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A FORMATIVE EXPERIMENT TO INCREASE ENGLISH LANGUAGE LEARNERS' AWARENESS AND USE OF METACOGNITIVE STRATEGIES THROUGH RECIPROCAL TEACHING: PUSHING TOWARD AN END TO SILENCE IN THE CLASSROOM

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ABSTRACT

During the course of 13 weeks, a reciprocal teaching (Palincsar & Brown, 1984) intervention was introduced into two fifth grade inclusive, social studies classrooms to increase English language learners' (ELLs) awareness and use of metacognitive strategies. A formative experiment (Reinking & Bradley, 2008) was selected as the methodology, and both qualitative and quantitative data were collected to determine student-participants' progress toward the goal. Results of the data analysis guided the study, and the intervention was adapted to ensure students' moved steadily toward attainment of the established, pedagogical goal. The researcher and teacher-participants worked in a collaborative fashion to make adaptations to the intervention to best support the needs of the ELLs. Results indicated students' progress toward the goal.

DEDICATION

This work represents a journey of learning, and I dedicate it to my parents, for instilling in me a love of reading. I also dedicate it to my four children, Robert, Christian, Genevieve, and Bryanna, from whom I have learned some of the greatest lessons in life: perseverance, strength, courage, trust, and unconditional love.

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CHAPTER 1

INTRODUCTION

U.S. schools are moving further into the twenty-first century, and new realities exist on the horizon. The Latino/a population in 1990 was 8.98 percent. According to the Pew Research Center (Passel & Cohn, 2011), the growth in Latino/a population over the last 20 years rose more than expected: "The 2010 Census counted 50.5 million Hispanics in the United Sates, making up 16.3% of the total population" (np). If this Latino/a population growth trend continues, as expected, schools will have an increasingly diverse student population, with some areas of the country impacted more than others. Latino/a students have been segregated and separated in U. S. schools due to "political and economic forces [that] have created residential patterns of majority, minority student body school populations" (Jiménez, 2006, p. 163). Nonetheless, Jiménez highlights that many Mexican immigrants believe strongly in the U.S. public school system.

Latino/a population growth is important, as it directly affects student diversity. It also impacts teachers and the additional instructional requirements they may face in coming years. In addition, English language learners (ELLs) will be taught in classrooms where English is the dominant language of instruction. Jiménez (1997) asked: "How can monolingual teachers increase Latino/a students' comprehension?" (p. 242). That question becomes more pertinent when students are introduced to expository texts, where academic language is more demanding due to content area vocabulary. The reality of public schooling is that the majority of teachers are not bilingual. However, monolingual teachers still need to address the needs of ELLs; so, the question Jiménez raises is important.

To better understand the Latino/a participants in this study, the term English language learners needs to be defined and clarified. English language learners (ELLs) are students whose first language is other than English; and as such, ELLs include students with a wide range of primary languages such as German, Arabic, Chinese, Hmong, and so forth. Fitzgerald (1995) noted that multiple researchers have concluded that academic gains in reading as a result of interventions can vary depending on a student's native language. Furthermore, Fitzgerald recommended that researchers reviewing studies to gain insight into ELLs' reading performance should control for variations in languages spoken by "select[ing] a particular target language…and to review research done under those circumstances to see if an in-depth characterization would emerge for a particular group" (p. 147). This research will focus specifically on metacognitive strategy instruction for ELLs whose primary language is Spanish, using relevant literature with this population to guide the study. Thus, the term ELLs throughout this study will refer to Spanish speaking students who are learning English as their second language.

Some researchers assert that ELLs quite often do not require different instruction than that given to English only (EO) students. Olson and Land (2007) reiterated what many researchers (e.g., Garcia, 2000; Jiménez, 1997; Moll & Diaz, 1987) as well as the Brown University Educational Alliance's (Coady, Hamann, Harrington, Pache, Pho, & Yedlin, 2007) findings were on ELLs and instruction: "ELLs are most successful when teachers have high expectations and do not deny access to challenging academic content; when teachers explicitly teach and model the academic skills and the thinking, learning, reading, and studying strategies ELLs need to know to function effectively in academic environments…" (p. 273). However, Bernhardt (2003) and Harper and de Jong (2004) noted that learning to read and write in a

second language, by its very nature and the structure of information stored in memory, makes the task different. Nevertheless, metacognitive strategies that enable students to self-regulate their understanding of content material may aid in students' success; but such strategies are academic skills that need to be explicitly taught and modeled.

There are a variety of instructional strategies that foster comprehension monitoring that can be explicitly taught to students. The importance of teaching students comprehension strategies is widely known and researched, but Pressley (2004) noted that little comprehension strategy instruction occurs in middle and high schools. Hilden and Pressley (2007) noted that comprehension instruction is still rare. There is a plethora of research that has demonstrated such strategies can lead to enhanced understanding of content material for a wide range of students and ability levels (e.g., Brown, Pressley, Van Meter, & Schuder, 1996; Palincsar & Brown, 1984; Pearson & Fielding, 1991; Pressley & El-Dinary, 1997; Raphael, 1982; Sáenz, Fuchs, & Fuchs, 2005). Metacognitive strategies have demonstrated efficacy in enhancing academic growth of students, but there are few studies using metacognitive strategy instruction focusing specifically on ELLs (e.g., Olson & Land, 2007; Jiménez, 1997; Moll & Diaz, 1986; Ivey & Broaddus, 2007). There is a wide body of research on Reciprocal teaching (RT) (Palincsar & Brown, 1984), an instructional strategy that has been around for 26 years. RT is an activity that involves a set of strategies embedded in a metacognitive conversation among the teacher and the students. Researchers utilizing RT interventions have demonstrated positive academic growth for students; but, there is less research on RT with students whose first language is other than English.

Comprehension monitoring activities need to be taught alongside a curriculum that most effectively takes into consideration students' linguistic and cultural differences (Delpit, 1995). Considering that participants in this study are ELLs, mainly of Mexican origin, the cultural

heritage and wealth that students bring with them to school is something that might be considered in instruction. The ability for students' to use their primary language might be considered during peer mediated dialogue, or dialogue via peer-discussion, while using RT strategies to enhance comprehension. This process, known as code-switching, is discussed later in this chapter.

Background

From the late nineteenth century to early twentieth century, educational reformists struggled to establish their ideological perspectives and curricular programs in the school setting (Kliebard, 2004). More recently, researchers have pushed for students' cultural wealth to be tapped to enhance learning for culturally and linguistically diverse students (e.g., Addams, 2009; Au, 2000; Au, 1998; Freire, 2009; Gutierrez, 1997; Jiménez, 2005; Ladson-Billings, 1992; Moje, 2007; Moje & Hinchman, 2004). Cultural wealth, also termed funds of knowledge (Moje, 2007), can be best defined as those attributes that students bring with them to class such as their traditions, language, experiences, and vocabulary that have sometimes, in the past, been viewed from a deficit perspective. For example, those students who come to school with a wide vocabulary might be viewed as advanced. However, students who speak two languages may have a wider vocabulary in their first language; and, if educators can tap into that cultural wealth, they may enhance students' English vocabulary, as well as their English proficiency. Enhanced learning and understanding of content material resulted when students had opportunities to speak in their native language during peer-mediated discussions of content (DaSilva Iddings, Risko, and Rampulla, 2009; Ivey and Broaddus, 2007; Jiménez, 1997; Langer, Bartolome, Vasquez, & Lucas, 1990).

In addition to curricular movements, authorization of the No Child Left Behind Act (NCLB) of 2001 mandated that all students will be served in public schools. In this environment, the nations' schools must differentiate instruction to meet the needs of culturally and/or linguistically diverse students. "Bilingual education in our public schools was born of the civil rights movement in our country" (Weber, 1991, p. 100). In 1968, the Bilingual Education Act, Title VII under the Elementary and Secondary Education Act, was passed; and later, under NCLB (2002) reforms, this Act was renamed the English Language Acquisition, Language Enhancement, and Academic Achievement Act (jrank.org). The main purpose of the act is to promote full English acquisition, but this can be a difficult feat as ELLs enter public schools at all grade levels with a wide range of English proficiency levels.

The focus of this study is on ELLs who speak Spanish as their first language; but even so, teachers still face a wide range of English proficiency levels. English language learners can have English language that is just emerging, or at an intermediate stage, or at an advanced stage, or students might be nearly proficient in English. Cummins (1979; 1984; 1999) described students' basic intercommunication skills as the language used in everyday conversation, and cognitive academic language proficiency as vocabulary and content area language used in schools. According to Cummins, students usually achieve basic intercommunication skills in three years and cognitive academic language proficiency in five to seven years; but if ELLs enter U.S. schools in grade five, they may not achieve cognitive academic language proficiency until graduation.

In today's political immigration climate, Latino/a students may be apprehensive about their outward appearance, trying to fit into the predominant culture in the school they attend. In searching for a research site, I encountered schools where speaking Spanish was not encouraged

in school. If Latino/a students do not feel free to share family experiences, language, traditions, and so forth, everyone misses an opportunity. Students with culturally and/or linguistically diverse backgrounds can be assets to the classroom, but often, their cultural wealth is not utilized. Addams (2009) wrote:

> I believe if these people [immigrants] are welcomed upon the basis of the resources which they represent and the contributions which they bring, it may come to pass that these schools which deal with immigrants will find that they have a wealth of cultural and industrial material which will make the schools in other neighborhoods positively envious. (p. 44)

Addams was referring to Italian immigrants at the beginning of the twentieth century; but with increasing Latino/a immigration, Addams' article is relevant to a discussion of education in the twenty-first century. Au (1998), Genzuk (1999), Moje (2007), and Moll and Diaz (1983) have shed light on cultural wealth that students bring to learning environments. If schools today viewed Latino/a students and the cultural wealth that they bring to classrooms as a positive, perhaps this population of students and their families would flourish.

Statement of the Problem

Latino/a students are often described as an at-risk population, but what does at-risk mean? At-risk often denotes students dropping out of middle or high school (Fergus, 2009), which then puts them at-risk of being unemployed and on welfare (Fashola & Slavin, 1998). It is well documented that students without a high school diploma earn less than their peers who graduate from high school, and much less than their peers who go on to earn an associates or bachelors degree. Students who experience failure in middle or high school may not have the necessary tools and strategies to monitor their learning, leading to frustration. Awareness of

metacognitive strategies could result in enhanced comprehension and thus, better academic and retention outcomes.

Valenzuela (2009) described the recent experiences of Mexican students at an urban high school in Houston. Although the majority of the students were Mexican, the Latino/a teachers made up only 19% of the educators. More enlightening, though, were the statistics Valenzuela described: "Between 1,200 and 1,500 students enter the 9th grade each year and only 400 to 500 students graduate in any given year" (p. 337). At present, high school graduation rates are less than ideal, but the graduation statistics Valenzuela detailed are well below the national norms.

Fergus (2009) detailed the dropout rate for Latino/a students in the U.S. at 50 percent, with a higher number of males making up that number. In Valenzuela's (2009) study, the percentage of students dropping out was higher; but, she referenced one high school. Conversely, Verdugo (2007) detailed the Latino/a high school dropout rate at 23.8 percent in 2004. These figures may be different because of data sources used by the researchers. Fergus noted that at fourth grade, more Latino/a students are below basic in math and reading on standardized tests than their English only (EO) peers. If students are struggling readers in fourth grade, they may be less successful in middle and high school. Research that highlights effective instructional supports for ELLs in upper elementary settings may provide insight for professional development and/or instructional techniques that can lead to improved retention rates.

Rationale

The number of Latino/a students is increasing in public schools; therefore, it is essential to provide ELLs with effective instructional supports to boost academic successes. In upper elementary schools, utilizing specific metacognitive strategies such as a RT activity will allow students to engage in conversations with peers and teachers about content material, hopefully

resulting in greater understanding. When students are encouraged to be active participants in their education through the four components of reciprocal teaching (RT): (a) generating questions; (b) clarifying content; (c) making predictions; and, (d) summarizing texts for greater understanding, the results can be seen as productive to the educational progress of students (Palincsar & Brown, 1984). Gradually, teachers release the responsibility of learning to students; and students then assume more of the learning of content in groups with peers. Two additional strategies specifically for ELLs: (a) making connections to cognates in their native language; and, (b) the ability to code switch, or using Spanish or English as needed to ensure understanding, may have an enhanced effect on academic performance.

Fifth grade is an important time in students' lives. Teachers are preparing students to enter middle school. Research studies focusing on students' metacognitive strategy use with expository texts in social studies are few in number (see Chapter 2). According to Harmon, Hedrick, and Wood, (2005), social studies texts contain fewer technical vocabulary terms than science textbooks. Therefore, expository textbooks might be more conducive for creating opportunities for ELLs to practice using metacognitive strategies. Science lab in elementary school also further reduces opportunities to use RT strategies in conjunction with print text. In addition, the researcher's background in social studies content area material was stronger than in science. Thus, the research reported here focused on the use of RT during social studies in a fifth grade classroom.

Researchers have demonstrated that students in fourth (Lederer, 1997) and seventh grades (Jiménez, 1997) were able to use RT strategies effectively to enhance comprehension of texts. Most fifth graders are between the ages of 10 to 11. This stage of development aligns with Piaget's Concrete Operational Stage. One component of this stage is the Elimination of

Egocentrism, or the ability to see another's viewpoint (Piaget, 1936). This is important in social studies where dialogue about how history is created, i.e. author's bias and the interpretation of primary documents, might become part of classroom conversations to encourage and promote critical thinking. In middle school, students shoulder more of the responsibility for learning content material. This switch can be more difficult when ELLs have not acquired strategies to enhance reading comprehension. Comprehension monitoring, or self-regulated comprehension (Hacker, 1998) is an important component in students' ability to access content material. If self-regulated comprehension strategies are not utilized by students to aid in academic learning, frustration can lead to failure.

Durkin's (1978-1979) seminal study detailed the lack of comprehension instruction for students in the classroom. Durkin's study revealed that less than 28 minutes out of approximately 4500 minutes of reading instruction were spent instructing students in comprehension. In addition, Pressley (2004) and Hilden and Pressley (2007) noted that instructing students in comprehension is still lacking. Multiple studies have focused on students' self-regulated comprehension (e.g., Deschler & Schumaker, 1993; Hacker, 1996; Hacker et al, 1994; Pressley, El-Dinary, & Brown, 1992; Schoenbach, Braunger, Greenleaf, & Litman, 2003) but due to a variety of reasons, students still failed to monitor or control their understanding of the material (Hacker, 1998). Students need to be explicitly trained in the use of metacognitive strategies to ensure they understand the purpose of each strategy, as well as when and under what circumstances to apply a specific strategy or set of strategies. With repeated exposure and use of metacognitive strategies, automaticity of self-regulated comprehension monitoring may occur.

Reciprocal teaching strategies would be advantageous in a social studies classroom in that the components may be adapted into the learning environment. In their review of the

literature on RT, Rosenshine and Meister (1994) noted that practitioners found RT strategies time consuming. However, studies undertaken to test the effects of RT on students' academic achievement have had an average effect size of .88 on researcher-designed assessments and .33 on standardized tests. Researchers have demonstrated positive academic growth in comprehension for students with a wide range of reading abilities when RT is introduced into the learning environment (e.g., Gersten, Baker, Smith-Johnson, Dimino, & Peterson, 2006; Jiménez, 1997; Langer et al., 1990; Palincsar & Brown, 1984). Therefore, RT was selected as an appropriate intervention for this study.

Significance of Study

There is a wide body of research on RT (e.g., Alfassi, 2004; Brown, 1992; Palincsar, 1985; Palincsar & Brown, 1984; Rosenshine & Meister, 1994); but, the number of studies on RT interventions with Latino/a students is much smaller. There have been few studies about how RT interventions advance academic outcomes for Latino/a students with general education content area material such as social studies. Furthermore, there have been even fewer studies utilizing formative experiments (Ivey & Broaddus, 2007; Jiménez, 1997) in intact classrooms on research concerning metacognitive strategy instruction for ELLs. Formative experiments in educational settings, which allow for close collaboration between the researcher and the classroom teacher, allow for modifications of the design in an iterative fashion to enhance the learning environment. This study will add to the research base regarding instructional strategies that may provide promise for struggling ELLs in inclusive settings, as well as adding knowledge to the existing research about formative experiments.

Purpose

The purpose of this study was to examine how a reciprocal teaching (RT) intervention could be implemented in two fifth grade classrooms to increase Latino/a students' awareness and use of metacognitive strategies to enhance comprehension of social studies content material. The focus of this study was to determine how RT strategies could be implemented effectively by a classroom teacher to address the needs of ELLs. This study, using the framework of a formative experiment undergirded with sociocultural theory (Vygotsky, 1978), was designed to address the goal of increasing ELLs' awareness and use of metacognitive strategies in an inclusive fifth grade classroom during social studies instruction.

The following chapters will: (a) describe relevant theory and literature (Chapter 2) that will inform, as well as provide the foundation, for the research; and, (b) detail the methodology (Chapter 3), as well as the choice behind selecting a formative experiment, to achieve a valued pedagogical goal; (c) describe the results (Chapter 4); and, (d) discuss the findings, limitations and implications (Chapter 5).

Definition of Terms

Key terms used throughout this study:

Basic intercommunication skills (BICS) (Cummins, 1979; 1984; 1999)-this term is used to refer to every-day communication. It usually takes about three years to acquire.

Clarify (Palincsar & Brown, 1986)-students are taught to be aware of breakdown in comprehension due to unknown vocabulary or information, and to ask for help when this occurs

Cognitive academic language proficiency (CALP) (Cummins, 1979; 1984; 1999)-this term is used to refer to technical and academic vocabulary used in content area classes such as science, social studies, math, and so forth. It can take five to seven years to acquire.

Code-switching (Lantolf, 2000)-moving between Spanish and English either in a sentence or between sentences.

Cognates-words that are similar in origin and can transfer across Spanish to English. Exs: bank-*banco*; hemisphere-*hemisferio*; rebel-*rebelde*

English for Speakers of Other Languages (ESOL)-programs and/or teachers that assist students whose first language is other than English. ESOL teachers can pull students out of class, or assist students in class during content area instruction.

English language learners (ELLs)-typically, ELLs refers to any student whose first language is not English. For this study, ELLs will refer only to Spanish speaking, Latino/a students.

English language proficiency-the level of English proficiency of a non-native English speaker.

English Language Development Assessment (ELDA) (ed.sc.gov)- the assessment used by SC public schools to rate student's English proficiency levels on a scale of one to five, with one being little to no English and five being fully proficient.

English only (EO)-refers to students who speak one language: English.

Formative experiment (Reinking & Bradley, 2008)-methodology utilized by researchers interested in "bring[ing] about positive change in education environments through creative, innovative, instructional interventions grounded in theory…[and] interested in testing those theories in the real world of teaching and learning in classrooms, and they expect to refine and modify those theories in the course of their work" (p. 6).

Generate questions (Palincsar & Brown, 1986)-asking and answering questions about information read to increase students' engagement with text

Latino/a students- male and female students whose first language is Spanish, but who may identify themselves as Mexican, Puerto Rican, Cuban, and so forth.

Metacognition (Flavell, 1977)-awareness of thought processes used to make meaning from texts

Metacognitive strategy instruction (Paris, Lipson, & Wixson, 1983)-refers to explicitly teaching students how to monitor their comprehension, including fix-up strategies when something doesn't make sense

Predict (Palincsar & Brown, 1986)-students hypothesize what the author will discuss next in the text

Reciprocal Teaching (RT) (Palincsar & Brown, 1984) -reciprocal teaching refers to the following set of four strategies: 1) generating "teacher-like" questions from content material; 2) clarifying information in texts; 3) summarizing information read; and, 4) predicting what may come next or what the story might be about by looking at headings, text, and/or pictures.

Summarize (Palincsar & Brown, 1986)-students integrate important points in a passage or section of text

CHAPTER 2

REVIEW OF THE LITERATURE

Establishing a pedagogical goal is essential in a formative experiment (Reinking & Bradley, 2008); but, that goal should be valued in that it adds knowledge to the research base that leads to improved instructional practices/outcomes for all stakeholders. Formative experiments are needed because "they represent an approach grounded in making a difference in the real world, not in exercising methodological purity or privileging one methodology over another" (Reinking & Bradley, p. 33) A review of the literature, as described in this chapter, will answer the first two steps in a formative methodological approach. The initial, guiding questions in a formative experiment necessitate establishing an important, pedagogical goal and selecting an appropriate intervention that shows promise for achieving that goal, with relevant theory and research to support that decision. This chapter will describe how sociocultural theory, guided by research on reciprocal teaching (RT) (Palincsar & Brown, 1984), as well as metacognitive strategy interventions with ELLs, will guide the research toward achieving the goal.

The pedagogical goal of this study is to examine how RT can be effectively implemented in two fifth grade classrooms to increase Latino/a students' use and awareness of metacognitive strategies to enhance comprehension of social studies content material. These RT strategies will be taught through explicit instruction prior to and within the context of the content area. Introducing a RT intervention to enhance students' comprehension of expository texts is an important pedagogical goal supported through relevant literature and theory that: 1) has demonstrated explicit teaching of metacognitive strategies during content area instruction can enhance students' understanding of material (Palincsar & Brown, 1986); 2) has demonstrated the effectiveness of RT interventions in increasing students' comprehension of texts through

assessment data (Palincsar & Brown, 1984; Rosenshine & Meister, 1994); 3) has demonstrated scaffolding as an effective tool for promoting students' learning (Vygotsky, 1978; Wood, Bruner, & Ross, 1976); 4) will add to the research base on RT and English language learners (ELLs); and 5) will fill a gap in the research linking RT and code-switching with ELLs in intact, inclusive classrooms.

English language learners have had limited success in accessing content area material in elementary, (Jiménez,1997; Langer et al., 1990), middle (Jiménez, Garcia, & Pearson, 1995) and high schools (Fergus, 2009; Olson & Land, 2007). Therefore, an intervention that has demonstrated success with a wide variety of populations is appropriate for this diverse population of students.

Interventions with ELLs that have focused on increasing dialogue about texts (Jiménez, 1997; Moll & Diaz, 1987; Moll & Diaz, 1983) through a dual-language approach, in combination with increased student-teacher conversations, have also demonstrated success. Thus, not only is it a socially and ethically responsible approach to take, it is also a pedagogically sound approach. A formative experiment that takes into account the culturally dynamic factors of classroom environments with diverse populations will be more realistic in ascertaining how slight changes or modifications to instruction can achieve the established goal of this study.

Sociocultural Theory and ELLs

Sociocultural theory (Vygotsky, 1978), or the idea that learning occurs as a natural part of social activities, is the guiding theory of this study. It is through social interactions, including (a) peer-peer/peer-teacher conversations, (b) teacher-modeling, and (c) direct or indirect instruction, that learning occurs. In the classroom, a social environment with students and teachers working

together in a collaborative fashion may provide a more naturalistic way for students to learn, with a teacher acting as a more knowledgeable other to guide students' learning. Vygotsky (1978) asserted that development may not need to precede learning; and in fact, with a knowledgeable other scaffolding and supporting a novice, more meaningful learning can occur, with learning forming a "superstructure over development, leaving the latter essentially unaltered" (p. 80).

Zone of Proximal Development

Vygotsky (1978) stated that "human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them" (p.88). That premise, in Vygotskian terminology, is now referred to as the zone of proximal development (ZPD). This zone is an area where an expert and a novice or novices work together in an apprenticeship style model to allow for learning to occur in a scaffolded manner. Vygotsky's sociocultural theory is one in which all members construct meaning together, with the more knowledgeable others, in this instance the classroom teachers, as well as the researcher, guiding and supporting the less knowledgeable students to an understanding of the purpose and use of RT strategies.

The authentic learning environment can add to the social nature of learning, and may lead to a greater shared understanding of the RT strategies. Au (1998) noted that social constructivists believe "students need to engage in authentic literacy tasks, not activities contrived for practice" (p. 300). This is in line with Vygotsky's (1978) belief that learning everyday concepts and scientific concepts are "joined in the process of development, each contributing to the growth of the other" (Au, 1998, p. 300). Furthermore, Graves (2004) asserted that teachers need to take

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students' social and cultural backgrounds into account; for, without such consideration "little learning is likely to occur" (p. 438).

Language as Cultural Wealth

Latino/a students are at-risk for failing and/or dropping out (Fergus, 2009; Waxman & Padrón, 1995) of school; therefore, educators need to implement effective strategies that enable struggling Latino/a students to experience educational success. Effective strategies that incorporate opportunities for Latino/a students to talk about expository content material with their peers can support their linguistic efforts. Students who have not yet mastered cognitive academic language proficiency require effective strategies to help them navigate grade-level, content area material most often found in expository texts. Although social studies and science texts are both expository, science texts are more semantically dense (Harmon et al., 2005). Therefore, social studies texts were selected as a more appropriate text to introduce the intervention. Reciprocal teaching is an intervention with demonstrated success (e.g., Lederer, 2000; Palincsar & Brown, 1984; Rosenshine & Meister, 1994). Most importantly, RT strategies may ensure positive growth in students' use of metacognitive strategies, thus working toward achieving the established goal.

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Reciprocal Teaching: A Review of the Research

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Researchers utilizing RT (Palincsar & Brown, 1984) have demonstrated success in increasing students' understanding of texts. Palincsar and Brown developed the terms comprehension-fostering and comprehension-monitoring to explain the purpose of reciprocal teaching (Rosenshine & Meister, 1994). These terms build on Durkin's (1978-1979) earlier study of teacher instruction, or lack thereof, in comprehension (Rosenshine & Meister, 1994).

Palincsar and Brown (1984) tested the effects of these strategies with both researcher-developed and standardized tests, with significant results found in the researcher-developed assessments. Cognitive strategy instruction is an important component to classroom instruction, especially for students who still struggle to gain meaning from text. Students with a wide range of ability levels may be aided with explicit instruction in the use of cognitive strategies that increase awareness of students' metacognition (Flavell, 1977) or thinking about thinking (Anderson, 2002).

This review will: (a) briefly summarize Rosenshine and Meister's (1994) review of reciprocal teaching; (b) review current research; (c) explain how studies utilizing reciprocal teaching interventions may inform future research aimed at supporting diverse learners, while also adding knowledge to the research base; (d) describe results of studies on metacognitive strategy instruction and ELLs; and (e) discuss implications and conclusions of this review.

Reciprocal Teaching as an Effective Intervention

Palincsar and Brown (1984) developed an intervention to increase students' understanding of narrative and informational texts. Reciprocal teaching incorporated a set of four specific strategies, described previously. These four strategies, in no particular order, enabled students to actively monitor their understanding of text. However, this culminating event was achieved only after intense teacher instruction in the strategies, either explicitly prior to reading or within the context of the reading, along with a lot of teacher modeling of the strategies (Palincsar & Brown, 1986; 1984).

Characteristics of Reciprocal Teaching Interventions

In Palincsar and Brown's 1984 study, reciprocal teaching strategies were taught within the context of the content material; in Palincsar and Brown's 1986 study, the metacognitive

strategies were explicitly taught to the students prior to transferring the new comprehension monitoring strategies to content material. In Palincsar and Brown's (1984) study, 37 seventh graders, 24 of whom had reading difficulties, were divided into groups of six. It must be noted that none of the struggling readers were identified as learning disabled. One group was taught RT strategies and then compared to matched peers in three control groups, two receiving regular classroom instruction, and one group receiving instruction in locating information. The intervention lasted 20 days, with a baseline data collection of between four to eight days. Students in the RT group increased in their ability to create teacher-like questions and generate summaries. Initially, 52% of students' summaries were adequate; after the intervention, 85% of students' summaries were adequate (Palincsar & Brown, 1984).

In Palincsar and Brown's 1986 study, students were trained in RT strategies to be group leaders with their peers. In this study, teachers from the original 1984 study were recruited; and they took a greater role in teaching RT strategies. In the 1984 study, Palincsar taught RT strategies embedded in the lesson in small groups. In the 1986 study, RT strategies were taught in sixth grade classrooms, with selected students leading peers in the strategies. Palincsar and Brown (1986) noted that meaningful dialogue occurred on the tenth day of the intervention. Students were explicitly taught what the strategies were for and when to use them. The intervention lasted 20 school days, and results demonstrated improvement in students' tests on science content. These studies did not include information about ELLs; but the success of the strategies may be useful in supporting the needs of ELLs.

Subsequent reciprocal teaching studies, which have lasted from a few months (King & parent Johnson, 1999; Lederer, 2000) to many years (Alfassi, 2004; Carter, 2001; Hacker & Tenent, 2002), have demonstrated positive academic growth in reading comprehension for

students with a wide range of ability levels, whether the metacognitive strategies were taught within the context of reading (Palincsar & Brown, 1984) or prior to reading (Carter, 2001; Hacker & Tenent, 2002; Lederer, 2000; Palincsar & Brown, 1986). The goal of reciprocal teaching is that students begin to internalize the metacognitive strategies and utilize them across content area texts to enhance understanding of new material. Likewise, although students are taught all four metacognitive strategies, students may not use all of the strategies in each situation. However, they should be aware of when and why to use the four components of reciprocal teaching (Palincsar & Brown, 1986).

Reciprocal Teaching: Review Selection Criteria

Rosenshine and Meister (1994) conducted a review of the research on reciprocal teaching from its inception through1994. Their review included only experimental or quasi-experimental studies that cited the work of Palincsar and Brown (1984). Articles selected for inclusion also used the keywords *reciprocal teaching*. The reviewers found 16 studies that met all the criteria for the review; these included four published articles and 12 studies found in dissertations or paper presentations.

Rosenshine and Meister (1994) analyzed the data according to a number of factors, including: (a) who performed the intervention; (b) group size; (c) quality of the study; (d) assessment used to evaluate students' learning; as well as, (e) number of cognitive strategies used in the study. Rosenshine and Meister found that there were significant results with the researcher-developed assessments, with an average effect size of .88, but only slight increases in students' performance on the standardized tests, with an average effect size of .33.

Rosenshine and Meister (1994) had three criteria for inclusion of a study in their review. One of the three criteria deemed necessary for inclusion was the presence of experimental and

control groups, with either random student assignment or matched students from intact classrooms who were found to be similar on reading comprehension measures. This review will provide a broader range of investigations including studies that are qualitative, mixed-methods, or design-based that have incorporated reciprocal teaching as part of an intervention since 1994. However, the other two inclusion criteria utilized by Rosenshine and Meister were replicated.

