in order to have a foundation for deeper understanding of specific topics (Hirsch, 2001).

To combat the modernist perspective, educators need support in shifting their understanding on what constitutes reading comprehension. The desired results from this would be a change in both curriculum planning and instruction. A shift in instructional approaches to a transactional perspective would aid students' further understanding of text, facilitate multiple interpretations, and spark inquiry. This means that readers regularly share their interpretations around a common text with one another in order to arrive at deeper understandings about the text and the world (Short, 1999). Currently, comprehension is viewed as inferring meaning about the world we live in from text, asking questions, and challenging the author's intents or claims, leading individuals to interact (Serafini, 2009). In the past, the modernist notion of literal recall was sufficient evidence of reading comprehension. This perspective has changed in the academic world as cognitive demands for our students have gradually increased. Educators must realize that although recalling literal details may be sufficient for satisfactory achievement on standardized tests, it will not foster their development into literate or involved citizens in society (Serafini, 2009). Further, literal recall will prevent children from problem-posing their context, maintaining banking educational practices and not allowing students to learn in a deeper manner.

In order to implement a transactional approach to reading instruction, teachers must reject the ideas that there is one universal way to understand a text. As long as educators believe in universal comprehension of a text, the focus of classroom discussions will be to find that one meaning, rather than further inquiry (Beach, 1993).

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Therefore, in reading class, we cannot force all students to be in agreement on the ideas in a text; doing so does not foster participant dialogue with one another. This collaborative dialogue among students is crucial in leading them to construct meaning from texts.

In order to ensure that collaboration can take place, we need to go back to the idea of contextualizing the world for students, making learning relevant and problem posing reality. Children will not be able to critique or problematize an issue if they do not have a foundational understanding of a peer's argument. Not only should discussions promote engagement around issues that students care about, but should also lead to more complex understandings of the topics of investigation (Serafini, 2009). This deviates from the modernist approach and is undoubtedly challenging to implement. However, we can prepare students through conceptualizing coherent units, building background on big ideas, uncovering misconceptions and encouraging them to elaborate upon their thinking (Geoghegan, O'Neill, & Petersen, 2013). This process of building knowledge, discussed in the subsequent section, allows students to engage in shared inquiry.

Building knowledge

The CCSS call for an instructional shift in which our educators are to build student knowledge through content-rich non-fiction (Common Core State Standards Initiative, 2016). This shift in teaching suggests that learning to read is complex and goes beyond what students can sound out on the page. Rather, a key part of learning to read, in conjunction with developing phonics and fluency skills, is building student background knowledge. Doing so fosters oral language development, critical thinking, talk and comprehension in later years (Cervetti & Hiebert, 2015a; Willingham, 2015). In other

words, the more you know about a topic, you will not only have an easier time reading a text about that topic, but there is more potential for one to make meaning from that text (Neuman, Kaefer & Pinkham, 2014). This assertion has been confirmed in several studies. One study (Neuman, Kaefer & Pinkham, 2014), for example, took a group of 4 year olds from both middle and low-income backgrounds. Prior to reading, the children were assessed on their prior knowledge about birds, the topic of the text they were about to be read. The middle-income students knew significantly more about birds than the low-income students. There were significant differences in comprehension between the two groups after the reading the story; the low-income students had much more difficulty comprehending the text. To confirm these findings, the researchers then read students a neutral text that centered on completely made-up creatures called wugs. This time, there was no significant difference in comprehension between the low-income students and their middle-income peers. Both groups were able to ask questions, answer them, acquire new vocabulary and make inferences. These findings suggest that understanding of a text is dependent on what a child already knows about that topic.

Deep knowledge of the topic of the text helps readers grapple and make meaning from increasingly complex texts (Cervetti & Hiebert, 2015a). In a 1977 study by Anderson, Reynolds, Schallert and Goetz on the relationship between knowledge and interpretation of the text, a group of college students of two distinct majors read two passages that each had two potential interpretations. In their responses, two findings came about that support the importance of background knowledge: 1) the student responses reflected their educational backgrounds and 2) their statements clarified complex passages that were connected to their prior knowledge (as cited in Cervetti & Hiebert,

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2015a). Fisher, Frey and Lapp (2012) conducted a case study that supports the idea that background knowledge fosters comprehension. When her class read a book about a woman's life in Afghanistan under Taliban rule, Amal, a 7th grade Afghani immigrant, understood what was happening in the text due to her previous experiences. In class, she contributed a great deal to class discussions, wrote online discussion board responses, and wrote a strong essay full of personal connections. When the class began reading about a woman's experience on a farm in rural Montana, however, Amal withdrew from class discussions. She was often confused and relied on her classmates for help. When Amal's teacher realized her confusion, she provided scaffolds to support building Amal's background knowledge about life in Montana, including videos about farm life in rural America and a pen pal who lived in Montana. These supports fostered Amal's ability to participate at the level she was able to with the Afghanistan text. This time, she made references to what she learned about Montana from these additional texts rather than her own personal experience (Fisher, Frey & Lapp, 2012). This made sense, as she had no prior knowledge about Montana, so her teacher had to build that knowledge into Amal's instruction.

As it is clear that having background knowledge is important for reading comprehension and participation in class discussion, the next logical question is how do we do that? What we do know is that teaching reading through exposing students to a series of texts and experiences on the same topic has a positive effect on students' critical thinking and ability to engage in discourse. In a study conducted with English language learners by Dresser (2012), students read a series of texts about rocks and minerals. They read, experimented, classified rocks, visually represented what they were learning, and

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accessed other media related to the topic. This work improved student comprehension significantly. Not only should reading instruction be a key context for building knowledge, but also all readers, including beginning ones, need to be exposed to texts where the possibility for learning new information is high (Cervetti & Hiebert, 2015a). Allowing students to read and listen to texts on the same topic, directing them to a virtual museum with a clear purpose, and exposing students to primary source documents, including videos and audio recordings, are all ways to build student background knowledge (Fisher, Frey & Lapp, 2012).

Before teachers begin identifying specific resources and learning activities, they should ensure that they have thought about the big ideas that they want their students to consider during the unit of study, a process referred to as backwards design, and centering unit plans around essential questions (Wiggins & McTighe, 2005). As students will undoubtedly acquire discrete facts and skills while teachers are building their background knowledge throughout a unit, there will need to be a small set of essential questions that focus and bring meaning to the learning (Wiggins & McTighe, 2005). In a unit about individuals who have overcome oppression, for example, an essential question could be *who is oppressed and why*? Or, *do the ends justify the means*? These questions are purposely large and open to many interpretations. The idea is that there are multiple ways to answer it. Framing topic-based units around essential questions provoke thought, inquiry and further questioning (Wiggins & McTighe, 2005). This type of curricular planning allows students to interrogate the content and discuss important themes and problems that arise as students are building their background knowledge (Wiggins & McTighe, 2005). Not only should these questions help students understand the topic of

study, but they also should be able to connect this knowledge to subsequent learning (Wiggins & McTighe, 2005).

Unfortunately, one of the reasons why students are not immersed in content that allows them to consider essential questions is that this is a significant departure from current practice (Cervetti & Hiebert, 2015a), meaning that teachers need development on this shift in instruction. How can we expect teachers to build background knowledge of the world if they do not have the training? How are they to know that building knowledge promotes discourse around the essential questions of the unit if they have never planned units of study in this way before? If teachers want more sophisticated classroom discussions, they should have a clearer understanding of the texts they require students to read (Serafini, 2009). The lack of educator knowledge in content and planning is one of the key barriers to developing the instructional shift towards building knowledge.

The role of prior knowledge

Since students already have preconceived notions about the world, it is likely that they will not learn new concepts if their instruction fails to activate their current understanding (Commission on Behavioral and Social Sciences and Education, 2000). Building upon a student's background knowledge implies two things: 1) that students do have a great deal of knowledge that needs to be used a springboard for further learning, and 2) students are not empty vessels waiting to be deposited with knowledge, as Freire would say. Capitalizing on what students already know provides "the foundation on which the more formal understanding of the subject matter is built" (Commission on Behavioral and Social Sciences and Education, 2000, p. 19). We cannot view comprehension in isolation from one's prior knowledge or what students already know

about a topic. Comprehension does not happen by looking at the text alone. For a reader to construct meaning from a text, they will connect to both their background knowledge of the topic and their own experiences (Fisher, Frey & Lapp, 2012).

As Myhill (2006) argued, the goal of teaching is "to enable connections to be made between the 'already known' and the 'new', and to acknowledge how what the child already knows might impact upon how he or she responds to new information or ideas" (p. 33). Classroom talk can be used to make connections between prior knowledge and new experiences. Even if educators recognize the relationship between background knowledge and discourse, they need to be more accepting of what knowledge students already have. Background knowledge should not be limited to what is simply taught in school, but rather, should be expanded to the knowledge students bring from home. In a study conducted by Myhill (2006), observations were conducted on the nature of discourse in classrooms. A key finding was that children were more likely to activate prior knowledge from what was learned in school, rather than from personal experience. What this implied is that students were trained to refer to what they were taught and not to what they experienced at home. This sent a message that learning was only done within the school and not at home. Therefore, when teachers activate background knowledge to foster discourse, they must ensure what students bring from their personal experience is valued.

Teachers must build student background knowledge through a coherently structured sequence of texts and experiences about the same topic within a unit of study. Activating prior knowledge alone is not sufficient to support students in reading comprehension. If educators jump from topic to topic briefly in their reading instruction

and simply activate prior knowledge, this only privileges the typically white, higher-income children who already know something about that topic (Liben & Liben, 2012). Those children who lack the prior knowledge have difficulty making sense of texts that introduce an unknown topic (Liben & Liben, 2012). We do not want to assume, however, that students have no prior knowledge. To make the new knowledge meaningful for children, teachers must activate what students already know from previous experience (Fisher, Frey & Lapp, 2012), both within and outside of school (Myhill, 2006). As knowledge and comprehension are connected, prior knowledge should be activated during reading instruction and new knowledge should be built (Cervetti & Hiebert, 2015a).

Problem-posing content

Once teachers have built and activated students' knowledge, they can begin to problematize history, science and the themes we see in texts. In other words, students can begin making sense of and critique the world, a notion that critical pedagogy theorist Paolo Freire would support. To foster discourse, both teachers and students need to problem-pose the troubling realities that exist in our world (Bruner, 1996). As seen from the literature above, students will encounter difficulties in considering these troubling realities in classroom discussion if they do not have a knowledge base around them.

In order to problem-pose, teachers first have to know how to ask questions of their students. Questioning can serve as a scaffold. Language scaffolds learning for children both within and outside of the school context, allowing them to participate in activities that they would be unable to do independently. Educators need to make sure, however, that they do not ask too many questions, which then causes domination of the

conversation (Serafini, 2009). When educators do ask questions, they tend to ask ones that are literal in nature and do not provoke higher-level thinking. Myhill (2006) conducted a study that researched the effects of discourse educational policy that took place in the United Kingdom. Despite a policy for more student-centered, less-teacher dominated discussion, teachers were still more likely to ask questions that only required one fact based response. In this two year study, over half of all questions students were asked sought one correct answer (Myhill, 2006), meaning that further inquiry or interrogation, as Wiggins and McTighe (2005) argue for in instructional design, was not fostered the majority of the time.

In order to foster dialogue, teachers need to generate questions that provoke meaningful answers (Juzwik, et al., 2013). Instead of questions that only seek recall of surface level facts, teachers should pose questions that allow for multiple interpretations and ongoing dialogue. These types of questions cause students to draw upon their personal experiences and the knowledge they are developing in the classroom. Through these reflections, students can identify problems they see in the world and get ideas from classmates on how to solve them. It is crucial that we do not indicate that there is any sort of right answer for this. Educators need to make it clear that students understand the questions teachers ask do not have expected answers (Serafini, 2009). The need for more open-ended questions that support multiple interpretations and ongoing inquiry is essential in our classrooms (Wiggins & McTighe, 2005). These types of questions allow for students to problem pose and further deepen their knowledge base.

There are pedagogical techniques that need to be in place in order for this to happen. Posing questions to students is strongest when "students are given think time,

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when routine and probing questions are combined and invitations for 'known-answer' and interpretive questions are balanced" (Juzwik, et al., 2013, p. 27). Another way that this is done is through the context of a longer unit. Juzwik, et al. (2013), suggest that teachers should interact with students around a coherent curriculum. The idea of coherent curriculum supports the systematic building of student background knowledge. Through repeated exposure to related texts and sustained study of a topic, students begin to form their own understanding of the world (Liben & Liben, 2012). In order to foster student ability to engage in dialogue about the world, it is first necessary that units of study are focused around logically sequenced print and audiovisual texts. The ability to create curriculum that builds student knowledge is a challenge due to two distinct barriers. One is related to what teachers believe and how they approach reading instruction. An equally substantial barrier is the professional development required to make change.

Barrier #1: Modernist approach to reading instruction

One barrier to implementing knowledge-oriented reading instruction involves the modernist approach to reading instruction. In the modernist approach, a reading lesson is typically based on the standard or skill that needs to be taught, such as summarizing or identifying character traits, in isolation of any content. This means that the content or context of a text is unimportant and reading is viewed as a series of skills that teachers can teach with scientific accuracy (de Castell & Luke, 1986). In modernist classrooms, for example, students might learn how to identify the main idea of a non-fiction text about frogs one day and then summarize a short story about life in colonial America the next. The lack of cohesion among topics explored in class causes a fragmented view of the world, making it very challenging for students to engage in discourse (Cervetti &

Hiebert, 2015a). Further, the modernist approach rejects that reading is interpretive (de Castell & Luke, 1986). Rejecting the interpretive nature of reading leads students to believe there is a correct way to view a text, discouraging thinking beyond the "accurate" answers. Serafini (2009) attested that "concepts such as 'main idea' force students to compromise their ideas in order to agree with the teacher and other students" (p. 41). Teaching based on skills that require accuracy in reading comprehension will not foster discourse because the "correct" answer ends possibilities of further dialogue.

This modernist approach to teaching and instructional planning permeates school districts like my own today. Any innovation regarding a shift in curriculum will have to tackle this issue. It can be very difficult to change the way practitioners have been conceptualizing curricular content and day-to-day lessons. What needs to happen is that content knowledge, or science and history and the arts, drive the curriculum so students can make connections across topics and have meaningful discourse. The Common Core State Standards support this notion, with an entire cluster of standards devoted to students integrating knowledge and ideas across texts. Interactive, discourse-based instruction and standards-based curricula will only conflict if students are not encouraged to talk about curricular content (Juzwik, et al., 2013).

Few will argue that the content of readings should drive all discussions, but the standardization of education caused a shift to focus purely on language arts and math. Teachers of social studies and science have been asked to become literacy teachers, often being forced to teach skill-based lessons that do not problem pose or provoke higher order thinking. In elementary classrooms, social studies and science are either not taught or are minimally evident. This turns the focus towards teaching "literacy skills"

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explicitly, with the content becoming secondary and isolated. There are researchers who have argued against this approach (Fisher, Frey & Lapp, 2012; Gillis, 2014; Hirsch, 2006; Willingham, 2009; Willingham, 2015). Content cannot be presented in isolation; to do so would not allow students to come to their own conclusions about larger concepts due to pure confusion. Instead of thinking of the literacy strategy first, which is what we are seeing in the modernist approach to literacy instruction today, the content must be thought of prior to the development of any comprehension strategy. That way, the strategy is adapted to the specific content that the teacher wants their students to master. What Gillis (2014) argued was "strategies adapted (rather than adopted) to fit the content (discipline specific strategies) are more effective than general literacy strategies" (p. 616), meaning that the idea of isolated skills within literacy instruction should be avoided.

It is completely logical to think that literacy instruction should be adapted according to the specific content. It fights against the standardized testing era of "drilling and killing" basic skills as well as helps build knowledge that is crucial for reading comprehension. Gillis (2014) described how this played out in her prior career as a teacher: "Content area instruction integrated with discipline-appropriate literacy practices was powerful, effective, and more efficient than instruction in my classroom prior to my exposure to content area reading" (p. 615). Traditional reading of non-fiction involves teachers thinking of a general literacy strategy first, such as using a KWL chart and then thinking of a content area article to support that. Knowledge-oriented literacy opposes this by ensuring that big ideas and concepts are brainstormed first. Therefore, instruction is engaging and cohesive, as students can begin to make connections to their

own lives. One cannot make connections to basic literacy strategies nor will one be able to engage in interactive discourse if skills are the only focus of lessons. Strategy focused, modernist teaching is ineffective for children, as they cannot see connections across ideas because the content appears so disjointed (Hirsch, 2006). If a teacher builds knowledge for their students through repeated exposure to real-world topics over a sustained period of time, meaningful discourse can take place. Doing so, however, requires training in the form of teacher professional development.

Barrier #2: Teacher professional development

In order for any professional development program for teachers to be effective, certain things must be in place. The first component of my action research is for teachers to participate in professional development on how to implement the building knowledge instructional shift in practice. In a daylong introductory professional development session, teachers read and discussed ideas from the frameworks of Vygotsky and Hirsch to construct ideas about the relation between knowledge building, discourse and cognitive development. Once they had a shared understanding about this, they were introduced to how we can make this happen in classrooms. We did further reading and discussion about how content-driven units in language arts can support classroom discourse. This set the context to begin the unit planning process. Teacher teams spent approximately eight more hours to collaborate on units concerning real-life topics. Instructional coaches and administration circulated among the different grade levels to provide guidance.

This professional development did not end after these two days, however. The rest of the year consisted of bi-monthly sessions of further planning and learning about specific instructional strategies that help build student background knowledge through

facilitated classroom discourse. Teachers saw these practices modeled by coaches and teachers and had the opportunity to practice them with colleagues to get feedback. They also reflected on their own ability to do this within their classrooms and assessed what they needed in terms of development and support to make it a reality.

Multiple educational change theorists strongly support ongoing professional development for educators. According to Hargreaves (2009), "Continuous professional learning helps retain teachers and further raises the standards of their work" (p. 29). Not only does it make teachers stay teaching and make them better instructors, but there is a significant effect on student learning, which is precisely what this professional development is all about. Darling-Hammond (2009) attested, "There is considerable evidence that investment in teachers' knowledge and expertise makes a difference for student learning" (p. 55) arguing that there is a correlation between the number of hours a teacher spends on professional development and student achievement.

The professional development, *Students Talking For A Change* (STFAC) engaged teachers in at least thirty-five hours of training over the course of 16 months with the specific purpose of addressing the CCSS building knowledge instructional shift into our classrooms in order to shape teacher ideas about reading instruction. This timeline aligns to what we know about effective professional development. In three previous studies on professional development that lasted less than 14 hours, there was no effect on student learning (Darling-Hammond & Richardson, 2009). Professional development that was at least 30 hours over the course of 6-12 months, however, was found to have the greatest effects on student learning (Darling-Hammond & Richardson, 2009). Teacher development also occurred through more frequent one-on-one feedback sessions with the

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participants. Not only do ongoing individualized coaching affect teacher practice, but they have an effect on instructional practices that are most difficult to change (Coburn & Woulfin, 2012).

Anticipated outcomes

By shifting focus in reading curriculum to topic-based units of study, it is the hope that this will lead to students using this knowledge to learn more about their own context and be inspired to influence the world in a positive way. As we know from Vygotsky, individuals can learn about the world through interacting with one another. Vygotsky's view of how a student, and more generally, how children learned and developed, have been further explained by educational philosopher Paulo Freire. In the Freirean perspective, for individuals to liberate themselves from the inequalities they faced, they must have socially shared their concerns with others regarding these issues. Students did not just come to these conclusions naturally. Rather, they must be made aware about issues that affect them through discussing and building upon one another's ideas. He argued teachers needed to *problem-pose* content for students to develop a consciousness of their reality and dialogue with others on how to change it. This, he argued, was a way that education could be a liberating force for individuals (Freire, 1970).

Students cannot develop critical thinking ability about the problems facing the world solely through reading; rather, they have to reflect on ideas with other individuals, fitting with Vygotsky's idea of how we learn through co-constructing. Freire believed that one developed a critical consciousness, known as *conscientization*, through reflecting on learning (van Manen, 1977). When students have reflected upon ideas that come up in

their classes, heard what others have to say about them, and evaluated what they are hearing, or in other words, engaged in discourse about the world, they were developing this critical consciousness.

When one has embraced the importance of problematizing and discussing the issues they face, they have accepted the world not as static reality. This is at the essence of problem posing, implying that educators must recognize our students as conscious individuals (Freire, 1970) who can make the world a better place. If we treat our students as vessels waiting to be filled with skills, they will not develop into individuals who think critically about how to shape their context. This practice is what Freire referred to as *banking education* (Freire, 1970), a negative term about the indoctrinated nature of traditional instruction. In terms of reading, for example, telling students that there is one main idea about a given passage may help them do well on a test, but it will likely not encourage them to ask critical questions about the passage, such why certain events are happening nor will they be able to make determinations on what to do about them. Though Freire would have most likely disagreed with Hirsch's approach to building broad general knowledge by categorizing it as banking education, there is room to mesh the ideas of these two seemingly polar-opposite thinkers.

Supporting Vygotskian learning, the core of Freire's model is authentic discussion among learners and educators, which fosters critical examination of the realities of their lives (Ferraz de Castillo Dourado Freire, 2000). It is the hope of this study that by having a broad knowledge base about societal issues, individuals can learn about these complex notions through discussion at a young age. Discussion allows participants to acquire new language and make connections among different ideas. Thus, educators must embrace

specific practices that involve discourse around the troubling social realities that our students face. A strong and coherent reading curriculum based in compelling topics is necessary to build background knowledge, but students should also make meaning from these units by identifying how they can influence society. In other words, students need to reflect on the significance of the topic of study. Both Vygostky and Freire advocated, "integrated curriculum that focus[ed] on the context of learning and on social interactive activities with discussion and reflection as the main engines of the pedagogical process" (Ferraz de Castillo Dourado Freire, 2000, p. 36). Through the approach of problem-posing discussion, in which students are required to think critically about how studied content relates to their lives, the pedagogical methodologies of both Vygotsky and Freire can be realized.

Embracing the ideas of Vygostky and Freire has the potential to improve literacy through making students more conscious of their surroundings, as well as set the stage for embracing the building knowledge instructional shift that Hirsch has long advocated. If we prevent students from learning about the challenging the conditions of their world, we maintain the status quo (Mertzman, 2008). Vygostky and Freire hold that learning is a social process and by making it so, students can discuss their realities. Students cannot discuss the problems that affect them if they do not have the background knowledge, as Hirsch would argue, about what has led to those issues.

Although the intermingling of Hirsch's ideas with Freire's might seem unorthodox to academics (F. Serafini, personal communication, April 27, 2016), I believe that there is room for both of these ostensibly divergent thinkers in the context of reading instruction. Looking at a real-life example should help illuminate the influence that topic-

based curriculum can have to make societal change. Lin-Manuel Miranda, the writer of the recently popular Broadway musical, *Hamilton*, shows how knowledge of the founding of the United States from an acceptably objective biography can be used as a powerful way to re-contextualize history. The musical, based on Ron Chernow's biography, *Alexander Hamilton* (2004) teaches the audience about our first Secretary of the Treasury through mostly rap and hip-hop music. The cast of Founding Fathers is ethnically diverse, reflecting what the population of the United States looks like today. As Miranda has explained himself, "This is a story about America then, told by America now," (Delman, 2015, p. 1). The musical begins with Hamilton as a young immigrant man, eager to play a role in the American Revolution and taking us through the political and personal challenges in leading throughout his life. In short, Miranda used a seemingly straightforward account of Alexander Hamilton and used that background knowledge to retell the founding of our nation through his own lens. When an individual has background knowledge of a text's content, they are better able to make meaning of new information (Cervetti & Hiebert, 2015b). Miranda would not have been able to create this now Pulitzer-prize winning work without the information from Chernow's biography, but by utilizing his own creativity and experiences, he was able to use that knowledge to make sense on his own, a notion that Freire would support. For those of us in the audience, Miranda's comprehension of Hamilton's life adds to our understanding of history.

