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The Relations Among Summarizing Instruction, Support for Student Choice,
Reading Engagement and Expository Text Comprehension

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The Relations Among Summarizing Instruction, Support for Student Choice, Reading Engagement and Expository Text Comprehension

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Research on early adolescence reveals significant declines in intrinsic motivation for reading and points out the need for metacognitive strategy use among middle school students. Research indicates that explicit instruction involving motivation and metacognitive support for reading strategy use in the context of a discipline is an efficient and effective means of increasing reading comprehension. Studies also show evidence that reading engagement mediates the relations between instruction and comprehension. The study investigated the effects of explicit strategy instruction in summarizing combined with offering students meaningful choices in the classroom as instructional practices for increasing students' reading engagement and expository text comprehension in social studies.

The participants were predominantly African American students from sixth grade using a concurrent embedded mixed methods design. The quantitative portion of the design analyzed the outcomes while the qualitative portion focused upon students' subjective experiences. The three class sections were randomly assigned to one of three conditions: the experimental section received instruction in summarizing and was provided with student choice; the second section received instruction in summarizing alone; the third section was provided with student choice alone.

The study's most important result showed how the combination of explicit instruction in summarizing and providing meaningful choices in the classroom produced significant increases in expository text comprehension. Furthermore, posttest reading engagement differences affirmed the importance of choice. Moreover, the partial mediation of reading engagement on expository text comprehension adds to evidence of the importance of including both motivational practices in the classroom and explicit instruction to increase reading outcomes. Lastly, the study presents details on the types of student choice preferences which coincide with reported levels of high engagement.

In conclusion, the study demonstrated student increases in expository text comprehension using reading engagement principles altered to focus upon one motivator and one reading strategy in the discipline of social studies. It also provides a new demonstration of flow theory as it relates to social studies instruction. Deliberate classroom interventions, which include student diversity and interests through providing meaningful choices, along with explicit instruction in summarizing, can create a classroom of engaged learners with improved reading comprehension levels.

This dissertation by Amy Root Littlefield fulfills the dissertation requirement for the doctoral degree in Educational Psychology approved by Kathleen Perencevich, Ph.D., as Director, and by John Convey, Ph.D. and Rona Frederick, Ph.D., as Readers.

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Dedication

This dissertation is dedicated to my mother, Sally Grumman Root, who is always with me.

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CHAPTER 1 – INTRODUCTION

Educational researchers continually strive to understand and create effective instructional environments for students. Research indicates that two important components of effective instruction include cognitive and metacognitive strategy instruction and the presence of factors that promote increased student motivation (Blumenthal, 1992; Borkowski, 1992; Borkowski, Carr, Rellinger & Pressley, 1990; Dowson & McInerney, 2004; Paris & Paris, 2001; Pintrich & DeGroot, 1990; Zimmerman, 1989). These two components are particularly important for middle school students because research on early adolescent students reveals significant declines in intrinsic motivation for reading (Eccles, Wigfield et al., 1993) and points out students' particular need to use metacognitive strategies during reading, especially when reading in a difficult content area, such as social studies (Baker & Brown, 1984).

Reading is the building block to all disciplines and numerous studies have examined motivation and strategy use leading to increases in reading comprehension (Borkowski et al., 1990; Chan, 1994; Guthrie, Wigfield, Barbosa et al., 2004; Roeschl-Heils & van Kraayenoord, 2003; Wigfield & Guthrie, 1997). Indeed, the 2000 *National Reading Panel Report* concluded that “comprehension instruction can effectively motivate and teach readers to learn and to use comprehension strategies that benefit the reader” (p. 4-6). The Panel furthermore stated that explicit instruction of reading strategies increases reading comprehension and when these strategies are acquired, students become independent, strategic readers if they are metacognitive about the acquisition and flexible use of the strategies during reading. Metacognitive strategy use refers to the knowledge and self-

regulation that individuals have over their own thinking and learning experiences (Flavell, 1979).

Research indicates that explicit reading comprehension instruction in the context of a discipline such as social studies is necessary for increasing reading comprehension (National Reading Panel, 2000). For example, Klinger, Vaughn and Schumm (1998) studied the effects of teaching comprehension strategies to 9- and 10-year old students in the context of social studies instruction. Students in the experimental condition were taught to use collaborative strategic reading (CSR), which included previewing before reading, monitoring during reading to identify meaning, summarizing what they read, and questioning after reading. The students in this experimental group made significantly larger gains in reading comprehension than the two control groups and were equivalent on measures of increases in content knowledge (Klinger et al., 1998).

However, studies have begun to indicate that isolated strategy instruction is not as effective as it could be because students become disengaged and do not persist when hurdles in reading arise (Guthrie et al., 2006; Pintrich & Schrauben, 1992). These studies have shown that reading engagement is necessary for strategy use to occur. Reading engagement is generally defined from Guthrie as “the mutual support of motivations, strategies, and conceptual knowledge during reading” (Guthrie, Van Meter et al., 1998. p. 261). Indeed, these studies show evidence that reading engagement mediates the relations between instruction and comprehension (Guthrie et al., 2006, Wigfield et al., 2008). For example, researchers found that motivation mediated the effect of a motivator, in this case stimulating tasks, on reading comprehension. Thus, growth occurred in situational intrinsic motivation,

leading to increases in long-term motivation and reading comprehension (Guthrie et al., 2006; Wigfield et al., 2008).

The case will be made for combining motivational support with reading strategy instruction following metacognitive principles. Therefore, the study was designed to foster reading engagement and expository text comprehension for middle school students. Specifically, it studied the effects of including choice and summarizing strategy instruction on sixth graders' expository text comprehension and reading engagement in social studies.

Study

Research Problem

The research problem centers upon how to create conditions in a sixth-grade social studies classroom that result in engaged readers who use metacognitive strategies to comprehend text well.

Purpose of Study

The purpose of this study was to investigate the effects of explicit strategy instruction in summarizing and choice as an instructional practice for increasing students' reading engagement and expository text comprehension for sixth-grade students in social studies classes. The hypothesis was that explicit instruction in summarizing and providing students with meaningful choices would create conditions for increased reading engagement and expository text comprehension. Summarizing involves being metacognitive about selecting the main ideas and supporting details of text in order to better comprehend text. Providing students with meaningful choices during instruction is important because its psychological

benefits lead to increases in reading engagement (Guthrie, Wigfield, Barbosa et al., 2004; Parker & Lepper, 1992; Zuckerman, Porac, Lathin, Smith & Deci, 1978).

Introduction to Review of the Literature

Research in educational psychology over the past thirty years has frequently centered upon instructional components perceived to increase learning that students can control. These strategies of self-regulation have been looked at both separately and as a whole to help design instruction to improve learning. Individual strategies used by learners are not always explicitly taught in the classroom. The metacognitive aspects of these strategies are critical to study as is the presence of student motivation to use them.