Of the 16 studies retrieved by Rosenshine and Meister (1994) for inclusion in their review, the range of ages consisted of seven-year-olds to adults. This review will focus on studies conducted in upper elementary grades. A few studies with high school levels were included because the studies began in sixth grade. Testing the effects of metacognitive strategy instruction in the early elementary grades is confounded by beginning reading instruction (Moje, 2004); and as a result, those studies were not included in this review.

Current Research: Search Procedures

A search of the Education Research Complete and Social Sciences Citation Index databases provided 126 articles when the keywords *reciprocal teaching* were used, with publication dates ranging from 1994 to 2011. Studies were included if they: (a) cited Palincsar and Brown (1984); (b) utilized qualitative, quantitative, mixed methods, or design-based research; (c) were peer reviewed or were unpublished dissertations; and, (d) were conducted in the upper-elementary, middle, or high school classrooms. Studies focusing on students with disabilities, as well as studies performed outside the United States, were excluded.

Of the 126 articles, 106 were initially excluded because they did not meet the criteria. Nineteen articles were retained from the original search, and the author performed a review of the abstracts and the reference sections to ascertain whether the studies cited Palincsar and Brown (1984). Eleven articles met all the criteria, but four were found to be informational

articles for practitioners and were subsequently discarded. Hand searches of references from included studies, as well as hand searches of *Reading Research Quarterly, The Journal of Literacy Research,* and *The Reading Teacher,* were performed. Two studies were retrieved, bringing the total number of studies to nine.

The studies, described below, bring attention to the need for effective interventions that may support the academic needs of diverse learners. The purpose of this review is to examine RT studies conducted since Rosenshine and Meister (1994) published an extensive review of literature, to determine the efficacy of selecting this intervention as capable of guiding and achieving the established goal of this formative experiment (Reinking & Bradley, 2008).

Review of Current Research

Rosenshine and Meister (1994) described the findings of reciprocal teaching studies through 1994; unlike their review, this review examines a wider variety of studies. Qualitative studies that provide rich, thick description (Creswell, 2008) of research can provide insight into teachers' views about instructional practice above and beyond assessment outcomes provided by quantitative data. Furthermore, observations used in qualitative data can record subtle nuances of interventions, and problems that might arise in the classroom, whereas strictly quantitative data cannot reveal such findings.

Qualitative Studies

Hacker and Tenent (2002) conducted a qualitative study for a three-year period at two elementary schools. The populations of the schools were quite different, with school one comprised solely of African American students, with 65% of the teaching population African American and the remainder Caucasian. The other elementary, school two, was more diverse, with a student body comprised of 53% Caucasian, 38% African American, and 7% Hispanic or

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Asian. The teacher population was 56% Caucasian and 38% African American. Both schools were kindergarten through sixth grade, with approximately 300-400 students.

To prepare practitioners to implement reciprocal teaching in their classrooms, Hacker and Tenent (2002) asked teachers to read Palincsar's (1989) book: *Using Reciprocal Teaching in the Classroom: A Guide for Teachers.* Teachers also attended a one-day professional development workshop. The teachers were allowed to make any changes they thought would be beneficial to students' learning, as long as they discussed those changes with Hacker prior to making the changes.

Soon after implementing reciprocal teaching in the classroom, Hacker and Tenent (2002) and the classroom teachers recognized difficulties in the students' use of the strategies. First, the level of questions created by students remained at a superficial and literal level; and secondly, many students became passive participants, allowing others to do the majority of the work. Hacker and Tenent described how the teachers continued to provide extensive scaffolding, but still, students "modeled incorrect use of the strategies" (p. 702).

The study by Hacker and Tenent (2002) included small-group and/or whole-group instruction in inclusive settings. Jiménez (1997), on the other hand, conducted a study in which he provided all instruction in RT to five Latino/a students outside of their regular classroom. Jiménez guided, modeled, and scaffolded the five Latino/a students throughout the reciprocal teaching intervention. The small group allowed Jiménez to model correct use of the strategies. The practitioners in the first year study by Hacker and Tenent (2002) moved from small to whole-group reciprocal teaching to increase the correct use of strategies, and modeled how to develop deeper levels of questions by thinking out loud. After a few months, the teachers moved students back into groups of two to five; thus, students gradually took on more of the

responsibility for their learning. Both teachers within the Hacker and Tenent study monitored all the groups within the general education classroom; Jiménez, on the other hand, continued to guide his small group of students through the entire lesson. Likewise, the study conducted by Jiménez included code-switching, while the other did not.

By the end of the first year Hacker and Tenent (2002) described students' successful improvement of strategy use; but, teachers cited a lack of adequate assessments to monitor students' progress. Hacker and Tenent and the teachers noted that the biggest challenge was the students' use of dialogue in a meaningful fashion to promote deeper levels of comprehension of text. A study that introduces RT into an inclusive setting with the possibility of code-switching might enhance students' awareness and use of the strategies.

In two subsequent studies, Hacker and Tennet (2002) noted similar problems with students engaging in meaningful dialogue; and the most difficult problem teachers faced was "getting students to learn and use the reciprocal teaching strategies in group dialogues" (p. 712). Jiménez (1997) described the intervention quite positively, and he noted that students became engaged in deeper conversations as the study progressed. The difference between the two studies might have been the number of students involved in relation to the more knowledgeable other.

Unlike Jiménez (1997), who spoke English and Spanish, DaSilva Iddings et al. (2009) conducted a reciprocal teaching investigation with three Latino/a children in a middle elementary grade using a code-switching (Lantolf, 2000) approach with a monolingual teacher. The purpose of the study was to determine whether monolingual teachers could effectively implement a reciprocal teaching intervention with a dual language approach. Students engaged in dialogue in English, Spanish, or both languages, which is known as code-switching. The teacher encouraged dialogue that extended conversations; and students discussed ideas with each other and extended

their own and other students' ideas. The teacher allowed students to share social and cultural experiences while conversing about the story in often continuous dialogue while making meaning of the text (Da Silva Iddings et al., 2009). The authors conclude, through observations, that ELLs can improve in English proficiency and have meaningful discussions about text with support from EO teachers. However, this study used narrative text.

Reciprocal teaching has demonstrated positive academic outcomes for students in the investigations (e.g., Da Silva Iddings et al., 2009; Hacker & Tenent, 2002; Palincsar & Brown, 1984; Rosenshine & Meister, 1994), but teachers' observations about difficulties implementing the metacognitive strategies must be given consideration. Likewise, researchers and educators who advocate new programs must be aware of how programs or interventions may change when undertaken by the classroom teacher in accordance with their teaching philosophy/classroom environments. Hacker and Tenent (2002) stated that future studies of reciprocal teaching interventions need to ensure more time for teacher training, as well as encouraging teachers to "construct their practice of reciprocal teaching using their prior knowledge about practice" (p.714). Furthermore, teachers need to be provided with feedback about their construction of reciprocal teaching in the classroom throughout the study by knowledgeable others (Vygotsky, 1978).

In their study, Coté, Goldman, Gjellstad, Keeton, and Millican (1995) trained students in the use of RT strategies. Students used prior knowledge to tie new information to old information, made statements such as "I have to remember that" (p. 8), and elaborated on information in texts. Even with the RT strategies, students often failed to construct "a full understanding and coherent representation of the text content" (p. 7). Reciprocal teaching was taught in class and students returned for more think-aloud and recall sessions. The findings

revealed that the RT strategies utilized by students were not as strong as were expected after RT training. The researchers conjectured that it might have been a result of the teachers struggling to teach RT strategies to the students at the same time as they were learning the techniques (Coté et al.). Like Hacker and Tenent (2000), teachers' familiarity with the strategies affected instruction.

Unlike other studies reviewed, students in Alfassi's (2004) study were taught RT strategies prior to transferring the skills to the classroom instruction. In a two-part study by Alfassi, the first phase consisted of all 277 sophomores in a suburban high school in the midwest being explicitly taught reciprocal teaching strategies during the first twenty minutes of class for twenty days. The second phase consisted of reciprocal teaching being added into classroom instruction in science, related arts, social studies, and math classes, with teachers modeling RT strategies with content area material. Pre and post measures of reading comprehension showed improvement for students, with greater improvements on implicit over explicit questions.

Alfassi's (2004) results of students being better able to answer implicit questions on post assessments is an important finding, as implicit questions require students' to infer information from the text. Alfassi's study determined that explicit instruction in the use of the strategies, in combination with modeling and use of the strategies in the context of text, is most beneficial for increasing students' comprehension. This study was conducted at the high school level, but the results may have implications for direct instruction of strategies at the upper elementary levels.

In the aforementioned studies, many of the teachers and researchers noted that often, students' peer mediated dialogues were not deep and meaningful. In a study by King and Parent Johnson (1999), however, the researchers collected qualitative data to ascertain the degree to which peer mediated dialogue and teacher directed dialogue promoted deeper levels of comprehension. Five fifth-grade classrooms, made up of heterogeneous and diverse populations

of students, were trained and observed over the course of a year. The researchers set up a guide for teachers to follow for initial student training in RT strategies: (a) explicit instruction and modeling of RT strategies; (b) examples of meaningful dialogue; (c) guided practice; and, (d) feedback. The researchers noted that most teachers followed the proscribed format well, moving students from instruction with almost all teacher modeling to peer mediation. An observation from researchers noted the importance of student training in RT strategies:

> We discovered that the students who most effectively demonstrate RT had teachers who clearly and thoroughly modeled the four strategies to elaborate on text. Conversely, if the same strategies were modeled less clearly, student dialogue unfortunately echoed poor teacher modeling. One teacher did not distinctly refer to the RT strategies or consistently model them when introducing RT at the beginning of the year. (p. 179)

The study also examined students' achievement on researcher-designed assessments, and results demonstrated that students in the experimental group outperformed the control group (King & Parent Johnson, 1999). Although data analyses on students' assessments were conducted, the majority of the data focused on qualitative dialogue. Most importantly, the authors noted that after a two month break, due to preparation for and taking of standardized tests, students use of RT strategies were still strong; and, additionally "student dialogue shows evidence of construction of deep meaning" (p. 184).

Qualitative studies demonstrated positive results, with a few difficulties in the area of deep student dialogues; a review of all qualitative and quantitative studies, following a description of the quantitative studies, will examine the findings to determine the efficacy of RT as an intervention capable of achieving the established goal for this study.

Quantitative Studies

Lederer's (1997) quantitative study described the effects of RT in inclusive classrooms in a rural setting. Lederer noted that Rosenshine and Meister (1994), in their review of the research, stated that one often cited criticism in reciprocal teaching studies was a lack of meaningful student dialogues. In the qualitative studies described since then, teachers still cited the inherent difficulties students faced when conversing about the content area readings (Lederer, 1997). However, learning RT strategies is a joint responsibility between students and their classroom teacher (Lederer, 2000); and as such, explicit instruction with a lot of modeling for students to mirror (King & Parent Johnson, 1999) may be essential for students to engage in deep discussions of content material.

Training students to engage in deep and meaningful discussions about the class readings, either in a whole-group or in small-groups with their peers, may take months; and even then, some students may need more teacher scaffolding and modeling than others (Lederer, 1997). King and Parent Johnson (1999) concluded that proper student training can lead to meaningful and deep discussions, though, so the time is worth the effort

As noted previously, Alfassi (2004) performed two studies at the high school level. In part one of Alfassi's two-part study, a quantitative experiment was conducted with two intact classrooms that were randomly assigned to one of two conditions. The intervention lasted 20 days, with a two-day maintenance plan. The 29 students in the experimental classrooms received reciprocal teaching as an intervention; the 20 students in the control group received strategy instruction training after the intervention had been completed. Teachers of both groups of students had similar years of teaching experience, and students in the two classrooms were comparable, with students scoring within the 45th percentile of the standardized reading test.

The three phases of the intervention included pre-test measures, intervention, and post-testing. The three stages of the intervention phase included explicit instruction in the use of the reciprocal teaching strategies to the students, teacher guided practice, modeling, and scaffolding of instruction in the use of the strategies in the English classroom, and maintenance phase. An ANOVA revealed significant differences in pre and post measures of assessment on comprehension questions, with greater significance for implicit questions. After the intervention, Alfassi (2004) noted that there were "significant differences between the experimental and control groups on both the reading assessments and the standardized reading measures" (p.175).

Like Lederer (1997), Alfassi's (2004) study demonstrated the "educational benefits of applying combined strategy instruction within intact mainstream classrooms as part of the overall high school curriculum" (p. 182). Lederer collected and separately disaggregated data on the effects of RT with students with learning disabilities (LD); and although the number of students was small, there were positive academic outcomes for students with LD when reciprocal teaching was added as a metacognitive strategy instruction in the general education classroom.

Lederer's (1997) study and Alfassi's (2004) study both concentrated on small populations of students. Carter (1997), in contrast, described a district-wide, reciprocal teaching intervention in a failing school system in an urban area of Michigan. At that time, there were two high school diplomas available for graduation requirements: a standard diploma, which was presented when students received satisfactory scores (or marks at the 75th percentile) on the required exam, and an alternate diploma, which had been modified from the standard diploma to enable students to graduate with minimal exam scores averaging around the 50th percentile. In the 1993-1994 school year, less than 39% of the students' scores were high enough to obtain even the alternate diploma (Carter, 1997).

Intensive reciprocal teaching interventions were put into place in all the third grade classrooms in the district. The following year, when these third graders took the fourth grade assessment, students meeting or exceeding the state standard in reading scores increased from 14.4% to 28.8% in one year. Meanwhile, many Michigan districts saw a decline in the fourth grade reading scores. As a result of the academic gains, the teachers realized the importance of research-based applications and the advantages such interventions offer to struggling learners (Carter, 1997). However, Carter (2001) noted that implementation of reciprocal teaching into classroom instruction was not the smooth transition envisioned. Many of the teachers complained that the time demanded to adequately incorporate the strategies into instructional time was too lengthy.

The studies and interventions described by Lederer (1997), Alfassi (2004), and Carter (1997) all demonstrated the positive effects of RT interventions in individual classrooms as well as schools across an entire district. Like the qualitative studies described previously, teachers noted that meaningful dialogues were problematic; and the teachers in Carter's study described difficulties with the length of time needed to utilize the strategies within classroom instruction. However, the results of all studies demonstrate that it is well worth implementation of RT in the classroom, as students' comprehension scores demonstrated improvement across a wide number of diverse settings and grades.

Unlike Lederer's (1997) and Alfassi's (2004) first study, in which both experimental and control groups were utilized, or Carter's (1997), study, which was district wide, Johnson-Glenberg (2000) conducted a study to determine if a RT intervention was better than a visual strategies intervention. All students were either trained in reciprocal teaching strategies or visual/verbal (V/V) strategies to increase comprehension of text. Third through fifth graders at

two schools were randomly assigned to one of two conditions, the RT or the V/V experimental group. The students in both the control and the two conditions of experimental groups were 95% Caucasian, with low percentages of students receiving free or reduced lunch. There was one African American boy and one Hispanic boy in the experimental groups, and one Hispanic girl in the control group. The study lasted approximately 10 weeks, with students receiving training for 30 minutes a day for 28 sessions.

Johnson-Glenberg (2004) wanted to determine if there were differences in students' academic gains when placed in a reciprocal teaching intervention versus a V/V strategies intervention. The findings were unexpected: the reciprocal teaching "group's superiority at answering explicit questions had not been predicted" (Johnson-Glenberg, 2004, p. 780). Likewise, Johnson-Glenberg had hypothesized that the V/V group would outperform the reciprocal teaching group on most or all comprehension measures. The V/V group outperformed the reciprocal teaching group on two measures: following directions, and the paper folding task, a visual strategy that is described in more detail in the original study.

There were no significant differences on pre and post test measures for the reciprocal teaching vs. V/V group; but when standardized scores were changed to age sensitive scores, the V/V students performed much lower than the reciprocal teaching group. However, both experimental groups made significant gains over the control groups, with eleven measures being statistically significant.

Findings of Qualitative and Quantitative Studies

Almost all of the studies described a need to foster deep dialogues about the readings among the students, no matter the grade level. However, all of the studies' findings presented RT as having had a positive effect on students' academic outcomes, with larger gains when research-

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designed assessments were incorporated into the study. Complaints mentioned in the studies by

several teachers included the length of time needed to incorporate RT into classroom instruction.

Although RT can be time consuming, especially at the outset because students need to be trained

in the comprehension fostering strategies, the results have consistently demonstrated that the

intervention increases students' comprehension.

All studies demonstrated that RT in the classroom had an impact on students'

comprehension. These findings are the same as had been previously found by Palincsar and

Brown (1984) in their original study, as well as the quantitative studies reviewed by Rosenshine

and Meister (1994). Schools today are held accountable through assessments as mandated by the

No Child Left Behind Act (NCLB) (2002). When an intervention such as reciprocal teaching has

demonstrated statistically significant gains on researcher-designed assessments for students

across a diverse range of settings and conditions, it seems likely that more practitioners would

utilize the metacognitive strategy if they were aware of the effectiveness of reciprocal teaching.

English Language Learners and Metacognitive Strategy Instruction

There have been a limited number of studies focusing on improving metacognitive

strategy instruction to enhance comprehension for ELLs. In her review of research, Fitgerald

(1995) noted that research on ELLs' cognitive reading processes has been conducted with

researchers utilizing a large range of processes, including vocabulary instruction, orthographic

instruction, and metacognitive strategy instruction. Results of the studies have been used to make

recommendations for practitioners, as well as future studies. Of note, Fitzgerald's review

included a large body of research on ELLs at the university level who spoke various languages,

with much less research performed at the upper elementary and middle school levels. More

research is needed at fourth through eighth grade levels as classroom diversity increases while the teaching profession remains largely white and female (nea.org).

Bernhardt (2003) also described areas that need further research to address the needs of ELLs. Along with data collection on how first-language literacy affects second-language reading performance, a better understanding of vocabulary acquisition is desirable; but Bernhardt noted that "realistically speaking, an important approach [to investigating vocabulary acquisition] is to examine how learners try to get meaning from text" (p. 116). In the article, Bernhardt noted the influence of English language dominance in education, to include public schools, universities, and researcher forums. Few, if any, opportunities for students to speak their native language in the general education classroom are afforded during the day. Bernhardt ends on an important note: "A world in which expression is exclusively on the terms of and within the perspectives of the English-speaking world would be a boring and indeed dangerous place" (p. 117).

Along with Fitzgerald's (1995) review and Bernhardt's (2003) recommendations, Garcia (2000) described bilingual children's reading in her article of the same name, which included metacognitive strategy studies that have been conducted to: (a) assess how ELLs make meaning from texts; and, (b) assess the effects of metacognitive interventions on ELLs' comprehension. Results of the studies identified by Garcia and Fitgerald that highlight effective interventions for increasing achievement of ELLs are needed by practitioners to aid their instructional decisions because, as Fergus (2009) noted, the high school dropout rate among Latino/a students is approximately 50%, with a higher number of males represented. The studies are described below.

Reciprocal Teaching and English Language Learners

Reciprocal teaching intervention studies for ELLs are few. Although there have been several studies on metacognitive strategy instruction and ELLs, the number of studies utilizing a RT intervention are limited. Moreover, the number of studies incorporating code-switching within a RT intervention have been largely conducted by researchers who are bilingual and/or biliterate. Jiménez (1997) designed one such study in this manner to address the needs of ELLs while reading from fictional texts. In his study, Jiménez, described previously, pulled five Latino/a students out of the regular classroom and taught RT strategies directly to the students, using code-switching during the process. Students' dialogues about the texts improved and Jiménez recommended further, similar research in inclusive settings. DaSilva Iddings et al. (2009) also conducted a RT intervention with ELLs, as described previously, with positive results. However, the study focused on narrative texts.

Procter et al. (2007) researched online RT strategies that utilized Spanish and English speaking Avatars to aid students as needed. Teachers who understood that the pedagogical goal of the study was to improve comprehension selected thirty students 16 ELLs and 14 EOs to participate. The students scored on average at the 23rd percentile on the Gates-MacGinnite vocabulary and 31st percentile on the comprehension achievement tests (Procter et al., 2007). Teachers were trained in RT strategies. However, there were no explicit RT instructions given to students.

During the intervention, students worked with online texts in a computer lab for 45 minutes at a time, three days a week for four weeks. Teachers could give support to students while they were in the lab, and consult "with students on determining areas of strength and needed improvement and when it was appropriate to move to a less (or more) scaffolded

environment" (Proctor et al., 2007, p. 82). In addition, students could click on hyperlinks to further support their understanding of vocabulary and content material.

Results of the study demonstrated that ELLs accessed the online supports more often than their EO peers, but not significantly more often. However, all students who scored lower on vocabulary and comprehension were more likely to access support for comprehension and vocabulary help. Likewise, results indicated that students who accessed support had posttest gains in the two areas, although the correlations were weak (Proctor et al., 2007); nevertheless, movement was present. Proctor et al. (2007) noted that students "accessed supports at higher levels than previously reported in the literature" (p. 88); but, the "small number of participants…and short duration of the intervention were obvious deterrents to being able to draw causal connections" (p. 89) between the intervention and literacy posttest gains.

Olson and Land (2007) conducted a RT intervention over the course of eight years at the secondary level. The Pathway Project included 55 teachers and 2000 students. Students entered the project in sixth grade, as they were preparing to move to mainstream English/language arts classes. Students moved as a cohort through classes with teachers who were also involved in the project. Ongoing professional development support was available for teachers. Over the course of seven years, treatment students "performed significantly better than control group students on GPA, standardized-tests, and high stakes writing assessments" (Olson & Land, 2007, p. 269).

In Olson's and Land's (2007) study, teachers and students were introduced to the idea of a tool kit that housed a plethora of strategies for students to use. Students were also given "cognitive strategies sentence starters" (p. 279) to aid them in goal setting, asking questions, summarizing, and so forth. Extensive modeling and scaffolding was demonstrated by the pathway project teachers. A "timed, direct writing assessment" (p. 285) was utilized for pre and

post measures at the beginning and end of each year. Students in the project also "passed the [California High School Exit Exam] CAHSEE at notably higher rates as compared with the state, district and control group averages" (Olson & Land, 2007, p. 291).

Of importance, students' reflection logs detailed the students' beliefs about why pathway students performed better than their peers: (a) because the teachers pushed harder; (b) teachers had higher expectations; (c) Pathway teachers focused on students' weaknesses; and, (d) Pathway students had teachers who received professional development that benefited the students (Olson & Land, 2007). Students also noted that they read and wrote more than their peers in the control group. One student's thoughts are insightful: "I no longer hate reading and writing. I feel like I can read and write anything I want. No book intimidates me anymore" (Olson & Land, 2007, p. 293).

Muñoz-Swicegood (1994) conducted a six-week, RT intervention with 95 third-grade ELLs in a mid-sized urban school district, with 48 students in the experimental group and 47 students in the control group. The main strategy used was self-generated questions about the Spanish basal texts. Students were taught metacognitive reading strategies in Spanish (Muñoz-Swicegood, 1994). Initially, classroom teachers modeled this strategy, and students moved to small groups, where they took turns being group leaders. The groups became smaller each week until students worked in dyads.

The researchers designed the study to test the effects of the intervention on reading performance in Spanish and English. Results demonstrated a slight increase in growth on La Prueba Spanish Reading Test for experimental students over control students, but it was not significant (Muñoz-Swicegood, 1994). The author concluded that a longer study could have a greater impact.

One interesting result of the study was the impact the self-generated questioning strategy had on students. The researcher noted during an assembly that followed a guest author's/speaker's presentation, that students in the experimental group participated more than their ELL peers, asking questions in English, and thus possibly transferring the skill which had been taught in their native language (Muñoz-Swicegood, 1994).

Padrón (1992) tested the effects of RT and Question-Answer Relationship (QAR) strategy instruction on ELLs with third, fourth, and fifth grade ELLs in a southwestern, suburban school. Control and experimental groups were utilized, and the results demonstrated that students in the experimental groups used more metacognitive strategies during reading based on post Reading Strategy Questionnaire (RSQ) (Waxman & Padrón, 1987) surveys. Two experimental groups, one trained in RT and the other in QAR, and two control groups, one receiving an introduction to the passage and the other receiving no intervention, were followed during the study (Padrón, 1992). Results indicated that fifth graders used stronger metacognitive strategies more often than third graders, confirming evidence from earlier studies by Alvermann & Phelps (1983) and Padrón (1985).

Overall results demonstrated that ELLs benefitted from the intervention; but students in the RT intervention reported using stronger strategies, such as summarizing and questioning, while the students in the QAR intervention reported using weaker strategies, such as underling important parts of the story. The difference was not statistically significant (Padrón, 1992).

Padrón (1992) concluded that metacognitive strategy interventions aid ELLs, but that specific strategies should be selected that match students' ability levels; and also, use of the strategies, i.e., when and how to use the different strategies as described by Meyers and Paris

(1978), must be made explicitly clear to the students. In this manner, responsibility is transferred to the students (Padrón, 1992).

Metacognitive Strategy Use and English Language Learners

Similar to the study by Proctor et al. (2007), Padrón, Knight, and Waxman (1986) conducted an investigation to determine whether bilingual students and monolingual students differed in their use of cognitive strategies during reading. Results revealed that there were statistically significant differences between the two groups on (a) concentrating, (c) searching for important details, and (c) asking questions. Bilingual students were most often concerned with teachers' expectations. More importantly, no ELLs mentioned using the techniques of imaging, searching for important details, or predicting outcomes. Overall, bilingual students used fewer strategies than their monolingual peers. In contrast, Proctor et al. concluded that ELLs accessed online support more often than their EO peers; and the use of computers might have been a factor in the difference between the findings.

In another study, Padrón and Waxman (1988) wanted to determine how ELLs self-reported strategy use affected reading achievement. Pre and post tests utilizing the Stanford Diagnostic Reading Test were collected and analyzed. The RSQ (Padrón &Waxman, 1988), made up of 20 Likert style questions, was read orally to students to ensure reading in English was not an issue. The authors concluded that the strategies students use may be hindering their comprehension of texts. Furthermore, Padrón and Waxman concluded that the RSQ can be used more effectively than verbal reports because the survey does "not require students to articulate the strategies that they use" (p. 150).

Pritchard and O'Hara (2008) conducted a study with 20 randomly selected ELLs from a pool of 100 eleventh graders identified as proficient readers in Spanish and English based on test

scores and teachers' input. Students were asked to read passages of similar reading levels from Spanish and English texts. Students met with researchers and read aloud from the passages, describing their thought processes as they read. If students switched from Spanish to English, or vice-versa, the researcher also switched (Pritchard & O'Hara, 2008).

Results demonstrated that students reported using the same 12 strategies in both languages (Pritchard & O'Hara, 2008). However, differences between the number of times the strategies were used between passages in the different languages did emerge. When students were reading in English, they used more intrasentential ties (making meaning from an individual sentence) vs. intersentential ties (relating what they were reading to other portions of the passage), which was used more often by students while reading in Spanish.

Pritchard and O'Hara (2008) concluded that possibly, "even proficient, bilingual readers process text in a more word-by-word manner" (p. 635) when reading in English. Overall, the study drew the same conclusions reached by Jiménez (1997): "'Successful Latino/a readers monitored their comprehension of Spanish text more frequently than they did while reading English text'" (as cited in Pritchard & O'Hara, 2008, p. 102).

Jiménez, Garcia, and Pearson (1996) conducted a study to determine reading strategies used by successful and less successful ELLs while reading in English. Fourteen sixth and seventh graders from three schools in two districts, eight of whom were successful Latino/a readers of English, three Latino/a marginally successful readers of English, and three monolingual Anglo successful readers comprised the participants. Researchers collected data on Latino/a students' strategies as they read from Spanish and English expository texts. Data included how Latino/a students responded to (a) prior knowledge tasks before reading, (b) think-alouds during reading, and (c) retellings after reading.

Student interviews from five of the eight successful Latino/a readers detailed students'

beliefs that reading in Spanish and English was the same: "There aren't really any differences

[between reading in English and Spanish], I mean they're both based on the same thing, how you

understand it, how you read it, how you take it, and how you evaluate it and all that" (Jiménez et

al., 1996, p. 99). Jiménez et al. (1996) noted that two strategies successful readers utilized were

searching for cognates and translating as needed. Successful students also monitored

comprehension by stopping when something didn't make sense, accessing prior knowledge, and

making inferences and drawing conclusions (Jiménez et al., 1996). Like Pritchard and O'Hara

(2008) and Jiménez (1997), this study determined that successful Latino/a readers monitored

their comprehension more closely while reading in Spanish, and the authors contended that it

may be because "reading in Spanish was a more difficult task" due to "lack of opportunities to

read content-area material" (Jiménez et al., 1996, p. 102).

Less successful Latino/a readers viewed completing the reading task as the *goal* of

reading, rather than reading to understand (Jiménez et al., 1996). Of importance, the authors

noted that less successful readers did not access their native language to aid in comprehension,

while successful readers did so on their own. Educators need to assist ELLs in reading strategies,

including searching for cognates (Jiménez et al., 1996).

Jiménez et al. (1995) detailed the reading strategies of three students from the study

described above in greater detail during the course of the study. The authors selected one

successful bilingual Latino/a reader, one less successful bilingual Latino/a reader, and one

successful monolingual reader. The case study of the less successful bilingual reader revealed

that she believed "bilingualism to be cognitively debilitating…expressed a faulty conception of

reading…[and] employed reading strategies in a fragmented manner" (Jiménez et al., 1996, p.

85). This reader could decode, but often drew incorrect conclusions from inferences or failed to monitor comprehension accurately. She also knew metacognitive strategies to utilize but failed to coordinate these strategies as well as the two successful readers.

Findings of ELL Studies

Of the studies reviewed, six were in elementary schools (Langer et al., 1990; Munoz-Swicegood, 1994; Padrón, 1992; Padrón & Waxman, 1988; Padrón et al., 1986; Proctor, Dalton, & Grisham, 2007), two in middle schools (Jiménez et al., 1996; Jiménez, 1987), one following students from middle to high school level (Olson & Land, 2007), and one high school (Pritchard & O'Hara, 2008). Most utilized narrative texts, with two studies using expository and narrative texts (Langer et al., 1990; Proctor et al., 2007) equally. Researcher's results revealed that students' comprehension was enhanced through the use of RT strategies (e.g., Jiménez, 1997; Langer et al., 1990). Furthermore, the RSQ revealed that ELLs may be self-reporting use of strategies that actually detract from comprehension (Pardon, Knight, & Waxman, 1986; Padrón & Waxman, 1988). Overall, based on the studies described above, RT appears to be an intervention that demonstrates promise in achieving the goal of this formative experiment.