The subsequent chapter will describe the methodology of this action research. In order to build knowledge about real-world topics in the classroom, teachers must be explicitly taught how to do it. Further, teaching teachers about the importance of building

knowledge is not the only aspect of this innovation. Chapter 3 will also outline how this

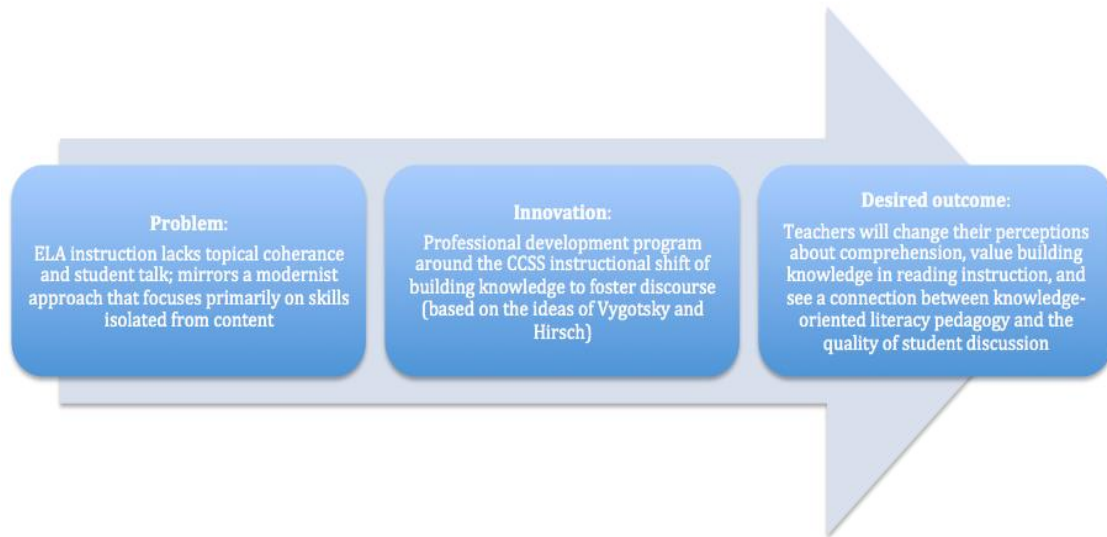shift was developed through collaboration and support beyond formal training.

Figure 1. Research Process Summary. This chart shows the problem the researcher

identified, the innovation or action taken to help solve the problem and the intended

outcome of the intervention.

Chapter 3

METHOD

This chapter includes the following information: (a) the timeframe of this study (b) the setting and participants, (c) the data collection instruments, (d) the phases of *Students Talking For a Change* (STFAC), the intervention associated with this action research, and (e) the procedures for data analysis.

Timeframe

This study entailed three phases of implementation. Phase 1 occurred from May 2015 to September 2015 to introduce the concept of building knowledge in reading instruction and develop planning guides as teacher teams. Participants were recruited and initial observations were conducted.

Phase 2 took place between October 2015 to June 2016 in which monthly two-hour professional development was provided on the following topics: writing units plans with essential questions, building knowledge through student discussion protocols, the importance of speaking and listening to build knowledge, feelings about the building knowledge shift, analyzing instruction for building knowledge, reflecting on units of study and revising units. During this time, data was collected in the form of classroom observations for each teacher and interviews.

The final data collection occurred in Phase 3, which began in July 2016. I did one more observation and interview with four teachers who were also observed during phases 1 and 2. During this time, I provided support to them in the form of biweekly individual check-ins over the course of ten weeks. I also examined their planning artifacts during

this phase and compared them with plans that were developed prior to Phase 1. All teachers from Desert Elementary wrote a short poem to share their understanding of reading comprehension through the process. All data collection was completed by December 2016.

Setting and Participants

The participants in this research were four elementary school teachers who were observed from August 2015 to the fall of 2016. The primary purpose was to investigate how teacher perception of reading instruction was affected by a shift in the focus of reading curriculum. The goal here was to look closely at how teacher awareness regarding instructional practices changed through formal training and ongoing support from a coach. All teachers in this study were white females with at least 10 years of experience. These teachers all volunteered to be part of the study and were purposely selected due to their experience teaching prior to the adoption of the CCSS. Recruiting participants requires a significant amount of time to build relationships and rapport (Herr & Anderson, 2015), and I wanted to see how teachers with a great deal of experience perceived this change in instruction. The participants all taught different grade levels: Kindergarten, 2nd, 3rd and 5th grade. These 4 participants were chosen from the teaching staff at Desert Elementary (N=21) where, despite a student population of 52% students of color, all the teachers are female, 19 are white, and two are Latino.

The realities of what was expected of the teachers in the study and of me, as support personnel, influenced my goal of embedding the study as much as possible into our respective job responsibilities. As the ELA curriculum specialist, I provided professional development for the staff as well as modeled lessons, co-taught, observed,

provided feedback, and mentored. As this study was presented as a means to foster professional growth for our staff, it did not seem out of the realm of my job responsibilities, or those of the teachers. Although this action research was embedded into our jobs as educators, time was needed to interview teachers about their experiences as well as provide feedback on their implementation of knowledge-oriented pedagogy. This occurred during teacher preparation time or outside of school hours, which made it crucial that teachers saw the value in this work.

Instruments

Data Collection Inventory

Table 1 summarizes how data was collected throughout this study. The data collection instrument is identified, along with the timeframe that it was collected. The actions that the researcher took, along with the procedures, are also explained. All data in this study is qualitative.

Table 1

Data Collection Inventory & Study Timeline

Timeline	Instrument	Actions	Procedures
Phase 1	Scripted classroom observations	Recruitment of participants	Consent forms and letters distributed and collected
		Conduct 20 hours of initial professional development on building knowledge and planning	1 hour in May; two 8-hour sessions in July 2015; 3 hours in August 2015

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		Evaluate observations	Coding and themes developed
Phase 2	Pilot teacher interview	Conduct initial interview	Develop interview questions; analyze data; revise and develop new questions
		Conduct 18 more hours of professional development	8 hours in October; 2 hours in December, January, February, April and May each
Phase 2	Professional development artifacts	Collect teacher reflections regarding perception of classroom practice	Coding and themes developed
Phases 2 and 3	Scripted classroom observations	Conduct observations for 60-90 minutes each	Coding and themes developed
		Evaluate observations	
Phases 2 and 3	Teacher interviews	Conduct interviews	Coding and themes developed
Phases 2 and 3	Student work	During interviews, ask teachers for student work as evidence for building knowledge	Coding and themes developed
Phase 3	Planning document analysis	Collect planning documents prior to innovation and now	Coding and themes developed
		Bi-weekly check-in meetings with observed teachers	

| Phase 3 | Poetry | Have teachers write a poem about the evolvement in their understanding about reading comprehension | Coding and themes developed |

Description of Data Collection Instruments

Teacher interviews. In August of 2015, I conducted interviews with six other teachers in order to evaluate where the staff of Desert Elementary was at as a whole in their approach to literacy instruction. I identified initial codes and themes that helped inform the content of the professional development sessions. Further, the four teachers observed were also interviewed throughout the process. The interviews included semi-structured questions related to their beliefs about reading comprehension throughout their career and classroom practice. Some of the sample questions were: "Tell me about your views about reading comprehension" and "How are you implementing building knowledge into your reading instruction". The interviews lasted for approximately 15-30 minutes. Interviews were recorded digitally and then transcribed to prepare for data analysis. There were many reasons to conduct teacher interviews. First, it is necessary to have the perspective of teachers in any action research study concerning classroom instruction (Cochran-Smith & Lytle, 2009). Interviews also collect different perspectives and interpretations of what is happening (Mertzman, 2008). Most importantly, teachers were central to this study and the ones I hoped to most benefit from the innovation.

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Classroom observations. To determine whether and how teachers change their conceptions about their reading instructional practices, I observed during reading instruction. I scripted the lesson by writing descriptive notes about what was being seen and heard. The three classroom observations involved looking for specific elements taught in the STFAC trainings, (1) planning units around essential questions, (2) building knowledge about a specific real-world topic, (3) building on knowledge from previous lessons, (4) students interacting with one another about the topic of study, and (5) students defending their viewpoints or inferences about the content. As Flick (2014) attested, this type of focused observation "narrows your perspective on those processes and problems, which are most essential for your research questions" (p. 313). The first set of observations occurred in August of 2015. I conducted a second round of observations in the spring, and a final round of observations the fall of 2016. For all observations, teachers pre-selected a time for me to come in to establish trust, comfort and to avoid coming at an inappropriate time. Observations took place during an entire reading period, ranging from sixty to ninety minutes.

Poetry. When considering the use of poetry as a data collection method, the researcher must consider what they want the poems to evoke in readers (Leavy, 2015). Teachers produced a short poem about how their understanding of reading comprehension evolved throughout the study. I felt reading teacher poems had the potential to make me understand the emotions, key understandings and misconceptions that the interviews did not uncover. Additionally, poems offered an alternative space for subjugated perspectives to be heard (Leavy, 2015).

The teaching of reading generates passionate and divisive viewpoints from both educators and researchers; therefore, I was confident that shifting curriculum and instruction to build knowledge during reading would undoubtedly be a political issue for some. Due to my position as the language arts curriculum specialist for the district, it was possible that teachers could feel uncomfortable expressing their genuine feelings in an interview. Since this study is about how teachers understand reading comprehension as a result of this change, having participants write poems provided an opportunity to evoke emotions and politically charged feelings. This helped reflect an authentic social reality of this setting (Leavy, 2015). A poem could expose truths that other mediums cannot, as poetry often captures vivid moments in time that provide a compelling account of social experience (Leavy, 2015). Twelve poems were collected from the entire staff, including from those sampled for interviews and observations. Poems from this broader group were analyzed in order to get the most accurate reflection of the entire context of Desert Elementary as well as maintain the anonymity of individuals. As such, the data from the poems complemented the information gathered from the interviews. In order to produce the poem, teachers were instructed to write down a series of words or phrases that come to mind in regards to what they used to believe about reading comprehension prior to our professional development and what they believe now. Teachers were asked to produce a poem in 10 lines that uses some of the initial words and phrases that they originally generated. Participants were welcome to make their poem rhyme, but it was not a requirement. Poems were written and collected during the final phase of the study after all professional development in building knowledge was completed.

Student artifacts. Examining student work artifacts supported interview data regarding teacher realization of their application of the building knowledge instructional shift during reading instruction. As student work resembles what it is that teachers teach, it showed how teachers were building background knowledge with students. This required the collection of student artifacts relevant to this study by asking teachers to provide work that demonstrated evidence of their perceived implementation of the building knowledge instructional shift. All student artifacts were from reading class. The work that students produced could increase our confidence in the themes generated from the other sources (Ivankova, 2015).

Professional development artifacts. Throughout STFAC formal trainings, teachers were asked to provide feedback and reflect upon the learning of that session. The training supported teachers in developing knowledge oriented units of study, as well as demonstrating specific instructional strategies to help students talk about the content. Teacher reflections about how the innovation affected their practice were collected for analysis.

Planning documents analysis. A way to see how teachers evolved in their notions of reading comprehension was through examining their planning documents for ELA. This study defined planning documents as any tool that teachers identify as helping them understand what they were teaching in reading on a day-to-day basis. As daily lesson plans were not a requirement within this context, STFAC encouraged teachers to utilize the backwards design planning process. The idea of backwards design is that educators plan their lessons with an end goal in mind in order to have deep intellectual stimulation for students throughout a unit of study (Wiggins & McTighe, 2005). Before

teachers start lesson or even unit planning, they need to develop a yearlong plan for the sequence of topics that will be taught (Hansen, Buczynski & Puckett, 2015). From there, they can develop more detailed plans of what will be accomplished in their units, which are "based on skills, standards, themes, or special topics" (Hansen, Buczynski & Puckett, 2015, p. 173). As the research question was about how teacher perception of reading instruction was affected by building knowledge in the curriculum, it was logical to examine if these documents reflected specific knowledge-building topics of study.

The planning documents were an important part of this action research as they had the potential to complement interview and observation data (Flick, 2014). There are specific criteria that should be met when considering a document to analyze. This criterion includes authenticity, credibility, representatives and clear meaning (Flick, 2014). Since the teachers had complete say over the format of their planning and were the ones who created the actual plans, it is likely that these documents met the criteria. Additionally, documents can provide further evidence about what is truly happening within a context (Coffey, 2013). Critically examining a teacher's instructional plans helped with understanding how teachers viewed reading comprehension as well as confirmed or disconfirmed their awareness of their own instruction.

Figure 2 displays the overarching research question, three sub-questions and the data collection methods for each. Data from teacher interviews and planning document analysis informed results for both sub-questions.
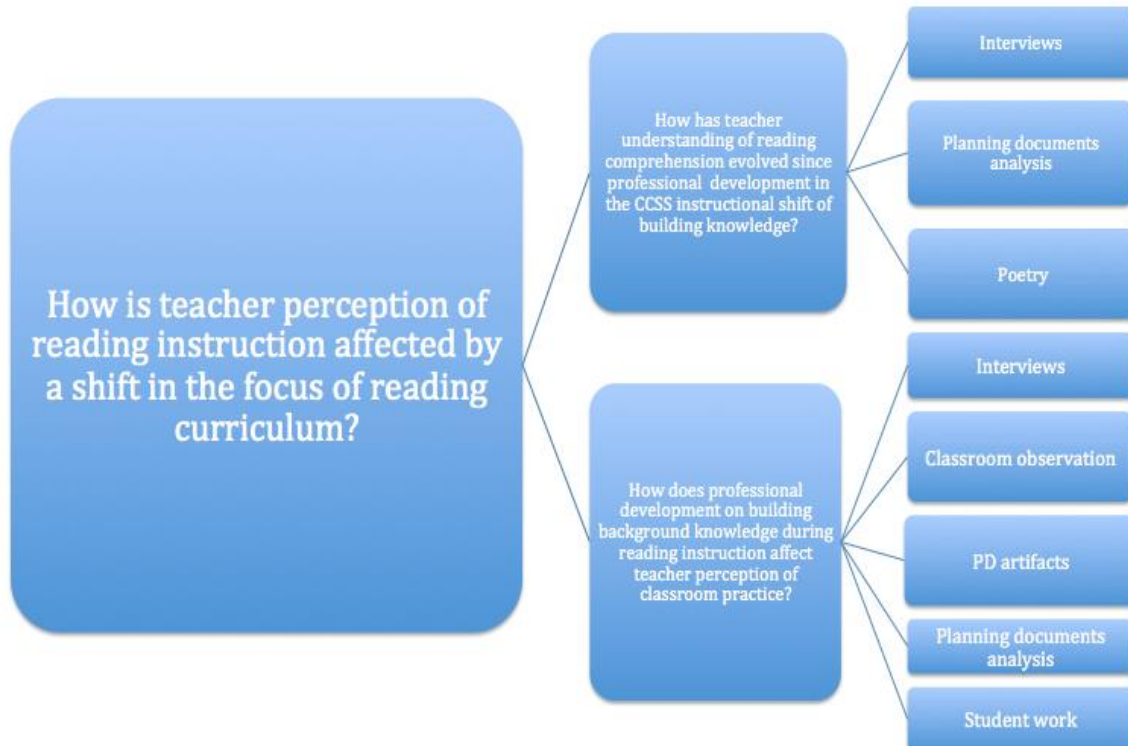
Figure 2. Research Question and Data Collection Alignment.

Procedure

This study utilized a qualitative action research design. According to Crotty (1998), qualitative research implies challenging the objectivist epistemological stance that there is truth in the world absent from any consciousness. Rather, my beliefs align to the constructionist notion that we make meaning through our interactions with others and the world. In analyzing teachers' perception of reading instruction in the classroom, it was inevitable that different teachers "may construct meaning in different ways, even in relation to the same phenomenon" (Crotty, 1998, p. 9). Being open to the idea that participants will have different interpretations of what is happening in relation to reading comprehension, building knowledge, and more requires a commitment to seek understanding of the position of that teacher. This means that I had to closely observe

what was happening and "attempt to take the place of those within the culture, and search out the insider's perspective" (Crotty, 1998, p. 76).

Phase 1: Planting the Seeds for Building Knowledge

Students Talking For A Change (STFAC) was the name of the innovation for this study. As Bruner (1996) summarized, in order for students to talk to one another, there needs to be a compelling reason for them to talk. Knowing about the problems of the past and present arguably gives purpose for a student to engage in discussion. These realities presented us with an opportunity at Desert to change our curriculum to make our students knowledgeable about the world. STFAC was a long-term professional development program with the intent to be the first step in a longer process of shifting to a knowledge-oriented curriculum, laying the foundation for improved student discourse. The program involved teachers learning about (a) what building knowledge means in literacy instruction, (b) why building knowledge through topic-based units fosters reading comprehension and discourse, (c) how to create knowledge-oriented curriculum, and (d) specific discussion strategies that facilitate discourse around the knowledge being built in the classroom. The professional development took place over the course of an instructional year in the form of whole-staff professional development led by the researcher. Table 2 displays the scope of STFAC implementation in 2015-2016.

Table 2

Phases of the Study

Phase 1 (May 2015 – September 2015)
• Introduction to building knowledge (topics versus themes)
• Collaboratively plan units around topics
• Write essential questions that promote understanding of a topic

• Define discourse
• Conduct initial classroom observations
Phase 2 (October 2015 – May 2016)
• Building knowledge through talk: learning discussion protocols
• The importance of speaking and listening to build knowledge
• Feelings about the building knowledge shift
• Analyzing instruction for building knowledge
• Reflecting on units of study and revising units for 2016-2017
• Conduct observations with member checks, interviews
• Collect student work
• Collect teacher training artifacts
Phase 3 (July 2016 – December 2016)
• Reflect on quality of the units; assess the degree to which they are building knowledge
• Have staff write poems about their understanding of reading comprehension pre/post innovation
• Individual bi-weekly check-ins with teachers
• Analyze planning documents
• Conduct final observations with member checks & interviews
• Collect final evidence of student work
• Conduct member checks by providing synopsis of study findings

Phase 1 of STFAC involved teachers being introduced to the concept of

knowledge-oriented literacy pedagogy and building knowledge through topic-based units

during an hour long meeting in May and two full days of training in July 2015, prior to

the start of the new school year. At the point of the first meeting, the frame of reference

that most teachers had for building-knowledge was the whole language approach to

teaching literacy that permeated elementary districts, including this one, during the

1990s. Staff and administration reported that during this time, units of study were based

in themes, such as *Friendship*, *Courage*, or *Survival*. The principal of Desert Elementary

made it clear from the beginning of this research that she did not want to go back to that

model. She advised that I would have to make it explicit to teachers that shifting towards

topic-based units in no way means reverting to the whole language approach to teaching

literacy. Instead, she wanted it to be clear to her staff that basing our units in topics such as *Insects*, *Immigration* or *The Civil War* would not only build our students' background knowledge, but also help support the teaching of science and social studies.

Once teachers understood the difference between teaching reading thematically versus creating topic based units, they were introduced to the concept of discourse. The staff discussed that even though we know talk is a central component to learning new information, one of the barriers relates to lack of knowledge from both teachers and students of a wide range of topics (Birr-Moje, 2008). Teachers then engaged in a series of activities in which they were exposed to the role of building knowledge in the reading classroom. First, they reflected upon a teacher testimonial who had developed topic-based units to build knowledge the previous year. Then, teachers watched a video from a cognitive scientist (Willingham, 2009) who argued that teaching content is reading. We then had a discussion that in order for this change in instruction to be realized, we would have to change the way in which we view reading comprehension. In other words, understanding what we read involves making connections to our lives and background knowledge (Fisher, Frey & Lapp, 2012; Serafini, 2009) and not necessarily on finding the main idea or summarizing. After several discussions, we discussed the necessity to build student background knowledge through strategic unit planning and I provided several examples of what that looks like.

Everything about Phase 1 up until this point was about setting the stage for planning topic-based units that related to history, science and the arts. The final aspect of this phase involved teachers working as teams to develop unit plans based in content. Grade level teams worked together to conceptualize instructional units that provided

students with relevant and coherent contextual knowledge about history and science. This collaboration among teachers was essential to making building knowledge a focus in the ELA classroom (Cervetti & Hiebert, 2015b). They created their own essential questions to drive the discourse for each unit. I provided guidance and initial feedback on the units and essential questions they developed. The content-driven unit planning to build background knowledge in our students was ongoing throughout the year during team meetings and online collaboration. To see the presentation from Sessions 1 and 2, see Appendix E.

Phase 2: Monthly Trainings and Ongoing Reflection

Phase 2 of STFAC occurred from the fall of 2015 to May of 2016 in the form of monthly two-hour professional development sessions. These professional development sessions focused on the following topics: what a CCSS classroom looks like, writing essential questions for knowledge building units, listening and speaking during the literacy block, analyzing instruction for building knowledge and unit revision. In conjunction with these development sessions, teachers reflected on how their units were influencing student engagement. Teachers also learned the new content through engaging in authentic discussion protocols and saw that a key part of building knowledge was through student talk. Throughout this phase, I captured the feelings about how teachers felt about this shift in instruction through questionnaires and whole group discussion. Additionally, they were given the opportunity to work on subsequent units. The monthly professional development presentations can be found in Appendix E through Appendix O.

Throughout Phase 2, I conducted two observations in each of four different classrooms, an initial observation in the fall and one in the spring. I also collected student work and additional artifacts from the monthly teacher trainings.

Phase 3: Intense Support, Final Reflection and Evaluation

Phase 3 of STFAC was conducted from July 2016 to December 2016. The staff of Desert Elementary evaluated the quality of the units that they have implemented and assessed the degree to which they built student background knowledge. What distinguished this phase from the prior phases was that more intense support for the teachers observed was conducted in the form of biweekly check-in meetings. During this time, I provided feedback to them about how they were building background knowledge within the lesson I observed, determined next steps with planning, as well as gave other teacher directed support. In order to find supporting evidence for teacher perception of the implementation of the building knowledge instructional shift, I analyzed teacher planning documents and student work. I also conducted final rounds of observations and interviews to determine any differences from the initial ones that were conducted in the fall of 2015. Additionally, we discussed the instructional strategies that teachers use to foster discourse within these units. Finally, each teacher was asked to write a poem that captured her understanding about reading comprehension.

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Data Analysis

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Ongoing data analysis occurred throughout the study. Table 3 displays the data analysis timeline.

Table 3

Data Analysis Timeline

Phase of Study	Data Analyzed
Throughout study	Classroom observations & teacher interviews
During Phases 2 and 3	Student work
	Teacher training artifacts
End of study	Teacher-generated poetry
	Teacher identified planning documents
	pre and post professional development

Data Analysis Processes

Using the documents produced during the scripted observation session, I read through the data and conducted initial coding to reflect on the content of the observation and understand its nuances (Saldana, 2012). In order to truly be open to the possible directions of the study, it was necessary to reflect upon what was happening before initiating the coding process (Saldana, 2012). Next, phrases or sentences that identified "what a unit of data is about and/or what it means" (Saldana, 2012, p. 175) were coded in order to develop themes about what was happening in terms of classroom reading instruction. The themes were constructed through looking for patterns among the generated codes. A codebook was kept throughout the process to illuminate the meaning of the codes and maintain consistency (Ivankova, 2015). The codebook was added to

throughout the course of the study. The themes generated from the observations helped inform interview questions.