Classroom context can either support or hinder both students' motivation and their use of metacognitive strategies. Classroom context includes the behaviors of teachers and students and the classroom environment and this interrelationship impacts how students learn and teachers teach (Turner & Meyer, 2000). The social constructivist perspective of Vygotsky focused upon the importance of culture and social interaction in learning (Vygotsky, 1978).

The current study focused on sixth-graders because multiple researchers view it as a time of significant physical and cognitive changes (Chan, 1994; Paris, Wasick & Turner, 1991; Stipek & Mac Iver, 1989; Zimmerman, 2002). Studies have shown that early adolescents from ages ten to fourteen show declines in their school motivation and performance (Eccles & Midgley, 1989). Many researchers have pointed to the following factors as reasons for the decline in middle school students' motivation: (a) the lack of a sense of belonging and connectedness (Roeser & Eccles, 1998); (b) feeling a loss of control

over the environment (Zanobini & Usai, 2002) and (c) student concerns with competition and outperforming others (Meece, 2003).

The author advocates integration of skills across disciplines, and desired to focus upon instruction of reading strategies in a choice condition to increasing reading comprehension of social studies texts. Researchers point out that strategy instruction is often taught in isolation and therefore is not effectively used by students in the social studies context (Brophy & Alleman, 1991). Thus, instruction of reading strategy skills in the context of a discipline gives students explicit applications for the metacognitive use of these skills.

In addition, investigations of motivational aspects of the social studies classroom include the use of primary documents and artifacts (Fuhler, Farris & Nelson, 2006) and support for students making meaningful choices about their learning (Kosky & Curtis, 2008). This study is based on the Self-Determination Theory of Motivation (Ryan & Deci, 2000), which includes three innate needs that influence self-regulation and intrinsic motivation. Ryan and Deci (2000) posit that when students have their needs for competency, relatedness, and autonomy met in the classroom, they will freely choose to do learning tasks because they enjoy them. The motivator of choice is selected because feelings of autonomy and competence are increased when students are allowed to make meaningful choices during their learning experiences.

Along with motivation, metacognitive reading strategies are critical for producing engaged readers with high levels of reading comprehension. Metacognition includes the knowledge and self-regulation that individuals have over their own thinking and learning experiences and its purpose is to help students understand and control their own learning.

Metacognitive reading strategies are best learned starting in adolescence and through explicit instruction (Cornford, 2002).

The Theory of Discourse Comprehension (Kinstch & van Dijk, 1978) provides the theoretical background for reading comprehension in the study. This theory describes how meaning is created through mental representations of text and how main ideas are remembered and interrelate. Adolescent reading metacognition involves a synchronized ability to create meaning, monitor and assess by the reader, which is influenced by the reader's sociocultural experiences (Pressley & Afflerbach, 1995). Reading metacognition includes the four variables of text structure, tasks, strategies, and the learner characteristics of self-awareness and emotion (Collins, 1994).

In this study, summarizing is the focus since it assists students in synthesizing ideas and generalizing information in texts (National Reading Panel, 2000). Sixth-grade students are at the age wherein they are increasing the complexity and content of their writing through both expository and narrative writing. Brown and Day's (1983) six rules of summarization, which are ranked in order of sophistication, are compatible with van Dijk and Kintsch's (1983) Theory of Discourse Comprehension, which was used to guide the instruction for summary writing.

The instructional model, called Concept-Oriented Reading Instruction (CORI), which incorporates the view of Self-Determination Theory, comprises both motivational support and strategy instruction in reading to produce improvements in both reading engagement and comprehension (Guthrie, Wigfield, Barbosa et al., 2004). Many studies have advocated a combination of motivational support and strategy instruction resulting in readers who are

active and read more text (Borkowski et al., 1990; Chan, 1994; Collins, Dickson, Simmons, & Kameenui, 1996; National Reading Panel, 2000). This study focused upon the instruction of one reading strategy, summarizing, and the presence of one motivator, choice, to examine the effects on student situated intrinsic motivation, reading strategy use, text comprehension, and reading engagement.

Contribution and Originality of Study

This study is important because of its unique focus on middle school student motivation and use of reading strategies in the discipline of social studies. Literature in this topic for social studies is lacking and will provide an additional context application. Much of the literature on similar programs has centered upon science and reading, with students only up to fifth grade (Guthrie, van Meter et al., 1998; Guthrie & Wigfield, 2000; Guthrie, Wigfield, Barbosa et al., 2004; Guthrie, Wigfield & Perencevich, 2004; Guthrie et al., 2006).

The study provides support for the effectiveness of metacognitive and engagement principles on sixth grade students due to their more developed cognitive abilities over late elementary students, while concurrently striving to curb the decreases in motivation that occur in middle school beginning at this age. Sixth grade is an optimum age for learning and appreciating the use of effective reading strategies due to the students' level of cognitive development. The strategy of summarizing is excellent for instructing at this age during the time they are learning elements of essay writing for various disciplines. It is also a perfect age for providing motivators in the classroom that will help keep students focused and enthusiastic about learning. Furthermore, the instructional practices can be utilized in other classrooms and the results generalized to other similar populations. Finally, the population

of predominantly African American students differentiates the study from previous studies on reading engagement that included mainly Caucasian students as participants (Guthrie, Wigfield, Barbosa et al., 2004; Wigfield & Guthrie, 1997). There is a significant need to understand effective instruction for African American adolescents. To date, there are no intervention studies that have explicitly compared a reading engagement model (i.e., strategy plus choice) with strategy only and choice only conditions for a sample of middle school African American students. The study addresses this crucial need in the field.

The study was conducted to create a sense of relevance for students by recognizing the diversity of cultural backgrounds included in the class, both African American and other groups. Au (1998) advocates that the primary goal in education for students of diverse backgrounds should be student ownership of learning and literacy through teachers embracing a constructivist orientation with a diverse viewpoint. By inclusion of choices in a number of areas ranging from groups to topics to readings to assessments, all students were regarded as important members of the classroom community. Choices led to students' feelings of ownership of their learning, allowing them to explore topics and interpret text in their own unique ways.

Definition of Terms

Choice

Choice refers to providing the opportunity for students to select from a variety of instructional options based on their interest, ability, and confidence.

Comprehension

Comprehension refers to the ability to understand text. Durkin (1993) defined reading comprehension as a deliberate process that occurs between the text and the reader. Thus the meaning of text is determined both by the content of the text and by the reader's previous experiences and knowledge, and is an active process.

Metacognition

Metacognition was originally defined by Flavell (1979) as the knowledge and control individuals have over their own cognition and learning experiences. Flavell discussed two separate phenomena of metacognition in his work. These were 1) knowledge (i.e., awareness about cognition) and 2) regulation of cognitive behavior (Flavell, 1979). Bransford, Brown and Cocking (2000) put it simply, stating that metacognition is the "ability to monitor one's current level of understanding and decide when it is not adequate" (p. 47).