Findings from all intervention studies indicated that metacognitive strategy instruction supported the needs of ELLs (e.g., Jiménez, 1997; Jiménez et al., 1996; Langer et al.,1990; Munoz-Swicegood, 1994; Olson & land, 2007; Padrón, 1992). Some of the studies looked at a single metacognitive strategy such as QAR and generating questions (Muñoz-Swicegood, 1994; Padrón, 1992), while others introduced RT interventions into a classroom or online setting (Proctor, Dalton, & Grisham, 2007; Olson & land, 2007). Two studies focused on students' self-report of strategies utilized when reading (Padrón & Waxman, 1988; Padrón et al., 1986). Overall, RT supported ELLs' comprehension, when it was explicitly modeled and used in

conjunction with a dual language approach (e.g., Jiménez, 1997; Langer et al., 1990; Padrón, 1992).

Discussion

The purpose of this review was to examine studies utilizing RT, as well as studies on metacognitive strategy instruction with ELLs, to determine if a RT intervention with culturally and linguistically diverse populations of students in general education classrooms might help achieve the goal of this formative experiment: to increase students' use and awareness of metacognitive strategies. The RT studies included in this review indicate that this intervention can enhance students' comprehension and/or knowledge of metacognitive strategies. Likewise, metacognitive instruction can enhance ELLs' academic outcomes (Olson & Land, 2007). As the public school system in the U.S. becomes more diverse with the growing population of ELLs entering the classroom, interventions that support their academic needs are necessary. English language learners have been identified as a growing population of students; moreover, many are at risk of dropping out (Fergus, 2008; Waxman & Padrón, 1995). Research studies that include interventions that take the needs of a diverse population of students into consideration are necessary.

Palincsar and Brown (1984) had a theoretical framework that called heavily upon the work of Vygotsky (1978). The idea of more knowledgeable others assisting novice learners in an apprentice style approach is needed for students' developing their skills in the reciprocal teaching strategies, especially ELLs who are contending with a second language while reading to gain new knowledge. Dialogues that are deep and meaningful will not happen automatically for students at any grade; but guided instruction and modeling of the strategies by the classroom teachers may aid students in developing these skills while achieving greater comprehension of

content material presented in school. Likewise, a more knowledgeable researcher will need to give guidance and feedback to teachers who introduce an intervention such as RT to ensure success (e.g., Hacker & Tenant, 2002; King & Parent Johnson, 1999; Lederer, 1997).

ELLs may need comprehension strategies to develop greater understanding from expository texts. However, along with RT intervention, instructors with ELLs may need to utilize a dual language approach by allowing this diverse population of students to converse in Spanish, English, or a combination of both languages to achieve greater understanding. Researchers (Artiles & Ortiz, 2002; Bernhardt, 2003; Jiménez, 1997; Moll & Diaz, 1985) have noted that ELLs may improve their use and understanding of the English language by maintaining and improving their native language. An effective intervention such as RT that includes a sociocultural framework (Vygotsky, 1978), along with a dual-language approach, may be key to identifying an effective intervention to support the academic needs of ELLs.

Bilingual and/or biliterate researchers performed most of the studies on ELLs. However, most classroom teachers are monolingual. Can monolingual teachers effectively implement RT interventions that allow for the possibility of spontaneous code-switching? Only one study demonstrated that a monolingual teacher successfully aided ELLs' comprehension with a RT approach (DaSilva Iddings et al., 2009). The findings were positive, but the texts were narrative.

Conclusion

In view of the results demonstrated by (a) studies that utilized RT interventions in the general education classroom cited in this review, (b) studies with ELLs that incorporated strategy instruction with code-switching, as well as (c) the review of the research by Rosenshine and Meister (1994), it seems clear that this research-based instructional approach is a valid

methodological intervention to increase ELLs awareness and use of metacognitive strategies

while working with expository social studies texts in inclusive settings.

CHAPTER 3

METHODOLOGY

The goal of this study was to examine how reciprocal teaching (RT) could be implemented in a fifth grade classroom to increase Latino/a students' awareness and use of metacognitive strategies to enhance comprehension of social studies content material. A formative experiment (Reinking & Bradley, 2008) was selected as the design of this study to achieve a pedagogical goal that had implications for improving outcomes for all stakeholders in a classroom setting. A formative experiment using elements of sociocultural theory to encourage an environment of collaboration was used during the course of this study, with a teacher and/or researcher acting as a more knowledgeable other (Vygotsky, 1978) to guide students toward a better understanding in the use of metacognitive strategies. This was an important goal because prior research demonstrated that ELLs lack metacognitive strategies that can enhance comprehension (e.g., Franco-Fuenmayor, Kandel-Cisco, & Padrón, 2008; Padrón, 1992; Waxman & Padrón, 1987); and often, ELLs engage in activities during reading that detract from comprehension (Padrón, 1992; Padrón & Waxman, 1988; Padrón et al., 1986).

Researchers utilizing formative experiments view the teacher as a collaborator; and through the course of this study, the researcher and teacher/collaborator altered or adapted the intervention to better meet the needs of the students, thus making changes while moving toward accomplishing the goal. Cole and Knowles (1993) described the evolution of research in schools over the last few decades, noting that without a teacher's engaged involvement in decision-making within the complexities of a typical classroom during an investigation, findings of a study do little to inform professional development. Teachers should have "negotiated participation in terms of perceived benefit[s]…appropriate strategies…response to preliminary

analyses; mutual interpretation leading to final analysis, [and] negotiated representation" (Cole & Knowles, 1993, p. 480) of dissemination of findings.

Formative Experiments

Brown (1992), who used the term design-experiment, had one of the earliest frameworks outlined to achieve a predetermined goal in the context of an intact classroom environment. Formative experiments fall under the general terminology of design-based research (van den Akker, Gravemeijer, McKenney, & Nieveen, 2006). Formative experiments do not have one specific protocol or set of procedures that researchers must follow. However, Reinking and Bradley (2008) highlight a number of formats that a researcher(s) might use to guide a study toward achieving an established goal (Bannan-Ritland, 2003; Gravemeijer & Cobb, 2006; Reigeluth & Frick, 1999; Sloane & Gorard, 2003).

Design of the Study

Reinking and Bradley (2008) outlined one framework for formative experiments, and their framework was selected for this study. The components included six questions that guided the researcher toward achieving the pedagogical goal. These questions are:

1. What is the pedagogical goal of research, why is it an important goal, and what theory and prior research undergirds the foundation in accomplishing the established goal?

2. What intervention, utilizing relevant research and theory, might be most effective in achieving the goal?

3. What aspects involved in introducing the intervention into the classroom might enhance or diminish achievement of the goal?

4. What modifications can be made to the intervention to make it more appealing to the teacher and students involved, thus achieving the pedagogical goal more effectively?

5. What are some unanticipated results, both positive and negative, that the intervention produces?

6. What changes in the instructional environment have occurred as a result of the intervention?

These six questions were used as a framework to guide the researcher toward achieving the established goal.

The aim of formative experiments is to achieve an established goal that works within a typical classroom setting. Reeves, Herrington, and Oliver (2005) argued for researchers to consider the social responsibilities inherently involved in inquiry. Formative experiments are relatively new to the field of research. Quite often, researchers using this approach employ a variety of data collection techniques to determine how to modify/engineer the intervention to achieve an established goal during the course of a study. Researchers can more effectively achieve a desired goal if changes can be made during the course of an intervention, through close collaboration with a practitioner, rather than noting what went wrong after a study is completed and making modifications to future research (Reeves et al., 2005). Formative experiments have been used effectively with a variety of participants, including students with disabilities (Gersten et al., 2006; Palincsar, Magnusson, Collins, & Cutter, 2001), ELLs (Ivey & Broaddus , 2007; Jiménez, 1997; Taboada, & Rutherford, in press), children in early childhood settings (Reinking & Bradley, 2009), and general education students (Baumann, Ware, & Edwards, 2007; Brown, 1992; Fisher, Frey, & Lapp, 2009; Tracy, 2009).

Formative experiments are different from quantitative and qualitative studies in that there is not a research question proposed. Instead, the researcher sets a valued, pedagogical goal that, if achieved, has consequential validity (Messick, 1994). Consequential validity, in relation to

formative experiments, has its focus on "results [that] have demonstrable value in improving instruction" (Reinking & Bradley, 2008, p. 22). If researchers are able to engineer their design through iterative cycles during all phases of a study to achieve a predetermined goal, external validity may be enhanced, resulting in effective implementation by classroom teachers.

Method

Phase 1: Recruitment and Planning

Recruit classroom teachers. The school was located in a county with a growing Latino/a population. I contacted the principal of the school to ask about conducting research in a fifth grade classroom and was given permission. The principal located one teacher participant; and that teacher identified another teacher interested in participating. With IRB approval, the study began. The teachers, classrooms, and students are all described more thoroughly (see Chapter 4 and Appendices A, B, and C).

Prior to the start of the study, I met with the two participating teachers to talk about the established goal of the study. I met with both teachers multiple times during the course of the study to discuss their concerns about students' needs, the teachers' desires for the class, their concerns about my presence in the class, and ideas they might have based on their expert knowledge of the students.

The essential components of the study included:

1. Four RT strategies would be explicitly introduced and modeled

2. Students as collaborators with the teacher

3. Active involvement of students (e.g., asking for clarifications, summarizing portions of text, asking questions, and making predictions)

4. Students would have opportunities to use RT strategies under guidance and independently

5. Pre and post Reading Strategies Questionnaire (RSQ) for ELLs

6. Written observations of all classroom visits

7. Scaffolded supported for struggling readers

8. One language was not privileged over another

9. Minimum of eight weeks for the intervention in the classroom

10. Minimum of three teacher/researcher debriefing sessions

11. A minimum of three researcher/teacher interviews

The two teacher-participants and four student-participants were designated with pseudonyms: Ms. Alvarado taught in classroom A and Ms. Blumenthal taught in classroom B. I provided professional development literature (described below) for both teachers after they let me know that they wanted to read about RT. It was not a requirement, and upon inquiry, Ms. Blumenthal stated she had read the literature and thought the ideas detailed were good to use in the classroom. Ms. Alvarado stated she had read some of the literature as well. Prior to the start of the intervention, I wanted both teachers to have an understanding of how RT worked, as well as problems described by teachers who had been asked to implement RT in their classroom in other studies. However, I did not want to burden them with outside reading requirements.

Researcher concerns. In the framework proposed by Reinking and Bradley (2008), the third question relates to aspects that might diminish or enhance achieving the goal.

My main concern was the length of the study. The participating teachers initially asked how long the study would be, giving evidence that eight to ten weeks for the entire study would be to their liking. As a researcher and an outsider, I did not have an established relationship with

either teacher. I met both teachers in September, prior to the start of the study. One of the teachers, Ms. Alvarado, seemed enthusiastic about the study, while Ms. Blumenthal seemed less so. However, it was Ms. Blumenthal who played a more active role in the study after I made it clear to her that I was not there to critique her instructional style or her classroom management.

The investigation was divided into the following sequence over three and a half months: a) four weeks of observations and initial data collection, including interviews with teacher and student participants, and students' RSQ surveys; b) eight weeks of the intervention, with a constant comparative data collection guiding the study to adapt/alter the intervention as needed; and, c) a week of final data collection and observations.. The investigation began on November 8, 2010 and continued through February 25, 2011. There were three weeks and one day lost to holidays and snow, with one week of school between the two week Christmas vacation and the week long snow break followed by the Martin Luther King holiday. Time lost might have affected how often students were able to use the strategies independently.

Based on prior investigations with RT, I had concerns about the level of student engagement. In past studies described in Chapter 2, researchers and teachers noted a superficial engagement in student-led discussions using RT strategies. In the initial phase of the intervention, modeling of RT strategies was essential for students to see how teacher's summarized, predicted, clarified, and created questions from the social studies content. King and Parent Johnson (1999) noted that extensive modeling of the strategies by the teacher, along with scaffolded practice using the strategies in a supportive, whole-group environment, brought about more meaningful dialogue from students when they moved from whole to small groups. Through careful observation and analysis of data, the teachers and I discussed ways to adapt the intervention to ensure students use of metacognitive strategies for a deeper understanding and

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engagement with texts. It was essential that student-participants develop an awareness of how to best utilize the strategies. When students were engaged in small groups, they were more apt to participate because they had opportunities to talk with their peers. The student participants were mainly silent during whole group lessons; but when we adapted the intervention to allow for small group collaboration while using the strategies, I observed more engagement from all four ELLs.

Selected Intervention. The four components of RT include (a) generating questions, (b) clarifying information, (c) summarizing, and (d) predicting (Palincsar & Brown, 1984). These four components were incorporated into classroom instruction, along with code-switching and searching for cognates toward the end of the study. However, both teachers favored question generation and summarizing strategies over clarifying and predicting strategies.

As stated previously, extensive teacher modeling of the strategies in a whole group setting was utilized prior to placing students in groups of three or four. This occurred during the first adaptation to the intervention. Ms. Blumenthal asked me to teach and/or model the strategies initially. After the initial lesson where I introduced two strategies, predictions and summarizing, we co-taught or I would observe and add to the lesson in a limited manner. I taught and/or co-taught more times in classroom B than classroom A; that was essentially a decision made on the part of the classroom teachers. More knowledgeable others extensively modeled RT strategies in a scaffolded manner (Vygotsky, 1978), and students had many opportunities to mirror (King & Parent Johnson, 1999) meaningful discussions and summaries.

Phase 2: Description of Student Participants, Classroom Teachers, and Setting

Setting

School. Oak Way Elementary (pseudonym) is one of eleven elementary schools in a rural county in the southeast. The town in which the school is located has a population of 7,652, according to the 2000 census data (2010 data is not yet available), with a racial breakdown of 63.32% White, 33.77% Black, and 1.53% Hispanic or Latino/a, with the remainder comprised of Asian, Native American, and two or more races (wikipedia.org). The Latino/a population has increased for the county since the 2000 census data was released.

Oak Way Elementary has an enrollment of approximately 362 students comprised of 73% White, 15% African American, and 5% Hispanic students. Of the total student population, 42% were on subsidized meals. The school had as average daily attendance rate of 97%. Oak Way Elementary has met Annual Yearly Progress (AYP) for the last five years. The school's mission statement is to promote life-long learners. The school is near local businesses and communities, and the climate in this school was positive and welcoming with a friendly office staff.

Classrooms. The classroom arrangements were comprised of groups of desks and tables. During the course of the study, classroom B had multiple changes to the room arrangement. Classroom A maintained three groups of eight desks for the entire intervention.

Before the intervention began, I observed in the classrooms for approximately three weeks, collecting field notes about the classroom environments, instruction, and student participants. In this manner, students became accustomed to my presence in the room. This was more true in classroom B than A, as students in classroom B began to greet me the moment I walked in the door. During social studies instruction, I recorded observations of students' engagement in collaborative activities and non-collaborative activities. These observations influenced decisions about grouping of students, as well as the need for modifications to the

intervention to allow for increased student engagement in the content of social studies

discussions.

Teacher Participants and their Classrooms

  Ms. Alvarado. Ms. Alvarado was a petite, blonde woman who had fourteen years of

teaching experience in first, second, fourth, fifth, and sixth grade, and music for grades three

through six. She was elementary, early childhood, and ESOL certified in Florida, with

elementary certification in South Carolina. The principal introduced her to me as a possible

participant in September of 2010. Ms. Alvarado ran her classroom in a precise fashion. Although

we spoke often about the intervention and how to move toward achieving the goal, what Ms.

Alvarado said she would do and what actually occurred during instruction were different.

  Overall, classroom A was a very calming room. A large carpet and pillows created a

reading nook near the back of the room, with two bookcases creating the effect of a room within

a room. Ms. Alvarado usually had the overhead lights dimmed, with small table lamps scattered

around the room for soft lighting effects. Students' desks remained in the same shape for the

entire time I was conducting the investigation. Ms. Alvarado moved some students' desks within

the three clusters, but there were always three groups of eight desks in the front, center of the

room. English language arts, science, reading, and positive behavior management posters were

hung around the room. Plants, baskets of books, a computer nook, pictures, and knick-knacks

created a home-like atmosphere. There never appeared to be anything out of place in the room. It

was a clean and neat learning environment.

  Ms. Alvarado's desk was located near the front of the room, and it was always organized

in a precise fashion. The desk had several personal pictures, baskets of pencils and pens, knick-

knacks, and there was plenty of open space available for papers or writing. Large windows

framed with curtains to the right of Ms. Alvarado's desk allowed sunlight into the room; but because I was there in the fall and winter, the room often appeared dim. When the class left to go to lunch or specials, the classroom door was always locked.

Ms. Blumenthal. Ms. Blumenthal was a quiet teacher who had never taught at the elementary level. She was certified to teach through middle school. Previously, she taught middle school math for five years before taking an eight-year break to stay home with young children. This was her first year as an elementary classroom teacher. She relied heavily on the lead fifth grade teacher for planning lessons.

The environment in classroom B was different than in classroom A. Students' jackets, papers, books, binders, water bottles, and backpacks were on the desks and chairs, and quite often on the floor. Ms. Blumenthal's desk was overflowing with student work, teacher editions, lesson plans, a clipboard, a computer monitor, a timer, and various other things necessary for elementary teaching. Overhead lights were always on, and the room appeared bright when I walked in. In full disclosure of my biases, I felt more comfortable in classroom B than in classroom A.

The arrangement of desks in classroom B changed often, and Ms. Blumenthal worked hard to find a suitable arrangement that would enhance collaboration and decrease chatter. When I began the study in November, students were grouped in clusters; later, the desks were arranged in a large U shape, with a smaller u shape in front; and in the last weeks I was there, students' desks were separated, and all students faced the front of the room. During all the room arrangements, several desks were kept in isolated areas.

Demographics

Classroom A. The population of students in classroom A was different than in classroom B. I asked Ms. Alvarado to provide me with her classroom. On January 27th, 2011, Ms. Alvarado sent the following email:

I now have 22 students. Johnny moved yesterday.

Boys ~ 13

Girls ~ 9

Black ~ 1 male, 2 females

White ~ 11 males, 7 females

Hispanic ~ 1 male (Student-participant Marcos)

I hope this helps. If you need anything else, just let me know.

The population of students in classroom A was usually quiet. I never heard or saw the two African-American girls volunteer information during any of the social studies instructional lessons. In small group work, I would speak to both of them to ensure that they were using and understanding the RT strategies. Like Marcos, the only Latino in this class and a participant in this study, these two students appeared to be withdrawn, rarely participating in class discussions without being called on to do so.

Classroom B. Ms. Blumenthal's students were more diverse than Ms. Alvarado's students. Ms. Blumenthal had 13 boys and 10 girls with the following composition based on personal observation: five African-American males, two Latino males (José and Gabriel, both participants in this study), one Asian male, five White males, nine White females, and one Latina female (Mercedes, a participant in this study).

As the study continued, the difference between the two classrooms became more apparent. My reflective journal captured a snapshot of the difference between the two classroom environments and students:

> Classroom B has five African American males…all very vocal but willing to participate and wanting to be heard…classroom A has two African American females…both extremely quiet and wanting to remain unseen in the classroom. Class B has three ELLs, while classroom A has one. Overall…just the general height and size of the difference in the two populations is surprising as well. I am 5'8", and many of the students in class B are almost as tall as me; in the other class, most are just about five feet tall…or a few inches taller than that (January 21, 2011).

First Observations

    Classroom A. On the first day that I observed in her classroom (see Appendix B for a detailed description), the lesson was organized, students knew exactly what was expected of them, and there was very little chatter of any kind except when students went to work in groups. The classroom routine of a structured graphic organizer built into the lesson seemed familiar to all students. Ms. Alvarado's strong adherence to her traditional instructional skills came to have an adverse effect on the implementation of the intervention as I had envisioned it, and this will be discussed later.

    Classroom B. My first observation to gather baseline data for this study was conducted in Ms. Blumenthal's classroom (see Appendix C for a detailed description). My journal entry for day one reflects the chaos that erupted in her classroom on a regular basis over the course of the study. I believed, initially, that my being there was most likely a factor. However, as I became

more involved with Ms. Blumenthal and her students, I realized that this particular class had a lot of behavior management problems.

Ms. Blumenthal had one strategy that was used repeatedly, and it became more apparent when I observed social studies instruction during baseline data collection. The strategy she used was essentially round robin reading, with the difference being that a computer randomly generated a student's name. When one student finished reading a paragraph, a click was heard, and the next selected student would begin reading the next paragraph almost immediately. I came to refer to this strategy as the *clicker* method. Ms. Blumenthal would select a student to sit at her desk and use the computer to randomly select the next reader. No student was selected twice on the same day, and typically, each student was selected to read at least once per lesson. My field notes November 16, 2011 recorded this strategy:

> Today, the routine that this class uses for social studies was very apparent…the clicker method…and I am hopeful that the teacher will welcome introducing RT strategies into the lesson. She wouldn't necessarily have to break students into groups-but she could have students work with others when they stopped between reading the text to summarize, clarify, and generate questions.

Teacher Interviews

Ms. Alvarado. Ms. Alvarado was brand new to the district. She had recently relocated from Florida and was used to having ELLs in her classroom. During the first interview on November 9, 2010, Ms. Alvarado provided insight about her background:

Elizabeth: "How do you feel about me being in your classroom?"

Ms. Alvarado: "Doesn't really matter one way or the other---I'm fine with people being in my class."

Elizabeth: "What are some things that you are worried about-in regard to this study?"

Ms. Alvarado: "Nothing."

Elizabeth: "Do you have questions for me?"

Ms. Alvarado: "No."

Elizabeth: "What about scheduling lesson plans? Are you ok with rearranging if needed?"

Ms. Alvarado: "As long as you are flexible."

Elizabeth: "How do you feel about allowing students to speak Spanish during class? Any thoughts on that? What is the school policy?"

Ms. Alvarado: "Usually, during the course of the day, I speak Italian, Spanish, French in short phrases-I'm used to it from Florida-so it doesn't bother me. Last year, I had a child who only spoke Chinese. Typically-I have a translator up on my computer at all times."

During the course of my time in her room, I never saw the translator she referred to. Likewise, I never heard her speak any language other than English.

Ms. Blumenthal. My first interview with Ms. Blumenthal occurred shortly after my first observation of her classroom, and the lesson did not go well. During my first interview, she expressed concerns:

Elizabeth: "How do you feel about me being in your classroom?"

Ms. Blumenthal: "I was able to go with the chaos even though it was embarrassing."

Elizabeth: "In general, how do you feel about me being in your class?"

Ms. Blumenthal: "It makes me nervous; and I feel like you're not going to get much good out of this."

Elizabeth: "How do you feel this research will impact the day-to-day workings of your classroom?"

Ms. Blumenthal: "I think it will make scheduling slightly more difficult-where I have to consider you and when you will be here-and since that's our science/social studies block-and we sometimes finish up from one to another-I'll have to be more careful with that,"

Elizabeth: "What are some things that you are worried about-in regard to this study?"

Ms. Blumenthal: "I haven't thought about it much."

Elizabeth: "Do you have questions for me?"

Ms. Blumenthal: "I can't think of any" (November 9, 2010).

One of the key moments in this study came after a conversation with Ms. Blumenthal just after the first interview. I knew she was uncomfortable with me in her class. Her students were loud and boisterous. I was worried that she would drop out of the study. My researcher reflections for our conversation included the following:

The teacher interviews went well, and I hope that I was able to reassure Ms. Blumenthal that I am not there to critique her instructional style, classroom behavior management, and so forth. She wandered around the room working on filing papers and organizing books while we were interviewing.

After about twenty minutes of this, while she was answering my questions, I finally walked over to where she was and sort of forced her into talking face-to-face. I felt it was important for her to know that I was there to help improve instruction. I wanted her to know that I had been in classrooms exactly like hers, that I knew how unruly students could be…especially when a stranger was observing, that I knew she was embarrassed by the students' behavior and her classroom management skills…but that none of it mattered. After I explained all of this and talked about my own feelings about classroom observations by principals and others, she seemed to calm down. I told her that I never

wanted her to feel that I was there to observe her classroom management skills ….my

sole purpose was to work with her to introduce the intervention and adapt it to ensure

students were using RT strategies (November 9, 2010).

After that conversation, Ms. Blumenthal became my partner in the intervention.

Student participants

Student-participants included four Latino/a students in two inclusive fifth grade

classrooms identified as ELLs by the school's ESOL teacher. Student scores on the English

Language Development Assessment (ELDA) were requested to determine their English

proficiency. The ELDA scores are: 1-pre-functional; 2-beginning; 3-intermediate; 4-advanced;

and 5-fully English proficient (see Figure 3.1). ELDA is not an assessment of academic content

material, but instead "measures both academic and social language proficiency in the four

domains of language: listening, speaking, reading, and writing" (ccsso.org, n.d., p. 1). In

addition, ELDA was designed with the intent of eliminating cultural bias in assessment. The

student-participants' ELDA scores were obtained near the end of the study.

Figure 3.1 Student-participant's English Language Development Assessment (ELDA) Scores

ELDA scores	Reading	Listening	Writing	Speaking	Comprehension	Composite
Mercedes	4	4	3	5	4	3
Gabriel	4	5	4	5	4	4
José	3	5	3	5	3	3
Marcos	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable

1-Pre-functional, 2-Beginning, 3-Intermediate, 4-Advanced, 5-Fully English Proficient

I interviewed each of the student participants individually while the rest of the class was

at computer lab using a semi-structured interview approach (see Appendix D). Of the three ELLs

in classroom B, two scored at the intermediate stage of English proficiency and one scored at the

advanced level. The sole ELL in classroom A arrived in the United States just prior to the school year, and his scores were not available.

Student-participants were interviewed prior to taking the RSQ. However, I realized that I might have conducted the interviews prior to administering the surveys, if only to allow students to become more familiar with me. My reflection immediately following students' interviews captured this, too-late realization:

I just interviewed all three students and I really feel like I should have interviewed them prior to giving them the RSQ. I think that they were looking for the right response on the RSQ because they didn't know me and wanted to do well (November 30, 2010).

This background on classroom environments, teacher-participants, and student participants will provide readers with the context from which data was collected during the study.

I interviewed classroom teachers before, during, and after the study during the teachers' planning period. The first interview took place prior to any classroom observations. The second interview took place midway through the intervention; and the final interview took place after the study was completed. Each interview took approximately 15 to 20 minutes. Along with interviews, bi-weekly de-briefing sessions were held during the teachers' planning periods. I spoke weekly with the teachers about the intervention during breaks between classes. The teachers often left much of the decision making to me.

The teacher interviews included specific questions that were followed with questions to clarify answers as needed. The interviews (Cohen, Manion, & Morrison, 2000; Seidman, 1991) were conducted informally, with conversations interspersed with the questions. I described their respective teaching philosophies, concerns, desires, and views using a semi-structured interview

approach (see Appendix E). Genzuk (1999) emphasized that there is no one right way to

interview participants; instead, a researcher must view each interview as unique and decide how

to approach it based upon the goal of the research.

Fontana and Frey (1994) noted that unstructured interviews "provide a greater breadth

than the other types" (p. 365) of interviews, such as structured, semi-structured, and group

interviews. I used semi-structured interview questions that did not lead teachers to a specific

response. When information emerged during the course of the interviews, I followed up with

probing questions. Although I asked each classroom teacher to begin the interview by asking me

questions, they never had questions for me. More often than not, they wanted to leave decision

making up to me. However, both teachers wanted students to read aloud in a popcorn-like

approach, and initially this was non-negotiable for the teachers. Likewise, Ms. Blumenthal was

more resistant to the idea of small groups reading independently largely because of classroom

management issues.

After I met with the teachers and the students, I added more vivid descriptions of the

participants to the demographic data (see Appendix A). Informal, observational assessments and

students' artifacts allowed me to determine if students experienced success or failure with the use

of RT strategies. For example, if students were having meaningful dialogue about content

material in class, their artifacts should show growth. Students' written reflections never

transpired; but students' reflections on the study were captured in final interviews. In this

manner, a picture of the strengths and weaknesses of each student participant emerged, and a

constant comparative data analysis guided the study.

Phase 3: Baseline Data Collection

IRB Approval and Students' Records. With university IRB approval and parental permission, students' scores for English Language Development Assessment (ELDA) were requested. Teachers' concerns about permissible access prevented me from obtaining the scores until nearly the end of the study. I did not observe the ESOL teacher serving any student-participants or providing additional support in content-area classrooms.

After four weeks of observations and initial data collection, I met with both teachers to determine how to put the intervention into place. Ms. Blumenthal requested that I initially teach a lesson with the strategies while she observed. Ms. Alvarado asked me to insert strategies as she taught the content. I agreed to this and the intervention was initiated in both classrooms.

Phase 4: Intervention, Adaptations, and ongoing Data Collection

Teacher/Student Training. I provided the teacher-participants with excerpts from Palincsar and Brown's (1984) original article, as well as excerpts from Oczkus's (2003) book: *Reciprocal Teaching at Work: Strategies for Improving Reading Comprehension.* This strategy, utilized by Hacker and Tenent (2002), helped familiarize teachers with the intervention. Ms. Blumenthal told me she read the material and thought the strategies were good. Ms. Alvarado told me she was trying to find time to read all of the information. I observed Ms. Blumenthal adding RT strategies to her lesson plans and instruction, while Ms. Alvarado continued to teach social studies in the same way as before the intervention.

Introducing the Intervention. Initially, RT strategies were taught using direct instruction. Direct instruction has been found to enhance students' effective, independent use of the strategies (Jiménez, 1997; Moll & Diaz, 1987; Palincsar, Brown, & Martin, 1987). I met with the teacher-participants to discuss ideas in training the students in using the strategies. Ms. Alvarado and Ms. Blumenthal both asked that I initially teach the strategies to the students so

that they could observe how RT was done. However, Ms. Alvarado ended up teaching the lesson and asking me to insert strategies at appropriate times.