The interview data was coded through an iterative process of examining the data piece by piece in an open coding format to form initial codes. I grouped those initial codes into related areas in order to "begin to develop assertions concerning the phenomenon of interest" (Roulston, 2013, p. 305). Within each related area, codes were classified by their frequency. The frequency of codes among the teacher interviews helped provide an initial explanation regarding understanding of reading comprehension and perception of instructional practice within Desert Elementary. Subsequently, these codes were compared with one another in order to create longer phrased themes (Saldana, 2012). These themes resulted in more informative and succinct information about how teacher thoughts of reading comprehension were affected by incorporating the building knowledge instructional shift into our curriculum.

I reviewed the artifacts that were collected throughout the study (planning documents, student work, training reflections and teacher-created poetry) and asked questions regarding what the document told us about the teacher's understanding of reading comprehension and when applicable, their recognition of classroom practice. This interpretative, intuitive inquiry approach is what Saldana (2012) argued as the best way to analyze visual data, as the researcher carefully scrutinizes and reflects upon the artifacts, and writing "analytic memos [which] generate language-based data that *accompany* the visual data" (p. 52). This implies that instead of one to two word codes, there is descriptive data that interprets what the document means. The student work and

planning documents were also used to confirm what teachers said in their interviews about the instructional practices.

All data sources were analyzed in an open coding manner in order to develop themes. This process was enhanced through implementing the constant comparative approach suggested by Strauss and Corbin (as cited in Ivankova, 2015, p. 241). First, each individual piece of data for each source were coded independently. Those codes were then compared to one another for refinement and consistency. Any necessary revisions were made to the initial codes through this comparison. Once codes were grouped into related areas, I examined the different data sets side by side in order to find confirming or disconfirming evidence. This process led to the development of alternative explanations of how teacher perception of reading instruction was affected by the building knowledge instructional shift. For example, in terms of classroom observations, I engaged in an iterative process of coding for each individual participant. This led into comparing the codes identified for each participant to one another in order to make revisions to them. This allowed for the comparison of these codes to the codes from the interviews and artifacts in order to uncover themes that explained study findings.

Validating Data Analysis by Triangulating Qualitative Results

To draw conclusions from the data, I utilized a triangulation approach that searched for links among the qualitative data sources (Flick, 2014). Following a procedure suggested by Flick (2014), the data sources for each sub-question (as shown in Figure 2) collected and individually analyzed for patterns were compared to one another to identify similarities and differences. For example, for sub-question 2, the interviews, planning documents, student work and classroom observations were analyzed according

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to the procedures for coding and development of themes described earlier. Subsequently, the identified patterns for each data source were compared to one another to identify similarities and differences. Analyzing the multiple data sets individually and looking for commonalities or dissimilarities among all of the data sets allowed for the triangulation of the results, enhancing credibility and confirmability. These multiple data sources for each sub-question helped achieve triangulation as it strengthened the reliability of the findings from the interviews and observations (Ivankova, 2015). Finally, to strengthen the trustworthiness of this qualitative study, I conducted member checks. Member checks entailed sharing my raw notes of the observations with the teachers and asking for feedback about their interpretation of what was happening in their classrooms. I also conducted member checks at the end of phase 3, by providing a synopsis of the study findings with participants and getting their input to generate conclusions from the study, a procedure that Ivankova (2015) suggested.

There were multiple data sources for each question explored. Collecting and analyzing these different data sources allowed for more credible answers concerning this study. Figure 3, displayed below, shows the multiple data collection instruments used to triangulate the findings of each research question.
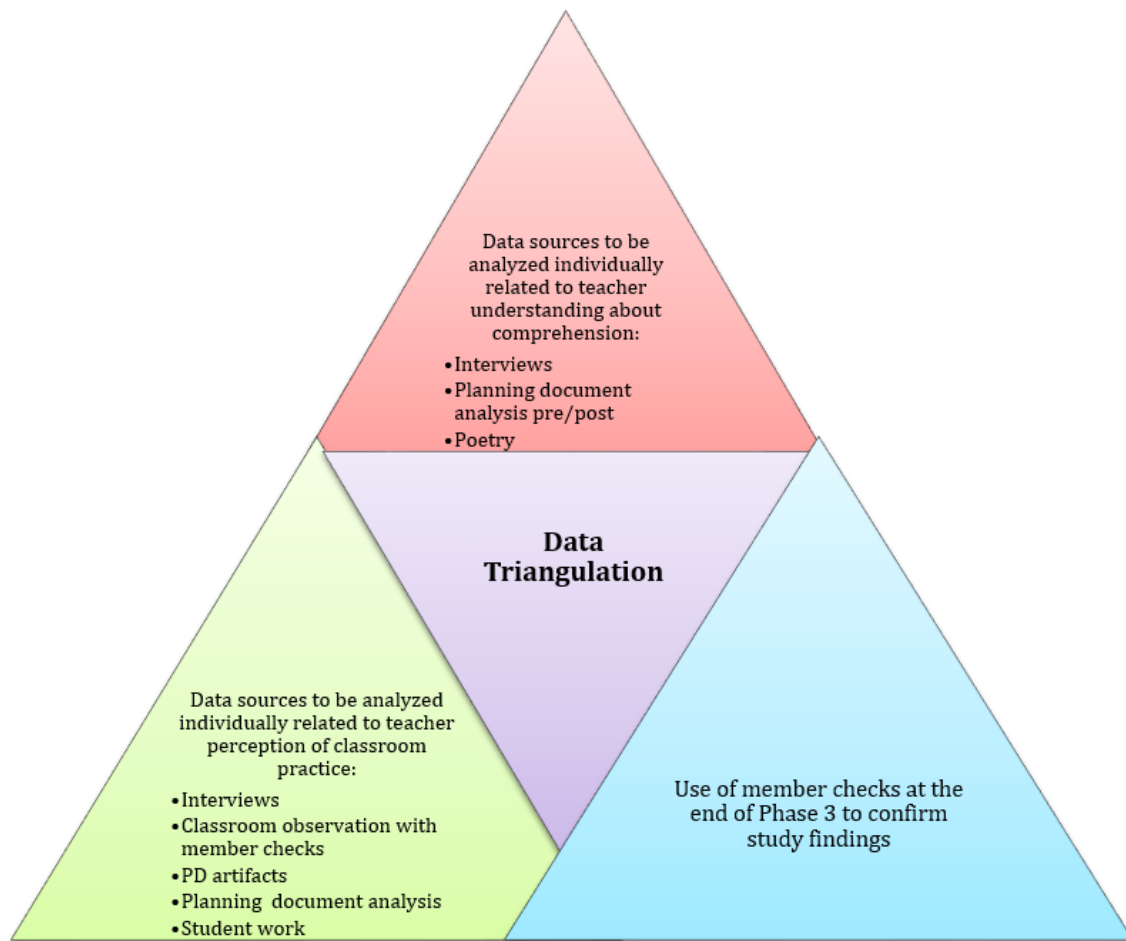
Figure 3. Triangulation of Qualitative Data.

Chapter 4

DATA ANALYSIS AND RESULTS

This study occurred in three phases over the course of sixteen months from July 2015 to November 2016. Throughout this time, I collected and analyzed multiple pieces of qualitative data, which are explained in this chapter. From examining and reflecting upon the data, I have been able to come to conclusions in regards to the study's findings, implications and potential for further research, which is outlined in Chapter 5.

My intent was to study teacher understanding and perception of practices related to reading comprehension over the course of a shift in reading curriculum to a knowledge-oriented approach. The subsequent sections of this chapter describe the data as it relates to teachers' realizations prior to the STFAC professional development program and how that has changed. Table 4 displays a description of the collected data from each instrument.

Table 4

Description of Collected Data

Instrument	Data Collected
Teacher interviews	4 teachers interviewed over two sessions each, 8 total interviews, 179 minutes, 52 pages transcribed
Classroom observations	12 observations, 720 minutes total, 86 pages total
Student work	7 artifacts total, 5 pages of analytic memos
Teacher training artifacts	4 artifacts total, 7 pages of analytic memos

Planning documents pre professional development	7 documents total, 7 pages of analytic memos
Planning documents post professional development	5 documents total, 6 pages of analytic memos
Teacher-generated poetry	12 poems submitted

Initial codes were identified from each of the data sets and grouped into related areas such as 'teacher perception of previous practice' and 'teacher perception of post-professional development practice'. These codes and their related areas are listed in Appendix R. Within each related area, codes derived from the interview transcripts were then sorted into three categories based on their frequency: super dominant (SD), dominant (D) and fairly dominant (FD). Codes within each of these categories were compared to the rest of the data sets to confirm or disconfirm their occurrence. Major themes were then derived from these comparisons. Table 5 explains the meaning behind each code category.

Table 5

Categories of codes

Code Category	Explanation
Super dominant (SD)	Found in at least 6 out of the 8 teacher interview sessions
Dominant (D)	Found in 4/4 spring 2016 or fall 2016 teacher interviews
Fairly dominant (FD)	Found in 3/4 spring 2016 or fall 2016 teacher interviews

Pre-Innovation

Reading comprehension.

You either got it or you didn't.
Reading was a skill.
Can you decode the words in this text?
Can you retell the story to me?
There was one right answer and many wrong ones.
If you answered it wrong, you got it wrong, you know?
Can you tell me why this happened?
Raquel, that's how we were trained.
You either got it or you didn't.

This poem synthesizes what teachers understood and practiced regarding reading comprehension prior to this innovation. The interviews and poetry yielded descriptions of teachers' understandings during the pre-innovation phase. Supporting practices, derived from observations, planning documents, student work, and artifacts, offered evidence to confirm their understandings.

Comprehension Means Reading and Answering Questions

Teachers explained the idea that comprehension means reading and answering questions as students reading a text and demonstrating understanding by giving a correct response. It was common for the questions to come from a basal reader that provided teachers with acceptable answers. Questions from these sources are typically recall-focused in nature, such as "what just happened in what you read?" or "tell me what the main character felt during ___ part." Seven of eight interviews affirmed this super dominant theme.

Understandings. All teachers interviewed indicated an understanding that answering recall-focused questions was sufficient for comprehension. According to the kindergarten teacher, "we just went exactly how our reading program worked," meaning that teachers entrusted the basal reader to cover comprehension. The types of questions asked of students sought a correct answer as specified in their reading program teacher's

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guide. The answers teachers looked for from students were closed-ended and multiple correct answers were not possible. As one teacher stated, "reading comprehension was natural – you either got it or you didn't." The following quote from one of the participants exemplifies the dominant understanding about reading comprehension as found in the interviews:

> Reading comprehension to me was, can you read a story and re-tell it, basically. Can you tell me the order? Do you know who are the important characters? That sort of thing. It didn't have to do with actually learning. It had to do with regurgitating.

This super dominant understanding, that reading comprehension was merely reading the text and answering questions, was reinforced by the teachers' overreliance on the basal reader system. Relying on the basal reader caused them to simply ask surface level questions, which indirectly made them believe at the time that this was sufficient for teaching reading comprehension. One teacher explained: "I think because I've taught from a basal for so long, that the questions were so generic and surface level that's kind of always what I did." Each participant in the study confirmed this practice in either their first and/or second interview. As teachers at Desert Elementary were encouraged for six years prior to the adoption of the CCSS to teach with their anthology exactly as prescribed, it is logical that they would assume that the questions provided to them would address reading comprehension. A consequence of this understanding is teachers did not have to think critically about how they were teaching. As the kindergarten teacher affirmed, "I don't think I really knew what reading comprehension was prior to this, to be honest with you."

The poems that teachers wrote also supported the super dominant understanding that teachers were thinking of reading comprehension as simply reading text and answering questions. As quoted from one poem: "In the beginning, start with a book, open it up/ Read to the kids, they better listen up/ At the end, ask some questions/ If they get them wrong, it's time to get tested." The final line explicitly states that there is a possibility for a wrong answer. The idea that answering a question incorrectly should result in testing a student implies that there is a deficiency in student reading ability that must be further evaluated.

Another poem suggested that comprehension was about individually answering basic, lower-level questions: "Independent/ Reading to answer/ being literal/ Individual reading/ questions & answers/ quiet." The inclusion of the term quiet at the end suggests that students were required to show their understanding on their own without collaborating with others. Another example also suggested that demonstrating understanding of a text was about retelling the text at a literal level and answering a question: "What's going on?/ How do I answer this question?" A student's explanation of what is happening in a text supports the idea that comprehension was just about regurgitating information.

Supporting practices. This understanding was supported by practices found in the planning document analysis. The planning documents were any tool that a teacher identified as supporting what to teach on a daily basis. The planning documents teachers provided were primarily packets of student work that they created themselves or were generated from the basal reader. Out of the seven planning documents examined, all confirmed that teachers viewed reading comprehension as simply reading text and

subsequently answering questions correctly. What also emerged from an analysis of these documents is that teachers primarily planned for instruction by providing a student packet or PowerPoint presentation that went along with the story in their basal reader. There was no evidence of unit planning. Figure 4, displayed below, shows an excerpt of a teacher created student work packet they used for planning comprehension instruction in a 2nd grade classroom prior to the STFAC professional development program.

Comprehension Questions

Name_____

1. What is the author's purpose for writing this story?

Figure 4. Excerpt from 2nd grade Planning Document.

In examining the packet as a whole, it became clear that teachers were looking for specific correct answers from these assignments due to the manner in which the questions were framed. For example, questions like "What is *the* author's purpose?" or "what is *the* main idea?", imply that there was only one correct answer. In another example, the question asked was, "Frog learns a lesson at the end of the story. What is that lesson?" These close-ended questions support the theme found in interviews that comprehension was about reading a text and answering questions correctly.

The practice of giving students packets to practice their comprehension was found across all grade levels. In Kindergarten, for example, the packet provided to students consisted of 23 pages in which students were to circle the correct answer with two

choices of words. The activities derived from suggestions listed in the ancillary materials of the *Trophies* basal series (Beck, Farr, Strickland, & Harcourt, Inc., 2004). Figure 5 displays a typical comprehension question.

What is on the daisy?

Bee   ladybug

Figure 5. Excerpt from Kindergarten Planning Document

The 3rd grade documents analyzed had many similarities to the Kindergarten documents. The teachers provided students a packet with 22 pages of questions that came directly from the basal student workbook. All pages directed students to fill in the blank with answers that came from a bank of words. This supports the idea that teachers were expecting correct answers, as the answers students could give were pre-determined. In a student packet that accompanied the novel, *Charlotte's Web* (White, 1952), it was clear that there were particular answers that teachers were looking for when looking at the wording of the questions. For example, "what is *the* problem in chapter 2?" How does Fern solve *it*?" By limiting it to one problem, the question suggests that the teacher was looking for a certain answer to be deemed correct or incorrect.

The first round of observations supported that students primarily read text to answer questions correctly or incorrectly. In all four classrooms, the teachers would read

aloud a text and sporadically ask questions that had students recall information from the

text. The following exchange is a typical example of what was observed to check for

reading comprehension:

> [Teacher] What was the first habit of a healthy person?
> [Student A]: Eat healthy food.
> [Teacher]: That was the basic information. Another way to say that is eat well.
> The second habit is to exercise. What is number two?
> [All students]: To exercise.
> [Teacher]: What is that a picture of?
> [Student B]: A baby.
> [Teacher]: What is the baby doing? The baby is doing the third habit, sleep.
> [All students]: Sleep.
> [Teacher]: You're going to be in control of your body. Repeat after me: yes, yes,
> yes to veggies, fruit and chicken too; no to too much candy, because it's not good
> for you.
> [All students]: Yes, yes, yes to veggies, fruit and chicken too; no to too much
> candy, because it's not good for you.

In this example, the teacher posed a question and evaluated it for correctness

depending on the text read. Students answered one at a time and did not interact with one

another. Discussion of the text between the teacher and one student at a time was

consistent among all four classrooms. Further, these exchanges focused on the teacher

seeking to understand whether her students' answers were accurate.

The interviews, poetry, planning document analysis and observations indicate

teachers' understanding that reading comprehension was answering questions correctly

was pervasive within the context of Desert Elementary prior to the 2015-2016 school

year. This understanding was not limited to just answering questions, however. As one

teacher wrote: "Focus on one skill/ and teach to perfection./ Those who struggle/ Receive

more practice on the single skill." Reading was about answering questions, and it was

also about showing proficiency on particular skills.

Skills-based Literacy Instruction

Modernist skills-based literacy instruction is related to answering questions correctly about a text. Explicit skills-based literacy instruction seeks to find out student "mastery" of skills that are usually pre-determined by state standards, assessments and basal reading programs. In this instructional model, the lesson focuses on building proficiency in concepts like main idea, problem/solution, cause/effect, identifying the central theme of a story or phonics rules. Teachers often ask questions in which they are seeking a correct answer, such as "what is the main idea of this passage?" without further inquiry. Although the way a teacher assesses mastery of skills is through asking students questions, not all comprehension questions necessarily fall into the skills-based framework.

Understandings. The interviews indicate that the impression of instructional practices before the STFAC professional development program aligned to the modernist perspective of reading comprehension. ELA class consisted of the reading of any text and answering the skills-based questions. The teachers agreed the questions they asked were surface level and only merited a single correct answer. Typical lessons involved reading aloud a story to or with students and then seeking understanding of specific standards-based skills, such as the cause and effect structure of an informational text or the character traits of the main character of a fictional story. Teachers determined whether students comprehended a given text by administering a basal-generated multiple-choice assessment.

This belief that teachers practiced skills-based instruction was consistent among all four teachers prior to STFAC and confirmed in all eight interviews, making it a super

dominant finding. The 3rd grade teacher stated, "Everything used to be skills based. Everything. You read a story with the emphasis of 'What is the skill that I'm teaching?' Everything was a skill; everything was choppy. Nothing coincided. There was no depth to anything." In a later interview, this same teacher further described how she taught reading: "I taught how to find the main topic. I taught how to sequence events. It was all just piecemealed little mini lessons with different stories." She believed that she did not think strategically about how to teach reading comprehension as she did not develop a sequence of learning and simply trusted her teacher's guide to do the job for her. She explained, "There was no greater or grander process to what I was doing. It was flip a page, just do the next activity." She relied on her basal reader for her literacy instruction and she did not consider how to build background knowledge for students. Hirsch (2006) explained that commercial reading programs that permeate schools like Desert Elementary simply view reading as a skill to be mastered. In other words, they place an emphasis on skills and strategies instead of building student background knowledge (Dewitz & Jones, 2013). These programs often rely on background knowledge the students have, rather than systematically building it through units, as well as have very few topical connections between the text selections on a week to week basis (Dewitz & Jones, 2013). As there was such a reliance on the basal reader, students at Desert simply read a different story every week and answered questions to show proficiency on whichever skill that the program dictated.

Other teachers confirmed that reading instruction aligned to the skills-based approach prior to the STFAC innovation. The 5th grade teacher attested her practice was about asking questions regarding the skill that the reading program determined:

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A typical lesson would be ... well, most of the time I would read it to

them, the stories, and I would use a lot of the questions in the teacher's

edition and stop [to ask], what's the setting? What's the cause and effect

here? That kind of thing. It seemed like every day was the same. On

Monday, you did this. On Tuesday, you read the story. On Wednesday,

you answered the questions.

The kindergarten teacher also affirmed that her instruction was primarily skills based:

I did not worry about comprehension and the love of literature until later

down the road. I focused on what a story is, that there's a beginning, a

middle, and an end in a story and this is where you start and this where

you end. This is the front cover, this is the back cover, you go like this.

Look really closely at pictures. Pictures were heavily relied on for reading

strategies, and it still is, but I just… it was kindergarten, so we were just

teaching them sounds and letters.

The 2nd grade teacher also described a modernist, skills-based approach to teaching

reading:

I would introduce the story, talk about what the skill we were going to

work on would be, and introduce the vocabulary from the section we

would be reading at the time. Students were doing the reading, stopping

and discussing. I would be pulling out the skill that I wanted.

Poems supported teachers' understanding of a skills-based approach to

instruction. Six out of the twelve teachers wrote about instruction being primarily

skills-based prior to the intervention. One poem summarized previous teacher

practice as follows: "Isolated explicit skill instruction." Another stated, "We used the basal too much/ and it was the same structure each week/ to plan, I just needed to sneak a peek." This meant that the weekly pre-determined skills listed in the basal were the focus of instruction.

Supporting practices. Initial observations conducted in the fall of 2015 support this perception of modernist, skills-based approach to reading instruction. In the Kindergarten classroom, a significant portion of time was spent on questions that were a simple recall of what words in the text meant or what was said in the text. At the onset of the observation, the teacher told students that their job was to retell a classic nursery rhyme in the correct order. She then told the students the definition of a posy and had them repeat it. Throughout the lesson, students practiced memorizing words from the text. The teacher would read aloud a line from the nursery rhyme and students followed by immediately recalling it, a format that followed throughout the lesson.

I also observed requiring students to recall information directly from text in 2nd and 3rd grade. In a modernist approach, the meaning of a text comes from the text itself (de Castell & Luke, 1986). Students are encouraged to retell what the text says explicitly. In both of these grade levels, the majority of the questions teachers posed to assess comprehension, came directly from the text with a correct answer in mind. The teacher did not necessarily evaluate the accuracy of the initial answer, but rather probed until the correct answer was given. In one instance, for example, the teacher directly asked students what the main topic of the text being read was. One student responded. As the teacher praised the student for having the correct answer, it was clear that the student

provided the specific answer the teacher was seeking. I was able to confirm the practice of teacher affirmation of correct answers in the 5th grade as well.

Planning documents prior to the STFAC professional development program also support the awareness of primarily skills-based reading instruction at Desert Elementary. The Kindergarten packet discussed earlier fell into this category. Most of the activities focused on tracing high frequency words such as *do*, *you* and *like*; questions related to comprehension were absent. Though there were a variety of stories, no topic connected them. The planning artifact from 2nd grade looked very similar to the one provided from Kindergarten. The vocabulary practice focused on a skill rather than a connected theme. The words were not domain related nor was there a consistent topic among the stories in which they appeared. Instead, the vocabulary was linked based on the phonetic skill with words like *hid*, *did*, *slide*, *ride* and *wide*. In another planning document for 2nd, the artifact made references to ELA skills and strategies like "set a purpose, "make a prediction", "good readers create mental images while reading", and "write what happened in the beginning, middle and end." All of the pages had a heading with a different ELA skill at the top of the page, such as "cause and effect" or "theme." Then, there were questions associated with that skill. Figure 6 displays a skills-based activity from one of these documents for 2nd grade students.

Cause and Effect

Name _____

Story events happen for a reason. Describe **why** each event took place.

What Happened

1. The chameleon wanted to be a polar bear.

Why Did It Happen?

1. _____
_____
_____

Figure 6. 2nd grade skills-based activity.

In a 3rd grade planning document, a multimedia presentation, eight out of the ten slides consisted of decoding practice such as saying the sounds associated with particular letter combinations. There was a reminder before reading the text to utilize the strategies of making predictions, determining the author's purpose, making inferences, checking accuracy of predications and using context clues to determine word meaning. In another 3rd grade document corresponding to the task of reading a children's novel, students were asked skills-based questions such as why certain events happened, what the conflict was in particular chapters, and to summarize certain passages. There was no mention of historical or scientific elements in the reading of this book. Similarly, in a 5th grade document, students were asked to sequence events of a novel, with the first and last event of the story identified for them. Sequencing is another pre-determined skill that many basal

reading series have students practice, so it is reasonable that this was something that teachers planned into their instruction. The absence of content across all of the planning documents illuminates a primary criticism that Hirsch (2006; 2009) had about basal reading programs: their lack of connectedness among texts does not support the systematic building of background knowledge for students.

Discomfort with Teaching Content

Although not as dominant a finding as the others described above, three of the four teachers interviewed indicated that they were uncomfortable with teaching content. These teachers expressed discomfort with teaching social studies or science content because they did not have the knowledge base themselves and/or due to the controversial nature of certain topics.