Reading Engagement

Reading engagement is generally defined as "the mutual support of motivations, strategies, and conceptual knowledge during reading" (Guthrie, Van Meter et al., 1998, p. 261). The framework from Guthrie, Wigfield, Barbosa et al. (2004) comprises both motivational support and strategy instruction. The four characteristics of engaged readers outlined by the researchers are: cognitive competence (use of comprehension skills and comprehension strategies), motivation, knowledge-driven, and socially interactive in learning. As reading engagement includes cognitive competence, the investigation of metacognition as it relates to reading is essential. Engagement is further described as "high concentration, interest, and enjoyment" (Shernoff, Csikszentmihalyi, Schneider, & Steele-

Shernoff, 2003, p. 161). These researchers link engagement to flow theory, which is characterized by the balance between high challenge and high skill to perform an activity (Hektner, Schmidt, & Csikszentmihalyi, 2007), utilized in the measurement portion of the study.

Summary

A summary consists of condensing a passage of text into its main idea and supporting details in a coherent and accurate form. The National Reading Panel (2000) defined summarization as when “the reader attempts to identify and write the main or most important ideas that integrate or unite the other ideas or meanings of the text into a coherent whole” (p. 4-6).

Methodology

Participants

The participants in this study were 66 students in sixth grade in a religiously-affiliated independent school. The school population’s ethnic composition is predominantly African American students. Students were divided into three sections of 22 students.

Procedures

The three class sections were randomly assigned to one of three conditions: one section of students received instruction in summarizing and was provided with student choice; the second section of students was provided with student choice alone; the third section received instruction in summarizing alone.

Experimental condition (Group 1). The instructional unit took place over a five-week period. The content of the unit was Ancient Rome concurrently with instruction on the

reading strategy of summarizing and presence of choice as the motivator. The reciprocal teaching model was used in this study for summarizing instruction as it is designed for the development of comprehension monitoring reading activities through direct instruction and modeling (Palincsar & Brown, 1984). Additionally, the CORI model of Guthrie, Wigfield and colleagues was incorporated which combines strategy instruction with motivation support to create engaged readers and improve reading comprehension (Guthrie & Wigfield, 2000). A wide variety of choices prevailed in the classroom throughout the unit that ranged from topics for skits, articles to read, writing assignments, and groups.

“Choice only” condition (Group 2). The instructional unit content of Ancient Rome remained identical to the experimental condition. No summarizing instruction occurred, but students still wrote a summary in the computer lab during the unit. Students received a variety of choices during the unit as in the experimental condition.

“Summarizing instruction only” condition (Group 3). The instructional unit content of Ancient Rome matched the previous two conditions and instruction on the reading strategy of summarizing occurred at the same time. The reciprocal teaching model also provided the summarizing instruction. Students were not provided with choices as in the experimental condition. For example, all students read the same passages and articles.

This study examined the relations among summarizing instruction, support for student choice, reading engagement, and expository text comprehension using a quasi-experimental pretest, posttest design with a concurrent embedded mixed methods design (QUANqual) over a five-week period. A mixed methods approach was chosen to present a complete view and understanding of the results from providing both summarizing instruction

and choice on students. The quantitative portion of the design analyzed the outcomes while the qualitative portion focused on students' subjective experiences. The author served as the researcher-practitioner for the study and fidelity was assured through audiotaping of instruction, administration of assessments and inventories by another teacher, and the fact that no data was reviewed until completion of the study.

The independent variables included providing more student choice and teaching summarizing. The dependent variables were situated intrinsic motivation, reading strategy use, expository text comprehension, and engaged reading (motivation plus reading strategy use). The control variable was previous reading achievement.

Measurement of Dependent Variables

Measurement of the dependent variables was conducted through pretests and posttests. The pretests, given to all three groups, measured motivation level for reading and social studies, summaries written by the students for assessing summary writing, and essays written by the students for assessing reading comprehension. During the instructional period daily reading motivation logs were completed by students based on the Experience Sampling Method (ESM) (Hektner et al., 2007). After the instructional period, the posttests included the same motivation questionnaire, summaries and essays for all three groups. Specific directions for administration of all measures are included in the appendices.

Data Analysis

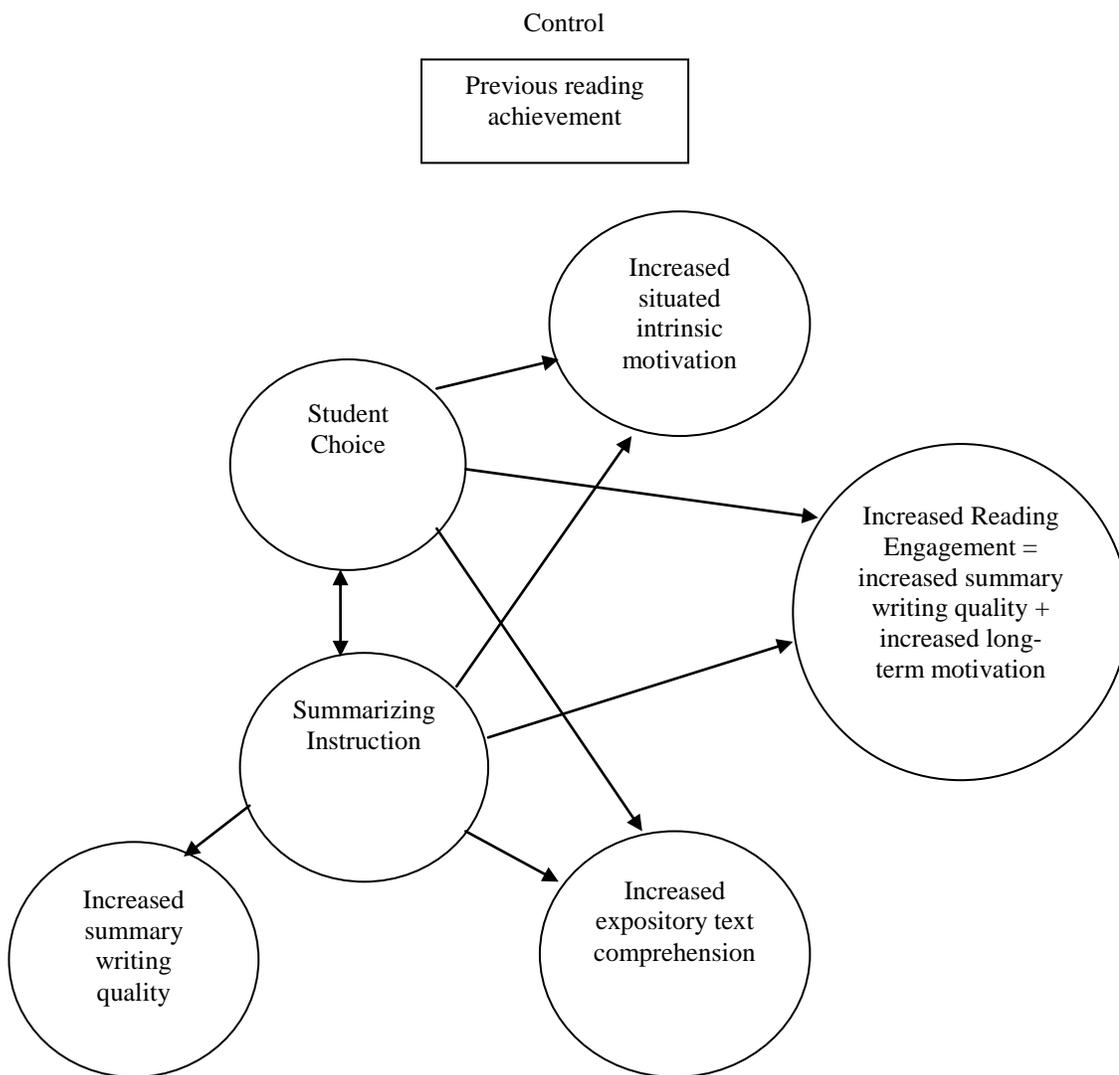
The data was compared to assess changes in the four dependent variables of situated intrinsic motivation, reading strategy use, expository text comprehension, and engaged reading (motivation plus reading strategy use) as a result of the instructional unit and it was