This study was designed as a collaborative effort. However, both teachers relied on me to guide the study and make modifications based on observations. When de-briefing with the teachers, they often said things like "whatever you think will work" or "whatever you want to do."

Classroom B. On November 30, 2010, I met with Ms. Blumenthal to discuss how to best introduce the intervention into the classroom. I recorded the following reflection after meeting with her:

Ms. Blumenthal and I met and decided together that I would teach chapter 7-lesson 1-on December tenth. She wanted me to model how to teach the strategies and the lesson together, but she also wanted me to teach the entire lesson. To teach the content and the strategies will be difficult. Everything else will remain the same for now.

I continued to observe in the classroom that week, and on the designated day, I explicitly taught students two RT strategies: making predictions and summarizing. I taught and modeled both strategies while covering content material. An excerpt from the lesson, which was recorded immediately after I taught, demonstrated the difficulty in teaching the strategies while covering a lot of content at the same time:

Before the lesson started, I told students that we would be reading about three important inventions-cars, radios, and movies. Then I told them that they were going to make a prediction before we began reading.

Elizabeth: "Imagine that the car has just been invented. Before cars, people rode on horses or behind the horse in a buggy, wagon, or carriage. What would you feel about

that? How do you think people felt? Any predictions? What do you think people thought about cars?"

S1: "WOW!"

S2: "Is it something that is safe?"

S3: "Is it worth the money?"

S4: "Can I afford it? Do I have enough money to buy it?"

Other students made predictions and I wrote these on the white board. Then I asked everyone to turn to a neighbor and tell them what they might have thought. I read the "You Are There!" section aloud and then we proceeded to read the section. The first student was called on, via the clicker; and, he read about Henry Ford and how he invented the Model T. We read three paragraphs and then I stopped the students.

Elizabeth: "What do you think is the most important piece of information we learned from what we just read?"

Gabriel: "It was cheap."

Elizabeth: "The car? The cost of labor?"

Gabriel: "Yes."

Elizabeth: "It was cheap to buy a car?"

Gabriel: "Yes."

I wanted to follow up because I realized that he was having difficulty with this, but many other students had their hand raised.

S2: "Cars were cheap."

Multiple students reiterated this.

Elizabeth: "Okay…hands down. I want everyone to think of the most important thing you learned. Think in your head and see if you can come up with a sentence with ten words or less that says the most important thing we learned."

S1: "It was that cars were cheap and they were cheap to make and people…"

Elizabeth: "Stop right there. I already counted 14 words. Ten words or less."

Students pause and then a few hands go up.

S2: "Cars were cheap and they didn't go fast."

……

Elizabeth: "This is what I think. I think the most important thing is this: 'Henry Ford invented the automobile.'"

S3: "That's not ten words."

Elizabeth: "Yes, but I said ten words or less. And the most important thing we just read is that Henry Ford invented the car."

We continued reading at a fast pace. When we finished the section on cars, I again asked the students to think about everything we had just read and come up with a summary that contained the most important details. I did not tell them to use ten words or less this time. In the summaries, the students did get the part about the car being invented, but some students also focused on some unimportant details.

S1: "The car looked like a bathtub."

S2: "It didn't go very fast."

I didn't let them go far because I wanted to model my thinking and move on with the content.

Elizabeth: "Here is what I am thinking. I think the most important thing is that Henry Ford invented the Model T car, and as a result, better roads, many jobs, and travel came about."

S3: "That's more than ten words."

Elizabeth: "You are right…but this time I didn't say it had to be ten words or less. We were summarizing three pages…so there was more information."

I asked the students to write down the summary…either the one I wrote on the board or their own. They had two minutes to write. Several students did not have paper, including José. Once paper was distributed, the students wrote…with most copying my summary. Ms. Blumenthal and I walked around and observed. After two minutes, I asked all the students to share their summary with a neighbor (December 10, 2010).

In this initial lesson, I was concerned with modeling the strategy so that students could learn to summarize important details in a paragraph. For that reason, I allowed students to record the summary I had modeled. I also gave them the option of writing their own summary. However, because Ms. Blumenthal typically covered a great deal of content in a lesson, students had to summarize the most salient details from the lesson.

Toward the end of the lesson, I asked Ms. Blumenthal if she would help summarize. She modeled her thought processes and we called on students to add information before coming up with another class summary. The end of the field notes for the introduction of the intervention demonstrated how RT helped Mercedes, almost immediately, become more engaged in the lesson. Likewise, when Mercedes was aware of the summarizing strategy and began to use it, she participated in the discussion:

Elizabeth: "What was the original purpose of the radio?"

Mercedes (without being called on): "Music."

Elizabeth: "Think back to what we just read...was it music?"

Mercedes: "Yes."

Elizabeth: "Hmmm....I'm not sure that's right. Let's look back. Everyone look back...why was the radio invented?"

S1: "To communicate between ships."

Elizabeth: "Is that right?"

The class agreed and we continued reading.

Time was short and we read about the radio and summarized and then continued on to movie theaters. After we had read the section on movies, I asked Ms. Blumenthal to provide a summary for the class. I responded with, "That's great...but that's not what I came up with." I thought the summary should include information about why the location was selected, while Ms. Blumenthal thought information about available jobs was important. I think that the students seeing two different summaries from two different teachers was important because it let them know that there wasn't one right answer. At this point, students were asked to write summaries on their own.

Mercedes' summary statement about the radio: "The radio was sold a lot it can let ship talk to ships it was popular programs everyone wanted one to listen to programs." She hit all the important points we had discussed during the lesson. Although the summary is grammatically poor, the thoughts are clear and correct (December 10, 2011).

Classroom A. The intervention was introduced into classroom A in a dissimilar manner than in classroom B. Ms. Alvarado and I had spoken about how to introduce the strategies, and she wanted to teach the content, while I explicitly taught the two selected strategies, predicting

and summarizing, at strategic times during the lesson. An excerpt from my field notes demonstrated some similarities and differences between participating classrooms:

Ms. Alvarado: "The Roaring Twenties. Write down on your purple sticky note what you already know about the twenties or a question you have about the roaring twenties." The students begin writing and then Ms. Alvarado has students place their wonderings in the spaces on the board in a manner similar to the Civil War wonderings (see Appendix B) while reading from the sticky note aloud to the class.

S1: "What is the roaring 20s?"

…..

S4: "The 20s had cool music."

Ms. A: "Is that a fact or opinion?"

Ss: "Opinion."

….

Marcos: "Was there anything bad that happened in the 20s?"

After all the students had posted their sticky note, the teacher asked the students to open to page 298.

At this point, I stood up and asked the students to make predictions.

Elizabeth: "Today we are going to be reading about the invention of the car, the radio, and the theater. I want you to think about what people might have thought about the car. Before this time, people rode on horses or with a horse and wagon. But now the car has been invented. What do you think people thought about the car? Any predictions?"

S1: "WOW!!"

S2: "Awesome."

S3: "I think they thought cars went fast."

Elizabeth: "How fast do you think cars went?"

S3: "Four mph."

S4: "No…like 10 to 15 mph."

Ms. Alvarado began again.

Ms. Alvarado: "Okay…let's read. Ford's Model T. Do we still have Ford around today?"

Ss: "Yes."

Students are called on to read aloud.

At this point I asked students to do a summary.

Elizabeth: "After all this information, if I asked you to come up with the most important

thing you read today so far…in ten words or less…what do you think you might say?

Take a minute and think in your head…what is the most important thing we read?"

S1: "Assembly lines made things fast."

S2: "Cars were cheap."

S3: "Cars looked like a bathtub."

S4: "Henry Ford invented the model T."

Elizabeth: "Wow…all of these are good, but I think I like that last summary the best.

Why do you think I like it best?"

Ss: "Because it has Henry Ford's name in it."

Elizabeth: "Yes…and he invented the car."

Ms. Alvarado gets up and describes the assembly line process and then asks students to

turn to the page titled 'A Nation of Drivers.'" (December 13, 2010)

The descriptions of the intervention in the two classrooms appear similar. However, the

two lessons were different. My reflective journal captured the essence of my experience, and the

differences between the two classroom environments:

Ms. Alvarado taught the lesson today in her classroom and I interjected at a few points to

introduce the same two RT strategies that classroom B learned on Friday. Ms. Alvarado

does a lot of the summarizing of information for the students. If students had to take on

the summaries on their own, they might have to think a little harder (December 13, 2010).

Immediately after the intervention was introduced, I recorded students' awareness and

use of the strategies, as well as the teachers' use and modeling of the strategies. The first and

second adaptations to the interventions occurred as a result of the open coding of the data and are

described in Chapter 4.

After the introduction of the intervention, Ms. Alvarado did not make many changes to

her instruction. She used other strategies with her students such as pre-reading activities; and I

believe that she felt her instructional techniques were beneficial to her students. Although I asked

to observe her using the RT strategies, mst of the time she relied on strategies she was already

using unless I interjected a strategy during the instructional time.

Some of Ms. Alvarado's strategies included having students wonder about events. For

example, students wondered about the south after the Civil War during an initial lesson I

observed. They were also asked to write down something they knew or thought they knew about

the Civil War, and the students' statements and wonderings are described more fully in Chapter

4.

The classroom teachers agreed to participate in this study, and the time involved was incorporated as an essential component of this study. I was usually in the school three days a week, observing an 80-minute lesson in one classroom, or observing 40 minutes in one or both classrooms. The observation times were largely dependent on the teachers' lesson plans. I was not available to observe on Wednesday; and Tuesdays and Thursdays, students had science lab and Zest-quest weekly, and counseling once a month. Science shared the same time block with social studies. The teachers worked me into this conflicted scheduling block, and some weeks I observed two days a week and other weeks I observed three days a week. I rarely observed three days a week in both classrooms. During the intervention, Ms. Blumenthal asked for and received support to implement the intervention. I taught the first lesson and introduced two RT strategies. I explicitly taught and modeled how to use the strategies. Ms. Blumenthal was a participant and an observer on that day. After that first day, she resumed responsibility for teaching, incorporating and explicitly teaching the next two strategies. My participation decreased during whole group instruction and varied during small group instruction as the study progressed.

In classroom A, I remained almost entirely an observer. Ms. Alvarado was comfortable with RT strategies. Only once did I teach strategies in her classroom at her request. I met with the classroom teachers weekly during the study, during planning periods or between classroom changes. I also met with them three times for interviews and three times for de-briefing sessions; and all of these were conducted during planning periods. At these times, I asked about their concerns, including (a) ideas for changes to the intervention, (b) a review of my observations to ensure full disclosure, and (c) discussions of how to proceed, based on triangulation of data and teacher input.

The teachers often seemed overwhelmed with the daily business of teaching, and although my notes were available for them to read, neither teacher professed interest. It was difficult to get their input about changes/modifications to the intervention. Ms. Blumenthal, who had a classroom with a lot of behavior management issues, had a more difficult time using the strategies; but she tried to make the strategies an integral part of her lesson. Ms. Alvarado had few behavior management issues. Likewise, Ms. Alvarado often summarized information for the students and asked them to write down questions they had about the information they were going to read. However, Ms. Alvarado did not transfer responsibility for using the RT strategies to students, which is a key step in moving students toward independent use of the strategies.

As the study continued, students struggled to use the strategies effectively. More direct instruction and modeling of the strategies by the researcher and the classroom teachers were used to support the students as they wrote questions and summaries, with more modeling of summarizing and questioning activities occurring in classroom B than classroom A. Students became more proficient at making predictions when the content moved toward WWII and was familiar. Clarifications were still made largely by both classroom teachers.

Predictions and summaries were taught in one class using explicit instruction with a lot of modeling and support by the researcher. Asking teacher-like questions was taught to the students in a collaborative fashion in both classrooms. During this time, the classroom teachers would teach, and I would insert strategies and/or model strategies as needed to ensure students were supported. The clarifying strategy was especially useful for ELLs who had difficulty with vocabulary; but due to time constraints, the classroom teachers often made the clarifications for the entire class. Social studies vocabulary was presented in English/language arts, and I was not

able to see how these words were introduced. Students had social studies workbook pages for homework that incorporated content area vocabulary.

Classroom teachers reminded students of definitions of unfamiliar vocabulary if a student asked for clarification. The ESOL teacher was not in class during social studies instruction, so ELLs did not have any support for cognates, or words that are similar in Spanish and English. Students were asked to read aloud, following both classroom teachers' preference. After the intervention began, Ms. Blumenthal began to stop at appropriate points and ask questions about the text, thus modeling how students might summarize or ask questions about the content material. Ms. Alvarado used the strategies much less often, choosing to summarize or clarify for the students unless I interrupted instruction to insert the strategies.

After initially modeling the questioning strategy, Ms. Blumenthal called on students to generate questions or make comments about the content being read. Students in classroom B had many opportunities to practice using RT strategies throughout the lessons after the intervention began. Although all of the RT strategies were incorporated into the lessons, summarization and question-generation were the two most often used strategies. I examined summaries and questions to see if students were developing in their attempts to write better summaries. For example, a summary should include salient facts from the paragraph. Likewise, question-generation should be an indicator of students' understanding of material.

Students had multiple opportunities to practice asking questions and summarizing, with fewer opportunities to make predictions or clarifications. The classroom teachers modeled their thought processes appropriately, with Ms. Alvarado often doing a better job mainly because she had few behavior problems. Ms. Alvarado had more metacognitive strategies in place prior to the start of the intervention, such as students' wonderings, which might be thought of as predictions

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or question-generation depending on the wondering; and as such, I believe the intervention was less useful to her because she was comfortable using her instructional techniques. In both classes, the teachers modeled the strategies effectively so that students were able to mirror teachers' efforts (King & Parent Johnson, 1999). For this intervention, whole group instruction was the main focus of teaching as was the preference of both cooperating teachers, with less attention to small group instruction.

During RT training days, supplementary expository material that corresponded to the students' primary social studies text books was used in classroom A, while the social studies text was used exclusively in classroom B. At the request of Ms. Alvarado and Ms. Blumenthal, the researcher practiced each of the strategies with the class, providing modeling and think-alouds to ensure students were familiar with their part in the RT process.

Code-switching. Encouraging students to move between two languages to enhance understanding is a practice that has been utilized by other researchers (Jiménez, 1997; Langer et al., 1990; Moll & Diaz, 1984). I observed to see if the three ELLs within the inclusive setting used this strategy spontaneously.

Materials. All students in the class used regular classroom texts and materials. The classroom teachers, after receiving professional development training in the RT procedures, taught and prepared all lessons except the two lessons that I taught to demonstrate how to use and incorporate RT strategies into a social studies lesson. The regular social studies texts were used for instruction. Leveled readers published by the same classroom textbook company and corresponding to content material were used during RT training for students in classroom A.

Data Collection and Analysis

Formative and design experiments "represent an approach to research that has arisen from within the field of education and that is aimed specifically at achieving the goals of education" (Reinking & Bradley, 2008, p. 34). This study involved quantitative and qualitative data. Quantitative data were collected pre and post intervention. Qualitative data sources included: 1) pre, during, and post interviews with the teacher-participants and pre and post interviews with the student-participants; 2) observational field notes; 3) de-briefing sessions with the teachers; 4) researcher reflections; and, 5) student-participants' summaries and questions. This mixed methods (Creswell, 2008) approach, embedded within a formative experiment, was determined to be useful in assessing students' progress toward awareness and use of metacognitive strategies. Observations and constant comparative data analysis guided the study toward achievement of the goal.

Data were analyzed using a constant comparative alysis in which open coding was used initially, followed by axial coding in which the researcher grouped the codes into the following categories: 1) unproductive instructional/learning behavior; 2) students are engaged, but RT strategies are absent; 3) behaviors demonstrating initial progress toward goal; 4) classroom behaviors demonstrating some progress toward achieving goal; and, 5) classroom activities demonstrating greatest progress toward achieving goal. These codes and themes guided the study toward the established pedagogical goal.

Timeline and Coding

For the first four weeks, I observed in both classrooms, collecting large amounts of baseline data to determine regular classroom activities most often engaged in prior to the introduction of the intervention. The student-participants' and teacher-participants' actions

during class were entered into a spreadsheet, and the codes were generated based upon written observations. Codes about non-participants' actions were coded because of the effect they were having on the learning environment. For example, student-participants were often observed as being silent but paying attention. The logical code was SP. Likewise, non-participants' were observed talking and off-task in classroom B, and the code that emerged was TOT. Nonparticipating students in the classrooms were referred to as S1, S2, S3 (Student1, Student2, Student3). On any given day, the first nonparticipating student who spoke was listed as S1 in the class; the second was S2, the third as S3. Throughout the descriptions in this chapter and the next, S1, S2, and so forth will be listed when describing dialogue or interactions in the classroom.

This spread sheet of codes, which initially contained many notes, was subsequently condensed to contain only codes. Examples of coding the data are contained in the following selection from field notes:

1. 9:55-many students are off task. (TOT) Some students are working independently to complete the task. (EN) Some students are telling other students that they are not helping (TOT) (November 8, 2010).

2. Marcos is silently reading alone (EN) (November 9, 2010).

3. An ELL is selected to read-he reads softly (EN) (CR) (November 11, 2010).

4. Ms. Alvarado: Write down on your purple sticky note (TUMS) what you already know about the twenties or a question you have about the roaring twenties (ENRTI) (QI) (December 13, 2010).

5. Elizabeth: "What do you think people thought about the car? Any predictions?" (RUMS)

S3: "I think they thought cars went fast" (ENRTG) (PG).

S5: "I think the street would have been crowded with cars" (ENRTG) (PG).

S6: "I think it was easier on the animals" (ENRTG) (PG) (December 13, 2010).

In the example above, the highlighted portions were initially coded as 1) students talking or being off task (TOT); 2) students being engaged in the lesson (EN); 3) the teacher used a metacognitive strategy (TUMS) or the researcher using/modeling a strategy (RUMS); 4) students engaged in RT strategies independently (ENRTI) or under guidance (ENRTG); 5) students use a predicting strategy under guidance (PG); and, 6) students independently using a questioning strategy (QI). Later, the open coded data were analyzed to determine which activities were moving students towards a greater awareness and use of RT strategies, using axial coding, to form the five categorical themes described previously (see Appendix F). For example, when students were talking and off task, these activities actually distracted from the goal. Likewise, when teachers were using and or modeling RT strategies, this was the initial process of making students more aware of the strategies. When students were seen as independently engaged in RT strategies, this demonstrated the greatest progress toward reaching the goal. Although initially using the strategies independently demonstrates progress toward the goal, students still need many opportunities to use RT strategies to ensure automaticity. After themes emerged and data were grouped under the themes, codes were subsequently color coded to aid in seeing patterns in the data.

After the four week observation period ended, I read and sorted through the data and began to observe regular, instructional patterns in both classrooms. For example, in one classroom, classroom B, Ms. Blumenthal utilized popcorn reading at a rapid pace. The addition of technology to randomly select a reader, while never selecting the same student twice before all

students had been selected once, varied this strategy. At this point, I met with both teacher-participants to discuss how to best introduce the intervention into the learning environment.

Quantitative Data

The Reading Strategies Questionnaire (RSQ) (Padrón & Waxman, 1988) was selected to determine student use of beneficial metacognitive strategies when reading text. With the permission of Dr. Yolanda Padrón, students took the Reading Strategies Questionnaire (RSQ) (Padrón & Waxman, 1988), consisting of 20 Likert style questions, pre and post intervention. When taking the RSQ, students self-identified reading strategies they utilize; the survey contains items that suggest strategies that might promote or lessen reading comprehension.

The RSQ survey was adapted from Hahn's (1984) and Paris' and Myers' (1981) surveys (Franco-Fuenmayor et al., 2008). Waxman & Padrón (1986) originally adapted Paris' and Myer's survey to contain 13 items; Padrón and Waxman's two articles have been cited 65 and 44 times respectively. Franco-Fuenmayor et al. later revised the survey to include 20 items.

Franco-Fuenmayor et al. (2008) noted that items two, four, six, eight, ten, twelve, fourteen, sixteen and eighteen (see Table 4.1) have been identified in the research as being positively associated with students' reading achievement (Knight, 1987; Morrow, 1985), while the other eleven items were either not positively associated (Knight, 1987; Padrón, 1985), or had not been examined in relation to students' reading achievement (Franco-Fuenmayor et al., 2008).

These pre and post measures were taken approximately nine weeks apart. This survey instrument was read aloud to the students, as recommended by Padrón et al. (1986), to ensure that decoding was not a factor in answering the questions. The pre-surveys were collected to be compared to post survey scores to determine if students gained an awareness and use of metacognitive strategies, as well as to determine if students were using strategies that had a

negative effect on comprehension. The reliability data for the survey instrument have not been published, and it is not clear how accurately students were able to self-report their strategy use. Pre and post scores were compared using paired t-tests and the results are discussed in Chapter 4.

Qualitative Data

      Observations and field notes. At least two times per week (pre-intervention, during initial intervention, and during each adaptation to the intervention) but more often three times per week, I visited each classroom from 40 to 80 minutes to observe the teacher-participants' implementation and use of RT strategies. Questions I had in mind when observing the classrooms included: Are students using RT strategies with teacher support or independently? Are teachers modeling RT strategies effectively? Are teachers using RT strategies during instruction? Do students have opportunities to engage in RT strategies? Do teachers model/use all RT strategies during lessons? I kept these questions in mind as I recorded my observations. I wanted to determine if, over time, students were using RT strategies independently as teachers placed more responsibility for learning the content on students.

      Open Coding. The answers to these questions led to open coding (Miles & Huberman, 1984; Strauss, 1987) of field notes (Chapter 4). When these codes were condensed and put into a spreadsheet, students' and teachers' use of the RT strategies became clearer. In an effort to move toward attainment of the pre-established goal, adaptations to the intervention were made after teacher/researcher debriefing sessions. Altogether, two adaptations were made in each classroom to try and move closer to the goal: increasing students' awareness and use of the strategies.

      I coded the data by hand, weekly, looking for specific instances of engagement in classroom activities by the student-participants and teacher-participants. I recorded my observations of classroom activities using a computer from the moment instruction began. I

could not record everything in the classrooms, but I tried to record the instruction, the students'

interaction with the text and teacher, and anything directly related to normal classroom activities.

I also recorded events that interfered with classroom activities. If I taught a portion of the lesson,

I recorded that information immediately after the lesson had concluded. I recorded information

from the moment instruction began until I left the classroom.

During the observations, I recorded whether individual student-participants were reading,

speaking, asking questions, called on to respond, silent, distracted, resting their head on their

desk, talking, drawing, and/or asking for clarifications. I also recorded whether the teachers were

using and/or modeling RT strategies, and whether they were asking students to use the strategies.

The field notes were read numerous times, and codes emerged that described student-

participants' and teacher-participants' actions during instruction (see Appendix F).

Axial Coding. The original codes that were produced from the baseline data resulted in a

system to determine progress toward the goal. In all, 23 codes were generated and categorized

into five themes (see Figure 3.2). After the intervention was introduced, new codes were

generated (see Appendix F). To determine reliability of the codes, 10% of the field notes were

given to an independent rater, along with the codes and an explanation of the codes. Inter-rater

reliability was 86% with classroom B and 100% with classroom A.

Figure 3.2 Open Coding and Emerging Themes

Theme	Unproductive Instructional/ learning behaviors	Students are engaged, but RT strategies are absent	Behaviors demonstrating initial progress toward goal	Classroom behaviors demonstrating some progress toward achieving goal	Classroom activities demonstrating greatest progress toward achieving goal
Code	TOT-students talking/off task	SO-student silent but paying attention	PRA-teacher uses a pre-reading activity	STG-student summarizes text with guidance	STI-student summarizes text independently

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Theme	Unproductive Instructional/learning behaviors	Students are engaged, but RT strategies are absent	Behaviors demonstrating initial progress toward goal	Classroom behaviors demonstrating some progress toward achieving goal	Classroom activities demonstrating greatest progress toward achieving goal
Code	SNP-student silent/not paying attention	EN-student engaged	TUMS-teacher uses a metacognitive strategy	QG-student generates a question(s) with guidance	QI-student generates question(s) independently
Code	SCR-student called on to respond	CR-student/teacher is a classroom reader	TMMS-teacher models a metacognitive strategy	CG-student clarifies information with guidance	CI-student clarifies information independently
Code	NPRA-no pre-reading activity	GR-student is a group reader	RU/MS-researcher uses/models strategy	PG-student makes prediction (s)with guidance	PI-student makes prediction(s) independently
			CLO-teacher uses closure	ENRTG-students are engaged in a RT activity under guidance	ENRTI-students are engaged in a RT activity independently

In this manner, after the intervention was introduced, I continued to record classroom activities as student-participants and teacher-participants were engaged with RT strategies. During any observation, ELLs or non-participating students in the learning environment might have been observed being off-task and talking or being silent and paying attention multiple times. However, these instances were not counted. Instead, if a non-participating student(s) was observed once or five times as silent but paying attention, or if a non-participating student(s) was observed talking and off-task ten times during an observation, the code SP or TOT was recorded only once under classroom environment (see Appendix F). Each ELL could receive any code-but only once. For example, an ELL might have been observed as silent but not paying attention (SNP) three times during the same lesson, but I recorded the code once under the participating-student's information (see Appendix F). On the other hand, if three non-participating students

were seen talking/off-task, I recorded the code TOT once under the learning environment section (see Appendix F). I coded classroom observations to determine students' progress toward the goal. I also met with teachers and gathered artifacts of students' work to inform and guide adaptations to the intervention..

One code, EN-students are engaged, was used when students were engaged in some activity in class. Later EN was further qualified to include engaged in RT strategies under guidance (ENRTG) or independently (ENRTI). All codes are described fully (see Appendix G).

Initially my primary role was to be an observer. "Observational techniques…make it possible to record behavior and events as they occur" and "observational techniques also enhance the observer's ability to understand complex situations" (Guba & Lincoln, 1981, p. 192). However, in classroom B, I became a participant/observer more often than in classroom A, in a manner decided on through collaboration with the classroom teachers. Ms. Blumenthal asked for more support than Ms. Alvarado, which might be a result of her position as essentially a first year teacher. As a participant-observer, I would often participate in classroom activities to support the needs of the teacher and three student-participants in classroom B. I was a participant once in classroom A. When this occurred, I recorded field notes immediately after leaving the class.

Teacher-participants' interviews. With teacher permission, I tried to audiotape some of the teacher/researcher interviews and/or de-briefing sessions, but the technology failed to work properly. Instead, I typed the interviews (see Appendix E) as they took place, adding to them after the interview, with the permission of both teachers. Analysis of the content provided salient details, especially of teachers' beliefs about student-led RT discussions, which led to adaptations to the intervention.

I intended to ask the same interview questions of both teacher-participants during each of the three interviews (see Appendix E), but Ms. Alvarado would often talk about her personal life, her previous teaching experiences, and her frustration with the certification process between states. This also occurred during de-briefing sessions, and it was difficult to keep the conversation directed toward the intervention.

Researcher reflexivity. Researcher reflexivity is the practice of a researcher recognizing biases and presenting them to the reader (Cresswell & Miller, 2000). During the course of this study, my collaboration with Ms. Alvarado was quite different than my collaboration with Ms. Blumenthal.

The differences in the collaboration are described more fully in chapter 4; but the difference between my relationships with the two teacher-participants may have led to biases on my part when recording classroom activities. When reviewing my researcher reflections, I began to notice my own bias when reflecting on activities that went on in classroom A:

> I am a bit frustrated by this classroom. Ms. Alvarado rarely used the RT strategies. I think she believes that some of the strategies that she uses work just as well. For example, today she asked kids to write down a question that they had about WWII or to write down something that they already know, or think that they know, about WWII. Neither of these things is a RT strategy. Although she is asking students to generate questions, she is not asking them to generate questions about text that they just read (January 31, 2011).

As opposed to my reflections in classroom B:

> Ms. Blumenthal had a lot of questions about how the intervention would work. She wanted to know whether students would write their summaries or just tell them aloud, and I said that was something we could work out. She also asked about how the reading-

wanting to continue the reading as she was doing it. I agreed to that, but I said that I would like to pause much more often and have students use the RT strategies. She seemed fine with that (November 18, 2010).

I was aware of the difference in the collaboration between myself and the teacher-participants, but I still tried to record events as they occurred in the classroom. However, this bias toward classroom A and Ms. Alvarado may have had a negative effect on my observational field notes. I recognized this after the fact, and I must be clear that this bias may have influenced my decision making and recording of observations differently in the two classrooms.

Researcher reflexivity, triangulation of data, inter-rater reliability and engagement in the field were all utilized in this study. My data coding and data analyses were available for the classroom teachers to read over, but neither teacher was did so. However, during debriefing sessions and/or interviews, I discussed and asked the teachers to describe changes they saw in the classroom. In classroom B, Ms. Blumenthal described in the mid-point interview what I had seen and recorded in my field notes:

Elizabeth: "What are your thoughts about what I am doing in the classroom?"

Ms. Blumenthal: "I think that the strategies are great. I think it's good for me to slow down and try and help them [students] get it little by little…instead of them being on our level and learning at our level. I think little by little for each section is better" (January 7, 2011).

Researcher reflections. After each classroom observation, I recorded my response to classroom activities. Many of my reflections highlight my sense of urgency in moving toward the pedagogical goal. My reflections were a reminder of the difference between my desires for the study as a researcher and the reality of classroom instruction:

I observed both teachers today, back-to-back. Mrs. Blumenthal's class was a little

smoother today, but still mostly reading aloud with a student "clicking" to select the next

reader. The lesson was quite short because the guidance counselor had a scheduled visit

to meet with the class and Mrs. Blumenthal had forgotten about it. After that, the time

was reserved for Zest-quest (November 11, 2010).

Student-participants' artifacts. Students did not write summaries, predictions,

clarifications, and/or teacher-like questions every lesson. In fact, the amount of content covered

in each lesson made it difficult for students to write. During the initial intervention and two

subsequent adaptations, students were asked to write summaries and teacher-like questions to

determine if progress toward the goal was being achieved. Each summary was analyzed to

determine if students' were more aware of the strategy and were using the strategy more

effectively (see Figures 4.5 & 4.6).