Understandings. One teacher explained that as a child, she felt like she was a struggling reader, so she allotted more time to phonics with her students. She stated that the building of background knowledge in order to comprehend was not a part of her education: "I was never surrounded by topics where I got to create a good solid base around what I was learning, so guess what I avoided as a teacher? The last thing that got taught were science and social studies." Another teacher who also expressed discomfort with teaching content during reading attributed it to fear of discussing controversial subject matter to her students. She elaborated that "some history can be questionable to certain people...you have to know where you can tread," so she shied away from utilizing real-world topics as part of language arts instruction. Further, a belief existed that it was not necessary to teach content. Instead, teachers taught units with vague themes like *Friends*,

Families, and *Animals*. The kindergarten teacher explained that her animal unit was not about building knowledge. Rather, the students were reading stories with animals that were not even real, which she laughed about.

Supporting practices. None of the seven planning documents analyzed made any reference to a specific topic. All of the documents supported a skills and strategies based approach in which the subjects of the various short readings were not connected nor built student background knowledge about the world. The artifacts collected from professional development early on in the study also support the idea that teachers were not comfortable with integrating content into language arts. Teachers explicitly stated that they needed more development in building knowledge, as they never received formal professional development on that subject. This feeling of inadequacy on being able to build knowledge, along with the lack of topic-based units of study, helped affirm the teacher realization of discomfort in this area. The Students Talking for a Change professional development sought to support teachers in shifting their practice to a knowledge-oriented approach. The hope was that this would shape teacher understandings about what constitutes reading comprehension.

Post-Innovation

Teachers at Desert Elementary participated in 16 months of ongoing professional development regarding the implementation of the instructional shift of building knowledge through topic based units and student discourse. From data collection and analysis, I was able to document the manner in which many teacher

understandings and perceptions of practice regarding reading comprehension transformed.

Background Knowledge is Essential to Comprehension

Most reading researchers hold that background knowledge is essential for comprehension (Cervetti & Hiebert, 2015a; Fisher, Frey & Lapp, 2012; Hirsch, 2006; Hirsch 2009; Neuman, Kaefer & Pinkham, 2014; Willingham, 2015). Having an awareness of various non-fiction topics is crucial in order to comprehend new texts because it allows students to make connections to other texts and to the world.

Understandings. Six of the eight post-innovation interviews indicated that teachers thought background knowledge was essential to reading comprehension, making it a super dominant understanding about comprehension. Each teacher interviewed discussed the role that background knowledge plays in reading comprehension and how crucial it is. The kindergarten teacher summarized the importance of background knowledge in this manner: "Telling them what it looks like somewhere else it helps them, opens them up to books and more worldly things." The 5th grade teacher agreed by stating, "background knowledge is huge" and claimed that though she has always built student background knowledge in order to read text, it has not played such a prominent role until the new shift in curriculum presented in STFAC. The 2nd grade teacher admitted to seeing growth in her students because of the emphasis on building knowledge: "They've heard it before and they're comfortable. I think that they have a deeper understanding of the stuff that they're learning in reading in most cases." She thinks this focus on background knowledge has allowed student understanding to deepen. The 3rd grade teacher explained how content knowledge is a part of reading

comprehension and how that has shaped her understanding about what students are capable of:

> Now, after this year, reading comprehension is totally different, because I have a better understanding of how important it is for students to have content knowledge. With their better understanding of content knowledge, then they're able to make connections and understandings between the different areas that lie under the greater umbrella of a unit. By seeing that, and participating in that as a teacher, I've seen that all students can comprehend, given the tools to be able to synthesize the information from all the different parts that they've been learning.

The understanding that all students have the ability to comprehend complex text, when they are provided with the appropriate amount of knowledge in a focused unit of study, was one of the intended outcomes behind providing professional development on this CCSS shift. From the interviews, it was clear that the teachers did not solely rely on what students already knew prior to the daily lesson, a practice that was typical when following a weekly skills-based basal reader. Instead, they ensured that a considerable amount of time was spent within a single content-based topic, such as the Ancient Roman Civilization, Geology, or Human Rights. This purposeful planning for staying on a topic for several weeks at a time allowed students to acquire new vocabulary, make connections across different texts and develop a contextual understanding of the world we live in.

The teacher poems support these findings. In at least six out of the twelve poems, teachers discussed how students reflect on content, something that they would not be able

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to do without knowing the topic. Terms like *integration*, *topic* and *content* were used to describe their change in understanding about reading comprehension. One teacher explained in her poem that reading comprehension is about "deeper questions and knowledge of topics." Another poem suggested that knowledge of a topic leads to students exchanging ideas about it: "Now that I've learned there is/ a topic of study that every student/ learns about and wants to talk about/ with their buddy." One poem stated, "Context informs our comprehension." This suggests that the teacher thinks that one's contextual understanding affects what they understand from reading. These statements show that having a sense of the context of a topic is a basic element of student understanding of text.

  Supporting practices. The analysis of the planning documents developed after the innovation support the idea that teachers found it necessary to build background knowledge in order for students to comprehend. Consistent with practices described in the interviews, all five of the planning documents indicated that teachers planned their English language arts units based on a topic related to social studies, science or the arts. The documents that teachers identified after the innovation were significantly different from the student skills-practice packets of the past. They spent multiple lessons providing context for students by exposing them to texts on the same topic, examining timelines or charts, responding to real-life images or conducting hands-on experiments. Additionally, the documents suggest that time was built in for students to reflect on the content by providing essential questions, discussion prompts and speaking and listening standards. In 2nd grade, for example, students spent 13 straight days on learning about westward expansion. Instead of the focus on skills that were evident in planning documents prior to

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the innovation, the daily learning targets related to describing a historical event or concept and the students engaging in an interactive discussion or extension activity based on the learning. The final performance task had students write a narrative with historical details from the texts read; students had to apply knowledge of the topic to show proficiency of ELA standards. A similar example came from one of the unit plans analyzed from 2nd grade, but with insects as the subject matter. Students learned about insects for 10 straight days. The end goal of the unit was to write a detailed informational paragraph about an insect in which they introduce the topic, use facts and definitions to develop points, and provide a concluding statement. They needed to include scientific information from the texts read in class to demonstrate understanding of an insect. Although there were still some skill-based elements in this unit, the teachers made them integrated with the topic of study,

The planning document that the 3rd grade teacher provided was a year-long overview of the ELA units of study which included topics such as book access around the world, Ancient Greece, the European Exploration of North America, Ecology and Immigration. Essential questions, constructed by the teachers, made it clear that the topic was central to the intended learning of the unit. In the Ancient Greece unit, for example, one of the essential questions was "How has the Ancient Greek civilization influenced our world today?" Another one was "What lessons can the US learn from Ancient Greece?" Both of these questions require students to have knowledge of the topic, reflect on the meaning of the content and apply that to a larger overarching question. The planning documents show that in order to answer these questions, students spend multiple weeks reading interconnected texts related to the subject of the unit.

Having content-based units as a central component of the yearlong English language arts scope and sequence were also evident in the planning documents for Kindergarten and 5th grade. Teachers created essential questions that required students to think about the implications of the topic of study. In a Kindergarten unit on U.S. Presidents, for example, students were to discuss whether the Founding Fathers should have chosen to have a monarchy or a president. In another unit on sustainability, students were asked about the importance of reducing waste and recycling. In a 5th grade unit on human rights, students were required to think about the implications of the Universal Declaration of Human Rights (UDHR) in relationship to other texts. They had to cite examples of where human rights were upheld or challenged in both fiction and non-fiction text. Although citing evidence from text is also a skill-based task, applying specific components of the UDHR to real examples supported students in building background knowledge and went beyond surface-level understanding. The repeated exposure to the topic allowed students to develop an understanding around the role human rights plays in the world of human rights. The document showed that students stayed on the topic of human rights for nine weeks, further providing evidence that knowledge of this topic was valued for comprehension.

In spring of 2016, three of the four observations had multiple references to knowledge acquired from previous lessons, indicating that students were deepening their understanding of the topic of study. Additionally, students spent a great deal of time discussing the topic and reflecting on the meaning of the new information. All of these same practices were observed in all four classrooms in the fall of 2016. These later observations also consisted of class time spent on the teaching of context-building

vocabulary. This type of vocabulary instruction concerns explaining the meaning of words that are domain-specific, which relate to the understanding of a historical, scientific or arts-based topic. Although determining the meaning of vocabulary is also a skill-based task, the words teachers focused on were crucial to the content of study. Further, referring to previous lessons and negotiating the new information with what was learned previously confirmed that what teachers planned was consistent with actual instruction. Prior to STFAC, instruction was based on the language arts skill or strategy that was, in most cases, pre-determined from the district-adopted textbook and devoid from content. The most students spent learning about a topic was a week and in many cases, topics jumped from day to day. The side effects of this approach were two-fold. First, teachers assumed that comprehension was showing competence on a particular skill through answering a question on a test correctly. The other consequence was that they did not understand how foundational background knowledge is to comprehension. The interviews and poems, supported by the planning documents and observations, indicate that teachers were beginning to understand that background knowledge is vital to reading comprehension.

Multiple Correct Answers

Having multiple correct answers about a text signifies an acceptance of multiple interpretations of text. When a teacher poses a question about a book, it is possible to get two completely different or even conflicting answers, but both students can have valid interpretations. This was a dominant finding regarding teacher understanding of comprehension, found among all four teachers' interviews.

Understandings. The Kindergarten teacher stated, "They even interpret different than I do sometimes and I'm like, 'I never thought about it that way.'" In elaborating upon this idea, she explained that discussion is crucial to this process as different interpretations can come out that shape and support others' thinking. The 3rd grade teacher supported the notion that discussing multiple interpretations is important to the comprehension process. She stated that through listening to the understanding of another student, individual students "…gain perspective, because they're listening to someone else who has a different answer. They know that not one answer is correct, that just never flies." This suggests that having these conversations about different thoughts related to the text is a necessary component of the comprehension process.

The 5th grade teacher said the professional development helped her discover "there wasn't always a 'right answer.' When you looked at it from a different perspective, it's like 'Wow, I didn't think of it that way.' That helped build more answers, more thinking." She admitted that before implementing the building knowledge instructional shift, this is not something she thought she was allowed to do as teacher: "I think that the training helped me know that it was okay to have students talking, and talking more than what I was doing in my instruction. I liked that. It was confirmation that it was okay, and to hear different opinions." The 2nd grade teacher said that she has always believed that students could have multiple correct answers when it came to comprehension. She claimed to have always supported this, but did not provide specifics in how she did this in the past. Regardless, the teachers interviewed thought that students can all have different interpretations of a text and yet, still have "correct" answers or valid insights. This

contrasts the skills-based, single correct answer understandings about comprehension that were pervasive prior to the innovation.

The teacher-created poems support teachers' understanding that reading comprehension allows for diverse answers. One poem said that allowing for multiple interpretations, without seeking a single correct answer when asking questions of students "really relieves the tension." The poem elaborated this point by saying, "we are all so different, so to details, context and perspective, pay attention." These words indicate that there should be no pressure to answer a question correctly, as interpretations are based on one's own personal experiences. It is the job of classmates, however, to listen to those different interpretations, as it can shape one's own. Poems supporting these multiple interpretations about text also contained language about deeper thinking that goes beyond the surface; this was mentioned in five of the twelve poems analyzed. One teacher wrote that comprehension is "analyzing the text and writing a lot more." Another poem said it is "justifying your thinking." Some teachers wrote about negotiating their previous understandings of comprehension, which were about answering those questions that have answers directly in the text, with the training provided in STFAC. The following poem explained this conflict from the perspective of a student: "Wait, what am I really supposed to understand? Is it more than the words on this page?" The teacher then described that they think that comprehension should be "wrestling with a text [by] asking questions, disagree." This notion of disagreeing with either what the text says or with what another classmate thinks about a reading supports the idea that various interpretations of text are acceptable.

Supporting practices. The planning documents indicate that teachers were looking for deeper thinking than surface-level pre-determined answers. In a 2nd grade unit on westward expansion, for example, there were several assignment descriptions that showed students were encouraged to answer openly and justify their interpretation. One assignment had students persuading their families to take the transcontinental railroad rather than a covered wagon and explain why. Another one had students "write a word or short phrases in each corner sharing facts learned about the significance of the steamboat and how it affected the westward movement." Students were also asked questions that went beyond answers found directly in the text, such as reflecting on implications if certain historical events were different or had not taken place. One activity asked students to write about what would have happened if canals were not built and explain how that might have affected migration westward. All five of the planning documents examined posed these types of open-ended questions to students, suggesting that different types of answers were accepted, as long as the justification was sound. This was a shift from the planning documents examined prior to STFAC, which sought specific answers.

Understanding that it is acceptable to have many different answers was further confirmed by classroom observations. In the latter two observation cycles, in six out of the eight observations, students were responding to open ended questions. Students reflected on the questions posed by the teacher and multiple interpretations were accepted. In Kindergarten for example, the teacher introduced one of her lessons by reminding students of one of essential questions for their unit on kings and queens: "That is our big question for the whole unit. You need to think about this when we learn about kings and queens. Think about this: what would be the best thing about being a king or

queen?" After thinking about the question and exchanging ideas with partners, students shared responses as a whole group. One student replied, "sitting on a throne." Another student explained, "Prince and princess don't have to ask. They don't have to say thank you or you're welcome." This contrasts the limited, single student answers seen in the initial observations. The teacher posed some questions that were found directly in the text, such as "the crown prince is the next person to wear what? What do they rule?" These types of questions, however, were minimal in most cases and more time was spent on discussing open-ended questions that allowed for different interpretations, leading to student discussion.

Deeper Thinking and Discourse

To show extended student thinking about their reading, discussion needs to go beyond the surface; solely answering factual questions about a text is not a sufficient practice to reflect critically about it (Kelley & Clausen-Grace, 2013; Myhill, 2006). Close-ended questions only support students to recall information from texts (Nystrand, 2006). Sustained open-ended questioning supports the student discourse necessary for reading comprehension (Nystrand, 2006). Students need to explain their thinking as it relates to the ideas within the text, making inferences and connections to other ideas. In that process, they need to exchange their ideas with others in discussion. In other words, engaging in discourse with others about what they are reading helps clarify or builds upon one's own comprehension.

Understandings. A fairly dominant finding was that teachers understood that comprehension consists of deeper thinking beyond a surface level, and that this is developed through discourse among readers. Teachers indicated that content knowledge

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is related to the ability to have conversations that provoke higher-level thinking. The 3rd grade teacher explained this concept this way:

> I've learned that classroom discourse doesn't happen unless my kids have the content knowledge. I can't be reading a story randomly from an anthology and just start asking the questions if they don't really have any prior knowledge except for the three pages I read before that, or whatever they've experienced in the past.

By creating a foundation of rich awareness of a topic through carefully selected text and sustained exposure within an instructional unit, students are able to easily draw on their own naturally developed expertise to make informed reflections about it. Teachers expressed that making connections between these related texts, leading to questioning and discourse with others, showed that their students could comprehend beyond the surface level. The 5th grade teacher said that this discussion with others, leading to exposure of different interpretations of text, is essential to the comprehension process. The trainings helped her to realize that "it was okay to have students talking, and talking more than what I was doing previously in my instruction. I liked that. It was confirmation that it was okay, and to hear different opinions."

The poems also indicated that teachers understood discourse to be a fundamental aspect of comprehension. The importance of discourse was the most common code in ten of the twelve poems. Overall, the poems supported the belief that the connections students were able to make within topic-based ELA units led to meaningful conversations. As one teacher poet indicated,

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Gaining connections
Always engaged
Really challenging vocabulary
Think & pair share
Extraordinary conversations.

Supporting practices. Analysis of the planning documents showed that the inclusion of essential questions in each unit plan support the belief that discourse is an important aspect of comprehension. These large, open-ended questions increase the probability of discussion that goes beyond recitation and eventually leading to student questioning (Nystrand, 2006). In 3rd grade, for example, the document began with two overarching questions for the school year: 1) "How does the past shape the present and predict the future? 2) "What is the greatest problem facing the word today?" Overarching questions, those that lent themselves to ongoing reflection like the ones here, appeared throughout all grade level planning documents developed after the launch of STFAC. The written teacher reflections from professional development sessions in April and May of 2016 indicated that teachers believed they were seeing a higher level of student discussion in their classrooms as a result of spending a significant amount of time on a focused topic. Below are a series of direct quotations from these training artifacts regarding the recognition about improved discussion, supporting that teachers believe that comprehension is about critical reflection and discussion.

- "The level of discussion in my classroom this year has probably doubled due to the emphasis of classroom discourse mainly due to implementing integrated units of instruction."

- "The discussion has been more rich as they have a deeper understanding of what we are talking about and being able to compare/contrast to things happening in the world now."

- "The units of study have given my students a deeper knowledge and allowed connections to be made where in previous years had not happened. The discussions that took place were similar from previous years, however, my students had more information this year, a deeper understanding and were able to apply their knowledge to more situational thinking."

- "Even students that (sic) had no prior knowledge of a topic are making inferences and connections through the use of information that is being shared in class discussions."

- "My classroom has the richest and most impressive classroom discourse and I believe it is because I have created a classroom that is based around content integration. My students have so much knowledge of the topics they are learning that they are able to hold deeper level conversations and connect content across not only the topic of study but also other topics we have learned in the past."

- "Topic-based units increased the level of discourse in my classroom because students were very interested and highly engaged. They also made connections between units. For example, when learning about the Civil War, slavery was a major issue that they viewed very negatively. Earlier in the year, however, when studying Ancient Greece and Rome, they didn't really have a problem with slavery. At the very end of the year, I squeezed in a Viking Age unit (trying it out for next year as an added bonus) and the students were horrified that the Vikings

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took and sold slaves. They were able to connect learning from all three units and see how their perspective changed as they got a much deeper understanding of a very complex topic. Students also developed their ability to give text evidence as the basis of their answers to questions and to defend their opinions. It became somewhat automatic to explain the why and point to the text for reasons rather than just giving an answer."

- "I definitely see a connection between topic-based units and the level of discourse in my classroom. Students seem to be engaged and interested in the topics. As a result, they are better able to talk about it and have discussions relating to it."

These statements that knowledge-building fosters more intellectual discussions indicate that teachers understood thoughtful discussion to be part of the comprehension process.

Listening Comprehension is of Equal Importance

Listening comprehension is the ability to understand what one hears. It is common for elementary students to comprehend more from what they listen to than from texts they can decode themselves (Liben & Liben, 2012). This is because the cognitive demand is higher for a student when there is text to decode. It is not unusual for elementary teachers to focus on developing student decoding ability and deprioritizing listening. A fairly dominant finding was that listening to texts about complex content is as important as acquiring decoding skills.

Understandings. As students in grades K-3 are primarily capable of decoding very simple text independently, the manner in which they will be able to access complex

content is through listening to it. The 3rd grade teacher explained the importance of topical cohesion when selecting texts for students to simply listen:

> Whatever they're hearing out loud or whatever they're listening to, it has to all work together, because if you're piece-mealing read-alouds, then it's not with a purpose, because you want to build that background, and the only way that you can build that background is by making sure that everything the kids are listening to plays off of each other to build that comprehension in order to get the deeper level comprehension, the skills, and then apply them to be able to answer questions at a deeper level, because they can't read that text. They would never be exposed to content otherwise.

Auditory comprehension, therefore, is also connected to the super dominant finding that background knowledge is essential to comprehension. Three of the four teachers interviewed stated that exposing students to higher-level texts by the teacher reading aloud to them was "a must" in order to build knowledge of worldly topics. The 2nd grade teacher, who was initially one of the most resistant to the changes in reading instruction that made at Desert Elementary, describes how she was able to make this shift in her thinking about listening comprehension:

> I think that the biggest gain and understanding that I have had was I've always known about that listening comprehension is greater than their own reading comprehension. I didn't necessarily see how their listening comprehension was going to help them with their own personal reading

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comprehension. I'm seeing that now because of their background

knowledge that they're building and their vocabulary that's increasing.

This teacher acknowledged that listening to text is valuable because it

allows students to develop their content knowledge and acquire new words into

their vocabularies.

The poems also support the teacher understanding about the importance of

listening comprehension. Twenty-five percent of the poems discussed how listening

became part of their understanding about reading comprehension. One teacher wrote

"listening and videos are included in reading comprehension." Another teacher said,

"start with vocabulary/ students use in conversation/ listen to reading…learning

happens." Another teacher considered what they used to think about what reading

comprehension instruction should look like and contrasted it with what they thought after

the professional development: "Then: Shared Reading/ More student reading/ Focus on

reading skills/ Now: Listening/ More content/ Speaking." By saying that listening and

knowledge of content are part of reading comprehension indicates that the teacher knows

that students need to acquire background knowledge through listening to complex texts

about history, science and the arts. Teacher training artifacts showed that teachers

understood that content knowledge is built through listening and speaking, students

listening to texts regularly and discussing them. Teachers explicitly stated that

discussions have become more focused since implementing a topic-based reading

curriculum. They explained that these interactions allow students to build their

knowledge: "I see the benefits from these conversations ranging from opportunities to

expand upon content vocabulary, share prior knowledge with connections to the content,

and to foster stronger student engagement during the lesson." This teacher's realization of her own practice was that more students were engaged with the lesson as well as developed vocabulary and critical thinking skills. The knowledge that is essential for comprehension is acquired and sustained through ongoing interaction between teachers and students about the content.

Supporting practices. Four of the five planning documents analyzed confirm the teacher understanding that listening comprehension is of equal importance. The documents showed that teachers planned to have students listening to a content-based text on a daily basis, indicating that building background knowledge happens through this medium. Speaking and listening standards were listed in conjunction with reading, writing and language. Activities such as taking notes on the read aloud text, processing information listened to through discussion, and presenting a culminating project on the content, forced students to apply their listening and speaking skills. These activities, along with the amount of time they devoted to listening to text every day, 40 minutes within a 90-minute reading block, support that listening is valued and is as important as foundational skills like decoding.

Importance of the College and Career Readiness Standards

One of the dominant findings that surfaced was that teachers perceived that standards play an important role in their everyday practice. This means that planning and executing lessons with the ELA standards in mind are a crucial and regular component of teaching within this context. A list of the anchor standards that are the foundation of all K-12 ELA standards is provided in Appendix Q.

Understandings. As the 5th grade teacher described, prior to professional development on the CCSS building knowledge instructional shift, her teaching of reading primarily focused on making superficial connections to text. As described earlier, reading class was previously about completing the reading from the textbook and answering the skills-based questions at the end of the selection. The standards were not referenced nor were they referenced for daily instruction; rather, it was simply assumed that the basal reader addressed standards. The teachers at Desert Elementary, however, made it clear that they have changed their awareness about themselves to be very concerned about covering ELA standards, which they did not think they did before. The kindergarten teacher stated, "I definitely think this is something that's changed, because each time before I do a lesson I'm always referring it to a target that supports the standard for the lesson, which never happened with the basal reader, because there were so many components to that basal reader that you were trying to do in one reading." In short, due to all of the extraneous material present in the textbook, the teacher was not able to focus and think critically about how to effectively teach the standard. As the professional development emphasized one of the key shifts in ELA instruction in the CCSS, teachers thought they became more cognizant of the standards and perceived them to play an important role in their everyday practice. Another teacher explained, "I now have to have a better understanding of what I'm teaching, and at what levels have I hit the standards." The recognition of the standards playing a more important role than they had prior to the professional development was consistent among all four teachers.

Supporting practices. The observations conducted in spring of 2016 and fall of 2016 further support the contention that standards play an important role in practice.