anticipated that the measurements will show the highest increases in all four dependent variables for the group receiving both summarizing instruction and choice.

Figure 1

Model of Support for Student Choice and Summarizing Instruction

Group 1 instructional condition: providing both student choice and summarizing instruction



Research Questions and Hypotheses

1) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ situated intrinsic motivation?

Hypothesis A: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students’ situated intrinsic motivation when compared with a “summarizing instruction only” condition and a “choice only” condition.

Measurement: Students’ situated intrinsic motivation in social studies text were qualitatively measured using daily reading motivation logs completed by students (Hektner et al., 2007).

2) Does metacognitive strategy instruction in summarizing significantly increase students’ content knowledge in their pretest to posttest summary writing?

Hypothesis B: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports both student choice and summary writing will significantly increase students’ content knowledge in their pretest to posttest summary writing.

Measurement: Brown and Day’s (1983) six rules of summarization, which are ranked in order of sophistication, were used to evaluate the student summaries and the procedure and scoring technique are from Armbruster, Anderson and Ostertag (1987). Blind raters received typed transcriptions of summaries and ratings are derived from coding for

content in relation to expert summaries written by experienced middle school teachers.

Scoring will use ANOVA for comparison between the groups.

3) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ comprehension of expository text in a social studies topic?

Hypothesis C: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will show significant pretest to posttest increases in students’ expository text comprehension when compared with a “summarizing instruction only” condition and a “choice only” condition.

Measurement: Comprehension of expository texts were measured through using analysis of student essays through the same procedure and scoring and quantitative techniques as the summaries.

4) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ self-reported long-term reading engagement in social studies?

Hypothesis D: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students’ self-reported long-term reading engagement when compared with a “summarizing instruction only” condition and a “choice only” condition.

Measurement: Students' long-term motivation in social studies text were measured pretest and posttest through a modified version of the Perceptions for Reading Motivations Questionnaire (Guthrie, Coddington & Wigfield, 2009), combined with the scores for the content of summary writing using ANOVA.

5) Will reading engagement mediate the relations between instruction and expository text comprehension?

Hypothesis E: In response to an instructional condition which supports *both* student choice and summary writing, reading engagement will act as a mediator (Baron and Kenny, 1986) to cause significant increases in expository text comprehension.

Measurement: Baron and Kenny's (1986) mediator model investigated reading engagement as the mediator between the two independent variables and the dependent variable of expository text comprehension.

6) Will students report being engaged more often in an instructional condition which supports *both* student choice and summary writing when compared with a "summarizing instruction only" condition and a "choice only" condition?

Hypothesis F: Students in an instructional condition which supports *both* student choice and summary writing will report being engaged significantly more than students in a "summarizing instruction only" condition and a "choice only" condition.

Measurement: Students' situated intrinsic motivation in social studies text using daily reading motivation logs completed by students (Hektner et al., 2007) was compared among the three groups.

Chapter 2 reviews the literature for the study. This includes overall motivational theory and context as it applies to the study, the use of choice as a motivator, social studies and motivation, metacognitive reading strategies, the instruction of the metacognitive reading strategy of summarizing, and the interplay between motivation and metacognitive reading strategies to improve reading comprehension and engagement. The study investigates how all of these factors combined interact on middle school student learning and motivation of social studies. The National Reading Panel (2000), in its suggestions for future research, asked, “Can instruction in reading comprehension strategies be successfully implemented and incorporated into content area instruction?” (p. 4-9). Thus, this study attempts to answer the Panel’s recommendation in the affirmative.

CHAPTER 2 - REVIEW OF THE LITERATURE

Classroom Context

Classroom context has been defined in numerous ways and context is an important consideration in the design and implementation of a study. Turner and Meyer (2000) conducted a literature review that defined classroom context as “the beliefs, goals, values, perceptions, behaviors, classroom management, social relations, physical space, and social-emotional and evaluative climates that contribute to the participants’ understanding of the classroom” (p. 70). The researchers further explained that instructional context is a part of classroom context that includes how teacher, students, subject, and subsequent pedagogy impact what students learn, how teachers teach, and student motivation. They admitted that context areas are complicated and interconnected, thus producing a continually changing, dynamic atmosphere (Turner & Meyer, 2000).

Furthermore, A. L. Brown (1997) created a program called Fostering Communities of Learners (FCL), later discussed regarding the instructional approach of reciprocal teaching, which was designed to add to literacy and subject knowledge in science for urban students. The purpose of FCL was to create a classroom environment for children to increase their deep thinking and to develop strategies for learning that could be applied across domains. Brown’s classrooms included the promotion of self-regulation, self-reflection, collaboration, and culture.

Additionally, Vygotsky, through his social constructivist perspective, emphasized how culture and social interaction guide cognitive development. Besides including maturation, experience, and self-regulation in explaining how development occurs, Vygotsky

focused upon social transmission, theorizing that learning is socially constructed and the language and tools of a culture will help students learn a concept. This includes scaffolding of the skill by the instructor to the student (Vygotsky, 1978).

Related to social constructivist learning is cultural responsiveness, also included in the classroom context (Kea, Campbell-Whatley & Richard, 2004). In the hope of increasing engagement and hence learning, the constructivist view of including previous experiences to build knowledge is inherent for student success. According to Ford and Kea (2009), “to be culturally responsive means that teachers work proactively and assertively to understand, respect, and meet the needs of students from cultural backgrounds that are different than their own” (p. 1).

In order to create an atmosphere of learning in which all students would feel comfortable and excited about the unit, this study included elements of culturally responsive instruction by incorporating the prior experiences and learning styles of students to respect differences. One of the primary elements within this type of instruction is the caring attitude of the teacher and acceptance of cultural differences (Gay, 2000). In a qualitative study, Howard (2001) also found that students displayed preference for caring attitudes of teachers and an interesting learning environment.