To determine if students' artifacts demonstrated progress toward the goal, I devised a

rubric to rate students' summaries and questions; results are described in Chapter 4:

Figure 3.3 Summarizing and Question-generation Rubric

Rubric	1-weak	2-average	3-above average	4-strong
Student summaries	Summary contains unimportant information.	Summary contains one or two important details.	Summary contains three or more important details created with support.	Summary contains three or more important details generated independently.
Students' question-generation	Question can be answered with yes/no.	Questions are fact-based (literal).	Questions require inferencing created with support.	Questions require inferencing created independently.

All of the reflections, interviews, de-briefing sessions, observations, and researcher

reflective journal entries (described above, below, and in Chapters 4 & 5), were used as

ethnographic data, i.e., information gathered in the context of the naturalistic setting of the classroom. Data analysis and students' artifacts were sources of information used to determine students' progress toward the goal.

Summary

This study was undertaken to increase ELLs' awareness and use of metacognitive strategies through RT in a social studies classroom with the hopes that it would support/enhance students' understanding of expository texts. I collected data during the first five phases of the study to assess how well the intervention was able to support the needs of the ELLs, as well as to determine if there were any changes to the classrooms, classroom instruction, or students' behaviors during the course of the intervention. One unexpected theme emerged as a result of the qualitative data collection, which was used to make a final iteration to the intervention. Consolidation and dissemination of findings, the final phase in a formative experiment, are discussed in chapter four.

CHAPTER 4

RESULTS

To understand the transformations that took place in the participating classroom environments, it is important to have a clear picture of how the student and teacher participants involved in this research acted prior to, during, and after the intervention. In this study, a variety of factors led to two very different outcomes in the two participating teachers' classrooms. Disseminating the data clearly (e.g., Anfara et al., 2002; Creswell, 2008; Cresswell & Miller, 2000; Guba & Lincoln, 1981; Strauss, 1987) will allow readers to understand how progress toward the goal was achieved more fully in one classroom than the other. Likewise, salient details about all participants may guide future decisions in similar studies. The details described in this chapter come from interviews, field notes, researcher/teacher de-briefings, and surveys; and together, the data guided the study toward achieving the goal set prior to the introduction of the intervention.

November 30, 2010

Pre-Interview with Mercedes:

Elizabeth: "When you are home, do you speak mostly Spanish, mostly English, or both languages equally?

Mercedes: "Both language…with my sister…I talk English…with my mom a little English because she don't know much…with the little one I talk to her in English, but she just makes up words."

Elizabeth: "Does she make them up in English or Spanish?"

Mercedes: "In English…she's two…yes."

Elizabeth: "Does your mom want you to speak English or Spanish?"

Mercedes: "She wants me to speak English and teach her English, too."

Pre-Interview with Gabriel:

Elizabeth: "When you are home, do you speak mostly Spanish, mostly English, or both languages equally?"

Gabriel: "About the same."

Elizabeth: "What about your parents?"

Gabriel: "They always speak Spanish."

Elizabeth: "When you talk to them in English…do they understand and just respond in Spanish?"

Gabriel: "Sometimes they understand and sometimes they don't."

Elizabeth: "Do they want you to speak English?"

Gabriel: "Actually, they want me to speak in Spanish."

The difference between the two interviews was surprising and revealed the complexities of research involving English language learners (ELLs). Mercedes, a very quiet student in the classroom, opened up after the semi-structured interview and spoke at length, in English that I considered to be developing, about her mother, her sisters, and herself. She spoke with a slight accent. She told me that she liked to draw, run, and play; and she had enjoyed a family trip to visit relatives in a neighboring state. She expressed a strong interest in riding a horse. Gabriel, on the other hand, who usually participated in class, was just as gregarious during the interview. Gabriel did not have much of an accent, and his English proficiency was much better than Mercedes, based on personal observation.

What was most surprising about the two interviews was the students' comments about their parents views on the Spanish and English languages. A third student, Marcos, told me that although he would rather read in Spanish, his parents wanted him to read in English. At the time of the interview, he was reading *The Lightening Thief* (Riordan, 2008). Marcos expressed a desire to have the book available in Spanish because it was difficult for him to read it in English; but he said that his parents wanted him to read it in English.

After conducting interviews with the student participants prior to the start of the study, I was determined to try and conduct an investigation that would benefit the four ELLs in two inclusive fifth grade classrooms. I described the findings, implications, unanticipated outcomes, limitations, and suggestions for future studies in the following pages.

Overview

The purpose of this formative experiment (Reinking & Bradley, 2008) was to determine how best to implement reciprocal teaching (RT) (Palincsar & Brown, 1984) in a fifth-grade, social studies classroom to increase ELLs' awareness and use of metacognitive strategies. The focus of this intervention was explicitly teaching students RT strategies, and then moving them from a guided/modeled approach to independent use of the strategies. Post assessment, Phase 5 in Reinking & Bradley's framework, will be discussed in this chapter; and Phase 6, dissemination of findings, will be discussed in Chapter 5. To understand how the intervention affected classroom instruction, students, and teachers, as well as the overall classroom environment, questions three and four from Reinking and Bradley's (2008) framework, presented in Chapter 3, will be discussed. The answers to these two questions may help readers understand how advancements toward achieving the pedagogical goal of this study were accomplished:

3. What aspects involved in introducing the intervention into the classroom might enhance or diminish achievement of the goal?

4. What modifications can be made to the intervention to make it more appealing to the teacher and students involved, thus achieving the pedagogical goal more effectively?

Findings

Quantitative Data

Student-participants' RSQ Surveys. A Comparison of the four ELLs' Reading Strategies Questionnaire (RSQ) (Padrón & Waxman, 1988) surveys (see Appendix H) demonstrated the differences between their thought processes. Taking into account student-participants' ELDA scores (see Figure 3.1), it is reasonable to assume that students with less English proficiency might rely on strategies that may not be conducive to aiding comprehension. For example, on statement twelve "I try to tell the story in my own words," José replied never, while Mercedes and Marcos selected always, and Gabriel said sometimes. Interestingly, José has the lowest level of English proficiency, of the available data; and telling the story in your own words is positively associated with students' comprehension (e.g., Franco-Fuenmayor et al., 2008; Knight, 1987; Morrow, 1985).

Table 4.1 Reading Strategies Questionnaire (Padrón & Waxman, 1988) Pre-Survey results

RSQ Statement	Mercedes	José	Gabriel	Marcos
1. I read the story over again upon completion of the first reading.	Sometimes	Sometimes	Sometimes	Sometimes
2. I underline the important parts of the story.	Always	Sometimes	Sometimes	Sometimes
3. I ask a friend for help if I don't understand.	Sometimes	Always	Never	Never
4. I keep a picture of the story in my mind.	Sometimes	Always	Always	Always
5. I remember the interesting parts and skip others.	Never	Sometimes	Sometimes	Sometimes

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RSQ Statement	Mercedes	José	Gabriel	Marcos
6. I check through the story to see if I remember all of it.	Sometimes	Sometimes	Sometimes	Sometimes
7. I look up a word I don't know in the dictionary.	Sometimes	Sometimes	Sometimes	Always
8. I ask questions about parts of the story that I don't understand.	Sometimes	Sometimes	Sometimes	Sometimes
9. I look for things that are different in the story.	Sometimes	Never	Never	Never
10. I imagine the story like a movie in my head.	Sometimes	Sometimes	Always	Always
11. I think about what I am reading.	Sometimes	Sometimes	Always	Always
12. I try to tell the story in my own words.	Always	Never	Sometimes	Always
13. I read the story as fast as I can.	Never	Sometimes	Never	Never
14. I ask myself questions about the story.	Sometimes	Always	Sometimes	Sometimes
15. I say the main ideas over and over.	Never	Sometimes	Sometimes	Never
16. I think about what's going to happen next in the story.	Sometimes	Never	Always	Always
17. I say the words in the story over and over again.	Sometimes	Never	Never	Sometimes
18. I think of something that has happened to me which is similar to the story.	Sometimes	Sometimes	Never	Sometimes
19. I read slowly and carefully.	Always	Sometimes	Always	Always
20. I skip the parts of the story that I don't understand.	Never	Sometimes	Sometimes	Never

Results demonstrated the variability in the students' use of comprehension monitoring strategies. Pre and post survey results were charted for each student-participant (see Appendix H), with a selection of never=1, sometimes=2, and always=3. When the pre and post-survey data were averaged, a clearer picture emerged (see Figure 4.1). Students' with good comprehension monitoring strategies might have selected sometimes or always for statements two, four, six, eight, ten, twelve, fourteen, sixteen and eighteen. As can be seen in different data presentations (see Appendix H), the lack of uniformity in student-participants' choices demonstrated a lack of awareness of strategies that may increase comprehension.

When the quantitative data are compared to the participating students' ELDA scores and qualitative data, it becomes less clear how students' English proficiency levels are associated, if at all, with their RSQ choices. Mercedes and José had similar EDLA scores, yet their selections

Figure 4.1 Averaged pre and post RSQ Surveys
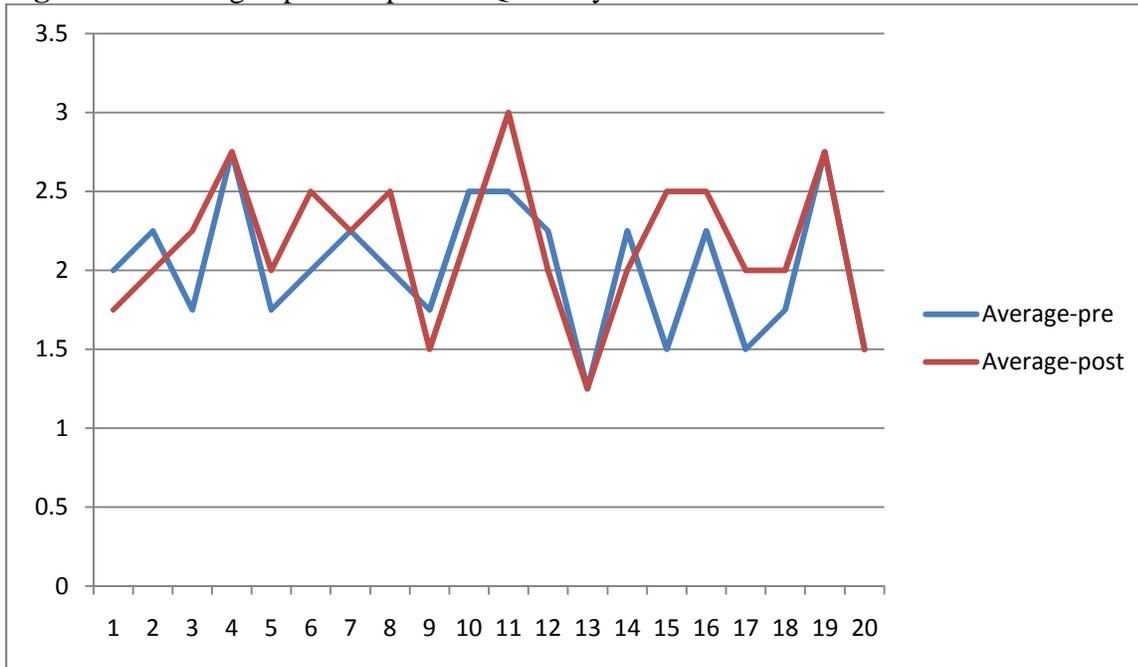
on the RSQ were the same on only seven of the twenty statements in the pre-survey (see Appendix H). When looking at student-participants' pre and post surveys, some of their responses changed adversely. For example, on question ten in the pre-survey, Gabriel responded that he always pictured the text like a picture; on the post-survey, he responded that he never pictured the story.

The averages, pre and post (see Figure 4.1), demonstrated the variability in the data collected. The paired t-test for student-participants was not statistically significant. There is limited information on the reliability and validity of the survey instrument, and for that reason, this limits the confidence in the findings. In fact, when I gave the post-test, students asked for clarifications of the statements. Mercedes wrote clarifications for why she selected specific items

directly on the paper. For example, the statement "I say the main ideas over and over," Mercedes selected always; but she wrote on the paper, "Until I learn them, and then I don't." She gave the same clarification to the statement "I say the words in the story over and over." This reflects her vocabulary knowledge. Mercedes is still struggling to acquire English proficiency, and by repeating words and main ideas, Mercedes is using a memorization strategy to help her recall word meanings and main ideas.

Qualitative Data

After observational data of normal classroom practices were collected, and the first weeks of the intervention had begun (Chapter 3), data analysis (Strauss, 1987; Miles & Huberman, 1984) was used, along with teacher-researcher collaboration, to guide the intervention.

If students were silent/inattentive (SNP) or silent/paying attention (SP), this was unproductive behavior, and students were not making progress toward the goal because they were not actively engaged in the learning environment in a collaborative fashion with a more knowledgeable other while using RT strategies. However, if teachers were using and modeling RT strategies, this was initial progress toward the goal. If students were using RT strategies under-guided instruction, this was some progress toward the goal. And if students were using strategies independently, this was the greatest progress toward the goal. The codes for showing modeling of the strategy by a teacher or researcher included TUMS, TMMS, RUMS; codes for students beginning to use strategies under guidance were STG, QG, PG, and CG; codes for students using strategies independently were STI, QI, PI, and CI (see Appendix G for a complete explanation of codes). These codes were placed in the spreadsheet (see Figure 3.2).

The codes, when put into a chart (see Appendix F), give the reader a snapshot of student-participants' and teacher-participants' behavior in the classroom. The coding and analysis of qualitative data guided the study, as described in the next section, to an eventful conclusion: nearing successful attainment of the goal in classroom B and partial achievement of the goal in classroom A. This was decided based on codes that demonstrated students' increased awareness and use of RT strategies (see Appendix F), as well as improvement in writing summaries (see Figure 4.2) and generating questions (see Figure 4.3) based on the corresponding rubric (see Figure 3.3). However, the coding also demonstrated an unanticipated picture of the ELLs' silence in the classroom. Prior to the introduction of the intervention in classroom B, the three ELLs were silent amidst a classroom of chaos; but after the intervention was introduced and modified, these three students found their voices and began to participate in classroom discussions. However, each student identified when and how they felt most comfortable engaging in RT strategies with their peers as demonstrated in their post-interviews (see Chapter 5). Based on data analysis, two generalizations of classroom instruction emerged: when RT was in place, students were engaged in RT activities that increased their time spent talking about content area material; when RT was not in place, non-participating students were often off task, while ELLs remained silent. This theme of silence emerged as the study progressed.

One interesting detail that emerged in the coding of the data was the lack of students' engagement in RT activities between each adaptation of the intervention. On the days when the intervention was introduced and/or adapted, students' engagement in activities and their awareness and use of the RT strategies was high. When the teachers were left on their own to continue to use the strategies, use of RT strategies dropped (see Appendix F). This finding will be addressed in Chapter 5.

Reciprocal Teaching Intervention and Progress Toward the Goal

Four weeks were spent collecting baseline qualitative and quantitative data. During the fifth week, the researcher introduced RT into classroom B, with the classroom teacher assisting and becoming more engaged toward the end of the lesson (see Chapter 3). During the sixth week, RT was introduced to classroom A. Ms. Alvarado was responsible for all content instruction, and I interjected two strategies, making predictions and summarizing, at several points during the lesson. Over the next seven weeks, the intervention was adapted twice in both classrooms.

Excerpts from my field notes are included in the following pages to demonstrate the growth in students' awareness and use of the strategies, and the struggles involved in explicitly teaching the strategies while covering content material. There were differences between the two classrooms, with classroom B moving gradually toward successful attainment of the goal. Classroom A did not attain the desired goal, even though attempts were made to adapt the intervention to successfully fit in with the teacher's instructional style.

The months of intervention, adaptations, and alterations brought about unanticipated changes to my approach when working with the two teacher-participants. There were also unanticipated student-participants' responses to the intervention (see Chapter 5). It became clear that the effectiveness of RT would increase with a teacher's familiarization and clear understanding of the purpose of the strategies. However, it also became apparent that the two teacher-participants' beliefs about their instructional approaches played a role in the implementation of the intervention, as discussed later in this chapter.

After the introduction of the two strategies, I observed the two classrooms, allowing the teachers and students to work with two strategies before introducing the next two strategies. Ms. Alvarado and Ms. Blumenthal both incorporated the strategies, but Ms. Alvarado did more of the

summarizing for her students. Over the course of the study, several summaries were collected

and recorded to demonstrate growth over time (see Figure 4.2). The students' summaries are

recorded exactly as they were written, including grammatical errors.

Figure 4.2 Students' Summaries of Social Studies Content Material

Student/Date	Mercedes (B)	José (B)	Gabriel (B)	Marcos (A)
Chapter 7-Lesson 1 summaries December 10~B December 13th~A	"Henry Ford invented the model T car, and as a result, better roads, many jobs and travel came about." **(3)** "Movie goer often copied the hairstyles and clothes of movie stars the movies necame popular" **(2)** The radio was sold a lot it can let sjip talk to ships it was popular programs everyone wants on to lisen to pograms" **(3)**	"The people did not get enough money" **(2)** "They had many sonis (?) and it was in California holliwood because it was warm." **(1)**	"Henry Ford invented the model T car, and as a result, better roads, many jobs and travel came about." **(3)** "Liked to hear adventures, comedies, dramas, more," (The second statement related to radios.) **(2)**	"Henry Ford build the first car that was the model t" **(2)***with help** "They do more jobs like opened hotels, gas station and restaurants." **(2)**
January 3rd- summaries from the day I was not present but strategies were used.	Chapter 1: "Lots of people are buying on credit to buy houses, furniture and appliances. A lot of people started moving to Miami and hope to get rich. Chapter 3: "The jazz became popular. The became new on	Chapter 1: "WWI had ended in 1918 and people had ready to have fun." Chapter 3: "In 1927 movies became talkies and actors could be herd and music. Many people were doing a dance calle	Chapter1: "People hoped to get rich buying land cheap and selling it for a high price (verbatim from text). Many who moved to Miami paid their house over time." Chapter 3: "People listened to jazz records. The	Chapter 1: "Many people go to Miami. They do more construction." Chapter 2: "Peter got another job. They had friends."

Student/Date	Mercedes (B)	José (B)	Gabriel (B)	Marcos (A)
	the radios." Chapter 4: "They were scared and the though they were going to die (the hurricane). Most people lost their home." Chapter 5: "People are travelling to Miami because they were scaird. People start making Miami nice again." **(3)**	Charlestone." Chapter 4: "Not a lot of people think that a hurricane was coming. There was a lot of stuff damaged." Chapter5: "A lot of people need to replace the homes." **(3)**	Conners worked and went to dances and listened to jazz." Chapter 4: "Winds of more than 125 miles-per hour struck an area that was largely unprepared. Parts of downtown were flooded." Chapter 5: "Tourists stayed away from Miami and Miami beach after the hurricane. The Conner family, like others, repaired their home." **(3)**	
January 18th/21st This is the students' reaction to the Langston Hughes poem titled "Democracy." These are the stanzas or words the students' starred… In classroom B, students were also asked to write down any words the poem made them think of…or just thoughts/ideas.	"Freedom is a strong seed Planted In a great need." Mercedes really struggled with writing down thoughts. She wrote: "cilvilway" and "freedom" She spent about 5 minutes wrting down several words and erasing each one…I could not see what she was writing. **(1)**	Circled the whole poem as being important. José didn't write down anything but his name in LARGE letters and part of a phone number. **(1)**	"I tire so of hearing people say, Let things take their course. Tomorrow is another day. I do not need my freedom when I'm dead. I cannot live on tomorrow's bread." Miguel wrote: "describing bad stuff when people die." **(2)**	"I live here, too. I want freedom Just as you." Marcos only copied down the line from the poem. **(1)**
January 18th Classroom A Summary from supplemental book.				"Celebrity, radio and movies became popular in the 1920s." **(2)**

Student/Date	Mercedes (B)	José (B)	Gabriel (B)	Marcos (A)
January 21st SI Students' summaries from group work on after reading on their own from the social studies book.	"Children were suppose to help the family now so children quick [quit] school" **(2)**	"Kids would quit school to help there familly get a job." "No money" **(2)**	"Many people from the U.S. graduating from high school and college could not find a job." **(2)**	Not available.
February 7th/8th 2011 Independent jigsaw lesson-students took on responsibility for their section of text. They had to summarize important facts and generate teacher-like questions to ask the class after they were done presenting the information to their peers.	1. About 125,000 (she highlighted this number to use for the answer to the questions later) japanes Americans lived in the United States many of them lived in the west coast and were first to live in relocation camps after the attack of Pearl harbor. 2. Even though 110,000 (also highlighted) Japanese Americans lived in the relocation camps they still wanted to serve the country. **(4)**	1. About 125,000 Japanese Americans lived in the U.S. in 1941. 2. Japanes were forst to leave there homes 3. it febury 1942 prestent Roseldvel signd Executive oder 9066. **(4)**	Do your part p. 351 1. They had scrap drives. 2. The goverment gave ration stamps to families every month. 3. Another way Americans were able to help the war was by planting victory gardens. 4. A lot of people who had never grown food before they planted victory gardens. **(4)**	Marcos did not record any information. **(1)**

I used the rubric (see Figure 3.3) to determine if students' summaries had improved over the course of the study. It is clear that Mercedes' summaries, based on the devised rubric, had a lot of variability. However, during the jigsaw, the second adaptation to the intervention on February 7, 2011, Mercedes' summaries were the strongest and she received the least amount of support. In fact, all three ELLs' summaries in classroom B received the highest score on the day

they worked with their peers during the second adaptation to the intervention. It was during this time that they prepared summaries for their classmates who would not be reading their particular section.

Changes to the Intervention

The intervention continued in the same fashion for the rest of December (Chapter 3), with the strategies being used during whole group instruction. After Christmas break, I met with both teachers to talk about students' progress. Both teachers were pleased with students' progress. During that time, I explained again that the ultimate goal of RT was to move students towards using the strategies independently. A discussion of how that might occur ensued. Both teachers still felt strongly about having students read aloud in a whole class fashion, so a compromise was reached. Students in classroom B would read aloud for all of the sections except the last; and then, students would work in small groups in a limited fashion. I had to respect both teachers' preferential teaching approach. So, after considering their opinions and how to move students closer to the goal, it was decided that students in classroom B would work for a portion of the allotted time in small groups with peers using the strategies, along with support from the teacher and the researcher. During the second interview with Ms. Blumenthal, she demonstrated a positive response to this idea:

Elizabeth: "Do you think students would be able to do this on their own in groups?"

Ms. Blumenthal: "Yes; some groups would do a lot better than others."

Elizabeth: "So, would you want to put them in groups specifically?"

Ms. Blumenthal: "That backfires on me; but when I let them choose, then some ask to work on their own."

Elizabeth: "What if I told the students that they would work in groups?"

Ms. Blumenthal: "That might work; but there are some that I cannot separate, no matter how hard I try."

Elizabeth: "Do you think it would be beneficial to allow students to work together on summaries and questions?"

Ms. Blumenthal: "Yes…that's okay" (January 7, 2011).

Often, Ms. Blumenthal seemed overwhelmed keeping classroom management on a positive note. In classroom A, Ms. Alvarado wanted to allow students to work in groups during the lesson, but she still insisted that each group would read the whole supplemental text. I thought that would be difficult, but I agreed to this since she was willing to allow small groups. A compromise was reached that we both agreed on, and the adaptation was determined to be one that might move students closer to the goal. When I interviewed Ms. Alvarado, the conversation was slightly different:

Elizabeth: "What are your thoughts about what I am doing in the classroom?"

Ms. Alvarado: "I don't know…it's nice to get….reaffirm what I am doing, and nice to get ideas from someone who is in school reading the research."

Elizabeth: "Are these strategies that you are already using?"

Ms. Alvarado: "Yes….for the most part, yes, because I have a lot of ESOL training."

Elizabeth: "Do you think this intervention is useful?"

Ms. Alvarado: "Yes."

Elizabeth: "Would you change anything about what I am doing?"

Ms. Alvarado: "No…and Marcos has all As and Bs…that is excellent for a student who just moved last year" (January 7, 2011).

First adaptation: Classroom B. On January 21, 2011, a slight modification was made to the intervention to try and move students closer to the goal. Ms. Blumenthal and I had agreed that it would be a gradual change. The computer-style, round robin reading was used for reading the first four sections of the chapter, but for the last section, students were grouped and asked to read silently and then come up with summaries and questions as a group. The following field notes captured the results:

> For the last page in the social studies book, students worked in groups of four and read the page silently. Then they wrote down some important words or information from the page and came up with a summary. This page was about surviving the great depression, so the content was more familiar: school closings, and families needing students to help with work instead of going to school. Groups then shared their summaries.
>
> Students worked hard and wanted to know if they could come up with more than one summary…and I said absolutely! Mercedes and Gabriel worked in one group with two African American males, and José worked in a different group with two White males and one White female. I did not place them in these groups…it was a grouping based on classroom seating assignment. This enabled students to remain in the area they were already in (January 21, 2011).

First adaptation: Classroom A. For the first adaptation of the intervention, working in small groups, Ms. Alvarado asked if I would teach the lesson. I agreed, and my observational notes demonstrated the students' difficulties working collaboratively. This is the lesson as I recorded it immediately after I left the classroom:

> I arrived in Ms. Alvarado's class and the students were ready to go with their books and paper out! I told students that today they were going to write questions from the factual

information as if they were the teacher. There were five chapters (in supplementary readers) with about one page of content in each chapter. I told students that they were going to write five questions-one for each chapter-in groups of four.

I explained that students could work together and separately, so that while two students worked on a question for chapter two, the other two students could work on a question for chapter three. I stressed that each group only had to have five questions.

This was a struggle, and even within groups, several students were covering their questions and unwilling to work collaboratively. I let students work, encouraging collaborative learning. I walked around helping several groups with questions before going to Marcos's group. I had already modeled several questions from content previously covered. I told students that the answer could not be a yes or no answer. I also said that they had to be able to answer the question.

After groups were ready, I called on volunteers to read a question that their group had written. Marcos raised his hand. The question he wrote was 'Why was Miami considered the 'gateway' to Latin America?" He had used the word gateway because it was in the book…but I had explained what the term meant for several minutes in his group. With limited time, it is difficult to use more than two strategies in any given lesson simply because of the amount of content that needs to be covered (January 21, 2011).

The difference between the two lessons is difficult to explain. The adaptation to the intervention occurred on the same day in both classes, and my reflective journal captured my thoughts about how the initial change to the intervention went:

Although classroom A is easier to teach in, classroom B has a group of students who are more willing to take chances to get things wrong, or to think critically, even if it's not what the teacher might want for an answer.

I wish there were more opportunities. With the time spent watching videos, going to enrichment labs, testing, quizzing, projects, and reviewing, I feel like there is little time left for actually teaching and having students use the strategies. If the strategies were internalized by the students, review sessions might be shorter (January 21, 2011).

When comparing students' use of RT strategies (see Appendix F), the codes demonstrate that students were increasing their use of strategies after the introduction of the intervention. However, students were using the strategies specifically because they were being asked to use them. When either Ms. Alvarado or Ms. Blumenthal slipped back into instructional practices they utilized prior to the intervention, students no longer used the strategies; or, there was no record of them using the strategy based on observation of round robin reading in classroom B, or the teacher selected round robin reading in classroom A.

Nonetheless, students were becoming aware of the strategies, more so in classroom B than A (see Appendix F), demonstrating progress toward the established pedagogical goal. It is not clear if students knew the purpose of the strategies, but their increased awareness and use of the strategies occurred in the final alteration of the intervention. In the third de-briefing session, the teachers and I spoke of the goal, and that included a greater use of the strategies on the part of the students. The RT literature they had been given described a release of responsibility from teachers to students. In this de-briefing, both teachers were more willing to be flexible in their requirement of students reading the entire lesson aloud. I am not sure if this was because they were more comfortable with my presence in the classroom, or if they had seen that small group

use of RT strategies was an effective intervention. Both teachers were pleased with the progress students had made, and possibly they were willing to allow students to take on more of the responsibility of content learning via RT strategies. To this point, students were using the RT strategies, but largely with guided support at the request of the teacher.

During the debriefing session, it was determined that a jigsaw (Slavin, 1984a; Slavin, 1984b) approach to the lesson would not only allow students to use RT strategies to create summaries and questions, but it would also allow students to take on a greater responsibility as they would then teach their portion of material to their peers and ask questions. In this fashion, it was decided that a jigsaw strategy might move students closer to the goal. This study was not investigating the effects of the intervention on students' comprehension. However, both teachers wondered if the strategies were aiding in students' understanding of the material.

Second adaptation: Classroom B. The first alteration to the intervention continued for about two weeks. There was still support and modeling of the strategies by the teachers, but as before, teachers often dropped off in their use of the RT strategies unless I prompted during instruction or prior to the lesson. In the de-briefing session, I had explained how the jigsaw method worked, and Ms. Blumenthal set up the groups, gave all instructions, and assisted the students as needed. This jigsaw lesson, with RT strategies embedded into instruction, was a breakthrough for all students in class in moving them closer to the goal. My field notes for that day demonstrated the difficulties in the lesson, as well as progress toward the goal:

9:37

Ms. Blumenthal has written all the students' names on the white board with a number by them. Each number corresponds to the group that they will be working in. There is

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chatter in the room as students move to gather their books. She is going to do a jigsaw lesson with RT strategies embedded in the lesson.

Ms. Blumenthal: "Page 348…"

Ms. Blumenthal: "We are going to work in groups. The first thing I want you to do is read your section. Everyone can have a turn to read in the groups. The next thing you want to do is make a list of the most important facts because you are going to be the teacher. Then, after you have the facts, come up with some teacher questions."

Chatter!

Ms. Blumenthal: "Raise your hand if you don't understand what I mean by teacher-like questions…I mean if you were going to make the test, then what would you ask as the teacher from your section?"

Some chatter.

Ms. Blumenthal: "Okay…circle up with your groups."

Chatter and talking erupts!

Students are moving noisily (February 7, 2011).

The students in class began to work together in their groups, creating summaries and questions that demonstrated increased progress toward the pedagogical goal (see Figures 4.2 & 4.3).