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Teachers built upon knowledge taught in previous lessons by referencing previous

content, encouraging students to use the vocabulary from those lessons in practice and

having students reflect upon the significance of new ideas with classmates. These

concepts address the speaking and listening standard of "prepare for and participate

effectively in a range of conversations and collaborations with diverse partners, building

on others' ideas and expressing their own clearly and persuasively" (Common Core State

Standards Initiative, 2015). They also address the reading standards of "integrate

information from several texts on the same topic in order to write or speak about the

subject knowledgeably [and] determine the meaning of general academic and domain-

specific words or phrases in a text relevant to a [grade level] topic or subject area"

(Common Core State Standards Initiative, 2015). The 3rd grade observation excerpt

below from spring 2016 shows how one teacher used the standards of reading texts about

the same topic, utilizing domain specific words and applying the knowledge learned to

participate in discussion:

> [Teacher]: Turn and tell your partner what we learned about the Civil War
> last class.
> [Students]: [Turning to partners and recalling concepts from the previous
> lesson]
> [Teacher]: I heard you all say things that I didn't even remember. Some of
> you referenced things that you learned in your research. You guys do
> know more about the Civil War than me, because you have done more
> research than I have. You just got done talking about the things that you
> have connected to the Civil War. Today you will learn about the side that
> won the war and what happened to the North and South after the war.
> [Begins reading; reads a fact about slaves who fought in the war] Why
> would slaves arrive with nothing at all?
> [Student A]: They didn't have shoes or clothes.
> [Teacher]: Yes, no possessions.
> [Student B]: They didn't get money for all of the work they did.
> [Teacher]: Yes, they did not get paid. We just learned that slaves are now
> free but do not have rights. What rights do you think they did not have?

[Student C]: The right to vote. I read that in my research. That means that they could not choose the president. I really want to know who started slavery.
[Student D]: Me too!
[Student E]: Me too!
[Student F]: I think I know who started it…
[Student B]: George Washington?
[Multiple students]: No!
[Student C]: I think it was before George Washington.
[Student G]: It was the pilgrims.
[Student H]: I think it was before the pilgrims.
[Student B]: I believe the black man was the first person on earth.
[Student I]: No, I think the Native Americans were here first.
[Student C]: I read that Robert E Lee and Ulysses S Grant served together in the Mexican American War. Does that mean they may have been friends at some point?
[Teacher]: These are all really good questions. Let's think about those some more and find answers to them later in our research.

Building on knowledge from previous lessons, student reflection of content and student interaction about the unit topic were explicit elements of the STFAC professional development program. Although building knowledge and students reflecting upon the content were observable in the initial observations in fall 2015, these concepts were introduced in the introductory 16 hours of professional development in the summer of 2015. Teachers admitted in interviews, however, that topic-based units of study with sequenced lessons and critical thinking about addressing the standards was not something that they did in past practice. The informal observations conducted prior to STFAC found that teachers simply followed the skill or strategy that the textbook dictated without regards to the standards informed the basis for this study. The interviews and planning documents support this assertion. A major difference in the fall 2016 observations such as in the example above, however, was that students spent a significant portion of class time discussing the topic, either with a partner or as part of a group. This was not found in

previous observations, in which students simply reflected about the topic individually or did a quick share out of ideas with a partner. In other words, in the final observation, I witnessed sustained conversations about the unit topic in three out of the four classrooms. These sustained conversations in which students negotiate information and ask questions require teachers to implement the standards based approach of repeated exposure to a topic in order to write and speak knowledgeably about a topic.

The student work analyzed supported that the teacher perception of the ELA standards was playing an important role in teacher practice. Figure 7 shows a piece of student work from a research assignment on the Civil War. Figure 8 is a poster that the class created about information learned about the topic through daily read alouds. The poster was generated through student discussion about the unit of study at the end of each lesson. Figure 9 are essential questions that the teacher posted in the room to remind students of the key points of the unit.
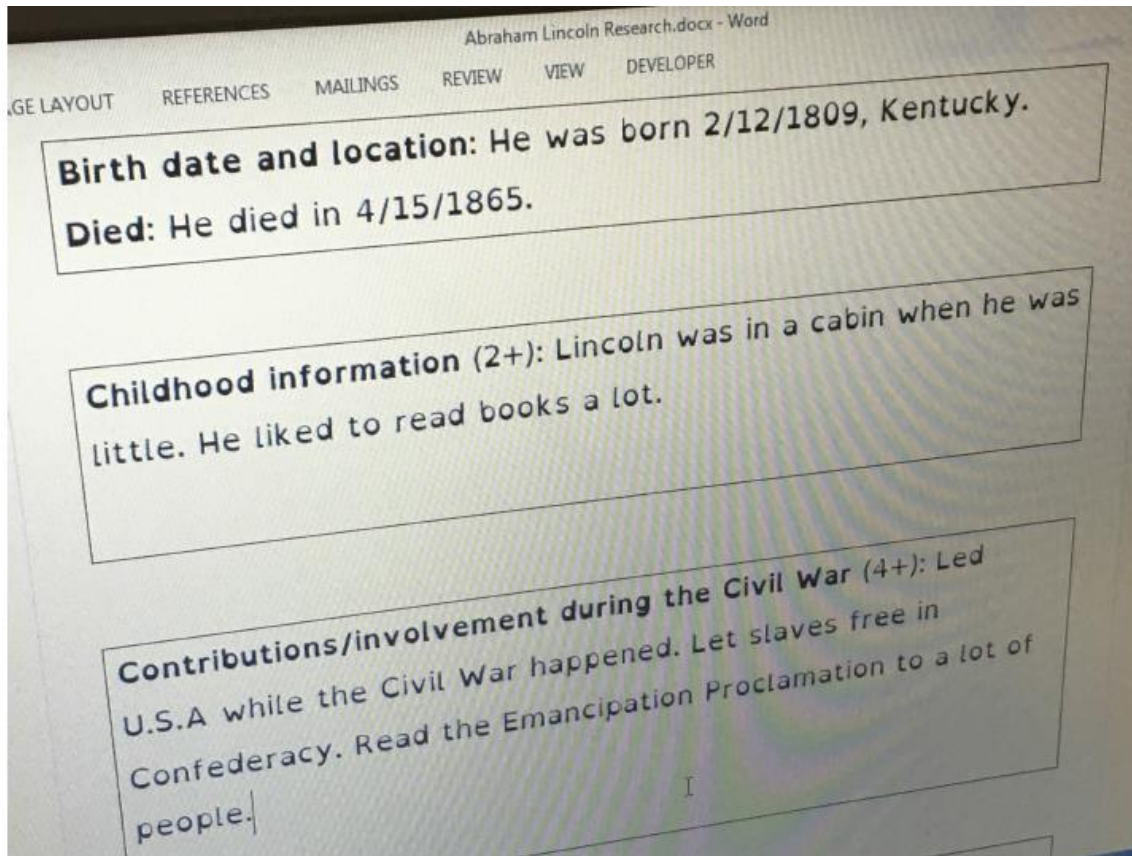
Figure 7. Civil War research graphic organizer.
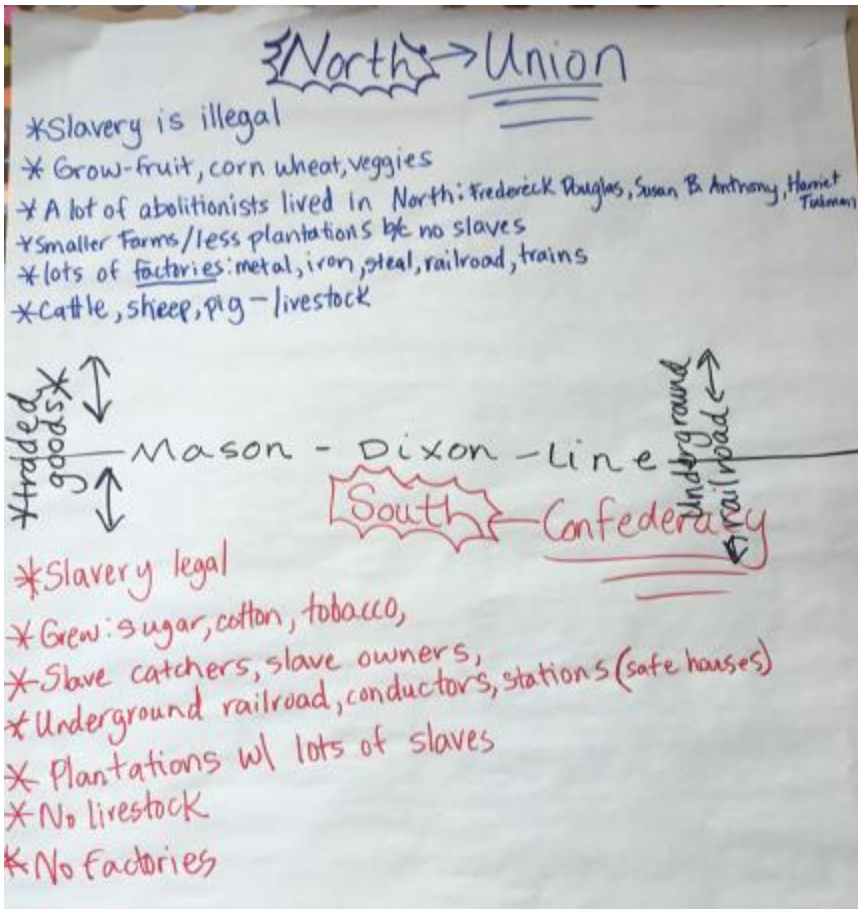
Figure 8. Class created Civil War anchor chart.
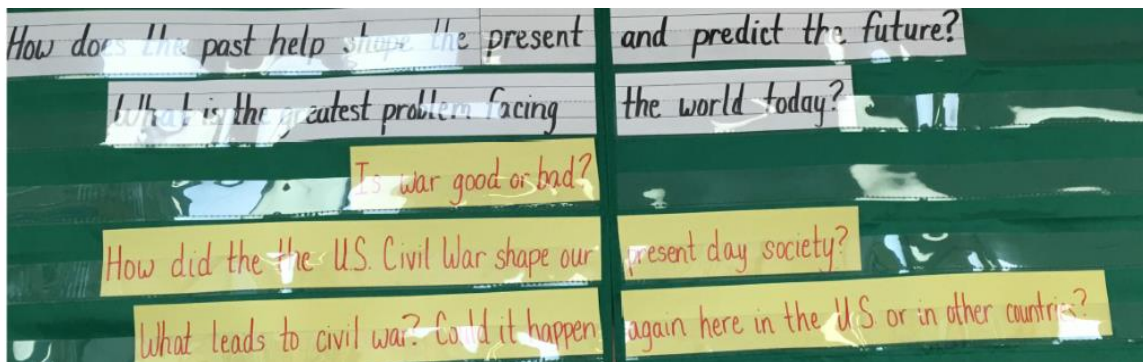
Figure 9. 3rd grade Civil War unit essential questions.

Students were encouraged during reading instruction to use information from a variety of sources such as the internet, supplementary texts, and whole class text in order to synthesize that knowledge to produce writing. Students spent thirty-five minutes

listening to a read aloud text related to the U.S. Civil War, reflected on the information throughout the reading with a partner, took notes about key information that they identified, and then spent time independently reading related texts. Then, the teacher provided guidance on different websites to visit to learn more about the person they chose to research. The teacher directed students to use the information from these sources to complete the graphic organizer as shown in Figure 7, the final step before transferring this into an informative writing piece. All of the sources were related to the unit of study, as was the writing assignment. As I observed students integrating information from multiple texts about the same topic to produce an informative paragraph, they fulfilled the writing aspect of the standards that asks students to gather information from various sources and the reading component of synthesizing information from related texts.

Based on the task, the CCSS shift of building knowledge was important in this room. Daily teacher content-based read aloud texts, as well as the visual aids in the room, supported students with this civil war research assignment through. In the class-created anchor chart that contrasted the North and the South, context-building vocabulary was front and center by contrasting the two regions through using the same types of vocabulary words. For example, "North= slavery is illegal; South = slavery is legal. North – lots of factories (metal, iron, steel, railroad, trains; South = no factories. North = smaller farms/less plantations b/c no slaves; South = Plantations with lots of slaves." The compare/contrast activity that was conducted as the students read more and more about the topic also showed the importance of reading informational standards 1 and 9: asking and answering questions to show understanding and comparing and contrasting the most important details about two texts on the same topic. The teacher posed questions to

students such as "what was the culture of the north like?" or "what was the economy in the south based on?" Figure 8 shows that students understood about the abolitionist movement in the north and that slave owners depended on slaves to grow crops. These student-generated details also display how speaking and listening about a topic was used to build background knowledge; teachers often had students discuss in partners or groups about the topic. They would then use that information discussed in a smaller setting to inform the whole group discussion.

Standards were a significant aspect in four of the five planning documents. Standards for reading, writing, social studies or science, and speaking and listening were listed first in those four artifacts. It was clear that teachers were assessing both the subject matter knowledge and language arts skills in the units of study through writing learning goals that reflected both. The listing of speaking and listening standards in each lesson shows that discussion was an important aspect of class. This integration of social studies and science with the speaking and listening standards supports that teachers valued standards in their practice as well as building knowledge through discussion.

Social Studies and Science are a Part of Reading

Another understanding that emerged at Desert was that knowledge of social studies and science topics is fundamental to reading comprehension. This approach to reading instruction, aligned to the Common Core State Standards, indicates that bringing awareness to various domains of information was a fundamental component of the language arts classroom.

Understandings. Social studies and science were perceived to be part of reading practice in three of the four interviews. As one of the teachers explained, "everything

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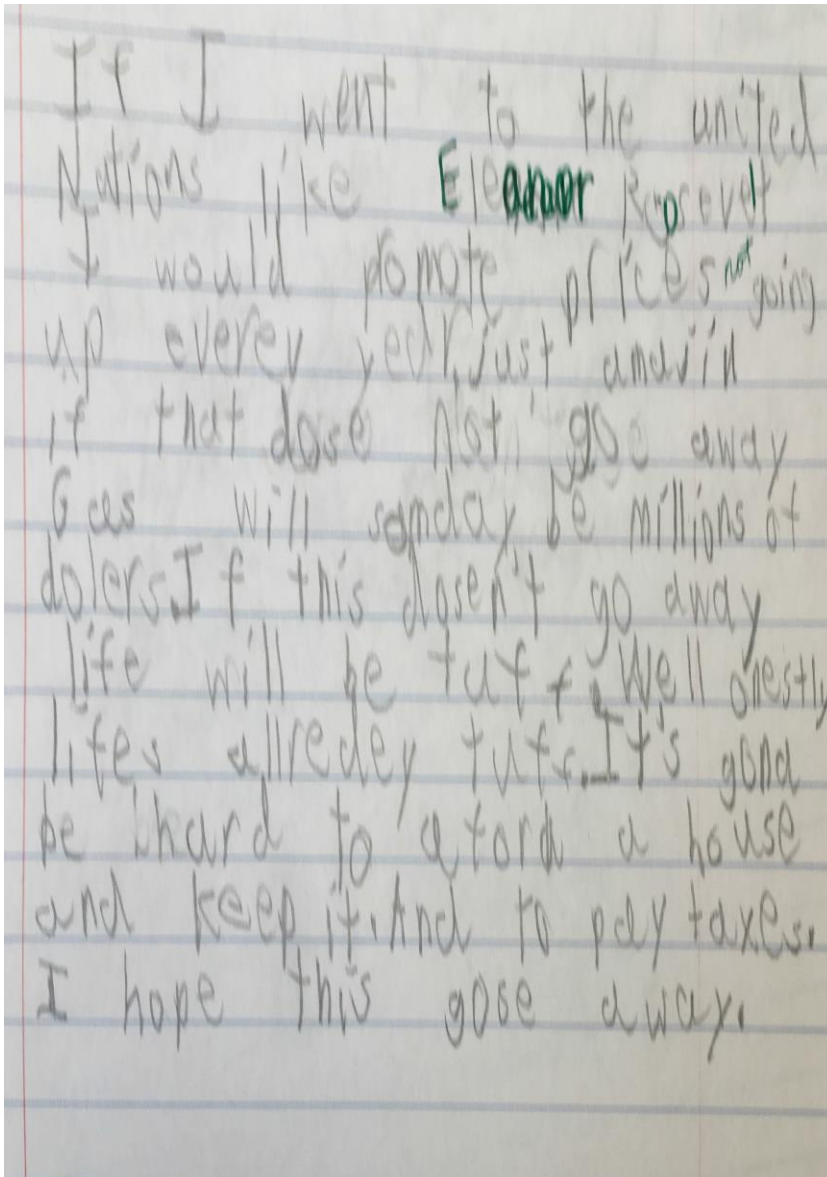
comes from a bigger place in the unit that is starting with a topic…by having these integrated units where our topics of study were science and social studies based, it changed a lot for me." She elaborated on this idea about how this change in practice affected her: "This year when I went to New York, I went to Ellis Island. I would never want to go to Ellis Island, but because I taught about it and learned about it as a teacher, I wanted to go." Although teachers agreed that they experienced discomfort with this change initially, they now see that social studies and science are a fundamental aspect of their reading instruction.

Supporting practices. From the classroom observations, it became more apparent as the year progressed that content played an essential role in language arts. In the initial observations, one teacher had evidence of a content-based classroom environment, with historical, scientific or artistic related posters, vocabulary, books and/or visual aids present in the room. By the final observation, three out of the four teachers had content-based classroom environments. I saw pictures and word walls for content-based vocabulary, essential questions regarding the content were displayed, classroom books about the topic were placed in a prominent location, student work was exhibited regarding subtopics of research, along with artwork or timelines about the unit topic.

Professional development artifacts collected throughout the study support the practice of content areas as part of reading instruction. Reflections examined after the February 2016 training session show that teachers began noting that they had started integrating language arts with history and science in their reading block, though that they needed more development in doing that well. By May 2016, teachers began describing in

their professional development artifacts the benefit that content integration had on instruction. For example, one teacher stated, "the kids have a much deeper understanding of content because we connected the content across subjects." Another stated that this shift in reading instruction "allows for a large topic to be studied and thoroughly discussed from many different viewpoints. Some ideas and viewpoints even made me look at topics from a different view." These statements affirm the recognition found in interviews that the content areas became part of reading instruction at Desert Elementary, however, they also show that it affected personal teacher beliefs about these topics as well.

All student work samples confirmed that the content areas were a central component of reading instruction. Figure 10, for example, shows a 2nd grade piece of writing in which students reflected upon what they would advocate for at the United Nations.

Figure 10. 2nd grade UN reflection.

In this assignment, students were asked to reflect upon what cause they would

fight for in front of the United Nations like Eleanor Roosevelt did. This student wrote that

he would "promote prices not going up every year" because "life's allredey tuff." (sic).

This shows that the student is worried about inflation and thinking about how hard that

would be on his family: "it's gon be hard to aford a house."(sic). This writing supports

that his teacher encouraged reflecting upon the content, which was what he would do in

Eleanor Roosevelt's situation. He also had to explain his answer, showing the teacher required students to justify their thinking. As the child is using personal experience and information from the read alouds to explain why inflation is important to him, this supports the earlier finding that the standards were important for the teacher. This assignment aligned to standard 2.W.8 that states, "Recall information from experiences or gather information from provided sources to answer a question" (Common Core State Standards Initiative, 2015). The context building vocabulary such as *Eleanor Roosevelt, United Nations, promote*, and *prices* indicate the teacher had been teaching about these concepts to the point where the student was able to apply this to his writing. It is clear that history played a role in the reading instruction as the student reflected upon socioeconomic issues, such as the implications of inflation and hinting at income inequality with the "life is already tough" comment. Additionally, the teacher provided background knowledge, readings about Eleanor Roosevelt and the activist work that she did, allowed this student to respond thoroughly to this open-ended question.

In Figure 11, student-created posters from a Kindergarten classroom shows how tradespeople constructed homes in colonial times. This work is another example of content being a principal aspect of reading instruction. In this assignment, students were to take details from the text about tradespeople and use those to collaboratively "build" a house using "materials" from that trade. The students had to draw and label vocabulary from the text correctly in context.
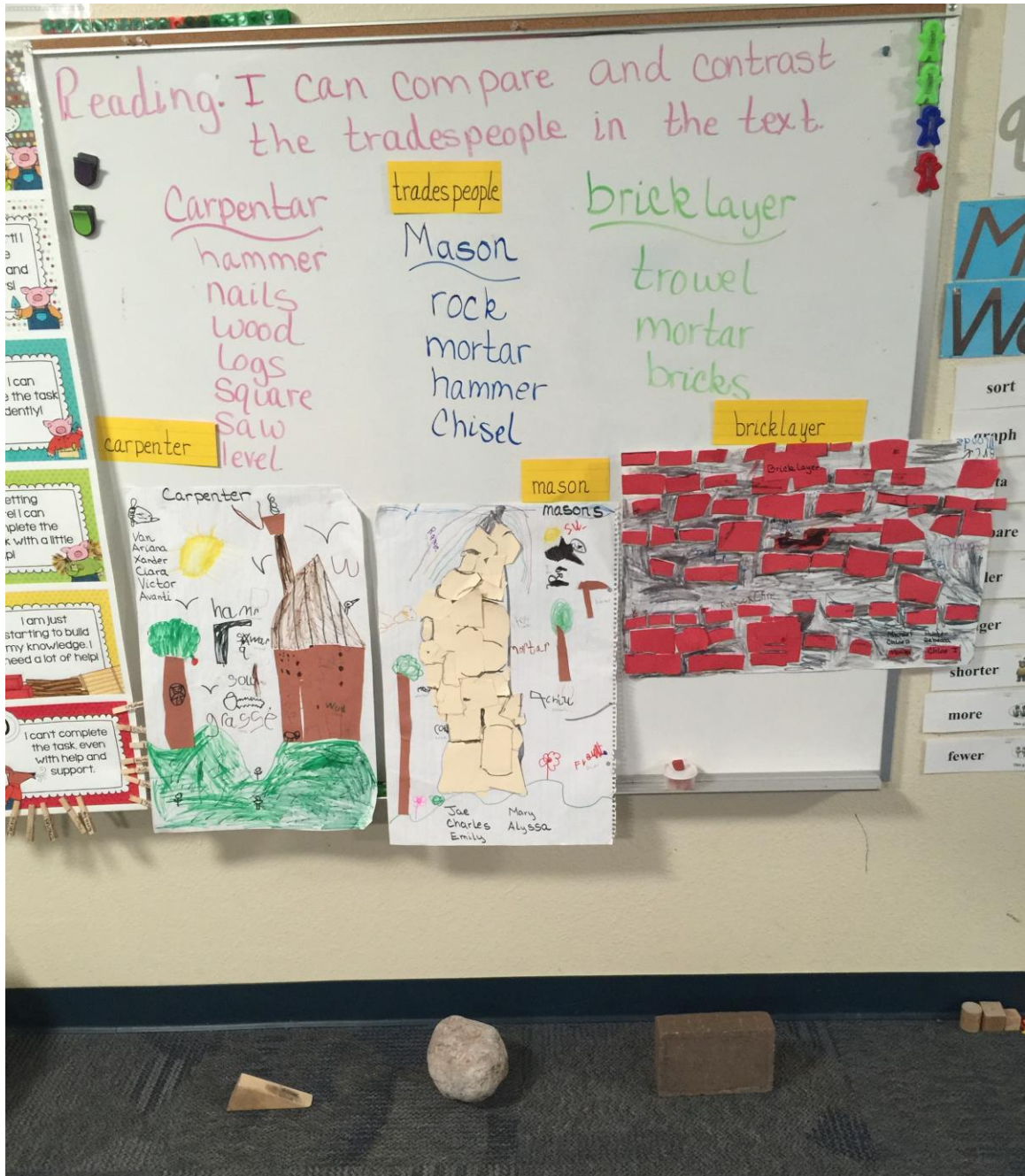
Figure 11. Kindergarten colonial tradespeople posters.