According to Au (1998), the main goal in education for diverse student populations should be student ownership of learning and literacy through a diverse constructivist viewpoint from teachers. Au elaborates that the key to successful literacy is creating meaningfulness for the learner by continually including their experiences and interests. This

increases situational interest, thus promoting engagement. In addition, providing choices of literacy needs to be incorporated within reading skill instruction.

Traditional instructional practices conflict with the different learning styles of African American students who often have trouble sustaining attention and become bored during classroom instruction that is teacher-based (Allen & Boykin, 1992). Teaching strategies for cultural responsiveness outlined by Ford and Kea (2009) include student-centered instruction such as debates, discussions and use of groups based on skills and interests, with collaboration and cooperative learning leading to student success. Furthermore, activities as music and movement are important for increasing and maintaining engagement in the classroom. (Allen & Boykin, 1992).

Motivation and Middle School

This study focused upon the middle school age of sixth grade as many studies and articles concentrate upon the problems of middle school students; thus, this appears to be a critical time of change both physically and cognitively. In the early adolescent period from ages 10 to 14, research has shown declines in school motivation and performance (Eccles & Midgley, 1989). Of particular concern to the current study, Unrau and Schlackman (2006) found a decline in motivation for reading in urban students as they progressed through middle school. In contrast, the study observed intrinsically motivated students were inclined to score significantly higher on reading comprehension assessments, thus displaying smaller declines in reading from grades six to seven and seven to eight.

Eccles et al. (1993) further studied the responsibility of school and classroom environments for the decline. A two-year study found that decrease in motivation was due

not because of the adolescent age of the student but because of a disconnection between the needs of students and the opportunities in most middle schools. Therefore, they pointed out that these often adverse environmental changes in the transition to middle school include increases in teacher control, decreases in teacher effectiveness and relations with students, and increases in ability grouping.

Changes in middle schoolers' sense of belonging was compared to GPA, motivational variables, and teacher promotion of mutual respect in classes (Anderman, 2003). The study reported a decline in the sense of belonging and connectedness to school from the spring of sixth grade to the spring of seventh grade. Roeser and Eccles (1998) observed an increase in cutting classes or school from seventh to eighth grades along with an increase in angry feelings.

A study on the transition from fifth grade to middle school noted changes in specific aspects of self-concept, motivation and school achievement. The authors hypothesized that the transition to middle school involves feeling loss of control over the environment, which may cause the student not to perform successfully. Student motivation to continue efforts in the new situation and in new domains may therefore be reduced (Zanobini & Usai, 2002).

Furthermore, Meece (2003), in a study of 2,200 diverse students from various parts of the United States, identified significant changes occurring during late elementary and early adolescence, with students more concerned with competition and outperforming others. Also, Roeser and Eccles (1998) found that upon beginning middle school, self-perception is often poor regarding academic competence, reducing student regard for the value of school. This often results in student truancy and decreased academic performance observed in a

longitudinal study of 1,046 students from 23 middle schools between seventh and eighth grade. MANOVAs showed decreases over time of self-concepts regarding academic ability and the value of education while simultaneously showing increases in truancy (Roeser & Eccles, 1998).

Ogbu (2003), in an ethnographic study, investigated low school performance of minority students in a suburb in Ohio, closely examining why African American students were disengaged from academic work. He looked at societal and school factors, along with community forces that included the beliefs and behaviors regarding education. He observed:

Students were not highly engaged in their schoolwork and homework. The amount of time and effort they invested in academic pursuit was neither adequate nor impressive.... Middle school students believed that Black students got poor grades because they did not work hard in class and did not do their schoolwork. (Ogbu, 2003, p. 18)

Ogbu discussed the “norm of minimum effort” (p. 18), which states that the goal was to work only hard enough to get through but not to excel at academics. Although Ogbu concluded that culturally responsive strategies are limited and advocated a more comprehensive solution involving community, parents and the schools, he felt it was essential that teachers increase their personal awareness of the problem in order to take proactive steps for improving African American student engagement (Ogbu, 2003).

Motivation Theory

The theory of motivation that relates strongest to reading motivation in the context of this study is Self-Determination Theory (Ryan & Deci, 2000) as it contains three needs that

influence self-regulation and intrinsic motivation, which will further be shown to coordinate with use of metacognitive strategies. In Self-Determination Theory (SDT), individuals are viewed as possessing a need to freely choose what activities they will do versus feeling controlled or pressured. Ryan and Deci (2000) identified the needs within SDT as competence, relatedness, and autonomy, using the definitions from other researchers. Competence was defined as the feeling of being able to do or perform a task in a particular area and is dependent on both a person's ability and the situation (Covington & Dray, 2002). Relatedness was defined by Connell and Wellborn (1991) as a need to feel socially connected to one's environment and to feel oneself as worthy and capable in the eyes of others. Finally, autonomy deals with taking charge of and responsibility for one's own learning. Students possessing autonomy are also confident to ask a teacher for help when needed (Newman, 2002). Reeve (2009) states, "By taking and integrating the students' perspective into the flow of instruction, teachers become both more willing and more able to create classroom conditions in which students' autonomous motivations align with their classroom activity" (p. 162).

Multiple studies have indicated that competence, relatedness and autonomy lead to intrinsically motivated behavior, meaning people choose to do something because they derive pleasure and feelings of accomplishment from it. Furthermore, various modes of action motivation can be placed along a continuum from intrinsically motivated to extrinsically motivated (Ryan & Deci, 2000). Culturally responsive instruction is a form of autonomy support as it includes adopting the perspective of students, which supports their motivational development and ability to self-regulate and monitor their behaviors (Reeve, 2009).

Choice as a Motivator

The selection of choice as a motivator for this study is demonstrated in a number of studies investigating the factors that enhance learning. Both the authors of Self-Determination Theory, Deci and Ryan, and other researchers point to a match between SDT principles and the use of choice as a motivator in learning. Choice is important because it increases student autonomy, relatedness and competence.

Autonomy and Choice

Deci and Ryan (1985) and Deci, Vallerand, Pelletier, and Ryan (1991) postulated that allowing students to choose can lead to feelings of autonomy in SDT, thus enhancing intrinsic motivation and interest in a subject or topic. Katz and Assor (2007) agreed stating, “When a given choice provides an opportunity for self-realization it is experienced as autonomy-supportive, and therefore as motivating” (p. 432). Other studies focusing upon choice include both interest and the idea of engagement (Parker & Lepper, 1992; Zuckerman et al., 1978).

Types of choices. In observing the options for providing choice, Katz and Assor (2007) pointed out that student abilities must correspond with the types of choices given in order to increase autonomy, thus motivation. They tied their ideas to Vygotsky’s (1978) zone of proximal development (ZPD). Vygotsky defined the Zone of Proximal Development as the particular time span for optimum cognitive development and believed that learning leads to cognitive development.