Figure 4.3 Students' generated questions and associated rubric score (see Figure 3.3)

Student/Date	Mercedes (B)	José (B)	Gabriel (B)	Marcos (A)
Video-Questions January 5th	Did the people respect the laws? No (I think she is referring to prohibition) **(2)**	What did people buy with ther mony? They buy cars, favton (?) **(2)**	Absent	
January 21st Questions from				1. "What is the beach between

Student/Date	Mercedes (B)	José (B)	Gabriel (B)	Marcos (A)
supplemental text				Biscayne and the Atlantic ocean? (2) 2. "Why they call Miami beach the 'gateway to Latin America'?" **(3)** ***with help from me.**
February 7, 2011 Questions from the jigsaw activity	1. Wath happen to the Japenise American after Japan ataked Pearl habor? 2. About what number of Japnese Americans lived in there relocation camps. 3. About wath number of Japnese Americans lived in united states Mercedes misspelled what again in the third question. **(2)**	1. What happend to Japanese Americans after Japan attack peral harbor? Answer-Japanese Americans had to line up for meals at an internment camp in puyllup, Washington. **(2)**	1. How did the Americans help the war? 2. What does rationing mean? **(3)**	

While students worked in their groups, Ms. Blumenthal and I assisted students as needed to prepare for their group to present the information and ask questions in front of their peers. For the first time, cognates were spontaneously used to help with understanding as demonstrated by my field notes. This is also an instance of Mercedes using the clarification strategy independently to monitor her comprehension:

Mercedes asks me what relocation means. I explain that it is when people move from one

location to another. I can see that she is not quite sure of the definition. I ask Gabriel if he

knows the Spanish word for relocation. He says no, but that I should ask José. I went

back to ask José, who was working in the same group as Mercedes, and Mercedes

suddenly says *locación*!

Elizabeth: "Okay, they are almost the same word; so *relocación*…is that a word?"

Mercedes, "Yes" (February 7, 2011).

The group work continued. All three ELLs were engaged in the lesson and eager to

present to the class. However, when it came time to present their summaries and questions to the

class, problems erupted in the classroom. Initially, the presentations went perfectly, but as it got

closer to lunchtime, a bit of chaos erupted as evidenced by my field notes:

Ms. Blumenthal: "Okay, group five…your turn."

This is Mercedes' and José's group.

Ms. Blumenthal: "Hush…"

Students are chattering as the group prepares.

José: "About 125, 000 Japanese Americans lived in the US."

Mercedes begins to speak but I can't hear her.

Ms. Blumenthal: "Start over and speak up."

She goes again; hard to hear.

Group Member 3: "What happened to Japanese Americans after WWII began?"

José: "About how many people were interred in the concentration camp?"

Several students call out about a million; some say 125,000; finally one student gives the

correct answer. The group sits down; this group had more difficulty because the lesson

has gone on too long. It is now 10:50, just about lunch time, and there is one group left

(February 7, 2010).

Even though there were difficulties with the presentation, the class, as a whole, was more engaged in the learning process than at any other time during the previous three months. I was sure that Ms. Blumenthal would concur. However, when I went back that same day to de-brief with her, we had different perspectives on the lesson. One incident at the beginning of the lesson had changed her outlook on the jigsaw activity. The incident, which led to the vice-principal calling students to her office, was recorded in my field notes:

> One student starts screaming about something unrelated to the activity. Ms. Blumenthal asks him to leave the room and go next door to work alone. He does so defiantly, violently knocking over a desk on his way out! Students do not appear to be surprised by this behavior. This leaves Gabriel alone with one girl.
>
> The class quiets quickly, and Ms. Blumenthal redirects all the students, making sure they are in the right group. Students begin reading in their groups (February 7, 2011).

I had put the incident out of my mind, but the defiant student's demeanor had resulted in a trip to the vice-principal's office. Several other students were called in as well to give their statements about the incident. When I asked Ms. Blumenthal how she thought the lesson had gone, her response to me was about the incident. When I redirected her to the lesson, her response was not favorable, as evidenced by my reflection in the de-briefing journal:

> Elizabeth: "How do you think the lesson went today?"
>
> Ms. Blumenthal: "I just got back from the assistant principal's office telling her how it went down today; and, she also interviewed other students because J____ won't tell her the truth. He didn't even tell her that he knocked a desk over."
>
> Elizabeth: "What about the lesson?"

Ms. Blumenthal: "I think that with this class, it's really hard. I feel like I need to maintain control. Maybe with another class, and after I have this whole thing down a little better."

Elizabeth: "Do you think the kids learned more or less, or about the same, as they would have if you'd done it the regular way?"

Ms. Blumenthal: "More on their particular sections, less on the other sections…so about the same. Can I say all of the above?" (February 7, 2011)

I was disappointed that she didn't see the lesson as a success. I told her that I thought the lesson had gone well, except for the initial disruption. I wanted to give her time to think about the lesson, but when I arrived the next day, I was surprised to see the defiant student's mother sitting beside him in the classroom. The boy's mother stated that she would be a guest in the classroom as long as she needed to be, to help her son behave in school. It was at this point that I decided that the behavioral management difficulties within the class were impeding the progress in this study.

Second adaptation: Classroom A. Ms. Alvarado was familiar with the jigsaw method (Slavin, 1984a; 1984b), or the readings being split between groups of students to then teach to peers, and we agreed to incorporate RT strategies into instruction while using the jigsaw method. The lesson did not go quite the way I was expecting it to, as demonstrated by my field notes:

9:47

Ms. Alvarado is reviewing some material…sequencing the events from Hitler, through the bombing of Pearl Harbor. She is mainly talking and asking students if that is correct…the information she is presenting. They all respond yes.

Ms. Alvarado is now explaining that she has four supplementary social studies texts: *The Homefront!, We're in this Together: We Can Do It!* , and one other book. She asks

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students to predict what the books might be about based on the title and covers of the book. A few students are called on to respond.

She tells students that they will be divided up into six groups of four. Each person will have a book.

Ms. Alvarado: "Today, you will discuss the material with your group; you will need paper and pencil. Today you will read 2 through 7, and I want you to look for interesting topics…look for the 5 Ws…what are the 5Ws?"

Ss: "What are they… who, what, when, where, and why." The class recites together.

Ms. Alvarado: "Also, see if you can find interesting information. In the groups…everyone participates. If you are not participating, you will be pulled into a group with me. So, to stay with your group, participate, write down interesting facts and be able to tell your group why you think that's important, and they should be able to do the same. There are five topics…so you should have topics of notes with the 5 Ws…and be able to do what?"

S1: "Memorize them!"

Ms. Alvarado: "No…what? Include them as interesting facts. I'll let you move around, but you need to be working."

Marcos sits quietly. He has not moved from his desk, but he takes out pencil and paper. He goes to sharpen his pencil. Many students are moving around the room. There is some chatter.

S1: "We can do it! We can do it!"

S2: "Ms. Alvarado, can I be in your group?"

Ms. Alvarado: "No."

S3: "What pages do we read?"

Marcos is still at his seat. Two students join him. They are all silent. There is one African American male and two White females (February 8, 2011).

The lesson continued, but mostly, the group Marcos was working in read alone, worked alone, and spent little if any time talking. This atmosphere of silence continued to prevail in Ms. Alvarado's classroom for Marcos, while in classroom B, the more opportunities the ELLs had to participate in using RT strategies, the more instances of participating in talking about content were afforded to them (see Appendix F).

Although Ms. Alvarado had explained the jigsaw method beautifully, the lesson was a disappointment. The students engaged in RT strategies, but there was not a collaborative effort on the part of many students. Marcos was silent for most of the lesson. This might have been due to his level of basic intercommunication skills and/or cognitive academic language proficiency. He had been in the United States for less than seven months. When Ms. Alvarado called all the students to return to their seats, I waited for each group to be called on to share their summaries and ask questions of the class. I was surprised because this did not occur. When all the students had returned to their seats, Ms. Alvarado asked, "Okay…who can tell me something interesting that you found out?" She called on a few students. Marcos had his hand raised and I recorded the following notes to capture his participation:

Marcos has his hand raised. He has not been called on yet.

Ms. Alvarado: "You have a comment?"

Marcos: "…." (I cannot hear him)

Ms. Alvarado: "Say that one more time."

Marcos: "…." (I still cannot hear him, but Ms. Alvarado has moved to within a foot of his desk)

Ms. Alvarado: "Okay, in WWII, women could be pilots. That was interesting."

She moves on. I find it interesting that this is the same thing Ms. Alvarado directed the group toward. It was a similar instance the day I taught. Marcos needs support, along with the assurance that what he is going to say will be right (February 8, 2011).

Overall, I had expected much more engagement by all the students in class. Marcos remained silent through most of the activity. It was quite a different picture than the lesson I had witnessed in classroom B on the preceding day (see Appendix I for a more complete description).

At the end of the activity in classroom B, all group members shared in the presentation of their summaries; and, all group members had the opportunity to ask and call on their peers for answers to the questions they had generated. In classroom A, Ms. Alvarado asked a few students to share something they had written down.

Evidence in Moving Toward the Pedagogical Goal

Quantitative data were inconclusive in determining if students moved toward achieving the pedagogical goal. Dependent t-tests on students' pre and post RSQ surveys were not statistically significant (see Appendix J) with $p > .05$. Questions contained in the RSQ that related directly to RT strategies being taught were items 12 (summary), 14 (question generation), and 16 (prediction). Interestingly, for item 12, Mercedes answered always on the pre-test and sometimes on the post-test, while her other responses did not change. Gabriel's responses for 12 and 14 were the same, while for item 16, he responded always on the pre-test and sometimes on the post-test. Marcos's responses remained constant pre and post-test. José's responses on two

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items changed. For item 14, José changed from sometimes to always pre and post, and for item 16, his pre-test response was never while his post-test response was always. Important, though, is José's response to 12. For both pre and post-test he responded never. This could be that he did not equate a summary with telling a story in his own words.

Despite the quantitative findings, the plethora of qualitative data collected point toward steady progress in reaching the goal in classroom B, with less progress toward achieving the goal in classroom A. One student-participant in classroom B, Gabriel, demonstrated growth in generating questions (see Figure 4.3) from expository text based on the corresponding rubric (see Figure 3.3). He had the highest level of English proficiency, and that might have been a factor. All three ELLs in classroom B demonstrated growth in creating summaries, as evidenced by the assigned scores (see Figure 4.2) utilizing the rubric (see Figure 3.3). The data are inconclusive for Marcos largely because he did not write as many summaries.

Summaries (see Figure 4.2) continued to grow in length; and although some of their written grammar skills were poor, their ideas were clear. The more opportunities the student-participants had to practice using the strategies, the more aware they became of the purpose of the strategies. Likewise, the more opportunities students had to use the strategies, the more proficient they became in generating questions and writing summaries. This demonstrated progress toward the pedagogical goal was a positive outcome reflected through the qualitative data (see Appendix F and Figures 4.5 & 4.6). Although predictions and clarifications were introduced, both classroom teachers gravitated toward strategies that focused on summarizing text and generating questions. Students were not asked to write predictions or clarifications.

Shortly after the second adaptation to the intervention had begun, WWII research projects

were started in the classrooms. These projects were scheduled to last three weeks, with research time spent in the library followed by class time to complete the components of the project.

For this reason as well as classroom management difficulties in classroom B, Ms. Blumenthal and I decided that it would be difficult to continue to have students work in small groups. Ms. Blumenthal had implemented a new classroom management strategy. This strategy, raising your hand and being called on, backfired largely due to students *policing* other students.

After the intervention had been introduced and adapted in both classrooms, students became more familiar with the strategies. However, students engaged in those activities as part of a whole or small group, as well as individually, when asked by the classroom teacher. It is not clear if students would have engaged in RT strategies independently largely because students were never given opportunities to read expository text independently. Both classroom teachers remained the guiding forces behind instruction and instructional decision-making, and as a result, students engaged in activities that the two classroom teachers believed were most beneficial to students' learning and academic achievement. Overall, limited progress toward the goal was achieved in classroom A, with slightly greater progress toward the goal was achieved in classroom B. There more instances of student-participants engaged in RT activities in classroom B than A. Moreover, unanticipated findings that have implications for future studies will be described further in chapter 5.

Factors Inhibiting Achievement of the Goal

The largest factors that inhibited the effectiveness of the intervention was the amount of content to be covered in each lesson, the overlapping time for science and social studies lessons, weather/holiday events, and scheduling conflicts. The strategies, once embedded into instruction, were difficult to maintain due to scheduling science and social studies in the same block, with

lab scheduled once a week during that time as well as field trips, testing, holiday breaks, research time for projects, science fair, and instructional time lost to snow days.

Teacher Factors

   Professional Development. Prior to the introduction of the intervention, I included elements that I felt were essential for the intervention to achieve the valued pedagogical goal. Professional development of the teacher-participants was not listed as one of the elements; but as the intervention progressed through several iterations, I realized that professional development might have been included as one of the elements. Without a clear understanding of the purpose of the strategies, as well as practice embedding the strategies within a content area lesson, it was difficult for the teacher-participants to make the necessary instructional changes without prompting from me during the lesson. Ms. Blumenthal did state that she did not think professional development would have enhanced the intervention. However, professional development in conjunction with the intervention might have given the teachers a better understanding of the intervention during de-briefing sessions.

   Likewise, if teachers had been encouraged during training that gradual release of responsibility to students was beneficial for students' learning (Pearson & Gallagher, 1983), perhaps students would have had more opportunities to practice using the strategies independently. If the two teacher-participants had read professional development literature and been to workshops, their understanding and knowledge of the intervention might have been better maintained without reminders and prompting from the researcher.

   I realized this after the second adaptation to the intervention. During our debriefing session, I asked Ms. Blumenthal if she felt the RT strategies were helping, and Ms. Blumenthal said "…after I have this whole thing down a little better" (February 7, 2011), it might be easier.

This statement was made a little more than two months after the intervention was first introduced into the classroom. It was too difficult for teachers to learn the strategies while teaching them explicitly alongside the content material.

Teacher's Instructional Style. Ms. Alvarado was a very confident teacher who utilized a number of strategies effectively in her classroom. I believe her strong belief in her effectiveness as a teacher directly affected her use of RT strategies. Her classroom management issues were non-existent, and many of the instructional activities that she engaged in and favored were familiar. However, typically she was the one summarizing the material, generating questions, and clarifying vocabulary. An example of her instructional style that she used to provide instruction, but which adversely affected students' opportunities to engage in deeper discussions of content material occurred in class and was recorded in the following manner:

> After the section was completed, Ms. Alvarado summarized aloud what they had just read. She reminded students that because of cars, many jobs were created in factories to build cars, in restaurants for drivers, and so forth (December 13, 2010).

> During the duration of the study, quite often Ms. Alvarado would not follow through on the discussions about explicitly teaching and using RT strategies. She relied heavily on her sticky notes of wonderings and what students learned, both of which are examples of reciprocal teaching strategies. However, the strategies were typically assigned like a workbook page, and students filled out the slip of paper to complete the task. Discussions about students' questions and/or wonderings were left on the wall chart, never to be answered. They were removed when it was time for the next sticky notes to be put into place.

Ms. Alvarado had a classroom of students who behaved well; and, they performed in a manner that was desired and expected by Ms. Alvarado. It could be that Ms. Alvarado was

unwilling to take the risk of allowing students to play a larger role in the classroom. Handing over control to students can be a difficult task for some teachers, and possibly Ms. Alvarado was satisfied with the instruction she was providing her students and wanted to maintain control for fear of classroom management difficulties such as Ms. Blumenthal was experiencing. Ms. Alvarado did not feel the need to intervene because the class was performing in a manner that she found acceptable and appropriate.

Ms. Blumenthal was essentially a first year teacher. She had taught in middle school as a math teacher many years prior to this school year (Chapter 3); but, her confidence as an effective classroom teacher was being lowered daily, mainly due to classroom management issues. She often found herself unable to effectively manage the classroom. Likewise, instruction for all content was a new task. She welcomed me into the classroom as someone who might give her strategies to better support the needs of the classroom in its entirety…teacher, students, instruction, and classroom management. She was willing to use RT strategies. However, when I did not ask her to use them, she often fell back into the clicker method of instruction, also known as round robin reading. This was demonstrated on a day I told her I would be observing and not participating in class:

> The students continued to read. Ms. Blumenthal interjects information a few times, but
> mostly, students are reading. Today, Friday, the students are a bit restless. Gabriel has
> been selected to be the student who selects a reader via the clicker method, a job that all
> the students covet. Mercedes and José are both silent. Neither have yet been called on to
> read. They appear to be looking at the text, but I can't tell from my vantage point if either
> are following along.

No RT strategies have been inserted into the lesson; I am surprised and disappointed. I can instruct the students and the teacher in the strategies, but I cannot force the teacher to use them. Ms. Blumenthal is comfortable with the clicker method of reading, with information or comprehension questions inserted at random by Ms. Blumenthal (February 4, 2011).

Student factors

Students' English Proficiency. All four students were diverse in personality, English proficiency, and interest in content area social studies material. English proficiency levels appeared to directly affected students' confidence when reading expository text. Furthermore, English proficiency levels helped or hindered students when writing or creating summaries aloud, as well as with question generation. When comparing Figure 3.1 with Figures 4.5 and 4.6, it is clear that Gabriel had the highest ELDA scores; likewise, his question-generation and summaries were stronger than the other three student-participants.

Gabriel. Gabriel, by far, had the highest confidence of the four student-participants. Likewise, his ELDA (see Figure 3.1) scores demonstrated his knowledge of the English language. Gabriel's high English proficiency may have led to his use of metacognitive strategies enhancing his understanding of and/or engagement with expository text.

Mercedes. Mercedes was a student who remained quiet for the majority of observations. When given opportunities to use RT strategies, she demonstrated an awareness of how to use the strategies when engaged with expository text. Most especially, she spontaneously began to use the clarification strategy independently, in conjunction with searching for cognates. This was accomplished with support from me and the classroom teacher. Mercedes struggled with English proficiency and relied on more knowledgeable others to assist with English vocabulary, as well

as to help with generating questions and summarizing text. She asked for clarifications often, but largely to clarify English content area vocabulary.

José. José appeared detached form the learning environment. He enjoyed the social activities in the classroom, but he struggled with content area vocabulary, too. He had high confidence for social interaction with English language; but, his need for support with content area vocabulary lowered his confidence when working with expository text.

Marcos. According to Ms. Alvarado, Marcos received a lot of help from home. His classroom teacher also had multiple strategies that she said she used with ELLs. I saw some metacognitive strategy instruction and support when I observed in her classroom. His ELDA scores were unavailable, and he often refrained from engaging in conversations with me, as evidenced from the field notes represented in this chapter. I rarely heard Marcos speak in class, and when I interviewed him on two occasions, he struggled to effectively communicate with me in English.

Behavior Management. In classroom B, students' behavior was often a detriment to utilizing RT strategies. As a whole, the classroom population was quite unruly, and Ms. Blumenthal determined that round robin reading helped control behavioral management problems.

Outside Factors

Content Material. A large factor inhibiting greater progress toward the goal was the plethora of material to cover each lesson. This was mandated by the school district. On average, students were reading six to seven pages of dense expository material each lesson. The time frame for covering the material was typically 45 minutes to an hour. This pace left less time for utilizing RT strategies.

When the intervention was altered to allow students to engage for larger periods of time in metacognitive strategies, Ms. Blumenthal worried that students were not being exposed to all the material, as they would have been when using round robin reading.

School factors. The scheduling of social studies and science at the same time period was difficult, but also scheduled and embedded into the time slots were Zest-quest, counselor instruction, and science lab. This schedule, set by the school, allowed fewer opportunities for students to engage in RT strategies. Some weeks, students used the strategies only two days for approximately 45 to 75 minutes.

Holidays and Weather. During this study, students were out of school for Christmas and Thanksgiving holidays. During this same time frame, students missed school due to inclement weather that overlapped the Martin Luther King, Jr. holiday. So, students were out of school from November 24 through November 29, 2010, December 18, 2010 through January 2, 2011, and then from January 8, 2011 through January 17, 2011. This period of time might have further affected students' opportunities to engage in RT strategies.

Teacher-Researcher Collaboration

Collaboration between the participating classroom teachers and the researcher in this formative experiment was vital to the success of the selected intervention. However, Ms. Blumenthal came to heavily rely on my guidance, and that changed my position in the classroom. Students in classroom B accepted me as a member of their *community*.

During the intervention, Ms. Blumenthal asked for and received a lot of support. Likewise, she welcomed suggestions to change the intervention to enhance students' opportunities to use RT strategies. She offered advice and input when we discussed adaptations to the intervention to achieve the goal. A great deal of support from the researcher may not

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always be available when introducing an intervention, and as such, this may be an inhibiting factor in future studies. Opportunities for students to use RT strategies varied between the two classrooms. It might have been that Ms. Blumenthal, essentially a first year teacher, did not have as many instructional strategies as Ms. Alvarado, a veteran teacher with 14 years of experience. Ms. Blumenthal modeled using RT strategies, and she gave students ample opportunities to practice using the strategies through group discussion or individual, written questions and summaries. Ms. Alvarado allowed fewer opportunities for students to engage in RT strategies during class.

Ms. Blumenthal and I collaborated well; I felt that she was my partner in the study. However, I gave her a lot of support during instruction. Ms. Alvarado needed much less support from me, but she didn't always use the planned strategies in class. She encouraged me to insert strategies as needed, but this was a not a good technique. I wanted her to use the strategies more, and I tried to change this several times during the study, but Ms. Alvarado often returned to her regular instructional style.

Factors Enhancing Achievement of the Goal

Student-participants' Needs

During the course of the study, the three student-participants in classroom B began to see me as a support system. I did not single them out in any fashion during instruction, but all three were aware that I had not interviewed any of their classmates. Based on one specific conversation (Chapter 5), I believe they desired to perform well academically; and that drove them to work hard using RT strategies. This may not be the case in future studies. The small number of student-participants in this study make it hard to generalize to a larger group of ELLs in a similar intervention. Additionally, after Mercedes first used cognates spontaneously in

classroom B, all three ELLs began to use cognates to support their language acquisition.

Furthermore, toward the end of the study, the student-participants immediately came to my side

and asked for help when they were told to work in groups:

> As I was gathering my things, Mercedes called me over and asked for help with the short
>
> answer on the workbook page. I read the question and asked if she knew what
>
> isolationism meant. She said she did not and I gave her several examples…starting with a
>
> child being isolated in a room…and moving toward the U.S.'s views of isolationism I
>
> found the answer for her in the book, but I knew that she still did not understand. I
>
> directed her toward the sentence that would answer the first part of the short answer
>
> question. The next part: "Why did the U.S.'s policy about isolationism change?" was a
>
> little easier. She knew about Pearl Harbor, but I was quite dismayed when she didn't
>
> understand me telling her to write the bombing of Pearl Harbor. She first wrote
>
> boom…them bomp…then I spelled bomb for her. We found the place that said the US
>
> citizens were filled with fury.
>
> Elizabeth: "Do you know what fury means?"
>
> Mercedes: "No."
>
> Elizabeth: "What about furious?"
>
> Mercedes: "Angry?"
>
> Elizabeth: "Yes…do you know…I think the word is *furioso* in Spanish."
>
> When I said the word in Spanish, it was as if meaning was immediately clear. She smiled
>
> and said that I did have the word right and she knew what it meant.
>
> Elizabeth: "It's the same…fury, furious, *furioso*."
>
> She smiled. She wrote down the answer and thanked me for my help (February 4, 2011).

When Mercedes realized I was there to support her, she asked for help almost every time I was in the classroom toward the end of the study. Likewise, Gabriel's academic performance improved after RT strategies were inserted into instruction, as demonstrated by the following conversation:

Gabriel: "Ms. Casey…look…I got a 98!"

Elizabeth: "That's great! Wow!"

Gabriel: "Yes…at first Ms. Blumenthal said I got an 89, but she said the numbers backwards."

Elizabeth: "That's great!"

These are the WWII tests from the chapter we've been working on (February 18, 2011).

After the lesson, I asked Ms. Blumenthal about the student-participants' test scores. Ms. Blumenthal informed me that Gabriel had never scored that high on a test before. Mercedes and José did not pass the test. However, Ms. Blumenthal would allow them to retest for partial credit. Ms. Blumenthal was quite surprised that Gabriel had done so well. I believe that Gabriel's English proficiency, along with RT strategies and opportunities to engage in conversations about social studies content, aided him in his academic endeavors. This finding may be important and will be addressed in Chapter 5.

Summary

The plethora of qualitative data, which was coded and analyzed as described above, paints a picture of the student-participants' progress toward the goal in classroom B. The sole student-participant in classroom A did make slight progress toward the goal as well. The pedagogical goal established for this study was that students would increase their awareness and use of metacognitive strategies in hopes that an enhanced understanding of social studies content

knowledge would occur. This study looked specifically at whether students were increasing their use of metacognitive strategies, and not how use of those strategies may or may not have affected comprehension. The limited quantitative data, the Reading Strategies Questionnaire (RSQ) (Padrón & Waxman, 1988), did not provide evidence that students changed the way they read text.

Although the qualitative data are important, they do not provide a causal link that students' awareness and use of the metacognitive strategies enhanced students' comprehension. Reinking and Bradley (2008) noted that:

> [F]ormative and design experiments have much potential for providing generalizations that are useful to teachers and that may guard against putting too much faith in what might be argued to be the overzealous generalizations to which policy makers and researchers are sometimes prone. (pp. 39-40)

Utilizing metacognitive strategies allowed students opportunities to think meaningfully about text, engage in discussions with peers and more knowledgeable others, and to write summaries and/or generate questions about content area material. These acts allowed student-participants time to think critically about the material they were reading.

While RT aided students in opportunities to engage in dialogue, it became clear that vocabulary was essential to a deeper and more meaningful understanding of text. Toward the end of the study it became apparent that a lack of awareness of vocabulary knowledge was detracting from Mercedes' understanding of the expository text. On the other hand, Gabriel saw increased scores on academic assessment after engaging in metacognitive strategies. However, these two students had dissimilar English proficiency levels. These findings may be important and will be addressed in Chapter 5.

The third and fourth questions in Reinking's and Bradley's (2008) framework were addressed in this chapter. Class scheduling, weather, and holidays, all outside factors, may have diminished greater progress toward the goal in both classrooms. Modifications made to the intervention were decided upon by the researcher and the teacher-participants; but factors enhancing and inhibiting achievement of the goal, stated previously, played a part in progress toward the goal in classroom A. Chapter 5 will discuss findings, address limitations and implications, as well as answer the final two questions in the methodological framework (Chapter 3).

CHAPTER 5

SUMMARY AND DISCUSSION OF FINDINGS,

LIMITATIONS, AND IMPLICATIONS

One week after the study concluded, I was in an empty classroom across the hall from classroom B helping the three student-participants with a science test. The question under discussion asked how to dilute hummingbird food. First, I had to explain what a hummingbird was; and then, I had to describe what hummingbird food was. I did not know the Spanish word for dilute, so I gave the definition in English. This did not help much. The conversation that followed was surprising:

Gabriel; "I wish I could take the test in Spanish. I'd get them all right and I'd already be finished!"

José: "Me, too!"

Mercedes: "Me, too! I used to be smarter. When I was little in California, we had classes in English and Spanish and I was the smartest. Now I am not."

The first thing that went through my head was the article by Valenzuela (2009), when a high school student from Mexico said almost verbatim what Mercedes had just admitted (March 4, 2011).

Pushing Toward an End to Silence in the Classroom

Classroom B was never a silent place; on the contrary, this classroom was often a place of chaos. Yet amidst this pandemonium, three silent English language learners (ELLs), the student-participants in this study, remained quiet prior to the intervention, as well as after the classroom teacher ended the study in spite of the progress demonstrated. Stanovich's (1986) and

Allington's (1977) articles sprang to mind daily toward the end of the study. This classroom was not a reading class, but it was a time to focus on reading content area material. When RT strategies were used in small groups, all three student-participants were engaged in reading, writing, and critical thinking. Opportunities to read in class were limited, and reading aloud was an opportunity the student-participants enjoyed. This was especially true for Mercedes and Gabriel. During the post-interview with Mercedes, she expressed an interest in reading more often:

> Elizabeth: "Do you wish you got to read more in social studies class?"
>
> Mercedes: "I guess."
>
> Elizabeth: "When you were in the small group, do you feel like you got to read more?"
>
> Mercedes: "Yes."
>
> Elizabeth: "Why?"
>
> Mercedes: "When I'm in a small group, I have to read one paragraph…then someone else reads the next…then it's my turn again."
>
> Elizabeth: "And you like that?"
>
> Mercedes: "Yes" (February 22, 2011).

For Gabriel, the need to read aloud led to a strange behavior that he described to me during his interview. In classroom B, round robin reading was used daily as an instructional and behavior management strategy (Chapter 4). Gabriel was so intent on being called on to read more often that he devised a scheme, explained to me in his post-interview, to read more often:

> Elizabeth: "Do you like to read in class?"
>
> Gabriel: "Yes."
>
> Elizabeth: "Do you wish you got to read more?"

Gabriel: "YES! At home I go to superteachertools.com…and I put in the names of the whole class, and then I just click until my name comes out."

Elizabeth: "If you were in a group and had to read the whole section…like all seven pages…would you like that better?"

Gabriel: "Yes."

Elizabeth: "Because you would get to read more?"

Gabriel: "Yes" (February 22, 2011).

When RT strategies were utilized less frequently after the study ended (see Chapter 4), Ms. Blumenthal went back to round robin reading; and, the student-participants became, once again, silent students. This silent *noise* became more apparent the longer I observed in the classroom; and this noise filled the final days of my observational notes with nothingness-a wasted opportunity. I was powerless to change the environment; and it was frustrating because I had glimpsed a classroom in which the three ELLs were actively engaged participants in the learning environment. More importantly, they were aware of the difference as evidenced in excerpts from their final interviews detailed above.

In this chapter, I will provide a brief summary of the study before I address the final two of six questions in Reinking's and Bradley's (2008) formative experiment framework:

5. What are some unanticipated results, both positive and negative, that the intervention produces?

6. What changes in the instructional environment have occurred as a result of the intervention?

<center>**Summation of Study**</center>

Reciprocal Teaching (RT) (Palincsar & Brown, 1984) research has demonstrated positive results in helping a wide range of students to effectively use metacognitive strategies (e.g., Alfassi, 2004; Gersten et al., 2006; Hacker & Tenant, 2000; Jiménez et al.,1996; Johnson-Glenberg, 2004; Lederer, 1997; Palincsar & Brown, 1984). Furthermore, researcher designed assessments demonstrated positive academic growth for students in the aforementioned studies (Chapter 2). However, the number of studies utilizing metacognitive strategy instruction with ELLs is limited.