From this work sample, it appears that the teacher values both the historical facts and the standards in her daily lessons plans. The teacher posed an open-ended question to build a house using the materials from their assigned tradesperson, and required the

students to discuss how to construct the final product. To set them up for work time, the teacher built their background knowledge by reading a text about tradespeople in colonial times. Students understood what colonial times were because they had been reading about it in a unit of study for several days. While she was reading aloud the text, she would ask students questions about each tradesperson, which were masons, carpenters, and bricklayers, and stopped to jot down the details they came up with on a poster. During pair sharing, she walked around to make sure that students were using the vocabulary from the text, which was evident in the final student product.

When students began creating the final product, however, students were not given any other assistance from the teacher, making the task open-ended, supporting the viewpoint that multiple correct answers were possible. Each of the final houses were interpreted very differently, with the brick house just showing what the wall would look like, and the carpenter house showing the complete house from roof to foundation, but both interpretations were correct. In the observation, students discussed colonial tradespeople in detail with one another, supporting the speaking and listening standards. For the assignment, they had to think about what the text said about each tradesperson. By putting these ideas to paper, students were required to reflect upon the content. Additionally, having students match their house next to the actual objects and bring in supplementary pictures to scaffold the learning shows that the teacher integrated connected texts. Finally, as understanding what each type of tradesperson did and how they built houses in colonial times was fundamental to the task, social studies content was part of reading in this assignment.

When looking at the planning documents developed as a result of the STFAC professional development, there is evidence that science, history and artistic content was the foundation of the units that teachers began implementing. The planning documents teachers created prior to the innovation were based in a pre-determined skill that students needed to practice. There was no evidence of unit topics, but rather, nondescript themes such as *Being Me*. The only evidence that teacher teams spent longer than a week on a topic was a 3rd grade packet that went along with the reading of *Charlotte's Web* (White, 1952). The post STFAC planning documents, however, showed Kindergartners learning about nursery rhymes, five senses, plants, weather, colonial towns and townspeople, Native Americans, king and queens, Columbus and his effect on indigenous populations, and U.S. presidents. 2nd grade teachers planned units about fairy tales, early civilizations in Asia, westward expansion in the United States, insects, nutrition, immigration and American figures who have fought for important causes. The 3rd grade team developed units on ancient Rome and Greece, light and sound in science, Native American culture, European exploration, ecology and geology. The 5th grade planning documents also showed that content was made central to language arts, with units on human rights, civil rights and Jackie Robinson, biomes and natural disasters. Prior to this innovation, planning began from the reading skill and finding a text for students to practice it. After STFAC, Desert Elementary teachers began planning for their units by thinking of topic derived from content-area standards and thinking about how they could have students apply language arts skills to that content, a major shift from past practice.

Closing Thoughts on Data Analysis

Despite the changes regarding teacher understanding about reading comprehension and perception of instructional practices, elements of the modernist skills-based approach were prevalent in all twelve observations conducted throughout the study. I still saw teachers focusing on reading strategies in certain instances rather than the content. Sometimes one correct answer was sought, with students asked to show their comprehension through fill in the blank responses and multiple-choice questions about reading "skills". This did not match the teachers' own conception of practice following the innovation, but it was nevertheless still observed in classrooms. Hanging on to modernist approaches was also evident in the final member check, when one teacher mentioned how interesting it was that the staff perceives themselves as accepting multiple different answers when asking students questions about text, yet in practice, teachers were still posing questions with a right or a wrong answer related to the content. Although shifting to a topic based reading curriculum helps lay a foundation for combating the modernist skills-based approach, I realized that there could be modernist practices within a content-focused language arts classroom. Having language arts center around building content knowledge, rather than teaching reading strategies, changes the instructional focus from isolated skills to helping students understand the context of the world. This change understandably uncovers a sense of trepidation among teachers. They might worry about the contrast between their new and old methods of reading instruction. Even with units of study that aim to build knowledge about a real-world topic, I saw that there are times when teachers revert to teaching skills or strategies. What did change, however, is that teachers changed how they planned for instruction. Instead of skills-

based practice packets, they planned through a science or history topic that would increase students' background knowledge. As knowledge of the world became the focus, students were able to collaborate and discuss their understanding of an idea that was more sophisticated than what they would normally be able to read themselves. What resulted was a classroom of students who had multiple interpretations about why events of the past and present were occurring.

The poem below summarizes what teachers understood regarding reading comprehension after the shift in curriculum and ongoing professional development. Following the poem is Figure 12, a flow chart that explains the evolution in teacher perception and the data collection tools supporting that conclusion. I shared this synopsis of the study findings with the entire Desert Elementary teaching staff at the conclusion of my research in order to seek feedback and validate results. The staff wrote comments in which they expressed appreciation for the chart and indicated that it accurately depicted the transformation that teachers went through.

Dialogue is the heart of comprehension
But background knowledge is huge
Allowing students to make connections to texts and to our world
Leading to extraordinary conversations
Listening and speaking to one another
Multiple people can be right
As long as they can explain and justify
Dialogue is the heart of comprehension
How did we get there?
We made social studies and science – building context
A part of reading
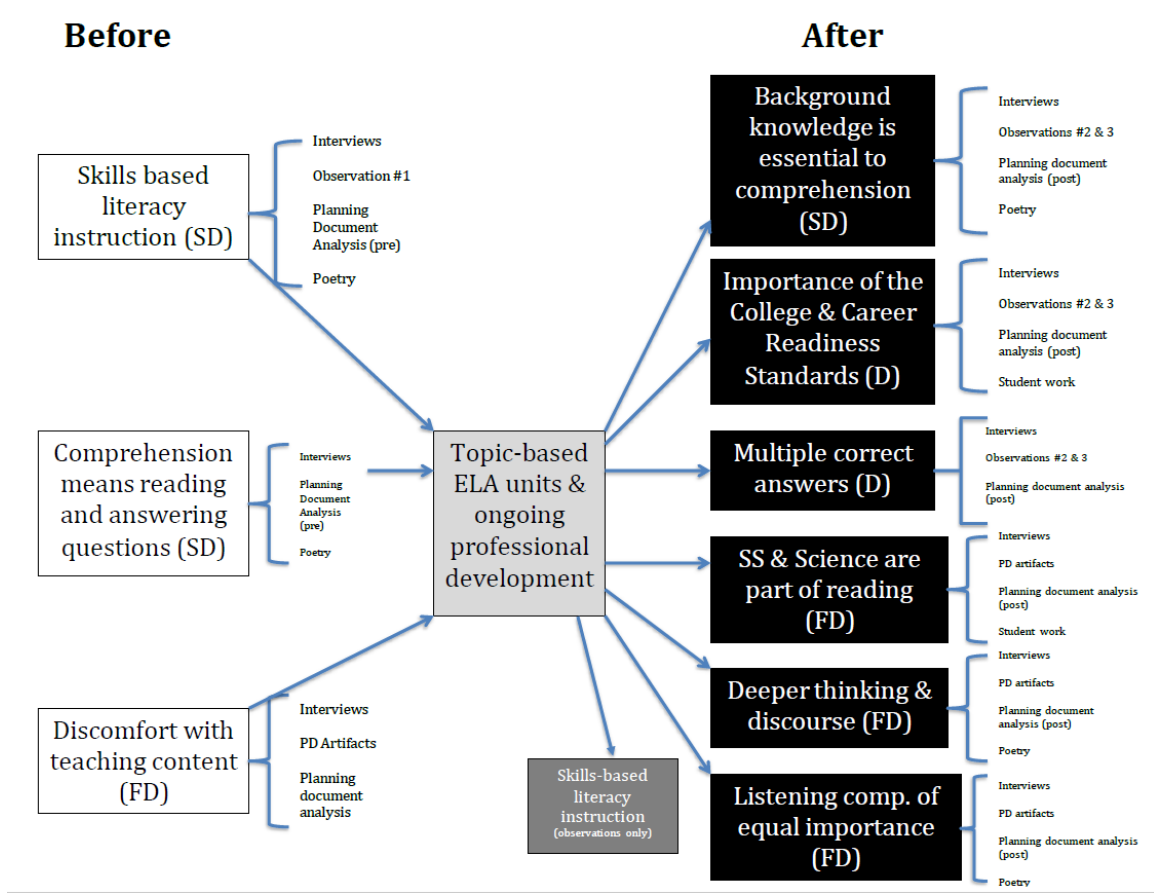
Figure 12. Synopsis of study findings.

Chapter 5

DISCUSSION AND IMPLICATIONS

My research originated from my own frustration with the skills-based approach to reading instruction that has been widely taught in elementary schools. Although I was initially very eager to begin making changes to reading instruction in my role as a language arts curriculum specialist, a professor helped me realize early in this process that teacher practice cannot be changed without confronting personal notions about what constitutes understanding of a text. This principle caused me to be interested in studying what those understandings were and how professional development can have an impact on them. I have spent the last year and a half working with teachers at just one of the schools I support to make reading comprehension instruction less skills-based and more knowledge-oriented, as well as determining how that affects teacher understanding of reading. The work that we did at Desert Elementary is just one example of how thoughts about practice can be shaped within a context. Supporting teachers in confronting their assumptions regarding this subject, however, should and will not end here; the process of embracing the building knowledge instructional shift for teachers of reading is ongoing and will undoubtedly involve further debate, reflection and refinement. For this last chapter, I will confront the limitations of the study as well as explain how I plan to expand upon the work we started at Desert within the school itself, district and diverse community of reading researchers.

Discussion of Data in Relation to Research Questions

The overarching question for this study was how teacher perception of reading instruction is affected by a shift in the focus of reading curriculum. The teachers went from a predominantly modernist, skills-based approach of reading comprehension instruction to topic-based units of study that support building knowledge. Through the interviews and supporting artifacts, I found that teacher awareness of both reading comprehension and instruction has changed at Desert Elementary.

How has teacher understanding of reading comprehension evolved since professional development in the CCSS instructional shift of building knowledge? Teachers at Desert Elementary once understood reading comprehension to be about answering questions correctly about a text. They knew student answers were correct because their teacher edition textbook told them what it was. This understanding resulted in teachers distributing long packets of questions that sought specific answers. The teachers interviewed admitted that this limited understanding of what constituted reading comprehension changed throughout the time of the Students Talking for a Change professional development program. Background knowledge began playing a prominent role in the reading classroom and teachers indicated that it was an essential aspect of comprehension. Teachers developed units of study based in topics, leading them to construct essential questions related to scientific and/or historical content they wanted students to discuss. This also meant that they utilized texts that were connected by content, allowing students to deepen understanding of the same topic on a daily basis. This role of background knowledge also explains why teachers understood that listening to content-based texts is important for our youngest learners. Since primary students

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cannot decode sophisticated text, they are missing out on an opportunity to learn more complex content when they read independently. The added emphasis of listening to build more complicated topical knowledge shows that teachers understood why listening helps with comprehension. Additionally, teachers felt that they understood that it is acceptable to have different interpretations of text. Instead of focusing on answering surface level questions, the teachers indicated that the sustained exposure to a topic provoked more thinking than in the past, leading students to have the ability to negotiate their different interpretations of texts related to the topic of study.

How does professional development on building background knowledge during reading instruction affect teacher perception of classroom practice? In the past, teachers acknowledged that "everything" was skills-based in terms of reading instruction. It is unclear whether this focus on the teaching of literacy "skills" was the reason why teachers were uncomfortable with integrating content from social studies or science in their classroom, but this discomfort was the overall impression among the teachers interviewed. Teachers recognized that their approach to reading instruction has changed from the modernist practices encouraged from their basal readers. Structuring reading around a topic helped teachers see the possibilities for discussion in their classrooms. Teachers perceived that students are thinking more deeply about the content of their learning, leading to higher quality discussions than they experienced in the past. The teachers interviewed felt that the standards play a larger role than they had prior to the professional development. This could be due to a change in understanding on the skills that their basal reader pre-determines. Instead, teachers understand that social studies and science should be an aspect of their ELA instruction, as implied by the

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Common Core. Overall, teachers perceive that they are increasing student knowledge of the world through different curricular and instructional practices.

Limitations & Credibility

Before reflecting on the meaning of this study, it is important to acknowledge the limitations of this research. Though I made every attempt throughout this process to have an insider's perspective (Crotty, 1998) and report solely on the different understandings that were uncovered, there would always be a possibility that individuals would not be truthful in their reflections. Due to the nature of my position as a district leader in language arts, I knew this would be something that would be a challenge. I wondered, would the teachers be honest with me for fear of how I would perceive them? In order to reflect the story of teacher perception regarding reading instruction as accurately as possible, I felt strongly that there needed to be multiple data sources, something that Ivankova (2015) affirms to be necessary to enhance credibility of study findings. Though interviews were my primary basis of information, I knew that supporting data sources needed to come from the teachers themselves. This is why I asked for planning documents prior to the study and for ones developed after our professional development, and sought reflections throughout our sessions, including one in the form of a poem. Additionally, it is nearly impossible to make conclusions about practice without looking at student work. When teachers would describe a process to me in an interview, I asked if they could provide a work sample to show what they meant. Following each observation was a member check with the teacher. During this time, individuals had the opportunity to share with me any insights to the observation as well as agree or disagree with my analysis.

At the conclusion of the study, I shared a synopsis of the study findings as suggested by Ivankova (2015). I explained to the staff my research process, including my

research questions, theoretical frameworks, methods, and data analysis. I then presented teachers with the flow chart from Chapter 4 and allowed them to ask questions and provide feedback. I explicitly asked whether they believed the information to be accurate and the staff appeared to be in unanimous agreement. During this time, I also gave teachers the opportunity to provide written feedback in case they did not feel comfortable speaking in front of the group. In the feedback, I received praise for my organization, the amount of literature used to support my project and the attention to detail. Though no one questioned the validity of the findings, I did get many questions that will assist me in further professional development sessions, such as how to sustain the discussion of content in the youngest grades. One question, also described in Chapter 4, pertained to a teacher's own personal reflection that they still felt that they were having students read and answer questions correctly, in spite of shifting instruction to a knowledge-oriented approach. This insight helped lead me to my conclusion that topic-based units and discussions about the content can help mitigate modernist approaches, but they absolutely do not eliminate them.

Next Steps

Moving forward, I must acknowledge that a great deal of the material accessible to teachers promotes the skills-based approach to reading instruction. Even in the later observations I conducted, modernist reading approaches were still somewhat evident. Given this reality, it would be very easy for teachers to regress into that pattern of instruction. It is therefore necessary to continue supporting teachers at this school with planning units of study. This would entail facilitating a process of discussing why building systematic background knowledge is crucial followed by what topics would

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engage our students in asking about the world. Then, a discussion would need to be had about how to sequence those topics and the appropriate material needed in order for students to make connections. It will be necessary to keep reminding teachers to not solely focus on the weekly skill that a textbook may dictate and instead encourage them to think about what student knowledge is crucial in order to gain awareness about what has happened, is happening and could happen in our society.

A hope at the beginning of this study was that teachers would see that the knowledge-oriented approach to reading instruction would lead to higher-level student conversations as compared to the discussions had during skills-based instruction. Three out of the four teachers sampled in this study perceived this to be true. In order to sustain this belief, it will be necessary for me to follow up with the teachers at Desert to ensure that this is happening and provide them with instructional strategies if it is not. We know from the work of Vygotsky (1978) that children learn through social interaction with others. To engage students, however, they cannot be talking about any trivial information; we have to ensure that we are presenting them with troubling subject matter (Bruner, 1996) and give them opportunity to reflect upon the meaning of it, as Freire (1970) would want. Thinking about the work that Lin Manuel Miranda was able to achieve with *Hamilton*, we need to continually ask the question, are our students able to adequately ponder and critique the knowledge that we are feeding them? We do not want to fall into the trap in which Freire (1970) was so critical: simply dumping information into our students' brains. Rather, we need to have a balance of providing students with the information and engaging them in activities that help them analyze the topic in order to think critically about what it implies for the world.

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Implications for the School and District

It is probable that Desert Elementary will continue to utilize a knowledge-oriented approach in the teaching of language arts. Teachers are optimistic about the future of reading instruction and are encouraged about the progress they are seeing students make. As they are the only school in the district who has had the STFAC professional development, they can be leaders in supporting teachers at other schools in shifting to this type of literacy curriculum. They also can provide expertise at the district level by influencing curriculum documents and professional development. Due to their time spent developing this shift in curriculum, this group of teachers feels more comfortable with content, has a number of resources to teach various topics, and knows how to utilize discussion in order to increase student understanding of the world they live in.

The study suggests that sustained professional development affects what teachers believe and perceive about literacy instruction. Long-term professional development, however, does not totally eliminate previous assumptions and practices. As I explained in Chapter 4, there were still modernist approaches evident in classroom observations during all phases of the study. This implies that teachers at Desert will need to continue to question their beliefs about reading comprehension (Serafini, 2003) in multiple forums. The leadership at the school will need to facilitate this process by fostering ongoing development to prevent isolated skills-based instruction devoid of content knowledge from overtaking the teaching of reading once again. There is a time and place for teaching skills, but teachers cannot plan with just thinking about them alone. To do so would assume that students could apply any learned skill to any text, regardless of background knowledge, which is not the case (Hirsch, 2016). Rather, planning needs to

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begin with what topics we want to expose students to in order to learn about the world coherently.

This research shaped the context of Desert Elementary School; however, it has not extended to the numerous other schools in the district. Due to my work as the language arts curriculum specialist for the district, I am aware that there is a need for the school district to support widespread professional development in this area. Various publishers continually market alluring curricular resources to school districts like my own, many of which do not embrace the knowledge-oriented approach to teaching reading. These materials emphasize the importance of skills and minimize the importance of topical coherence of text. Therefore, the extent that teachers outside of Desert Elementary are aware of how background knowledge affects reading comprehension is unknown. To build that awareness, teachers across the district will need to be introduced to resources that allow for instruction to build knowledge in a coherent way. Though developing a curriculum takes time and work, there are resources online that have been developed by educators to help teachers meet the demands of the building knowledge instructional shift. Teachers at Desert were able to utilize open source curricular materials like Core Knowledge Language Arts (Core Knowledge Foundation, 2017) and Expeditionary Learning (EL Education, 2017). Though these materials provided them with an important alternative to their current textbooks that did not support building knowledge of topics, work will still need to be done within Desert Elementary to ensure teachers are supported with these new resources. As for the other schools within the district, they will first need extensive training on what building knowledge means for literacy instruction. Once that is understood, district leaders will need to work with those

school principals on a plan to ensure that teachers are utilizing curricular resources that support the knowledge-oriented approach.

Further, accountability measures in the form of district-mandated assessments and the analysis of them complicate teacher views about how to approach literacy instruction. Even with the adoption of the Common Core State Standards, administrators are responding to them as they did at the beginning of high-stakes accountability (Hirsch, 2016). Commercial programs and standardized tests contain multiple-choice questions that support one "correct" answer (Serafini, 2003), leading to analyzing how students are mastering language arts "skills." As this district is moving toward a larger scale analysis of these skills-based literacy competencies on interim assessments, those of us with the understanding that background knowledge plays such a prominent role in reading comprehension will need to continue to advocate for knowledge-oriented instruction. This does not mean that all skills-based instruction should be eliminated; rather, we must acknowledge that building student knowledge is an equally important component of reading development and instruction. Due to my role in the district, it is clear that not all district leaders understand that skills from standardized assessments like identifying the main idea or strategies like predicting are not the driving force behind one's comprehension of new material (Hirsch, 2016), rather it is what students already know that shapes comprehension of text (Fisher, Frey & Lapp, 2012). Additionally, skills mastery should not be the sole basis for how teachers determine student understanding of text, as it disregards the importance of one's background knowledge. If we focus exclusively on teaching skills without being deliberate about how we are building students' background knowledge, student comprehension of text will be unlikely to

improve (Neuman, Kaefer & Pinkham, 2014). Though on the surface it may seem like the standards take a modernist, focused on skills approach, they acknowledge that having knowledge of a variety of topics is part of reading development (Cervetti & Hiebert, 2015b). Further, they call for a systematic approach to building background knowledge for students (Liben & Liben, 2013). Extensive work will need to be done to educate school and district administrators about this reality. This will involve educating district leaders about the purpose of a knowledge-oriented language arts curriculum. Not only does background knowledge contribute to how well one may comprehend, but shifting to a knowledge-based curriculum provides an opportunity for achievement on standardized assessments to increase. The subtle cultural knowledge that is inherent in any text, including a high stakes test, will always be present. An author cannot predict what their readers will know, meaning that any new text may present information that is ambiguous to the reader. A reader must negotiate this unstated presumed knowledge from text in order to understand what is being read coherently (Neuman, Kaefer & Pinkham, 2014). Moving forward, the district has a chance to look at reading curriculum in this potentially transformative way, providing a foundation for students to learn about topics in which they quite possibly have never been previously exposed.

Implications for Broader Research

Since NCLB was passed in 2002, the public has learned a significant amount about the reading achievement of American students. Although our youngest students can decode text with more accuracy and fluency than students prior to NCLB (Hirsch, 2016), the achievement of older students has lowered or remained stagnant. For example, in the latest long-term report of trends for the NAEP, the 2012 cohort of 17 year olds scored 3

points lower, on average, than students of the same age in 1988, 1990 and 1992 (Hirsch, 2016). As this cohort has received the majority of their K-12 education in the post-NCLB era, one may conclude that the skills-based approach that rose to prominence in the mid-2000s had something to do with these outcomes. Student comprehension of complex text is tested on the NAEP and many other standardized assessments in secondary education. As students get older, their ability to comprehend complex text depends increasingly on background knowledge and vocabulary. Therefore, focusing on getting students to simply decode text and teaching disconnected skills lessons in the primary grades are not sustainable solutions to the reading gap. It would be helpful to examine the correlation between knowledge-oriented curriculum and student success on standardized assessments, since these measures are what permeate school districts and inform decisions about instruction. What does higher achievement on assessments mean for strong readers, and how does background knowledge contribute to this relationship? Do these assessments measure reading "skill," or are they measuring general knowledge that was developed over time?

Even though NCLB is no longer a federal mandate, educators are still dealing with the side effects of the test-prep era and will continue to do so under the Every Student Succeeds Act. Despite the efforts made at Desert Elementary, the systematic building of knowledge is still the exception in most elementary literacy instruction across the country (Hirsch, 2016). Instead, the majority of teachers utilize a fragmented reading curriculum with unpredictable, disconnected topics on a daily basis (Hirsch, 2016). Although there are several studies that support the building of background knowledge (Cervetti & Hiebert, 2015a; Fisher, Frey & Lapp, 2012; Neuman, Kaefer & Pinkham,

2014), there are still many unknowns regarding the effects of sustained knowledge-oriented literacy instruction on student learning. More studies are needed in order to understand how building background knowledge through a coherent curriculum affects student reading comprehension, writing and discussion abilities.

If educators want to make an impact with student learning, research suggests that teachers need long-term professional development (Darling-Hammond & Richardson, 2009). This study suggests how ongoing professional development in curricular planning and instructional strategies to support the building knowledge instructional shift shapes teacher understanding about reading comprehension. This innovation informed teacher perception of practice. More work is needed to understand how this approach to teaching literacy is developing across the country and whether it is positively or negatively affecting teacher impressions of instruction. The transition from skills-based to knowledge-oriented instruction will remain challenging for teachers as it sharply deviates from previous well-established practices (Cervetti & Hiebert, 2015a).

The intent of this study was to ensure that teachers made their instruction more knowledge-oriented as argued in the work of E.D. Hirsch (2006, 2009, 2016) and outlined in the Common Core State Standards. The Hirsch name will likely remain controversial due to his past support of the specific cultural knowledge related to the western canon as argued in *Cultural Literacy* (1987). Many other researchers (Cervetti & Hiebert, 2015a; Fisher, Frey & Lapp, 2012; Neuman, Kaefer & Pink, 2014; Willingham, 2015), however, have provided a sound basis for why coherent topical knowledge of the liberal arts need to be an essential element of American classrooms. Teachers can support the systematic building of background knowledge in the reading classroom through

listening to texts about a similar topic (Wright, 2014), and through discussion with others, which gives students an opportunity to express their unique perspective on content (Juzwik et al., 2013) and helps them learn about the world from another perspective (Bruner, 1996). Given differing beliefs and influences among literacy researchers, critics, and practitioners, the basis for the elementary reading curriculum will likely remain a controversial subject.