Type of choice was found to be important in a study by Reynolds and Symons (2001) who showed that children demonstrated higher motivation for choice of topic versus choice

of response format during an information-search task. Topic choice increased performance on the task and was assumed by the researchers that this was due to student interest in the chosen topic.

Increases in students' perception of autonomy using choice have occurred when teachers allow students to take part in choosing the task and the goal, along with choice of how to complete the work and how assess it (Alfi, Assor & Katz, 2004; Flowerday & Schraw, 2000). Furthermore, besides tasks that match students' goals, tasks that are interesting also increase their perception of autonomy (Assor, Kaplan & Roth, 2002). Additionally, students need organizational and procedural autonomy support along with cognitive autonomy support in order for long-term intrinsic motivation to develop. Organizational and procedural support includes choices such as those for task procedures and activities, whereas cognitive autonomy support regards encouraging the students to think on their own (Stefanou, Perencevich, DiCinto & Turner, 2004). Finally, success was found when teachers let students choose how to perform a task, ways of evaluation, and ways to present the work (Reeve, Nix & Hamm, 2003). Therefore, choices must be of interest to the student to be deemed as motivating.

Relatedness and Choice

Flowerday and Schraw (2000) stated that choice provides options for students to learn about topics that are valuable to them. Also, perceptions of relatedness are important to students from particular cultural and ethnic groups. Thus these needs must be incorporated into the types of choices presented so that conflicts with student cultural values do not occur (Katz & Assor, 2003).

Competence and Choice

In addition to autonomy and relatedness, choice also increases the SDT factor of competence. Students are able to improve their skill and show what they have learned by choosing their task, assignment or topic (Burger, 1987). Furthermore, the classroom context should give appropriate feedback to students so that they are not compared with other students, leaving them to concentrate on their chosen task (Brophy, 1981).

Levels of difficulty. Choices are typically made at an intermediate level of difficulty, thus ensuring student feelings of competence. For example, if choice levels are too easy or too challenging, motivation will most likely decline (Deci & Ryan, 1985). Furthermore, subsequent researchers concurred that choices which are too complex lead to frustration and difficulty making decisions. Calling this choice overload, the authors concluded that this often ends as no choice given or a lack of commitment to a choice (Iyengar, Huberman, & Jiang, 2004).

Number of choices. Determining optimum number of choices was investigated in a study where subjects were given between 6 and 24 choices. The results showed that the participants preferred a small range of choices (Iyengar & Lepper, 2000), thus increasing their competence.

Reading and Choice

The literature includes studies on the impact of choice on reading. First, researchers found that when students are provided with choices for what to read they demonstrated added situational interest, meaning context interest (Schraw, Flowerday & Reisetter, 1998). Next, in an additional study the researchers looked at how choice and personal interest effected

situational interest and text comprehension. They found that students with a low personal interest in a topic who were given a choice of what to read ended up increasing their level of situational interest (Flowerday & Schraw, 2000). Finally, in another study the researchers examined how choice, situational interest, and topic interest influenced reading engagement. In this case, they used a pre-intervention 10-item topic interest index, a 10-item interest inventory following the intervention, a multiple choice test following the interest inventory, two essays, and an attitude checklist. The essays were a content essay and a personal reaction essay. They found that choices must be of situational interest to students, thus increasing quality of work produced (Flowerday, Schraw & Stephens, 2004). Thus, choice must be meaningful in order for motivation to occur.

Social Studies and Motivation

The literature contains a few examples regarding social studies skills and motivation that focus on curriculum and instruction and/or assessment. This study continued along these lines in its design to promote both effective reading strategy use and reading motivation in the context of social studies.

Curriculum and Instruction

Curriculum of various disciplines including social studies as it related to the selection and design of instructional activities underwent examination and the authors found problems that led to ineffective instruction (Brophy & Alleman, 1991). They discussed the use of activities that were difficult for teachers to implement and did not produce significant learning experiences and also mentioned the inclusion of instructing skills in isolation from subject knowledge. Thus it is important to provide skills instruction such as reading strategy

instruction in the context of the content area, which applies to this current study in social studies.

Student learning styles, classroom environment, and performance in the classroom are important to student success. In social studies and science classrooms, the researchers found a correlation between higher GPAs and perseverance, motivation and the learning modalities of auditory, touch and kinesthetic (Rayneri, Gerber & Wiley, 2006). Similarly, Gehlbach (2006) investigated whether student goal orientations change over the course of the school year and found that increases in mastery goal orientations were positively related to such outcomes as social studies knowledge, interest, and satisfaction.

It is essential that students are active participants in their learning in order to increase situational interest. This is especially true in regards to comprehension of social studies text, as it is presented in a variety of materials in addition to textbooks. These include primary source documents, trade books, newspapers, and photographs (Key, Bradley & Bradley, 2010). In addition, the positive effect on social studies reading motivation was illustrated by the use of primary documents and artifacts (Fuhler et al., 2006). Finally, a study using action research investigated integration of the arts in social studies to augment student motivation, participation and achievement (Kosky & Curtis, 2008). The researchers found that these aspects were all increased, with choice appearing as the greatest influence upon motivation and participation.

Assessments

In examinations of social studies classroom assessments, the researchers concluded that student perceptions of self-efficacy, effort to complete, goal orientations and use of

learning strategies varied within the same assessment environment in the classroom (Brookhart & Durkin, 2003). The effect of changes in classroom assessment environments on social studies was looked at again in 2006. As in the previous study, the environments included student perceptions of assessments, self-efficacy, and mastery goal orientations. The results showed that classroom achievement was influenced by the assessment environment and the best predictor of motivation was perceived self-efficacy (Brookhart, Walsh & Zientarski, 2006).

Metacognition and Learning Strategies

Definition of Metacognition

Metacognition was originally defined by Flavell (1979) as the knowledge and control individuals have over their own cognition and learning experiences. Flavell discussed two separate phenomena of metacognition in his work. These were 1) knowledge (i.e., awareness about cognition) and 2) regulation of cognitive behavior (Flavell, 1979). Bransford, Brown and Cocking (2000) put it simply, stating that metacognition is the “ability to monitor one’s current level of understanding and decide when it is not adequate” (p. 47).

Purpose of Metacognition

The purpose of metacognition is to help students clarify material and change them into active learners, controlling their own learning. Metacognition is best developed beginning in adolescence. In addition, in terms of the elements of metacognition, as learners acquire knowledge and skills, they plan, monitor and modify their cognition at various stages (Baker & Brown, 1984). This was further expanded in Craig and Yore (1996) by defining planning as “goal setting, accessing prior knowledge, identifying additional information

sources and selecting appropriate strategies” (p. 227). Monitoring was defined as “self-questioning, reviewing and testing” (p. 227). Finally, regulation is seen as “refocusing attention, adjusting effort, and selecting alternative strategies” (p. 227). Besides the original inclusion of knowledge and self-regulation proposed by Flavell, current theorists also include motivation (Borkowski, 1992).