The purpose of this study was to explicitly teach ELLs to be aware of and use metacognitive strategies when reading expository, social studies text. Although enhanced understanding of text would be an added outcome, this study employed qualitative, observational field notes and students' written summaries and questions to determine if student-participants increased in their awareness and use of RT strategies. The findings demonstrated steady progress toward the valued pedagogical goal, more so for classroom B than classroom A.

Adaptations to Enhance the Effectiveness of the Intervention

Adaptations to enhance the effectiveness of the introduction were made based on information from field notes and teacher-researcher debriefing sessions. One factor that inhibited the effectiveness of the intervention was whole group instruction. After the initial introduction of the intervention, the amount of text covered in a whole group strategy limited students' opportunities to engage in discussions for more than a few minutes. The teacher-participants had expressed a desire to instruct students in a whole group manner, but implementing the intervention in this way did not allow students to begin using the strategies independently. Likewise, students' received guided support from the teacher and/or researcher. If the

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intervention continued in a whole group, it would be unlikely that students would move toward the goal. After these observations were recorded, debriefing sessions with the teachers were conducted. At that time, an adaptation to the intervention was designed to best meet the needs of the participants while moving toward the goal. It was determined that if students worked for short periods of time in small groups, it might allow them greater opportunities to independently use the strategies.

The first adaptation to the intervention was designed specifically to allow students to work in small groups. The teacher-participants and I decided that utilizing small groups might be more effective in reaching the goal. This adaptation allowed students more opportunities to engage in dialogue with their peers, but opportunities to use the RT strategies independently were still limited. Although the intervention was adapted, the modification was so slight that students only worked in small groups for approximately five minutes during a 50 to 80 minute lesson. The readings were still conducted largely in a round robin method in both classrooms. After the first alteration, whole group instruction continued for the majority of the time, with teachers inserting strategies and supporting students as they learned to use and apply the strategies. There were limited opportunities for students to use strategies independently. This adaptation was not very successful largely because students were working in small groups for $1/6^{th}$ to $1/7^{th}$ of the instructional time.

Small group use of strategies continued sporadically for approximately two weeks. When the teachers and I met to debrief about the adaptation to the intervention, it was decided that the adaptation was not moving students closer to the goal. Although students were beginning to use the RT strategies more during whole group and small group instruction, opportunities for longer

discussions and taking on more responsibility to independently use the strategies was still inadequate.

Another key factor that inhibited the success of the intervention was the amount of content to be covered. This directly limited students' ability to discuss content material for extended periods of time. The final adaptation came about as a result of the amount of content that had to be covered during social studies. If students were going to take on more of the responsibility for learning the content while using RT strategies independently, opportunities for students to talk about the content and explain it to their peers were determined to be necessary. The jigsaw method (Slavin, 1984a; Slavin, 1984b) might allow students more time to use metacognitive strategies while engaging with their peers in meaningful dialogue about text, and so the second adaptation altered the intervention to incorporate a jigsaw strategy. Ms. Alvarado was familiar with this strategy, but Ms. Blumenthal had not heard of it before. It was considered to be a more aggressive adaptation to the intervention, but both teachers believed it might increase students' use of the strategies and I concurred.

The jigsaw strategy was highly successful in classroom B; but as a result of behavioral management issues, the strategy was not perceived so or continued by the classroom teacher. In classroom A, the jigsaw method was not as successful largely because students did not have opportunities to engage their peers in discussions and questions about the content (Chapter 4). Specifically, the sole ELL in this classroom did not utilize opportunities for engaging in dialogue with his peers. It could be that his English proficiency limited his ability, but due to an inability to obtain testing information about his level of English proficiency that cannot be determined at this time.

Chapter 4 disseminated qualitative and quantitative results. This chapter will focus on unanticipated results, limitations, implications and discussion of the findings.

<div align="center">**Unanticipated Results**</div>

ELDA Scores and Reciprocal Teaching

One unanticipated outcome was the possible positive academic enhancement on the participating ELL with the highest level of English proficiency. Gabriel had the highest level of English proficiency, and his academic assessment scores increased sharply after the intervention was adapted to incorporate the jigsaw method. This cannot be concluded as a cause-effect relationship. Nevertheless, Ms. Blumenthal said that Gabriel had never performed that well academically on a social studies test. Typically, his highest score had been 80, with most test scores falling below80 and sometimes below 70. Gabriel scored a 98 on the test after he had been exposed to RT strategies for eight weeks, with the last week spent engaged independently in using the strategies to read content and then teach that content to his peers. Mercedes and José did not see an increase in their academic performance. Marcos continued to do well in his coursework throughout the study with a lot of assistance from his mother and teacher.

Future studies might look specifically to see whether students with higher levels of English proficiency benefit more than students with lower levels of English proficiency from RT strategies in small group instruction. This is important because students with different levels of English proficiency might benefit more from different components of RT. Students with higher levels of English proficiency might be better able to use the summarizing and questioning strategies in small groups to support their needs. Likewise, students with lover levels of English proficiency like Mercedes and José, who struggled with content vocabulary, might be better supported through clarification strategy. If unknown vocabulary can be clarified, and

opportunities to use those vocabulary words multiple times occur during discussion, then students' content vocabulary knowledge may increase.

Teacher and Researcher Bond

One unanticipated result was the strong collaboration between myself and Ms. Blumenthal. Ms. Blumenthal had behavior management problems in the classroom; she appreciated my help; and, we came to rely on each other when I was present in the classroom. This co-teaching collaboration strengthened the intervention as the students came to know me as the social studies teacher, even though I only taught one lesson. However, this connection between the researcher and teacher may not be replicable, and as such, generalization of the findings of this study to another classroom may be difficult. This must be viewed as a negative outcome. The researcher is there to record the findings and work with the teacher to achieve valued pedagogical goals. If researchers become too involved in the intervention, the results may not be replicable to other similar settings.

Students and Researcher Collaboration

Student Participants in Classroom B. A second unanticipated outcome was the bond that formed between the three ELLs in classroom B and myself. This positive collaboration enhanced the effectiveness of the intervention because all three ELLs worked hard to use the strategies. However, it is actually a negative outcome. It is unclear whether the intervention would work as well if ELLs did not have the support and encouragement from the researcher. The relationship between the student-participants in classroom B, as well as the strong collaboration between Ms. Blumenthal and me may be difficult to replicate, and so generalization of the findings of this study may be impossible.

I believe this bond between the three participating students in classroom B and myself encouraged them to work harder than they might have. Motivation can increase as a result of (Maslow, 1943) a desire to increase self-esteem.

Student Participant in Classroom A. Another negative and unanticipated outcome was the reaction of the sole ELL participant in classroom A. Marcos often appeared uncomfortable when I approached him in class. With the exception of one observation, described previously, Marcos appeared to refrain from engaging in RT activities. His use of RT strategies during the second adaptation to the intervention was almost non-existent. Likewise, attempts on my part to read his summaries or questions were often thwarted. He would cover his paper, or remove the paper from his desk, or turn the paper over. It is not clear why this behavior occurred. Future studies might ensure that more than one ELL is in a classroom.

Researcher Reflexivity

I addressed earlier my belief that I felt less comfortable in Ms. Alvarado's classroom, and this feeling may have skewed the lens through which I perceived and/or recorded events in Ms. Alvarado's class. Several of my journal entries, when looking back in reflection months after the fact, are clearly biased:

I thought that Ms. Alvarado would be the one who would welcome me into her room, but lately, she seems aggravated if she is not prepared with a perfect lesson. She told me that she would not have SS tomorrow because she had computer lab…but it is Ms. Blumenthal's class that has the lab (November 22, 2010).

Today I am in Ms. Alvarado's classroom again. I just arrived, but they are having a crazy day. Some students are being pulled for yearbook pictures, several students are absent, multiple students are trying to get missing work in so that they can go to the Christmas

party, and Ms. Alvarado has just said that she will show a video for ss, but she doubts she will get to the rest of the lesson (December 15, 2010).

I am here in Ms. Alvarado's class, but her students have computer lab from 9:30 to 10:00…so by the time they get in here and get settled, it will be a short lesson. I am frustrated because I feel that Marcos is the student with the lowest ELDA score (January 6, 2011).

Ms. Alvarado had asked that I come to the school on the 19th to finish the book…a leveled reader that went with the text. But when I arrived on the 19th, she said she had decided to do science instead and that she and the class had finished the book the day before later on in the day. She said she would be reviewing on Friday, and I asked if I could come in and insert some RT strategies to the review (January 19, 2011).

These reflections have a hint of frustration. I was frustrated, and that frustration and the feeling of being an unwelcome visitor may have adversely affected the intervention in classroom A in ways that I cannot understand. This unanticipated outcome was not realized until the study had neared its conclusion.

Changes to the Classroom Environment

Classroom Environment

Classroom A. There were no major changes to classroom A. During the course of the intervention and subsequent adaptations to the intervention, the classroom environment remained almost the same as during the initial observations.

Classroom B. During the course of the intervention and iterative cycles, the classroom environment in classroom B did change. From the pre-intervention stages to the last adaptation, the classroom moved from round robin reading to a collaborative, small group classroom in

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which all students were actively engaged in reading, critical thinking, summarizing text for their peers, and being responsible for asking teacher-like questions of their peers. Prior to the intervention, individual students read one paragraph at a time in a rapid manner to cover large amounts of dense expository material. During the final adaptation of the intervention, students were taking on the responsibility of instruction of their peers in jigsaw fashion. The level of engagement of all students was markedly different. Unfortunately, Ms. Blumenthal decided not to continue in this fashion due to classroom management issues. However, I believe that Ms. Blumenthal might consider using this intervention during the next school year. If the jigsaw method of instruction were to be continued during the current school year, I believe it is possible that students in classroom B might have experienced a heightened sense of responsibility for teaching their peers the content material. My final interview with Ms. Blumenthal provided some insight into the successes and limitations of the intervention:

Elizabeth: "Do you think this intervention made any difference in the classroom?"

Ms. Blumenthal: "I think it helped us learn some strategies for reading and going over what we read and not just blowing through it. It didn't appear to make a whole lot of difference with grades…but a lot of students have "senioritis" and have checked out and are ready to move on the middle school."

Elizabeth: "Is RT difficult to implement?"

Ms. Blumenthal: "No. I liked seeing you do it…and that's how most of use learn best…by watching someone else."

Elizabeth: "Would it have been easier if you'd gone to some professional development training?"

Ms. Blumenthal: "No…it's much better to have you come in because when you leave professional development training, it's too hard to implement and most of the time it's too hard to implement and you just forget it."

Elizabeth: "Do you think RT is a realistic strategy to use in the classroom?"

Ms. Blumenthal: "Yes."

Elizabeth: "Would it be harder to use all four strategies?"

Ms. Blumenthal: "Yes. We used those two because they were the easiest to implement and the most beneficial."

Elizabeth: "Will you continue to use the RT strategies?"

Ms. Blumenthal: "Yes."

Elizabeth: "Do you think RT aided students in understanding social studies?"

Ms. Blumenthal: "Yes…it definitely increased their interaction with the material. I don't know why grades didn't increase" (March 4, 2011).

Student-participants and Code-Switching. In classroom A, Marcos never had the opportunity to speak Spanish with his peers because he was the only ELL in the class. However, there were subtle changes for the three student-participants in classroom B. The students' use of their native language occurred spontaneously, and they began to speak Spanish to each other in front of me. Likewise, they began to use cognates, even searching for cognates, to enhance their understanding of content vocabulary. They relied on me to assist them in this endeavor. This event was captured in my field notes:

An interesting thing happened during the final interviews. I was trying to translate my questions into Spanish. Gabriel, who has become accustomed to reading what I type on the computer, decided to help me. Mercedes came into the room and watched, and then

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during her interview, she began to help me translate as well. She laughed at many of the translations, and I told her that I could not write in Spanish. She wanted to help as well. They were both curious about my Spanish speaking abilities.

After the interviews were finished, I was helping in the class; and, for the first time during my time in the school, I heard Gabriel and Mercedes carrying on a conversation entirely in Spanish! There were five of us at the table, two White girls, Mercedes, myself, and Gabriel. Mercedes was telling Gabriel about one of my translations which she had found particularly funny. I believe that I had written an inappropriate expression, but I am not sure. They spoke for about five minutes while I was talking about cancer to the two other girls (February 22, 2011).

On a second occasion, while I was assisting them with the science test, Gabriel wrote questions for me in Spanish; but he had misspelled the word *hablar*. He wrote "ablar," and I corrected the word. Mercedes and José found this funny, and Mercedes said: "See Gabriel, she helps you with your English and your Spanish!"

I believe that my limited Spanish speaking and writing abilities, as well as my attempts to search for cognates, encouraged all three ELLs to begin using their native language in class. During the first three months in the classroom, I never heard any of the student-participants speak Spanish. After my attempts to use Spanish to aid in vocabulary acquisition, all three students began to code-switch to further understanding of social studies material.

Major Findings and Implications

English Proficiency

The ELDA scores may provide insight into how RT aided ELLs with different levels of English proficiency. For example, do students with ELDA scores of three benefit more than

students with ELDA scores of five? This information may be helpful for classroom teachers interested in interventions that support ELLs with lower levels of English proficiency. One major finding in this study is related to students' ELDA scores and academic success. Gabriel, who had the highest ELDA scores, demonstrated a substantial increase in academic performance on a teacher-created test during the last iteration of the intervention. This cannot be concluded as a causal effect; but the use of metacognitive strategies in small groups, along with the responsibility of teaching content material to his peers, may have aided his own understanding of social studies content. This in turn might have increased his academic performance. Thus, information about the effectiveness of a RT intervention when working with ELLs might be generalized to students with similar ELDA scores (Firestone, 1993; Reinking & Bradley, 2008). Future studies might take into account students' level of English proficiency.

During this study, there was a steady progress toward achieving the established goal. This was more apparent in classroom B than classroom A. However, the realization that vocabulary was impeding student-participants' understanding of content area material came toward the end of the study. Particularly for Mercedes and José, academic content vocabulary needed to be clarified; and this RT strategy was the least often utilized by either of the classroom teachers. Marcos remained silent during most observations, so it is unclear how much content and academic vocabulary and terminology he might have needed clarified. His ELDA scores were unavailable, so I inferred that his English proficiency was probably still emerging because of his limited time in the U.S.

Studies on the impact vocabulary knowledge can have on comprehension (e.g., Anderson & Freebody, 1981; Chamot & O'Malley, 1996; Davis, 1968; Garcia, 1998; Thorndike, 1917) should be noted when designing similar, future studies. Future studies should focus on

vocabulary acquisition, in conjunction with an increased awareness and use of metacognitive strategies. Furthermore, more of an emphasis on the clarification strategy may aid ELLs with vocabulary.

Teacher Instructional Style

A second major finding is related to teacher instructional style. Ms. Alvarado had complete confidence in her ability as an effective classroom teacher. Likewise, she had multiple strategies in place that she was comfortable using in her classroom. Ms. Blumenthal, on the other hand, questioned her ability as an effective classroom teacher daily, as well as her own classroom management abilities; and she relied heavily on me to help with the strategies. Due to these differences, Ms. Blumenthal was more willing to try new instructional techniques. Although Ms. Alvarado and I worked well together, quite often her instructional routine would override use of the RT strategies. She often utilized RT strategies such as asking students to generate questions, but she never seemed willing to take that next step and release more responsibility to the students. Reinking and Bradley (2008) noted that "establishing a professional, productive, and ethical relationship with a teacher is also essential but entails even more complex and delicate issues" (p. 80).

When working with both teachers, I always respected their opinions, knowledge of students, and input into the study. Likewise, I deferred to their decision making during actual instructional time. I was a guest in the class, as well as a collaborator. This delicate balance between collaborator and researcher was maintained in an effort to support both classroom teachers' efforts.

Interestingly, I found that the intervention was more often utilized in a manner that had

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been pre-established when working with a teacher who struggled with confidence in her effectiveness as a teacher. Ms. Blumenthal may have viewed this intervention as a professional development opportunity; and her commitment to providing students with quality instruction may have influenced her decision-making. Reinking and Bradley (2008) further noted that a "teacher's participation in the research process became a source of self-esteem" (p. 81). For Ms. Blumenthal, I believe that research designed to improve instruction, experienced in a collaborative fashion, aided her self-esteem and her own confidence as an effective educator.

Limitations

This study adds to the limited research base on English language learners and metacognitive strategy instruction, as well as studies utilizing a formative experiment with ELLs. The participating school district has a growing population of ELLs, but the participating school has a relatively small population of ELLs.

Although there appears to be a link between English proficiency levels and increased awareness and use of metacognitive strategies enhancing academic performance, it has been inferred from observational data. Future studies might collect current data on students' English proficiency levels to try and determine if levels of proficiency result in different outcomes when introducing a RT intervention. The student-participants' ELDA scores, where available, were six months old; furthermore, based on my opinion and numerous conversations with the students, I do not believe that the ELDA scores accurately reflected students' English proficiency levels.

The Latino/a population continues to grow (census.gov) across the United States, but Latino/a populations and cultural beliefs/educational beliefs are not homogenous. This was true in this study as demonstrated in the initial interviews: one student-participant's family

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encouraged native language use at home while another student-participant's family encouraged English language use at home (Chapter 4).

Metacognitive strategy instruction with ELLs is an important area for study as the Latino/a population grows. English proficiency levels might be a factor in ELLs ability to use metacognitive strategies. Likewise, vocabulary knowledge should be considered. During this study, the teachers usually made clarifications for students. The limited time, along with both teachers' belief that students needed to read every word, did not allow greater use of the clarification strategy. Likewise, the collaboration between the researcher and all participants in classroom B might make generalizations to other settings difficult. Future studies might focus on clarification strategies to enhance vocabulary knowledge for ELLs. However, this population of students may not be representative of English language learners in general.

Conclusion

This study illustrates the process of using formative experiments to better understand and enhance learning environments. The goal of this study was to increase ELLs' awareness and use of metacognitive strategies, with the hopes that enhanced comprehension of expository text would occur. This study made steady progress toward the goal, with greater progress in one classroom for a variety of factors (Chapter 4). Student-participants in this study did begin to use RT strategies; but, it was determined that English proficiency and vocabulary content knowledge were important factors to consider when teaching students metacognitive strategies. Clarification of unknown vocabulary words was under-utilized in this study. Future studies might emphasize this strategy in a greater fashion.

Along with a focus on English proficiency, ELLs should be encouraged to search for cognates and/or speak in their native language to enhance understanding of academic content

material. Gutiérrez, Baquedano-López, & Turner, (1997) noted that multiple studies (Garcia, 1997; Gutiérrez, 1993; Reyes, 1995) have encouraged a dual language approach to enhance acquisition of English. Using a dual language approach can enhance both languages; and in such a manner, one language is not privileged over the other. Students in classroom B spontaneously engaged in speaking in their native language toward the end of the study; but this occurred only after the student-participants had established a relationship with the researcher. Furthermore, the researcher had spontaneously engaged in searching for cognates during one lesson when attempts to define the word location failed. This attempt by the researcher may have influenced student-participants' willingness to engage in their use of native language.

Promoting a dual language approach may enhance English language acquisition, promote biliteracy and bilingualism, and enhance ELDA scores (e.g., Garcia, 1998; Jiménez, 1997; Langer et al., 1990). Higher ELDA scores, along with explicit instruction in metacognitive strategy instruction, may promote academic success in ELLs. This population of ELLs may not be representative of other similar populations of students. Nonetheless, ELLs should be able to access their native language, a component of cultural wealth (Au, 2000), to enhance academic endeavors.

It is my hope that this study adds to the growing research base on the needs of ELLs. The importance of metacognitive strategy instruction, and the successes RT has had with a diverse population of students, is widely known (Chapter 2). The findings of this study demonstrate the importance of engaging students in the learning environment in ways that allow them to: 1) access text; 2) participate in meaningful dialogue, or perhaps conversations that increase their opportunities to use content area vocabulary; 3) practice using metacognitive strategies; and, 4) code-switch to better understand content area vocabulary.

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APPENDICES

Student Participants

Student Participant in Classroom A

 Marcos. Marcos was the only ELL in classroom A. He moved to the United States from Mexico in the summer of 2010. I was surprised that the ESOL teacher was not in the classroom for content area lessons. From my former experiences working with students who were not yet proficient in English, I had expected to see the ESOL teacher come into the room for part of the lesson. In the coming months, I never met or saw the ESOL teacher for this school. I was told by office staff members that she floated between schools for the district, but I had still expected to run into her at some point during my six months at Oak Way Elementary…two months preparing for the study and almost four months conducting the investigation.

There were no English Language Development Assessment (ELDA) scores available for Marcos (see Figure 3.1). The ELDA "consists of four tests designed to measure academic and social language proficiency in the domains of speaking, listening, reading, and writing" (ed.sc.gov, np). The ELDA is taken by students who speak Spanish or another first language other than English. It is a requirement by the state, in accordance with NCLB, that all students scoring below 3 be provided with additional support for their learning needs by an ESOL teacher. Students scoring 3 or better in third grade and beyond are no longer served (ed.sc.gov).

 I was told that the ELDA assessment is given in the spring. However, I believed that because he was new to the United States, Marcos should have been tested at the beginning of the year. During the few times that I was able to hear him speak in the classroom, his English was broken, as was captured in the following excerpt from his interview:

Elizabeth: "If you were going to tell a first grader what reading is, what would you tell them?"

Marcos: "That reading means that…it's something that you read and you need to know what it says. And… I don't know."

Elizabeth: "What if you had to tell them the difference between a story about a dog and a science book about plants. Are those different?"

Marcos: "Yes."

Elizabeth: "What would you tell them?"

Marcos: "Because you are talking about an animal and a plant…because a dog can move from place to place and a plant can stay where they are" (November 30, 2010).

Later, when we were talking about soccer, I asked him what position he played. He was unable to tell me, and instead said that he was "front of the field." His limited English was apparent to me that day, and I believe that it interfered with his comprehension in the classroom.

Student Participants in Classroom B

Gabriel. Gabriel was a tall student, with dark hair and eyes; and he wore glasses. His smile was infectious, and he enjoyed helping others in class. When he worked in self-selected groups, he rarely selected male students. Instead, he often worked with the same two girls who were also hard-working students. During our pre-interview on November 30, 2010, among the questions asked, Gabriel had the following answers when I was trying to see if he thought there was a difference between reading informational and fictional texts:

Elizabeth: "What is different about reading your social studies book instead of your reading book?"

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Gabriel: "*Ribsey* is not based on a true story...but it could have. And social studies…that happened in real life."

Elizabeth: "Do you read the books the same way? (no response) Is one harder than the other?"

Gabriel: "No."

Elizabeth: "If you were given the choice, would you read a book in Spanish or in English?"

Gabriel: "English."

Elizabeth: "Can you read in Spanish?"

Gabriel: "Yes. I'm not that good, but I can."

After the interview was over, Gabriel and I just sat and talked. I had been writing his responses to my questions down during the interview, and he was fairly straightforward with his answers. After I stopped writing and just started talking to him, he became quite expansive. I did not have permission to audiotape interviews with the students, so I thought it was essential that I write down their answers exactly as they stated them to me during the semi-structured interview. However, when I spoke to the students after the interview, I didn't write anything down. Immediately after Gabriel went back to his classroom, I recorded the following reflection about our conversation:

After the interview, Gabriel and I spoke about Mexico. He asked if I had been and I told him yes…to Nuevo Laredo, Acapulco, and Puerto Vallarta. That sparked his interest and he said he really wanted to go to Acapulco. He told me he'd been to Guatemala to visit his aunt who had a garden with peppers, and trees with nuts. I asked about avocadoes, and he said she had some. I told him that my favorite food was guacamole tostadas…he

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said he did NOT like avocadoes or guacamole. (He made faces as he told me this.) Then

we talked about going on a cruise and he said he'd rather go to Indiana because he went

last year and the snow was up to his knees. He said he went to a different elementary

school within the county last year and that he was moved to this school because of the

new zoning rules. He said one cousin moved to this school with him, but that one cousin

in 2nd grade didn't transfer to Oak Way Elementary. Gabriel was sad for his cousin and

said that the little boy cried every day for his mom to change him to this school because

he was alone over there (November 30, 2010).

When the interview was over, Gabriel offered to help Mercedes with her interview when

I asked him to send her in next. The students were being pulled from computer lab to meet with

me, a decision made by the classroom teachers. Mercedes' ELDA (see Figure 3.1) scores showed

her to be advanced in several areas when I was finally able to access them; but, Ms. Blumenthal

and I were surprised when we looked at the scores on February 4, 2011. I had not been able to

access the scores prior to this date because Ms. Blumenthal wanted to make sure she was

allowed to give them to me. I did not push Ms. Blumenthal for the scores; and she finally pulled

them up on her computer when she felt certain that she could legally provide me with the

information. I explained to Ms. Blumenthal what the scores meant, and she and I both wondered

about the advanced marks. Gabriel's offer to help Mercedes with her pre-interview reinforced

my belief that Mercedes' struggled with her English proficiency. It also demonstrated Gabriel's

willingness to assist his peers as needed, even if that involved translating.

Gabriel was the most confident of all student participants. This might have been due to

his personality in general; or, it might have been that his level of English proficiency (see Figure

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3.1) was an overriding factor. Over the course of the study, Gabriel appeared confident in class, spoke to me often, and genuinely appeared to enjoy the classroom learning environment.

José. Unlike Gabriel, José did not appear to be that interested in school. He liked to joke around, and I saw a bit of the class-clown in him. However, he was never disruptive in class. He was mild mannered and always respectful of his teacher and peers. He had dark hair and eyes. He was usually working with a group of three boys, one White, one Asian, and one African American, when self-selecting groups. Typically, he let the other students do the hard work of looking up answers in the text. My field notes captured this occurrence toward the end of the study:

> José is allowing the other boys he is working with to answer most of the questions. I see that two of the boys are talking and discussing the sequencing, but José is quiet…almost standing outside the group (February 4, 2011).

In the interview on November 30, 2010, José was quiet. He appeared uncomfortable. The following responses gave insight into his feelings about reading varying texts:

> Elizabeth: "What is different about reading your social studies book instead of your reading book?"
>
> José: "The *Go Long* is much better because I can picture it in my head and the social studies…I can't…I just get bored.
>
> Elizabeth: "Do you read the books the same way?" (No response.) "Is one harder than the other?" (No answer.)
>
> Elizabeth: "Are you really good at some types of reading?" (No response.) "Do you like some books better than others?"
>
> José: "Yes…like football or sports books."

Elizabeth: "Do you talk about what you are reading with other kids?"

José: "Just my brother, if he's interested…and my mom."

Over the course of the study, I often observed José to be detached from the lesson. During our initial interview, I believed that José would perform well in the classroom because he was so outgoing; but I later realized that he was a social creature who enjoyed engaging in conversational dialogue. Classroom vocabulary and content material were often beyond his English proficiency capabilities without a lot of support. Even when the RT strategies were added to the instruction, he struggled to write summaries (see Figure 4.2) without a lot of support. Likewise, coming up with teacher-like questions (see Figure 4.3) was difficult.

José's comprehension and composite ELDA scores (see Figure 3.1) were both in the intermediate range, meaning he is likely in cognitive overload when the vocabulary is intense. An example of one lesson packed with vocabulary with little support occurred on January 24, 2011. I recorded the following in my observational field notes as the students were watching a short video:

9:55

The brain pop video comes on. It is an animated, almost still-frame, show with a man explaining about the stock market…including the nasdaq, stock brokers, exchange, buying and selling shares, the stock market being up or down, indexes-big companies, Dow Jones Industrial Average, commission, and so forth.

Mercedes and Gabriel are watching the video…but José isn't really watching.

When the short video is over, Ms. Blumenthal asks Gabriel to play the movie again.

Students are using the brain pop video to answer questions that the students just went

over. Mercedes is not really watching the video the second time…and José has his head

on his desk.

The content being covered in class was the stock market crash, and the video was

supposed to provide students with supplementary information. There was never a

discussion about any of the terminology included in the brain pop video.

Mercedes. Mercedes was a slender girl, with long, dark, thick hair and dark eyes. She

appeared timid and rarely spoke in class. When she was selected to read, her voice was barely

audible even when I was a few feet from her. She noticed what was going on around her and she

was often looking at me when I observed in her classroom.

Prior to the introduction of the intervention, I administered the Reading Strategies

Questionnaire (RSQ) (Padrón & Waxman, 1988) to Mercedes. At that time, I got the impression

she was looking for the right answer to please me. I had been observing in the classroom for a

few weeks, but we had not yet developed the rapport that we eventually came to share. The week

after the RSQ survey, I interviewed Mercedes. I had been in the classroom for three weeks

collecting observational, baseline data about regular classroom practices and instructional

strategies. On November 30, 2010, when I was asking questions and writing down her responses

during the interview, she was hesitant, almost monosyllabic at times…just like Gabriel and José:

Elizabeth: "What is your favorite thing to do?"

Mercedes: "Hang out with my friends."

Elizabeth: "What do you guys do?"

Mercedes: "We talk and we play."

Elizabeth: "Like games?"

Mercedes: "Uh huh."

Elizabeth: "Like PS2?"

Mercedes: "No…like we run and jump."

Pause in the conversation.

Mercedes: "And I like to draw, too."

Elizabeth: "Do you like anime?"

Mercedes: "What?"

Elizabeth: "Like Japanese drawings?"

Mercedes: "No."

Elizabeth: "What do you like to draw?

Mercedes: "Like persons…people…and things and horses…I try to do the horses, but I can't really get them like I want."

Elizabeth: "Have you ever ridden a horse?"

Mercedes: "No."

Elizabeth: "Is that something you'd like to do?"

Mercedes, with a smile: "Yes."

After the semi-structured interview questions, we spoke at length about her sisters, her extended family in the mountains of a neighboring state, and the antics of her baby sister. Immediately after we were done talking, she asked whom she should send in next. I replied that I didn't need anyone else. She appeared surprised; and later on, I realized that the three ELLs in classroom B began to suspect something. It was a gradual process, but all three noticed that I was more interested in them than the other students.

Day One Observation-Classroom A

Classroom A

9:45

Class began a little late because they were getting back from computer class.