My hope for this study was that it would help teachers to help students understand the context of the world in which they live and use that to have a positive influence on society. This research focused on how to shape the perceptions of teachers in order to foster that, yet not much is known about how the knowledge-oriented approach affects student awareness or actions. Do these problem-posing topics help students to think critically? Does an increased awareness of troubling issues in history or science lead to motivation to change society? Being more aware of how a topic-based literacy education affects individual beliefs about culture, current events, or scientific phenomena could provide compelling insights to the reading community about how to approach curriculum.

Personal Reflections

Due to different personal experiences and influences in elementary education, the basis for reading curriculum will remain a controversial subject among literacy researchers, critics and practitioners. Whether or not the knowledge-oriented approach to teaching reading is the "right" way, the work described here in curriculum and teacher training has undoubtedly shaped the context of Desert Elementary. The school is just beginning to see positive changes in student discussion and vocabulary acquisition. Comments from parents have been supportive as students are coming home and

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educating their parents about the topics they are learning in school. The final member check indicated that teachers are happy about this shift as well. The staff appreciated that it was about confronting teacher understandings and not claiming STFAC increased test scores. As one teacher stated, "this work helped me think more positively about how reading is taught – thank you!" In reflecting on the validity of this study, I now believe that beliefs are shaped by practice and practices are shaped by beliefs. The changes made at Desert allowed teachers to reflect on their practice and led to an evolution of their views about reading comprehension. As teacher views transformed, a shift in practice was also apparent due to topic-based planning, sustained conversations about text and engaging students in content-rich tasks rather than the skills-based practice packets from before. Though this is a positive outcome, the process of action research is endless. My work with these teachers will not end anytime soon; I remain enthusiastic about the possibilities to come in this important work to support educators in increasing student awareness about the world in which they live.

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APPENDIX A

INITIAL RECRUITMENT LETTER

July 1, 2015

Dear Teachers:

My name is Raquel Ellis and I am a graduate student in the EdD program in Leadership and Innovation at Arizona State University. I am working under the direction of Dr. Ray Buss, associate professor of educational psychology in the Mary Lou Fulton Teachers College. I am conducting an action research study to examine teacher beliefs and practices about discourse in the elementary classroom.

I am inviting your participation, which will include responding to a survey about what you believe about discourse, as well as some items related to your instruction. I anticipate the survey will take about 15 minutes for you to complete on two occasions, once at the beginning of teacher professional development in July of 2015 and again at the end of the school year. You have the right not to answer any question, and to stop your participation in the survey at any time.

Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no consequences.

The benefits to participation for you and others are that revisions will be made to professional development here at our school. Thus, there is potential to enhance the instruction we offer to students. There are no foreseeable risks or discomforts to your participation.

Your responses will be confidential. You will use a unique identifier, one that is easy for you to remember, but one which no one else will know. The unique identifier will be the first three letters of your mother's name and the last four digits of your phone number. For example, Mar 0789, would represent the first three letters of Mary and 0789 are the last four digits of your phone number. As a result, your responses will be confidential. This identifier will be used to match your initial set of responses to your later responses. You will not be identified in any way. Results of this study may be used in dissertations, reports, presentations, or publications but your name will not be known. Moreover, results from the survey will be reported in group form only.

Some of you will be selected for observations of classroom instruction. These will be informal and seek to find more information about discourse in the classroom. If you are selected for observations, you will select the date and have full access to all of my notes. You will also have the opportunity to give me feedback about the observation data. Additionally, I will ask approximately eight of you to participate in individual interviews, which will last about 15 minutes each on two occasions. The first interview will be conducted in late August-early September and the other will be at the conclusion of the school year.

If you have any questions concerning the research study, please contact me at (602) 740-5429 or Dr. Ray Buss (602) 543-6343. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human

Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study.

Thank you,
Raquel Ellis

Statement of Consent: I have read the above information, and have received answers to any questions I asked. I consent to take part in the study.

Your Signature _____ Date _____

Your Name (printed)

_____

In addition to agreeing to participate, I also consent to having the interview (*if I am asked) tape-recorded.

Your Signature _____ Date _____

Signature of person obtaining consent

_____ Date _____

Printed name of person obtaining consent

_____ Date _____

This consent form will be kept by the researcher for at least three years beyond the end of the study.

APPENDIX B

SECOND RECRUITMENT LETTER

Fall 2015

Dear Educator:

My name is Raquel Ellis and I am a graduate student in the EdD program in Leadership and Innovation at Arizona State University. I am working under the direction of Dr. Kathleen Puckett, associate professor of Special Education in the Mary Lou Fulton Teachers College. I am conducting an action research study to examine how teachers make sense of discourse professional development in planning and practice.

I am extending an invitation for your participation, which will involve me collecting artifacts of our work together that are on our shared folders, such as planning documents or outputs from our meetings. If you choose not to participate or decide to withdraw from the study at any time, there will be no consequences.

The benefits to participation for you and others are that revisions will be made to professional development here at our school and the district. Thus, there is potential to enhance the instruction we offer to students. There are no foreseeable risks or discomforts to your participation.

If you are ever quoted for research purposes, your real name will not be used, nor will the real name of the school be used. I will also write about groups of people, not about one person.

If you have any questions concerning the research study, please contact me at (602) 740-5429 or Dr. Kathy Puckett (602) 223-7281. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788. Please let me know if you wish to be part of the study.

Thank you,
Raquel Ellis and Kathy Puckett

- -

Statement of Consent: I have read the above information, and have received answers to any questions I asked. I consent to allow the use of artifacts, such as planning documents and/or outputs from meetings to be used for data analysis in the study.

Your Signature _____ Date _____

APPENDIX C

STAFF INTERVIEW PROTOCOL – POST-INTERVENTION

This interview protocol is intended to facilitate a semi-structured interview with teachers and administrators. Further follow-up questions will be based on participants' responses but remain within the scope of how the teacher developed the building knowledge instructional shift.

Introduction and Consent

Thank you for sitting with me today. As you know, I am a student in the Leadership and Innovation EdD program at ASU. I am studying how teachers at this school make sense of the discourse professional development. If you agree to participate, I will ask you several questions to get a sense of how you plan and how you teach reading.

[Consent section]
Your responses will help inform future professional development for upcoming years, so your insight is incredibly valuable.

Remember, your responses are completely confidential. If you are ever quoted for research purposes, your real name will not be used, nor will the real name of the school be used. I will also write about groups of people, not about one person.

It is completely up to you whether to participate. You may withdraw at any time and you may skip questions you would prefer not to answer.

*Are you willing to be a participant in my research? (**wait for answer**) Do I have your permission to record and/or take notes? (**wait for answer**)*

Semi-Structured Interview Questions

1) Prior to the AZCCRS, how did you approach reading instruction? (what did you believe about it, how did you plan for it, etc.)

      1a) (if necessary) Describe to me what a typical lesson looked like prior to the AZCCRS.

2) Tell me about your beliefs about reading comprehension throughout your career. Think back to where you first started and where you are now.

3) How is your approach to teaching reading different now, or is it?

4) Tell me your feelings about the building knowledge instructional shift.

5) Are you implementing this shift in your classroom? How do you know?

6) Tell me about how you plan for instruction (if didn't answer in previous)

7) Do you think there is a relationship between approaching reading instruction in this manner and discourse? Tell me about it.

APPENDIX D

OBSERVATION SCRIPTING TEMPLATE

The researcher took scripted notes as they related to the content of the lesson. Speech related to classroom management or procedures were not taken.

Teacher:

Subject:

Date:

Time	Script

APPENDIX E

PROFESSIONAL DEVELOPMENT SESSIONS 1 & 2

WELCOME TO 2015-16: GAME CHANGERS

DESERT ELEMENTARY

Discuss: What is our ultimate goal for students here at Desert Elementary?

Ken Robinson: Changing Education Paradigms

Research Proposal

ASU

* Help us be a game changer here at Desert Elementary!
  * We believe that this can happen if we better understand how we develop changes in instruction
* Recruitment letter
* Consent
* Questions?

discourse

Survey

LEARNING GOAL:
Teachers will understand the connection between classroom discourse, content integration and reading development in order to foster a listening and speaking centric classroom.

My personal journey

- Fragmented learning to be a teacher experience
- Tough first year
- Skills based/balanced literacy approach initially
- Master's work and working with ELL students led to unit planning/integrated approach
- Doctoral work has showed me the importance of social interaction in the classroom and how context is the foundation for that to happen

Essential Questions: Students Talking for a Change

- How can talk lead students to be agents of change?
- What does discourse-based instruction look like?
- Why do we need to foster classroom discourse?
- How do we foster classroom discourse?
- What supports/development do I need to improve discourse in our classrooms?

We are going to talk about these questions using the Microlab protocol

Connect: What is *classroom discourse*?

- On your circle map, write down some notes about what classroom discourse means to you.

What is *classroom discourse*?

- Classroom discourse is
  - The idea that students are communicating with one another in a meaningful way in order to construct meaning of new knowledge.
  - Constantly exchanging ideas amongst one another to gain deeper understanding
  - The resolution of the knowledge with what is already known, accomplished through interacting with classmates and teachers
  - Constructing meaning of ideas that are constantly evolving as we learn more
- It is not
  - Simply thinking and quiet sharing
  - Teacher centered

Discourse allows students to be their own agents of change!

Examining a typical student-teacher interaction

- Let's look at a typical student-teacher interaction
  - Teacher: What is the main idea of this passage?
  - Student: Gandhi was a great leader in India.
  - Teacher: Very good, how do you know?
  - Student: Because the text says that he ended casteism in India.
  - Teacher: Yes, nice work.

"In the average classroom, as much as 70% of instructional time consists of these kinds of verbal exchanges between the teacher and students or among students: teacher initiation, student response, teacher evaluation of the response/feedback" (Cakiri, 2015).

What is *classroom discourse?*

How are classroom discourse and literacy related?

Why is classroom discourse so difficult?

Integration of content is challenging, possible and *fun*

Why is classroom discourse important?

How these ideas help us in our practice

BREAK: 10 MINUTES

THANK YOU FOR BEING SUCH ENGAGED PARTICIPANTS;
TAKE A BREAK!

It's Time For A Break

Speaking & Listening Standards

* A way to start tackling classroom discourse is to take a close look at the speaking and listening standards
* Deconstructing them into knowledge & skills helps us understand what discourse could look like in the classroom

Fostering discourse through content

* "We have in Freire and in Vygotsky, legacies that advocate integrated curriculum that focus on the content of learning and on social interactive activities with discussion and reflection as the main engines of the pedagogical process" (Ferraz in Castilo Drunal Freire, 2000, n. 16).
* Discourse that involves:
  * Students thinking critically about how content relates to their lives
  * Students building upon one another's ideas

Why Teaching ELA through content-based units is an effective practice:

* We are able to teach science, Social Studies and ELA together (integration)
* It forces kids to evaluate the world and what they can change about it
* Students gain deep knowledge about topics that build upon one another
* Allows students to constantly restate what they know with new knowledge
* In line with research about what supports comprehension
* Creates rich discourse!

Teaching content *is* teaching reading!

* Daniel T. Willigham, Professor of Psychology, University of Virginia

Teaching science is teaching reading

Fostering Discourse Through Content

Fostering Discourse Through Content

Teach It to them!!!

What the experts say...

Long term planning & essential questions

How do I know if my essential question is a good one?

Example: 3rd grade

APPENDIX F

PROFESSIONAL DEVELOPMENT SESSION 2: ENGLISH LANGUAGE ARTS

LONG TERM PLANNING TEMPLATE

ELA Long Term Unit Planning Template

Unit Topic/Focus	Time	Sc/SS & ELA Standards	Essential Questions	Performance Task (writing piece)	Resources

APPENDIX G

PROFESSIONAL DEVELOPMENT SESSION 3

DESERT GAME CHANGERS

STUDENTS TALKING FOR A CHANGE SEPTEMBER 16, 2015

Essential Questions: Students Talking for a Change

- How can talk lead students to be agents of change?
- What does discourse-based instruction look like?
- Why do we need to foster classroom discourse?
- How do we foster classroom discourse?
- What supports/development do I need to improve discourse in our classrooms?

Review: What is discourse?

- Take some time to reflect on what you know about discourse and questions you still have
  - Be ready to share with the group and have a discussion about your current understanding
  - Don't worry, we all review the definition after ☺

What is *classroom discourse?*

- Classroom discourse is:
  - The idea that students are communicating with one another in a meaningful way in order to construct meaning of new knowledge
  - Constantly exchanging ideas amongst one another to gain deeper understanding
  - The realization of new knowledge with what is already known, accomplished through interacting with classmates and teachers
  - Constructing meaning of ideas that are constantly evolving as we learn more
- It is not:
  - Simply thinking and pair sharing
  - Teacher centered!

Discourse allows students to be their own agents of change!

What is *classroom discourse?*

Conventional Classroom Discourse	Static Classroom Discourse
One-word responses	Three-part responses
Known-answer questions typically posed	Multiple answers/explanations possible
Predominantly teacher-driven and led	Students co-construct drive and often lead discourse
Students rarely afforded latitude to build on peers' thoughts	Students build on, challenge, revoice and share ideas with peers
Teacher relies on a few students to carry task	Many students eagerly participate
Aim is to have correct answer given in shortest time	Goal is to have students articulate strategic thinking

Close Reading: What does success look like in a discourse-centric, college and career readiness classroom?

BACK TO BACK/FACE TO FACE

TAKE A STAND

- There are 2 sides to this imaginary line.
- After thinking about this question decide where you will take a stand and stand on the location of the line you think best represents your thoughts and feelings to the question.

Should students be able to bring treats to school when it is their birthday?

- Where do you stand on the line of strongly agree – strongly disagree?
- Be ready to explain and justify your opinion.

Moving up on the ICAP continuum

- The ICAP framework helps us understand learning processes:
  - 1: Passive: one is simply receiving information
  - 2: Active: one is manipulating the information they are receiving
  - 3: Constructive: one is generating their own ideas about the learning
  - 4: Interactive: Individuals are dialoguing with others about their ideas, often defending or justifying their positions

The more discursive or interactive our teaching is, student learning and literacy is maximized

Add instructional strategies to SIP

- Take time to reflect on what we have learned today
- Decide as a team what you could incorporate into your SIP plan

Whole group share

APPENDIX H

PROFESSIONAL DEVELOPMENT SESSION 4

DESERT GAME CHANGERS

STUDENTS TALKING FOR A CHANGE OCTOBER 12, 2015

LEARNING GOAL:
Teachers will understand the connection between classroom discourse, content integration and reading development in order to foster a listening and speaking centric classroom.

How has discourse training affected my planning and practice?

Write a found poem

Close reading: What makes a question essential?

ESSENTIAL QUESTIONS

Give One, Get One, Move On (GoGoMo)

1. Write down 3-5 separate ideas about what you learned from the video/article on each sticky note
2. Get up and mingle
3. 'Give one' to a partner; explain your thinking
4. Once you 'get one,' wait for the facilitator to say 'move on' and mingle again
5. Repeat GoGoMo as many times as possible

APPENDIX I

PROFESSIONAL DEVELOPMENT SESSION 5

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Connection to Speaking & Listening: Vocabulary & Integration

- Direct vocabulary instruction is beneficial to students
- Most vocabulary, however, is learned indirectly through *listening* and *reading.*
- For K–2 students, most words are learned through listening and generally not what they read themselves (Liben, 2014)
- Reading or listening to a *series of text on the same topic* can yield as much as four times the vocabulary growth (Landauer and Dumais 1997; Adams, 2009; Liben, 2014)

Moving forward

Esperanza Spring PD Needs

- Unit planning
- Discussion protocols
- Misc (other)

81% / 18% / 1%
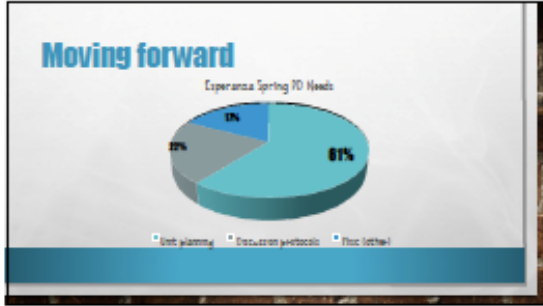
Moving forward

| Revising units | Using discussion protocols before, during & after reading | Planning meaningful performance tasks |
| More time digging in to available resources | How to balance all aspects of the reading block | Seeing teachers model discussion & hearing from colleagues who are finding success with integration |

Units should address *topics* not themes

Topics vs. Themes

Topics	Themes
• Sea Mammals	• Courage
• Explorers	• Friendship
• Vampires	• Survival
• Health	• Growing Up
• Insects	• Decisions
• Native Americans	• Family
• Transportation	• Respect
• Children in Vietnam	• "We Help Each Other"
• Immigrants	

Thematic Unit (past)	Integrated Unit (present)

• Has the potential to go deep, but with a smaller topic
  • Ex.: Bears, George Washington, Friends
	• Goes deep with a larger topic
	  • Ex.: Weird Habitats, The American Revolution, Greek Myths

• Is driven by isolated activities that may be engaging, but do not necessarily lead to deep understanding	• Is driven by 3–5 big questions that are essential to have a comprehensive understanding of the topic (EQ's)
• Lesson plans are not constantly sequenced in a particular order and are not always tied to standards	• Lesson plans are standards-based and planned in a coherent sequence as a scaffold to come to complex understanding of the essential questions
› The content is simply used as a "hook" to practice literacy skills	• The content knowledge (history, science, social issues, etc.) is essential to literacy skills and reaching the learning goals
• Instruction is more task oriented with limited direct instruction	• Learning goals are rigorous, requiring thorough direct whole and small group instruction

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Summary

- Quick write: How does classroom discourse contribute to reading development? How does content integration contribute to reading development?
- We learned another discussion protocol today that fosters discourse within your units!

| Integrated units | Classroom discourse | Student learning |

Next time: Be ready to see some teacher-modeling and begin revising units for next year!

APPENDIX J

PROFESSIONAL DEVELOPMENT SESSION 6

Units should address *topics* not themes

Topics vs. Themes

Topics
- Sea Mammals
- Explorers
- Vampires
- Health
- Insects
- Native Americans
- Transportation
- Children in Vietnam
- Immigrants

Themes
- Courage
- Friendship
- Survival
- Growing Up
- Decisions
- Family
- Respect
- "We Help Each Other"

Begin Unit Revision process using 'Praise, question, suggest'

Unit 'task-force'

☐ Units are topic based (e.g. not thematic or solely skills/strategies)

☐ Students are given opportunity to build knowledge about a topic through a logical lesson sequence and multiple types of text

☐ Essential questions are broad; they are compelling and support ongoing consideration throughout unit's life

☐ Specific resources are identified and used to support big ideas of unit

---

Plan for remainder of the year

- March: half term

- April 6th: Reflecting & revising units (work time)

- April 20th: Possible equity work with Adama

- May 11th: Reflecting & revising units (work time)

Summary

- Thank you, Cristy!

- We learned two new discussion protocols today that foster discourse within your units

- We have begun reflecting upon our units

- Complete Google Form:
  https://docs.google.com/a/k12.nsw.gov/forms/d/1U8_ysxcLQ1A89H9Q1wOHL0052-pldl0N1OshqvcDG/viewform

APPENDIX K

PROFESSIONAL DEVELOPMENT SESSION 7

DESERT GAME CHANGERS

STUDENTS TALKING FOR A CHANGE APRIL 6, 2016

Unit Reflection & Revision

Complete this reflection on Google Forms (link for email from Raquel)

"Unit Indicators"

☐ Units are topic based (e.g. not thematic or only skill/strategies)

☐ Students are given opportunity to build knowledge about a topic through a logical lesson sequence and multiple types of text

☐ Essential questions are broad; they are compelling and support ongoing consideration throughout unit life

☐ Specific resources are identified and used to support big ideas of unit

LEARNING GOAL
Teachers will understand the connection between classroom discourse, content integration and reading development in order to foster a listening and speaking centric classroom.

Learning Scale

4	3	2	1	0
Does all of task 3 and is a mentor to other teachers and will about how to foster classroom discourse through content integration.	Teachers will be able to explain how classroom discourse and content integration contributes to reading development and be able to consistently implement instructional strategies that foster a listening and speaking centric classroom.	Teachers will be able to explain how classroom discourse and content integration contributes to reading development and be able to partially implement instructional strategies that foster a listening and speaking centric classroom.	With help, teacher is able to explain the importance of classroom discourse and or content integration.	Teacher is unable to explain the importance of classroom discourse and content integration.

Target/scale today

Teachers will be able to reflect upon how knowledge is built in units and revise.

Long term planning template

Long Term Unit Planning Template

Unit Topic/Focus	Time	NGSS & ELA Standards	Essential Questions	Performance Task (writing piece)	Resources

Feel free to use another template if you choose ☺

Units should address _topics_ not themes to build knowledge about the world

Topics vs. Themes

Topics	Themes
• Sea Mammals	• Courage
• Explorers	• Friendship
• Vampires	• Survival
• Health	• Growing Up
• Insects	• Decisions
• Native Americans	• Family
• Transportation	• Respect
• Children in Vietnam	• "We Help Each Other"
• Immigrants	

Summary

* Today, we began to reflect on our units and the extent to which they build knowledge and foster discourse for our students.

Integrated units → Classroom discourse → Student learning

Next time:
Be ready to continue reflecting and engage in a discussion protocol ☺

APPENDIX L

PROFESSIONAL DEVELOPMENT SESSION 8

DESERT GAME CHANGERS

STUDENTS TALKING FOR A CHANGE APRIL 20, 2016

Protocol: Rank, Talk, Write

1. Read text: "Promoting growth mindset means that big ideas at this door, superhighway"
2. Mine **your** reaction to big ideas or concepts from the reading
3. **WRITE the reading** or the summary sentence for each big idea or concept you identify
4. Rank your summary sentences in order of importance ("1" rank to most important, "2" rank to the second and third most important concept)
5. In groups, participants share each the concepts they ranked, explaining why they ranked each concept as they did in terms of importance.
6. Each group determine which are compelling, hold & most important and discuss the best summary statement for that idea or concept.
7. A scribe from the group writes the summary statement of the idea or concept on a whiteboard, piece of chart paper, or large butcher page. Group done!
8. Share group share

LEARNING GOAL:

Teachers will understand the connection between classroom discourse, content integration and reading development in order to foster a listening and speaking centric classroom.

Learning Scale

4	3	2	1	0
Ranks all of level 3 and is a mentor to other teachers and the IT about how to foster classroom discourse through content integration.	Teachers will be able to explain how classroom discourse and content integration contributes to reading development and is able to consistently implement instructional strategies that foster a listening and speaking centric classroom.	Teachers will be able to explain how classroom discourse and content integration contributes to reading development and is able to partially implement instructional strategies that foster a listening and speaking centric classroom.	With help, teacher is able to explain the importance of classroom discourse and/or content integration.	Teacher is unable to explain the importance of classroom discourse and content integration.

Target for today:

Teachers will be able to reflect upon how knowledge is built in units and review.