Metacognition helps students to clarify material. Students assimilate new material from what they have remembered of prior experiences. Metacognition promoted during instruction can produce self-regulated learners that are active and can transfer their skills among disciplines. Two essential features of metacognition are defined as self-appraisal and self-management (Taylor, 1999). Self-appraisal is personal reflection on one’s own state of knowledge and abilities. Self-management includes the mental processes that help problem solving like an internal dialogue of questioning. By the time a student gets to high school, his or her self-perception is often as feeling passive in the learning process. They believe that the teacher is tasked to teach and they are there to listen. Furthermore, many students have never been taught to study and do not understand the learning process (Taylor, 1999). The development of metacognition changes this to an active process that engages the learner and puts them in control of his or her own learning.

Learning must be made personal to the student and tied to related ideas in the mind of the student. The instructor begins to encourage students to ask themselves questions and monitor their own learning through self-introspection in the hope of eventual automated behavior (Taylor, 1999). The teaching strategies to enhance metacognition may include those that focus on sense-making, self-assessment, and reflection on what strategy was a

success and what improvements should be made. This includes transfer to other disciplines, settings, and events (Bransford et al., 2000). Case and Gunstone (2002) argue that metacognitive instruction must be integrated within the curriculum's content, not taught in separate study skills programs that have met with limited success. They also recommend that enhancing metacognition requires long-term commitment and input from both teachers and students. Cornford (2002) agreed with this approach, also suggested teaching metacognitive strategies within subject content along with the additional teaching of explicit and overt strategies to ensure that students utilize these purposefully.

Adolescent strategies differ. They often can perform a strategy when required to do so, but may not do so on their own without prompting. Therefore, instruction of metacognitive strategies, linked with a variety of tasks and situations, will increase their consistent use (Andrews, Mulcahy & Short, 1991).

Model of Text Comprehension

The model used for this study regarding how text is understood is the Theory of Discourse Comprehension (Kinstch & van Dijk, 1978), a bottom-up model that states the meaning of a text begins at the word level. It then proceeds to the understanding of clauses that include words, to the comprehension of sentences, and finally to the overall meaning of the text. All during the process there is movement in both directions between levels. This means that word level comprehension leads to emerging understanding of the whole text, while at the same time, the overall understanding of text affects learning text meaning of later words. As the reader begins to understand the text, he or she creates a mental model of the situation represented by the text, which results in understanding of the events, characters, and

actions within the text. This occurs in both narrative and expository text (van Dijk & Kintsch, 1983).

Van Dijk and Kintsch discussed three different mental representations of text. One is a representation of the exact words of the text. The next is a semantic representation, which is the meaning of the text. Third is a situational representation of the state that the text references. Readers end up remembering the main ideas and how they interrelate, called macrostructure. Therefore, the overall emphasis of the theory is on the understanding of the meaning of text (van Dijk & Kintsch, 1983).

W. Kintsch (1988) further refined the model with the construction-integration (CI) model of text comprehension. This model contains various levels in the mental representations created by readers when encountering text. It combines a construction process of the text with an integration phase, using previous knowledge foundations like a network. The first stage in the model is construction of a propositional network which produces mental representations of meanings of text from previous knowledge

McNamara, Kintsch, Songer and Kintsch (1996) utilized these models in two experiments and demonstrated that readers with limited amounts of knowledge in a domain gain from a text that is coherent, yet readers with high levels of domain expertise produce better with a text containing little coherence. Regarding application to education, the authors advocated “an approach in which the coherence level of the text is adjusted to the student’s level of knowledge, so that reading becomes challenging enough to stimulate active processing but not so difficult as to break down comprehension” (p. 35-36).

Metacognitive Reading Strategies

Strong reading skills are essential to student success throughout a lifetime of learning. The aim of metacognitive instruction in reading is to enable students to develop a strategic approach to learning by construction of a range of strategies and properly regulating them to enhance learning (Chan, 1994). Metacognition as it applies to adolescent reading involves a coordinated ability to construct meaning, monitor and evaluate by the reader, and this is all influenced by the reader's sociocultural experiences that they bring with them (Pressley & Afflerbach, 1995). Focus on adolescence in the area of metacognition and reading is necessary as "the middle grades are a crucial time for students and for the teachers who teach them" (NCREL, 2002). By pre- and early adolescence, readers exhibit self-controlled use of strategies that makes them better able to respond to instruction in metacognition. At this age, children take charge of learning by beginning to exhibit their own learning styles (Paris et al., 1991). Chan (1994) also concurred with this view by stating that until early adolescence, students do not completely understand the differences between ability and effort and that ability is not altered by effort.

As with general metacognition, reading metacognition refers to coordination of knowledge, planning, and monitoring reading behavior. Metacognition of reading relates to four variables. The first is text structure, which includes elements that work upon comprehension and memory. Second are tasks, which include finding a detail in text and conducting a critical analysis of text. Third are strategies, the ability of the reader to predict performance on a task in an accurate manner. This also encompasses remedies for comprehension failures and categories of strategies such as "fix-up" and studying. Finally

are learner characteristics of self-awareness and affect regarding background knowledge, interest level, skills and deficiencies (Collins, 1994).

Andrews et al. (1991) said simply, “Reading, like language development, requires metacognition to be a conscious act and, like metalinguistic awareness, is an inconsistent skill” (p. 179). Good readers use metacognition effectively when they know whether or not they understand a text when reading. When they encounter a problem, they attempt to solve it using strategies (Fischer, 2003). In addition, strong readers look at knowledge acquired during reading as an organization of concepts instead of isolated facts. They also look at meanings and relationships within the text instead of just remembering isolated details. They use self-questioning to understand, they paraphrase, and they make inferences (Gourgey, 1999). Baker and Brown (1984) advocated instruction in specific metacognitive reading strategies that would result in skilled reading such as reading for main ideas, looking at text structures to find meaning, self-questioning, and summarizing.

Explicit instruction in reading strategies in a discipline like social studies is critical for students to strengthen their comprehension skills (Graves & Avery, 1997). Multiple types of texts are utilized in social studies besides non-fiction expository readings found in the textbook. These include primary and secondary sources, fiction, and letters. Such a variety of sources gives students a range of perspectives and reading strategies help them to evaluate and synthesize historical information (Massey & Heafner, 2004).

Instructional Method: Reciprocal Teaching Model

Many studies detail the benefits of metacognitive reading strategy instruction utilizing direct teacher instruction and modeling that improves reading achievement. Examples

include Berkowitz and Cicchelli (2004); Case and Gunstone (2002); and Duffy, Roehler et al., (1987). For purposes of this study, the most well-known of the metacognitive strategy instruction models for reading that combines a number of comprehension strategies is the reciprocal teaching model.

In 1984, Palincsar and Brown developed this method, a three-phase strategy training for improving comprehension development and comprehension monitoring activities of seventh grade students. The study was conducted on middle school students who were identified as weak readers. These students were taught four strategies: to predict, question, clarify and summarize as they read. Reciprocal teaching consists of an adult model assisting and helping the reader to interact with the text in more complex ways. This method includes a large amount of dialogue between students and teachers on text content and the reasons for using the strategies. The model is based on the idea that the continued practice of the strategies within the peer group will lead to the readers internalizing them as their own. This method led to significant improvements in the students' reading comprehension as well as transfer to other tasks.