The teacher directed two students to pass out sticky notes and then told students to write

down one thing that they knew about the south after the Civil War on the yellow sticky,

and one thing that they wanted to know about the south after the Civil War on the pink

sticky. Students were quiet as they began to think/write. When students were done

writing, the teacher revealed a graphic organizer on the white board:

Civil War Pre-Reading Activity

What We Think We Know	Yes, We were right	New information	Wonderings
"I know the South had a lot of reconstructing"			"I wonder how long it took."
"I know the south was mostly destroyed."			"Did any of the Yankees still live in the south?"
"The south was worse after the Civil War."			"Did many people die after the Civil War?"
"Slaves were free."			"I wonder how the north won?"
"The Yankees burned down houses."			"Did Yankees get shot by village people?"
"They didn't have a lot of food."			Couldn't hear student's wondering…
"The south was damaged."			Couldn't hear.
'The south was destroyed by the north."			"How many days did it take for the south to rebuild?"
"The south had to rebuild a lot of stuff."			"How many fought?"
"The south didn't have a lot of stuff."			"What did the south do after the war?"

9:58

The teacher begins to move some of the sticky notes from the first column to the second, talking as she does this. How do we know? The students respond and she says-yes, we know from our book *Shades of Gray*.

Ms. Alvarado: "Well, the most popular wondering appears to be what?"

S1: "How many people died?"

Ms. Alvarado: "Do you mean in general, or total number of soldiers?"

S2: "I wondered about the doctor's daughter."

Ms. Alvarado: "That is very specific."

Some students are eating snacks, some students are drawing (the teacher removes one drawing from a student and redirects his attention), one student is playing in his desk (November 9, 2010).

As I sat and watched the lesson, things went smoothly, with Ms. Alvarado calling on students to answer her questions. All students were quiet unless called upon. There was some summarizing and clarifying by Ms. Alvarado, but not by the students unless called upon for information. The students appeared to be familiar with this routine. The lesson progressed accordingly, but when the students were asked to work in self-selected groups, the classroom fell into a bit of disarray.

The directions from Ms. Alvarado just before students moved to form groups were: "After you read, tell me one significant thing about Grant, two things from growing pains, and also, tell me what was the most predominant crop in the south." An excerpt from the same day of observations reflects my concern about the support Marcos, the sole ELL in this classroom, is receiving. During independent work:

10:06

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Marcos chooses his partner and they move to the reading corner; but his partner is playing with his pencil and then leaves to go to the restroom (not sure). Marcos is silently reading alone.

The teacher is working with one student (partnering?)-other students come up and ask questions.

Marcos goes to the teacher for help after his partner has still not returned.

Noise level is increasing slightly-but most students are engaged in the activity.

Marcos' partner returns, but he continues to play with his pencil, his clothes, other students' shoes; and, he is not looking at the article. Marcos shows him something in the paper, trying to gain his attention-I cannot hear what they are talking about.

10:20

Marcos is playing with his SS weekly-he and his partner have not yet started the activity sheet. At this point, some students are fairly engaged; but as I look around, I wonder about Marcos. He is essentially working on his own, even though I saw him pick his partner.

10:37

Student working with Marcos begins to wander-asking other students when their birthday is and telling them his birthday. Marcos tries to redirect him without success. Marcos gets a calculator and continues to work by himself.

S4: "What the crap does Marcos have a calculator for?"

10:40

The teacher gives a one minute warning (November 9, 2010).

Students returned to their desks and the lesson continued briefly before it was time for

students to head to lunch. Marcos was silent. Most times, students remained seated and waited to be called on to read from the text.

Day One Observation-Classroom B

My field notes for my first day and first observation in this study reflect the students'

talkativeness:

9:35

The lesson begins with the teacher telling the students that they won't be getting their

Chapter 5 tests back until all students have completed the test. But, the lesson for the day

will begin with Chapter 6 (chatter erupts).

Ms. Blumenthal: "I want you to work in groups of four. You have about 10 minutes. You

will be on page 250 in the SS book and workbook page 55. You will work with your

group to complete the terms in the workbook using the text."

Students begin to work in groups, although a few students work alone.

9:40

Ms. Blumenthal: "Stop." The teacher calls on the students to listen. "You are not

supposed to be reading yet. You look at the highlighted words in the book and use that

information to complete the workbook page."

Students begin again to work collaboratively. There is a lot of classroom chatter along

with discussions about SS terms. The teacher walks around between the groups,

monitoring their progress and assisting them as needed.

9:55

Many students are off task. Some students are working independently to complete the

task. Some students are telling other students that they are not helping. Example of one

overheard conversation:

S1: "Are you gonna join the circus when you grow up?"

 S2: "I can't find any of these."

S3: "Yay, lunchtime!"

The students were just talking-not even really to each other…just random stuff (November 8, 2010).

My reflective journal for that day reveals my own thoughts about what I experienced during the lesson:

I finished my first observation today, and I could tell that the teacher was uncomfortable with me in her classroom. I am a little worried that she might back out. The kids were loud and not really doing what they were supposed to do. I have been in a similar classroom as the teacher-my first year. I want to reassure her that I am not there to critique her teaching or instructional style. I plan on approaching the interview tomorrow with some caution to gauge her stress level. I was surprised that things were going so poorly-more so because she was fine being in the study when Ms. Alvarado first approached her.

I think that the strategies I introduce will actually be able to help her engage the students more with the lessons. If the kids have a purpose for reading, rather than waiting to be called on to read- they might be more involved and less off-task. I am curious as to how the next lesson will go. Were the kids misbehaving because I was in the room…was it a bad day in general…do they always act like that? Will the RT strategies be utilized effectively, or will students be talking about the circus when they should be having deep and meaningful discussion about the text? (November 8, 2010)

Appendix D

Student-participant's Interview Questions

Pre-interview Questions

1.   If you were going to tell a first grader what reading is, what would you tell them?

2.   What's your favorite thing to read?

3.   When you are home, do you speak mostly Spanish, mostly English, or both languages

      equally?

4.   What is your favorite thing to do?

5.   What is your favorite subject in school?

6.   What is different about reading your social studies book instead of your reading book?

7.   Do you read the books the same way? Is one harder than the other? What makes it

      harder?

8.   If you were given the choice, would you read a book in Spanish or English?

      Can you read in Spanish?

9.   Are you really good at some types of reading?

10.   Do you talk about what you are reading with other kids?

Post-interview Questions

1.   What do you think my purpose was in the classroom? What do you think I was doing

      here?

2.   Can you think of anything I have taught you?

3.   Do you feel that you are doing well in social studies?

4.   When you worked in groups and came up with summaries and questions for the class, did

      you like that? Why? What did you like/not like about it?

5.   Do you like to read in class?

6.   Do you wish you got to read more?

7.   When you were in the small group, do you feel like you got to read more?

8.   Do you like to ask the class questions?

9.   When you read in social studies now, do you try to come up with the most important

        parts of the page?

10.   Do you like working in groups better than the whole class reading together?

11.   Do you have any questions for me?

Teacher-participant's Interview Questions

Pre-interview Questions

1. How do you feel about me being in your classroom?

2. Would you be interested in reading about reciprocal teaching?

3. How do you feel about allowing students to speak Spanish during class?

4. What is the school policy?

5. How do you feel this research will impact the day-to-day workings of your classroom?

6. What are some things that you are worried about-in regard to this study?

7. Do you have questions for me?

8. What about scheduling LP? Are you ok with rearranging if needed?

9. How long have you been teaching?

Midpoint-interview Questions

1. What are your thoughts about what I am doing in the classroom?

2. Are these strategies that you are already using?

3. Do you think this intervention is useful?

4. Has the research made a difference in the classroom as far as the day-to-day scheduling?

5. Would you change anything about what I am doing?

6. Do you think students would be able to use RT strategies on their own in groups?

7. Do you think it would be beneficial to allow students to work together on summaries and questions?

8. What did you think about the reciprocal teaching literature that you read? Were you able to finish it?

Post-interview Questions

1.   Do you think this intervention made any difference in the classroom?

2.   Is RT difficult to implement?

3.   Do you think RT is a realistic strategy to use in the classroom?

4.   Will you continue to use the RT strategies?

5.   Do you think RT aided students in understanding social studies?

6.   Do you have any questions?

Coding of Qualitative Data

Week/Day/Classroom	Mercedes	José	Gabriel	Marcos	Ms. Alvarado	Ms. Blumenthal	All students in learning environment	Technology in the classroom
One/11- 8-2010 B	SP	SP, EN	SP, EN			PRA, CR, TUMS-questioning, CLO	TOT, SP, SNP	Short video- 1 ½ minutes
One/11- 9-2010 A				EN, SCR, QI	PRA, TUMS-questioning		EN, SP, SNP, TOT	
One/11-11-2010 B 9:35-9:52 A 10:10-10:40	SP	CR, EN	SP	SP	NPRA	NPRA	SP, SNP, some chatter in classroom B	Clicker technology in classroom B
Two/11-15-2010 B (Substitute in A)	CR, EN, SP	CR, EN, SP	SP			NPRA, CR TUMS-summarizing CLO	CR, SP, SNP. TOT	Clicker technology
Two/11-16-2010 B (Substitute in A)	CR, SP, EN	CR, SP, EN	CR, EN, SCR			NPRA, TUMS-clarification	CR, SP, SNP, TOT	Clicker technology
Three/11-22-2010 A				SP	NPRA, TUMS, SCR		SP, SNP	25 minute video
Five/12-10-10 B Intervention introduced	SCR, SP, ENRTG, ENRTI, STG, STI, PG, PI	SP, ENRTG, STG, PG ENRTI, STI , PI	SP, ENRTG. PG, STG, ENRTI, STI, PI			PRA-prediction RU/MS-prediction, summarizing	ENRTG, ENRTI, TOT, PG, STI, STG, PI	
Six/12-13-10 A				SP	PRA-sticky			

Week/Day/Classroom	Mercedes	José	Gabriel	Marcos	Ms. Alvarado	Ms. Blumenthal	All students in learning environment	Technology in the classroom
Intervention introduced					note RU/MS-prediction, summarizing CLO			
Seven/1-5-11 B	SP, SNP	SP, SNP	SP, SNP			NPRA RU/MS-after video-summarizing and questioning	SP, SNP, TOT	Video-35 minutes long covering dense expository material. It was never stopped.
Seven/1-6-11				SP, SNP	PRA TUM S-predictions		SP, SNP	
Eight/ 1-21-11 B Second Iteration	SP, ENRTG, SG, QG, PG, ENRTI, SI,	SP, PG, ENRTG, ENRTI, SI, SG, QG	SP, ENRTG, ENRTI, SI, SG, QG, PG			RU/MS TUMS, TMMS	TOT, SP, SNP, ENRTG, SG, QG, PG ENRTI, SI,	
Eight/1-21-11 A				SP, ENRTI, QI	RU/MS-questioning			
Nine/1-24-11 A				SP	PRA-sticky notes			
Nine/1-25-11 B	SP, CR, SNP	SP, SNP	absent			PRA-tells students they will SI, QI	TOT	

Week/Day/Classroom	Mercedes	José	Gabriel	Marcos	Ms. Alvarado	Ms. Blumenthal	All students in learning environment	Technology in the classroom
						after reading		
Ten/2-3-11 B	SP, SNP, CR, EN	SP, SNP, CR, EN	SP, SNP, EN, CR		PRA-preview worksheet to use with ppt			Powerpoint
Eleven/2-7-11 B Third iteration	ENRTG, ENRTI, SP, QG, STI, QI, CI	ENRTG, ENRTI, SP, QG STI, QI, CI	ENRTG, ENRTI, SP, QG, STI, QI, CI			TUMS, - jigsaw activity TMMS		
Twelve/2-15-11 B	SP, EN	SP, EN	SP, EN				SP, TOT, EN	

Explanation of Codes

| Code	Decoded	Explanation
SNP	Silent, not paying attention	Students were seen playing in their desk, playing with hair, daydreaming, drawing, resting head on desk, or some activity that when I observed it, I determined that the student was silent but not paying attention.
TOT	Talking, off-task	Students were observed talking to a neighbor, or engaging in activities that were not silent and disruptive to the learning environment. ***None of the ELLs were ever observed doing this behavior, but other students in classroom B were observed quite often in off-task behaviors.
SCR	Student called on to respond	Teacher was observed directly calling on a student for a response.
NPRA	No pre-reading activity	The teacher begins the lesson by having students open their books and begins reading when class starts.
SP	Silent, paying attention	Students were silent and were observed looking at their text, the smart board, or the teacher. They were not engaged in dialogue.
GR	Group reader	Student was observed reading in a small group.
CR	Class reader	Student was selected by the teacher, in classroom A, or by the computer, in classroom B, to read aloud from the text.
EN	Engaged	Student was engaged in the learning environment through reading or following along when a peer was reading, answering a teacher's question, or helping a peer. The activity was not related to RT strategies.
TUMS	Teacher uses a metacognitive strategy	Teacher was observed using RT strategy (ies).
TMMS	Teacher models a metacognitive strategy	Teacher was observed modeling RT strategy (ies)
RU/MS	Researcher uses/models a metacognitive strategy	Researcher used or modeled one or more RT strategies.
PRA	Pre-reading activity	The teacher was observed beginning a lesson with a pre-reading activity.
CLO	Closure	Teacher closed the lesson with a summary, redirection to PRA, or some other form of closure. If students were directed to close their books and line up, then there was no closure observed.
STG	Summarizing text under guided instruction	Student(s) was observed summarizing text with the assistance of a teacher or researcher.
QG	Generating questions under guided instruction	Student(s) was observed generating questions about the text with the assistance of a teacher or researcher.

| Code	Decoded	Explanation
PG	Predicting under guided instruction	Student(s) was observed making predictions about information with the assistance of a teacher or researcher.
CG	Clarifying under guided instruction	Student(s) was observed clarifying information with the assistance of a teacher or researcher.
ENRTG	Engaged in RT activites under guided instruction	Student(s) was observed engaged in RT strategies with the assistance of a teacher or researcher.
STI	Summarizing text independently	Student(s) was observed summarizing text without the assistance of a teacher or researcher.
QI	Generating questions independently	Student(s) was observed generating questions about text without the assistance of a teacher or researcher.
PI	Predicting independently	Student(s) was observed making predictions about the text without the assistance of a teacher or researcher.
CI	Clarifying independently	Student(s) was observed clarifying information about the text without the assistance of a teacher or researcher.
ENRTI	Engaged in RT activities independently	Student(s) was observed engaged in RT strategies about content information without the assistance of a teacher or researcher.

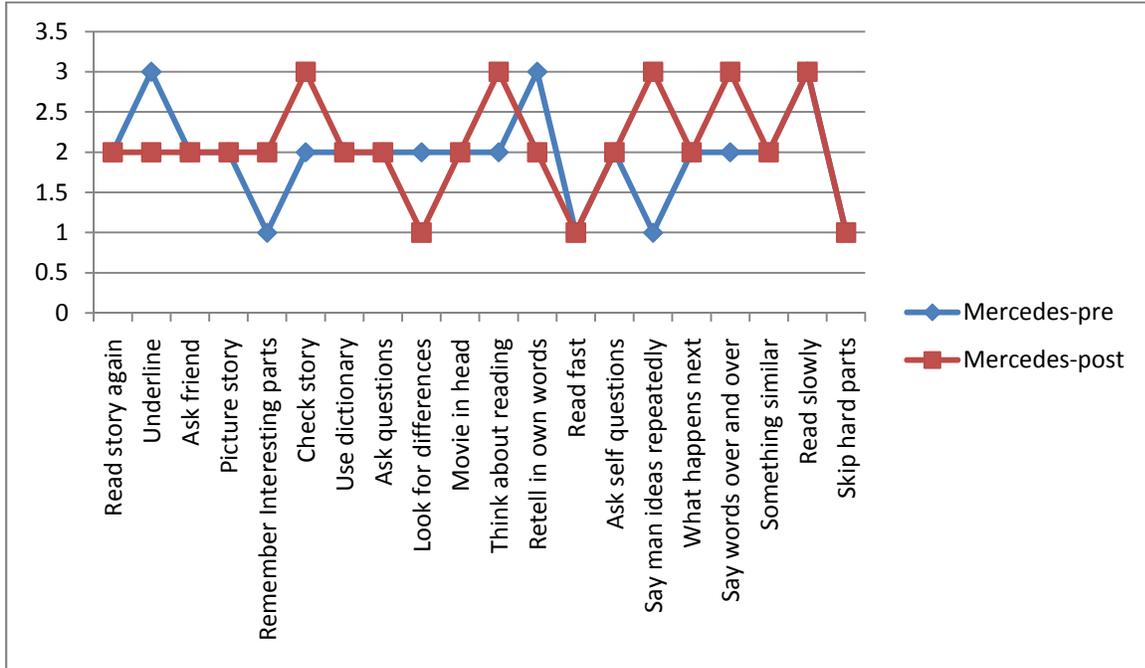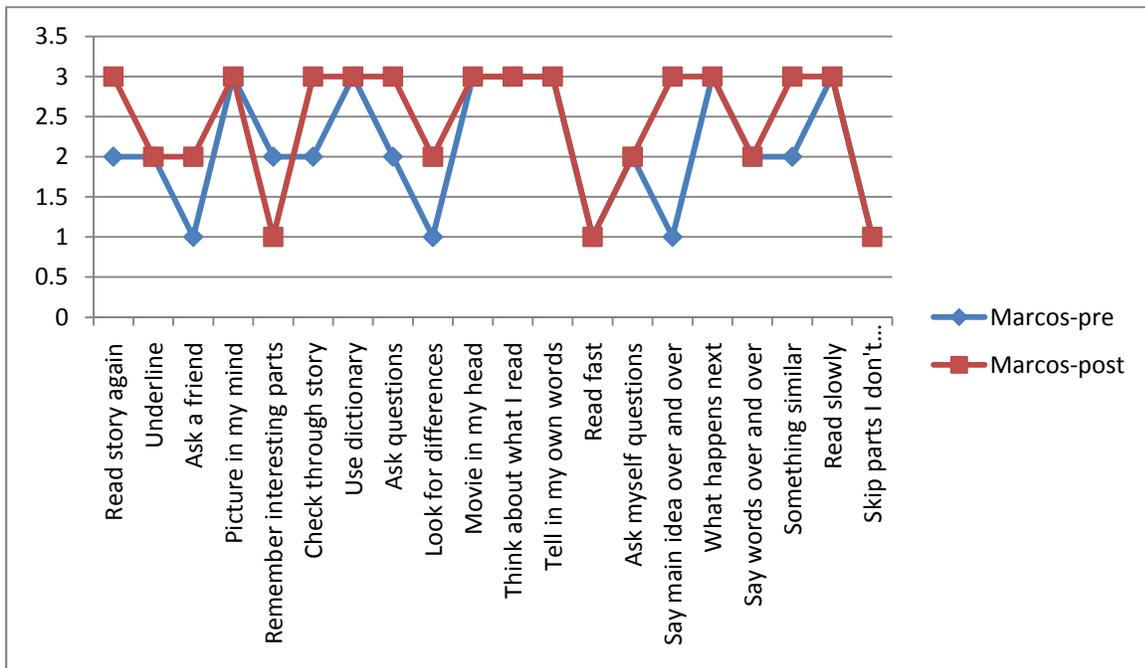Individual Students' RSQ Surveys

José
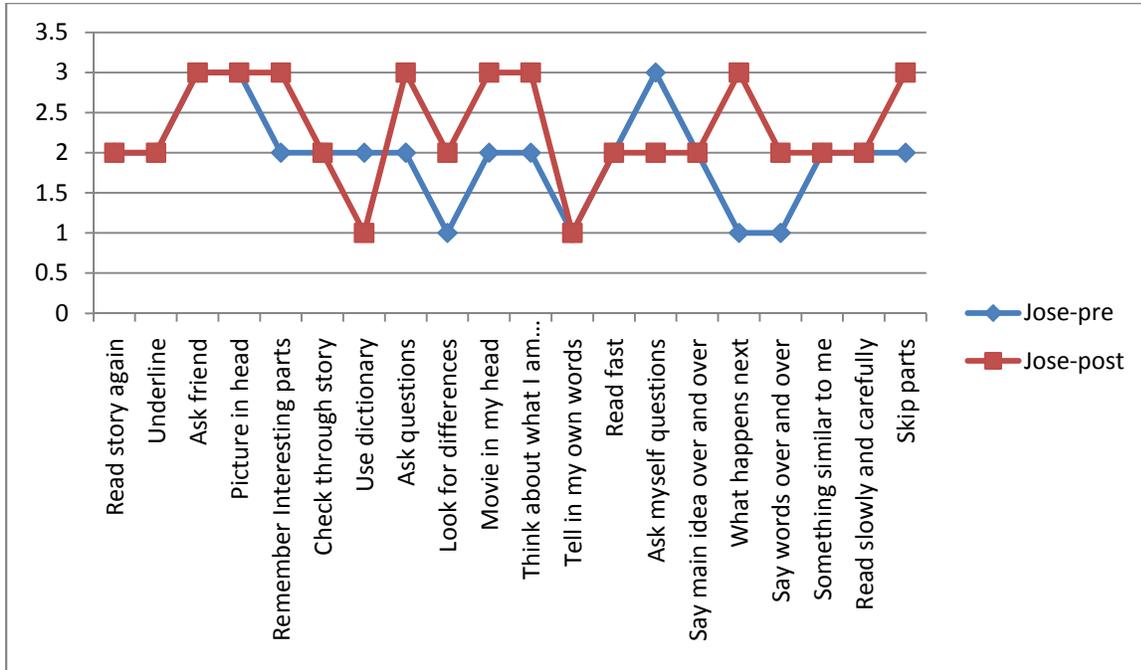
Gabriel
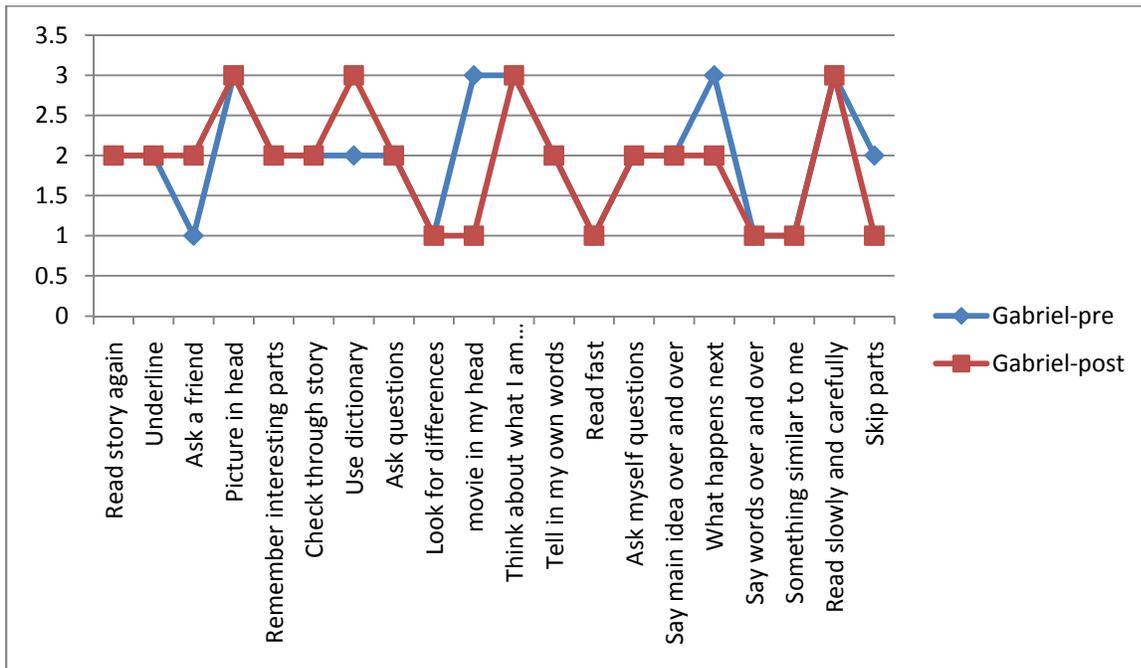
Mercedes

Marcos

Appendix I

Second Adaptation to the Intervention

Classroom B

Mercedes' group is doing rock, paper, scissors to see who will start. José and the other boy do this…today Mercedes is a little apart from the group…almost not really in the group. All the groups are reading and engaged! There is no chatter now…I only hear students reading…words overheard…Adolph Hitler, small vegetables that increased the amount of food of the country, and so forth.

Students are writing down the facts as they read. The room is actually pretty engaged…I am surprised. I hear many students reading…taking turns…and really no one is off task. I walked over to check on the group with Mercedes and José. They have finished reading, but they don't have anything written down on their paper. I suggest that I see dates and names and numbers on the page [of the book] and ask if they believe they might be important. They agree, and I tell them they might want to write the important information down. Mercedes asks what Yoshiko means…it is the name of a Japanese woman who was sent to the internment camps. The section they read was on Japanese internment. As I sit back at my computer, I look over at the group and all three are writing diligently…they are not talking, though.

Gabriel's group is working hard. Across the top of his paper, Gabriel has written in bold letters…DO Your PART!

Underneath, he is writing facts down. His group is discussing the content. They ask Ms. Blumenthal a question and she says that they need to decide. They begin talking again.

Gabriel: "Another way Americans were able to help the war…"

S1: "Another way Americans could help…"

Gabriel: "was by planting…"

They are very engaged.

Ms. Blumenthal has gone to help Mercedes' group. They thank her and she says, "You are welcome for my expertise" very sincerely.

….

Ms. Blumenthal: "Okay…I need everyone to return to their seats. We are going to start telling the important facts."

Students begin to move quietly to their seats. Mercedes is holding her paper tightly. I can see that it is almost entirely filled with information. She looks proud.

The first group begins to present their information…They are speaking a bit quickly. Students in class are listening…some are writing. The information is pretty precise (February 7, 2011).

Classroom A

Marcos and his group are all reading silently. The other groups have a lot of chatter. Directly behind me is a group of three boys who are very vocal, but also engaged. They are reading aloud to each other. I think I hear Marcos reading aloud, but I cannot tell. The three are the only three still sitting in desks. The African American male left the group and is getting something from his cubby…it is taking him a long time. Marcos and his group appear completely disengaged. The African American male has gone to work with a different group.

Ms. Alvarado sits on the floor with an African American girl, working with her. One student comes to ask Ms. Alvarado if every group member has to take notes and she says yes.

What do I hear as I listen to the students?

"Uh, hold on, I need to go get something."

"I wonder how you get those little things to pop up?"

"The military leaders…can't hear."

"When everybody gets done, we're…"

"SO what is…"

"So, after the bombing of Pearl Harbor…women…"

"Who is WASP?"

Marcos gets up to go get clarification from Ms. Alvarado. I don't think he believed his group member. Marcos and his group members are each writing down information on their paper.

Group Member (GM): "Man, what are you doing?" The African American male rejoins Marcos' group.

I am five feet from Marcos' group, but I cannot hear them because of the boys about ten feet behind me.

GM1: "Let's do this one."

GM1: "What do you want to do?"

GM1: "How about this one?"

She is directing all of these comments at Marcos…I cannot hear what he is saying to her."

…

Ms. Alvarado comes to Marcos' group and asks which interesting facts they have written

down (February 8, 2011).

Appendix J

Paired Samples t-test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	askfriendpre - askfriendpost	-.50000	.57735	.28868	-1.41869	.41869	-1.732	3	.182
Pair 2	readstryagainpre - readstryagainpost	-.25000	.50000	.25000	-1.04561	.54561	-1.000	3	.391
Pair 3	underlinepre - underlinepost	.25000	.50000	.25000	-.54561	1.04561	1.000	3	.391
Pair 5	remintrstpartspre - remintrspartpost	-.25000	.95743	.47871	-1.77348	1.27348	-.522	3	.638
Pair 6	checkthrustrypre - checkthrustrypost	-.50000	.57735	.28868	-1.41869	.41869	-1.732	3	.182
Pair 7	dictionarypre - dictionarypost	.00000	.81650	.40825	-1.29923	1.29923	.000	3	1.000
Pair 8	askothersquestpre - askothersquestpost	-.50000	.57735	.28868	-1.41869	.41869	-1.732	3	.182
Pair 9	differencespre - differencespost	-.25000	.95743	.47871	-1.77348	1.27348	-.522	3	.638
Pair 10	movieinheadpre - movieinheadpost	.25000	1.25831	.62915	-1.75225	2.25225	.397	3	.718
Pair 11	thinkabwhatreadingpre - thinkabwhatreadingpost	-.50000	.57735	.28868	-1.41869	.41869	-1.732	3	.182
Pair 12	ownwordspre - ownwordspost	.25000	.50000	.25000	-.54561	1.04561	1.000	3	.391
Pair 14	askselfquestpre - askselfquestpost	.25000	.50000	.25000	-.54561	1.04561	1.000	3	.391
Pair 15	mainideaovrandovrpre - mainideaovrandovrpost	-1.00000	1.15470	.57735	-2.83739	.83739	-1.732	3	.182
Pair 16	whthappensnextpre - whathappensnextpost	-.25000	1.25831	.62915	-2.25225	1.75225	-.397	3	.718
Pair 17	saywordsovrandovrpre - saywordsovrandovrpost	-.50000	.57735	.28868	-1.41869	.41869	-1.732	3	.182
Pair 18	somethingsimilarpre - somethingsimilarpost	-.25000	.50000	.25000	-1.04561	.54561	-1.000	3	.391
Pair 20	skippartsidontknowpre - skippartsidontknowpost	.00000	.81650	.40825	-1.29923	1.29923	.000	3	1.000

Reading Strategies Questionnaire

Reading Strategies Questionnaire	Always	Sometimes	Never
I read the story over again upon completion of the first reading.			
I underline the important parts of the story.			
I ask a friend for help if I don't understand.			
I keep a picture of the story in my mind.			
I remember the interesting parts and skip others.			
I check through the story to see if I remember all of it.			
I look up a word I don't know in the dictionary.			
I ask questions about parts of the story that I don't understand.			
I look for things that are different in the story.			
I imagine the story like a movie in my head.			
I think about what I am reading.			
I try to tell the story in my own words.			
I read the story as fast as I can.			
I ask myself questions about the story.			
I say the main ideas over and over.			
I think about what's going to happen next in the story.			
I say the words in the story over and over again.			
I think of something that has happened to me which is similar to the story.			
I read slowly and carefully.			
I skip the parts of the story that I don't understand.			