Summary

* Today, we learned two new discussion protocols, Carousel Brainstorm & Rank/Talk/Write
* We also reflected on how our own biases have influenced our beliefs and practices around growth mindset
* Complete Google reflection

Integrated units	→	Classroom discourse	→	Student learning

Good times: Be ready for more unit planning work and celebrations ☺

Protocol: Carousel Brainstorm

1. How do our students' socioeconomic backgrounds influence our interactions with them?
2. How do our racial biases affect what and how we teach our students?
3. How do we think of our students who pick up quickly on the concepts we teach?
4. How do we think of our students who are not athletic or not engaged in what we are teaching?
5. What does it mean to view students with a deficit lens?
6. How do we pass on a growth mindset to our students?
7. How do we plan instruction in order for students to realize what contributions they will make to society?

APPENDIX M

PROFESSIONAL DEVELOPMENT SESSION 9

DESERT GAME CHANGERS

STUDENTS TALKING FOR A CHANGE MAY 11, 2016

LEARNING GOAL:
Teachers will understand the connection between classroom discourse, content integration and reading development in order to foster a listening and speaking centric classroom.

4	3	2	1	0

(table content illegible)

Quick-write: Individual Reflection

* Go to the email Raquel sent
* Individually reflect on the question: What will I add into the Marzano planning adaptation and team planning time!
  * https://docs.google.com *(link illegible)*

Marzano Adaptation 4: Plan More Thoughtfully

(bulleted content largely illegible)

Celebrations – Concentric Circles

* Form inner-outer circles.
* Thinking about your planning, instruction and student achievement, what are some of your celebrations from this school year?

Unit Reflection & Revision

(checklist items largely illegible)

APPENDIX N

PROFESSIONAL DEVELOPMENT SESSION 10

APPENDIX O

PROFESSIONAL DEVELOPMENT SESSION 11

DESERT GAME CHANGERS: RESEARCH FINDINGS

RAQUEL ELUS.

Context: How we teach reading

Review of Supporting Scholarship

- Theoretical Frames
  - Vygotsky's Sociocultural Theory
  - Freire's Learning Theory

Review of Supporting Scholarship

Conceptual Framework:
- Unrau's Knowledge-Oriented Approach to Literacy Instruction
  - Rejects notion that reading is solely a skill to be mastered
  - Student ability to comprehend text depends on what they already know about the subject
  - Students should read multiple texts about the same topic to build background and vocabulary

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Review of Supporting Scholarship

Building Knowledge
- Instructional shift called for by the Common Core
- Fosters oral language development, critical thinking, both and comprehension in later years (Cervetti & Hiebert, 2015; Gillingham, 2015)
- The more you know about a topic, you will not only have an easier time reading a book about that topic, but there's more potential for one to make meaning from that book (Neuman, Kaefer & Pinkham, 2014)
- Significant departure from current practice (Cervetti & Hiebert, 2015)

Review of Supporting Scholarship

The role of prior knowledge
- For a reader to construct meaning from a book, they will connect to both their background knowledge of the topic and their own experiences (Cervetti, 2015)
- Teachers need to be accepting of what knowledge students already have
- Those children who lack the prior knowledge have difficulty making sense of texts that introduce an unknown topic (Liben & Liben, 2013)
- Reading instruction should involve activating prior knowledge AND building new knowledge (Cervetti & Hiebert, 2015)

Review of Supporting Scholarship

Discourse and Literacy Learning

- The use of classroom talk is correlated with student growth in reading comprehension, literary analysis, and writing arguments (Jocuis, Dorsheim-Black, Coughlan & Quinha, 2015).
- Language itself is a social skill; discussion promotes processing of new information (Serafini, 2009)
- Students learn a great deal about the world and themselves by interacting with adults and peers (Bruner, 1996; National Association for the Development of Young Children, 2009; Serafini, 2009)

Review of Supporting Scholarship

Providing context

- To promote discussion, students should consider the reading realities of their world (Bruner, 1996)
- Questions should be interpretive and encourage multiple answers (Wiggins & McTighe, 2005; Serafini, 2009; Jocuis, et al., 2015)
- Logically sequenced topic-based units of study that provide repeated exposure to related texts allows students to form their own understanding of the world (Litke & Litke, 2013).

Review of Supporting Scholarship

Barriers

- Federal instructional belief & practices about reading perpetuate most schools reading (i.e. skills to be mastered, 'right' answers, only similar interpretations of text are valued)
- Quality professional development

Purpose of the study

The purpose of this study is to examine how teacher perception of reading instruction is affected by a shift in the focus of reading curriculum.

Method

- Qualitative action research
  - Challenge subjectivist epistemological stance
  - Constructivist

Action

- To enable professional development
  - Start building knowledge more in literacy instruction
  - Why building knowledge through topic-based units fosters reading comprehension and closeness
  - How to create knowledge-based units
  - Specific discussion strategies that facilitate classroom conversation knowledge being built into classroom
- Three phases
  - Phase 1: Examining the Lack for Building Knowledge
  - Phase 2: Teaching, Training and Ongoing Education
  - Phase 3: Ongoing Support that Follow-through Evaluation

APPENDIX P

TEACHER POETRY PROMPT

Reflecting on Changes in ELA Curriculum

Brainstorm:

What I used to think about reading comprehension	What I think about reading comprehension now

Directions: Taking words or phrases from your list, *create a 10-line poem that explains how your beliefs about reading comprehension have changed/grown/evolved (or not) in the past year.*

- Speak your truth
- Completely free verse; does not have to have a set structure or rhyme (unless you want to ☺)
- Don't worry about spelling, grammar, etc.

APPENDIX Q

ARIZONA ELA ANCHOR STANDARDS

Arizona's English Language Arts Standards – Anchor Standards	
Reading Standards for Literature and Informational Text	
Key Ideas and Details	
R.1	Read carefully to determine what the text says explicitly and to make logical inferences from it.
R.2	Determine central ideas or themes of a text and analyze their development.
R.3	Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
Craft and Structure	
R.4	Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
R.5	Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
R.6	Assess how point of view or purpose shapes the content and style of a text.
Integration of Knowledge and Ideas	
R.7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
R.8	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
R.9	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.
Range of Reading and Level of Text Complexity	
R.10	Read and comprehend complex literary and informational texts independently and proficiently.

Arizona's English Language Arts Standards –Anchor Standards	
Writing Standards	
Text Types and Purposes	
W.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
W.2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
W.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.
Production and Distribution of Writing	
W.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
W.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
W.6	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
Research to Build and Present Knowledge	
W.7	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
W.8	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
W.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Range of Writing	
W.10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Arizona's English Language Arts Standards – Anchor Standards	
Speaking and Listening Standards	
Comprehension and Collaboration	
SL.1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
SL.2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
SL.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
Presentation of Knowledge and Ideas	
SL.4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
SL.5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
SL.6	Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Arizona's English Language Arts Standards – Anchor Standards	
Language Standards	
Conventions of Standard English	
L.1	Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.
L.2	Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.
Knowledge of Language	
L.3	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
Vocabulary Acquisition and Use	
L.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
L.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
L.6	Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Source: Arizona Department of Education (2016).

APPENDIX R

CODEBOOK WITH DEFINITIONS

01. Literacy Instructional Strategies	01. Vocabulary (Non context building) .01	Vocabulary instruction that does not relate to the unit of study or understanding of the historical or science topic; the understanding of the word itself is not essential to understanding the context of the text itself.
01. Literacy Instructional Strategies	01. Vocabulary (Context building) .02	Vocabulary instruction that does relate to the unit of study or understanding of the historical or science topic; the understanding of the word itself is essential to understanding the context of the text itself.
01. Literacy Instructional Strategies	01. Modernist skills-based instruction .03	Instructional techniques, strategies, questioning, etc. regarding the mastery of a 'skill' such as main idea, problem/solution, cause/effect, author's purpose, character traits, theme, etc. In this type of instruction, teachers often ask questions in which they are seeking a correct answer, such as 'what is the main idea of this passage?' without further inquiry. Skills-based instruction can also be about mastering a phonics rule.
01. Literacy Instructional Strategies	01. Building context through teacher experience .04	A strategy in which the teacher provides more context around an idea in a text through recalling a personal experience. For example, 'when I was a kid…'
01. Literacy Instructional Strategies	01. Building context through student experience .05	A strategy in which the teacher provides more context around an idea in a text through asking students to recall a personal experience. For example, 'have you ever experienced…'
01. Literacy Instructional Strategies	01. Building historical context student generated text-based details .06	A strategy in which the teacher asks the students to come up with details they have read in the text that tell us more about the context and to better understand the topic of study.

01. Literacy Instructional Strategies	01. Teacher thinking aloud about meaning .07	A strategy in which the teacher interprets the meaning of the text by explaining their thoughts aloud.
01. Literacy Instructional Strategies	01. Independent reading .08	Students are reading a text independently without the support of another individual.
02. Elements of Professional Development in Practice	02. Building on knowledge from previous lessons .01	Any time in which students refer back to previous lessons in class discussions, the teacher activates what students know from previous lessons or when students record/represent/synthesize new information with the former. Often times, this involves students discussing the new information and negotiating that with what they have already learned.
02. Elements of Professional Development in Practice	02. Student interaction about topic of study .02	Any time in which students are having a back and forth exchange about the content (science, history, the arts) learned in the unit of study. Can be student or teacher initiated.
02. Elements of Professional Development in Practice	02. Student reflection of content .03	Any time in which students are specifically reflecting on the meaning or implications of the content. Often times, this involves students asking questions and/or making connection to the world and/or interpreting the significance or meaning of the content and are sharing these thoughts with others.
02. Elements of Professional Development in Practice	02. Encouraging student justification of answer .04	Any time in which a student gives an answer and the teacher probes for further explanation or justification of the answer given in order to gauge student understanding and to help other students comprehend the content. You might hear the teacher say, 'why do you think that?' or 'how did you arrive at that conclusion?

02. Elements of Professional Development in Practice	02. Integrating connected texts .05	This involves the teacher presenting a text (print, video, digital, image, etc.) that relates to another read text, leading to further understanding of the topic.
02. Elements of Professional Development in Practice	02. Discussing unit essential questions explicitly .06	Referring back to the unit essential questions and directing students to discuss them. Students process and convey their current understanding of the meaning of the questions.
02. Elements of Professional Development in Practice	02. Content-based classroom environment .07	Based on the posters, vocabulary, books and other visual aids in the room, there is no question that the ELA topic of study is based in a historical, scientific or artistic topic.
03. Collaborating to comprehend	03. Students working in groups .01	Any time in which students are working on a task related to the unit of study with 3+ students. The content of the conversation was inaudible.
03. Collaborating to comprehend	03. Student pair sharing .02	Any time in which students are prompted to engage in a discussion related to the unit of study with 2 students. The content of the conversation was inaudible.
03. Collaborating to comprehend	03. Discussion protocols .03	Any time in which students are prompted to engage in a discussion protocol learned from the PD related to the unit of study with 2+ students. The content of the conversation was inaudible.
03. Collaborating to comprehend	03. Student engagement .04	Any time in which students are writing notes, asking questions or engaged in some sort of processing activity of the topic. The content of the student processing is incomprehensible to the researcher.
04. Instruction Unrelated to Literacy	04. Procedures .01	Teacher is explaining procedures that are unrelated to the content of the lesson.

04. Instruction Unrelated to Literacy	04. Learning goals & scales .02	Teacher is explaining the learning goal of the lesson and and/or the scale in which students are to assess their learning of the standard.
04. Instruction Unrelated to Literacy	04. Set-up .03	Teacher is preparing students for participation in the lesson, but no content is being covered.
04. Instruction Unrelated to Literacy	04. Non-content based classroom environment	The posters, books, vocabulary, etc. that is displayed in the room does not reflect a content-based unit of study.
05. Teacher perception of previous practice	05. Modernist skills-based instruction .01	The teacher is explaining instructional techniques, strategies, questioning, etc. regarding the mastery of a 'skill' such as main idea, problem/solution, cause/effect, author's purpose, character traits, theme, etc. In this type of instruction, teachers often ask questions in which they are seeking a correct answer, such as 'what is the main idea of this passage?' without further inquiry. Skills-based instruction can also be about mastering a phonics rule.
05. Teacher perception of previous practice	05. Reading & answering questions .02	The idea that a good reading lesson for comprehension involved students reading text and answering questions about it Often times, these questions came from a Basal reader and there was a correct answer that the teacher was looking for.
05. Teacher perception of previous practice	05. Comprehension means 'correct' answers .03	The idea that in order to comprehend a piece of text, that students are getting the answer 'right.' The correct answers either come from a curricular resource or the teacher's perception of what the correct answer is.
05. Teacher perception of previous practice	05. Lack of student interest .04	Perception that students were not interested/engaged during reading class.

05. Teacher perception of previous practice	05. Comprehension happens through decoding alone.05	The idea that there is no comprehension of a text going on if the student cannot decode the words on the page. Therefore, in order to comprehend a text, students must be able to read the words on the page, implying that listening comprehension is not a valid form of understanding. It also implies a limiting definition of what a text is. In this model, decoding must be mastered before developing student comprehension.
05. Teacher perception of previous practice	05. Standards-based .06	Perception that the teacher always planned with the standards in mind; ensured that lessons were addressing ELA standards.
05. Teacher perception of previous practice	05. Using supplemental materials to practice skill .07	Bringing in additional materials from non-district adopted resources to help students master the skill that the basal reader calls for. The supplementary materials might come from older resources the teacher has accumulated, online share websites (Teacherspayteachers, Pinterest) or educational websites like Readworks, Scholastic or Discovery Education.
05. Teacher perception of previous practice	05. Comprehension was not a focus; just phonics .08	Prior to the AZCCRS or this professional development, the comprehension of text came secondary to the development of phonics skills. Phonics took precedence over comprehension.
05. Teacher perception of previous practice	05. Discussions did not go beyond the surface level .09	Perception that discussions only addressed 'right there' questions, not requiring students to infer, evaluate or reflect on the topic of discussion.

05. Teacher perception of previous practice	05. Unnecessary to build content knowledge .10	Perception that it was unnecessary to teach content to students in order to build background knowledge for reading comprehension. This was due to an assumption that students had the background knowledge already or that the topics were above the heads of students.
05. Teacher perception of previous practice	05. No evidence of building content/background/contextual knowledge .11	When looking at an artifact or in classroom observations, there is no evidence that background, content or contextual knowledge is being built within the lesson.
05. Teacher perception of previous practice	05. Discomfort with teaching content .12	Teacher expresses discomfort with teaching social studies or science content due to not having a knowledge base of the topic and/or due to the controversial of certain topics.
05. Teacher perception of previous practice	05. Thematic units .13	Perception that in the past, the teacher taught content through thematic units that involved collecting literature relating to a topic.
05. Teacher perception of previous practice	05. Importance of vocabulary development .14	Perception that vocabulary is an important part of reading development.
06. Teacher perception of post-PD practice	06. Encouraging student justification of answer .01	After a student provides an answer, the teacher probes student for justifying their thinking.
06. Teacher perception of post-PD practice	06. Vocabulary context-building .02	Vocabulary instruction that does relate to the unit of study or understanding of the historical or science topic; the understanding of the word itself is essential to understanding the context of the text itself.
06. Teacher perception of post-PD practice	06. More student interest .03	Perception that students are more interested/engaged during reading class than they have been in the past.
06. Teacher perception of post-PD practice	06. Integrating connected texts .04	This involves the teacher presenting a text (print, video, digital, image, etc.) that relates to

		another read text, leading to further understanding of the topic.
06. Teacher perception of post-PD practice	06. Higher level of student discussion .05	Perception that student discussions are at a more intellectual/insightful level than they have been in the past; perception that the discussions in class go 'beyond the surface.'
06. Teacher perception of post-PD practice	06. Teacher provided background knowledge .06	A strategy in which the teacher provides more context around an idea in a text through recalling a personal experience (e.g. 'when I was a kid…') or explaining a topic through the use of pictures, videos or other texts. Can also be described as previewing content to give some background of the topic.
06. Teacher perception of post-PD practice	06. Importance of standards .07	Perception that the teacher plans lessons by ensuring that lessons address ELA standards.
06. Teacher perception of post-PD practice	06. Making connections across units .08	Perception that the students and teacher are referring to other concepts learned in previous units and connecting those concepts to new learning; students are processing and synthesizing what the new content by reflecting on what they have learned in previous units; suggests having coherence among curricular units.
06. Teacher perception of post-PD practice	06. Leveling the playing field .09	Perception that all students, regardless of income, race, ELL or SPED status can participate in class activities at as a high a level as affluent student; perception that the 'achievement gap' is closing.
06. Teacher perception of post-PD practice	06. Discomfort with change.10	Feeling of discomfort by the teacher based on new curriculum and teaching strategies that seem largely different from previous practice; not feeling confident about new practices based on previous experiences; not feeling

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		comfortable due to beliefs and practices being challenged
06. Teacher perception of post-PD practice	06. Student reflection of content .11	Any time in which students are specifically reflecting on the meaning or implications of the content. Often times, this involves students asking questions and/or making connection to the world and/or interpreting the significance or meaning of the content and are sharing these thoughts with others.
06. Teacher perception of post-PD practice	06. Traditional vocabulary instruction .12	Vocabulary instruction that does not relate to the unit of study or understanding of the historical or science topic; the understanding of the word itself is not essential to understanding the context of the text itself; traditional vocabulary instruction includes previewing selected vocabulary prior to reading a text, displaying it on the board and having students repeat or write the definition; giving students words and having them look up definitions or telling them the definition.
06. Teacher perception of post-PD practice	06. Social studies & science are part of reading .13	The idea that knowledge of social studies and science topics is fundamental to reading comprehension, therefore, units of study in reading are planned beginning with a topic.
06. Teacher perception of post-PD practice	06. Building content knowledge through speaking & listening .14	The idea that within the classroom, content knowledge is being built through students exchanging relevant ideas about the topic of study. This gives the students an opportunity to internalize content vocabulary,

		share connections and prior knowledge of the topic.
06. Teacher perception of post-PD practice	06. Posing open-ended questions .15	Perception that teacher is posing more questions to students are suitable to multiple correct answers.
06. Teacher perception of post-PD practice	06. Higher student retention of information.16	Perception that students are more likely to retain key information about various topics due to teaching in content-based units.
06. Teacher perception of post-PD practice	06. Less time for small group instruction .17	The idea that the teacher believes building background knowledge through speaking and listening is getting in the way of small group instruction.
06. Teacher perception of post-PD practice	06. More confidence .18	The perception that the teacher now feels more confident in their instruction than in previous years.
07. Beliefs about comprehension post-PD	07. Importance of discourse .01	In order to show comprehension of a text, students need to engage in discourse (discussion, interaction, etc.). The exchanging of ideas is fundamental to providing a deeper understanding of the concepts/ideas/knowledge in a text.
07. Beliefs about comprehension post-PD	07. Importance of collaboration to revise understanding .02	The idea that students need to work with one another through discussion in order to revise or build upon current understanding of a text.
07. Beliefs about comprehension post-PD	07. Background knowledge is essential to comprehension .03	The idea that having background knowledge in various non-fiction topics (e.g. human body, insects, Early Asian Civilizations, Kings and Queens) is crucial in order to comprehend texts, allowing students to make connections to other texts and the world.

07. Beliefs about comprehension post-PD	07. Student reflection of content .04	The belief that students should be specifically reflecting on the meaning or implications of the content. Often times, this involves students asking questions and/or making connection to the world and/or interpreting the significance or meaning of the content and are sharing these thoughts with others.
07. Beliefs about comprehension post-PD	07. Content knowledge is separate from reading comprehension .05	The idea that having background knowledge in various non-fiction topics (e.g. human body, insects, Early Asian Civilizations, Kings and Queens, Ecology) is not necessary in order to comprehend texts.
07. Beliefs about comprehension post-PD	07. Comprehension occurs in a topic-based unit of study .06	The idea that students best understand what they are reading when teachers are instructing through a topic-based unit. As the content is similar from day to day and builds upon itself, students are building their knowledge about a topic (e.g. human body, insects, Early Asian Civilizations, Kings and Queens, Ecology) and therefore have an easier time comprehending new material as it is connected to what was taught in previous lessons.
07. Beliefs about comprehension post-PD	07. Unit essential questions are important for comprehension .07	The idea that having unit essential questions is fundamental to help students comprehend their reading. In this, teachers are referring back to the unit essential questions and directing students to discuss them. Students process and convey their current understanding of the meaning of the questions.
07. Beliefs about comprehension post-PD	07. Listening comprehension of equal importance .08	It is equally important to comprehend what one listens to as it is to comprehend what one is capable of decoding, as listening

		develops critical thinking, background knowledge and vocabulary.
07. Beliefs about comprehension post-PD	07. Multiple correct answers .09	The idea that there is no one correct answer when it comes to reading comprehension. Students can have different answers from one another and all have comprehension of a text.
07. Beliefs about comprehension post-PD	07. Listening to texts allows students to make real world connections .10	The idea that listening to a text (rather than reading it themselves) equips students to make connections to what is happening in the world. As students are capable of listening to higher-level texts than what they can decode, listening permits access to ideas and concepts that students would not uncover in their independent reading.
07. Beliefs about comprehension post-PD	07. Deeper thinking than just surface level .11	The belief that in order for students to comprehend, their thinking needs to go 'beyond the surface,' meaning that answering 'right there' questions from the text are not enough to demonstrate understanding. Students need to explain their thinking as it relates to the ideas within the text, making inferences and connections to other ideas.
07. Beliefs about comprehension post-PD	07. Making connections to current understandings .12	The belief that in order for students to comprehend, they need to make a connection to previous learning or life experiences (e.g. "this reminds me of ____ because ____").
07. Beliefs about comprehension post-PD	07. Phonics precedes reading comprehension .13	The belief that decoding must be mastered before developing comprehension.
07. Beliefs about comprehension post-PD	07. Importance of appreciating literature .14	The belief that part of reading comprehension is an appreciation for literature.

07. Beliefs about comprehension post-PD	07. Skills-based instruction is still part of comprehension .15	The belief that Skills such as finding the main idea and determining cause and effect are still part of the comprehension process (after completion of professional development)
08. Planning	08. Relying on a commercial resource for comprehension (Basal) pre-PD.01	The idea that the commercial curricular resource was sufficient in addressing reading comprehension; believing that following the basal as prescribed would lead to comprehension.
08. Planning	08. Relying on a commercial resource for comprehension (CCSS) post-PD.02	The idea that a CCSS aligned commercial curricular resource is sufficient in addressing reading comprehension; believing that following the resource as prescribed will lead students to comprehend.
08. Planning	08. Anxiety about ELA standards .03	Not understanding the ELA CCSS, leading to feeling anxious about teaching them.
08. Planning	08. Long term planning post-PD .05	The idea that the teacher now plans with 'the end in mind.' They think about their year in the long term, meaning that units are conceptualized and calendared prior to the beginning of the year. Teachers are aware about what comes next and how the learning of a current unit builds on or connects to previous units.
08. Planning	08. No set plan pre-PD .06	The idea that before PD, did not plan in units or lessons. The plan was not set in advance and was simply going from page to page in a curricular resource.
08. Planning	08. Need more time for teacher collaboration post-PD .07	Being cognizant of the degree of planning required to build knowledge systematically for students in ELA. With this awareness comes a desire for more time to collaborate with other teachers to plan for instruction.

APPENDIX S

INSTITUTIONAL REVIEW BOARD APPROVALS

EXEMPTION GRANTED

Ray Buss
Division of Educational Leadership and Innovation - West
602/543-6343
RAY.BUSS@asu.edu

Dear Ray Buss:

On 5/11/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Students Talking for a Change
Investigator:	Ray Buss
IRB ID:	STUDY00002649
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Interview1Spring2015.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Prepost survey.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • IRB Application Spring 2015 Raquel Ellis v 3 050815.docx, Category: IRB Protocol; • V 2 Recruitment Letter and Consent From for Classroom Discourse Survey Observation and Interviews (1).pdf, Category: Consent Form;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (1) Educational settings, (2) Tests, surveys, interviews, or observation on 5/11/2015.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc:
       Raquel Ellis