Baker and Brown (1984) elaborated on monitoring as an important part of metacognitive reading development by defining it as a process of knowing when and what you are reading does not make sense, followed by use of strategies for overcoming the problem. Monitoring strategies also include the reader asking whether the text is making sense, rereading, reading ahead, looking up words in the dictionary, or asking someone for assistance (Paris et al., 1991).

Gourgey (1999) implemented the reciprocal teaching model by using a newspaper article that contained built-in ambiguity. This study used developmental college readers. It was designed to force students to look at their strategies for monitoring and clarifying a comprehension failure. Four class sessions were needed to complete the exercise.

On the first day, students only looked over the article and the goal was to have students gain awareness of the ways that their thinking could be activated by generating questions and making prediction on article content before reading it in detail. On the second day, in small groups, she had the students read the article, look for answers to their questions, verify their predictions, write new questions, and note areas of confusion. Although frustrating, the teacher emphasized that the importance was in the thinking process they used instead of the correct answers. They were reassured that they could succeed. Group reports occurred on the third day regarding their experiences and the teacher pointed out that reading is not a sequential process. On the fourth day, the teacher discussed summarizing and the large amount of time required to develop this skill properly. She emphasized that identifying these skills is not a single-stage process, but require much practice to become comfortable and more of a habit. This holistic approach incorporates instruction in context, not in isolated details. At first, students found the metacognitive process difficult and frustrating because it forced them to change their thinking. Nevertheless, as they worked together, their enthusiasm increased and they continued to utilize the strategies in other contexts (Gourgey, 1999).

A. L. Brown (1997) again affirmed reciprocal teaching through a program called Fostering Communities of Learners designed for urban students from 6 to 12 years old that

demonstrated increased literacy and subject knowledge in science. Other authors advocating reciprocal teaching include Greenway (2002), who conducted a literature review on the intervention and concluded that the strategies taught lead to increased student reading comprehension. Greenway used the method in a program called the Literacy Hour created to promote the use of strategies and pointed out how it also increased student independence.

Slater and Horstman (2002) focused upon increasing literacy of both middle and high school students in order to meet federal literacy standards. The authors advocated reciprocal teaching as the best option for effective strategy instruction in both reading and writing due to its inclusion of questioning, clarifying, summarizing and predicting. Finally, Lederer (2000) conducted a study using reciprocal teaching in social studies to determine out if it could transfer from its original design for language arts. He performed the intervention in fourth through sixth grade inclusive classrooms. Four comprehension assessments were used for 128 students along with another measure and a 30-day maintenance evaluation. Students in the experimental group increased comprehension as compared to the control groups and maintained that improvement after 30 days. Of note for this particular study is that composition of summaries was significantly enhanced in the experimental group.

Additionally, the authors concluded:

The results also suggested that it was possible to implement reciprocal teaching on a whole-class basis and that it could be used as one approach to teach social studies—a content area that demands a fairly high sophistication of metacognitive and cognitive skills from students. (Lederer, 2000, p. 100)

Similar to the previous studies on reciprocal teaching is Scaffolded Reading Experience (SRE) (Graves, Juel & Graves, 2001), which helps teachers to increase the reading strategy use of their students by creating lessons that include before, during and after reading activities. Massey and Heafner (2004) used the Graves et al. (2001) model to include a variety of commonly used social studies texts.

Summarizing as a Strategy

This study instructed students using the reciprocal teaching method in the metacognitive reading strategy of summarizing. As previously outlined, improvements in comprehension can be gained from reciprocal teaching instruction in the strategies of questioning, clarifying, summarizing and predicting. Summarizing was chosen for this study due to its applicability at this age level as well as compatibility with the selected motivator of choice and the previously discussed theory by van Dijk and Kintsch (1983) and Kintsch (1988).

The National Reading Panel (2000) defined summarization as when “the reader attempts to identify and write the main or most important ideas that integrate or unite the other ideas or meanings of the text into a coherent whole” (p. 4-6). The National Reading Panel (2000) investigated 18 studies that focused upon grades five and six, the age of the proposed study, and overall found that summarizing helps students to put together ideas and generalize information from texts.

Researchers have specifically concentrated on this skill, and a well-known study from Brown and Day (1983) investigated how students develop expertise in paraphrasing expository texts through three studies. They looked at what rules were used by the students,

identifying six rules of summarization, and found them compatible to van Dijk and Kintsch's (1983) Theory of Discourse Comprehension. They compared techniques of high school, college and fifth and seventh grade students, finding that the younger students and other older novices used the more simple strategy of copy and delete most often. These rules are in order of sophistication. The first and second are the elimination of inconsequential information and redundant information (copy and delete). The third and fourth are to substitute a term that puts a group of events or a list into one category. The fifth is to find the author's topic sentence. Finally, the sixth is to create one's own topic sentence if none exists. It is of interest for the current study to find what rules of summarizing strategies are produced by the students using this list.

Following upon that study, Brown, Day and Jones (1983) examined how middle school (fifth and seventh graders) and college students diverged in summarizing skill and learned that planning was the best predictor of success, not age. Planning included creation of a rough draft and editing, and the middle school students who demonstrated planning achieved at the same level as those student in college. In this study, the researchers did not take style into account, but efficiency, which they defined as the amount of relevant information given in the summaries.

Garner (1984) observed how teachers incorporated summarization lessons and measurement included coding of audiotapes. Garner found that even experienced teachers did not provide much explicit instruction in summarization for the elementary students. Most teachers concentrated on words and facts instead of modeling a comprehensive strategy

sequence for the students. This study provides evidence of a lack of proper teacher training in the important skill of summarizing.

E. Kintsch (1990) also looked at summaries of expository text, investigating how inferences varied depending upon the reading level of texts and the task they were to perform. She focused more on how inferential processing and how meaning was constructed along with representation in memory. She found that differences existed in how meaning was represented across the age levels. The middle school students could categorize details of global topics, third and fourth on Brown and Day's (1983) list of summarizing strategies. The middle school students also created fewer inferences and performed at lower levels on text with poor macrostructure as it was more difficult for them to generalize and find important details.

Writing summaries for notes demonstrates increases in student comprehension and assessment, especially when students are explicitly instructed in how to write summaries (Nist & Simpson, 2000). Of particular interest to the discipline of social studies, R. Brown (2005) looked at note-taking in the form of summarizing in a seventh grade history class. Her purpose was to understand student practices and abilities in light of their metacognitive awareness through a questionnaire. She found that students could explain that they knew what was meant by metacognition, but their note-taking did not indicate full mastery of skill. Also in social studies, Massey and Heafner (2004) instructed students to write summary paragraphs and thesis statements that emphasized the key ideas from the text. Finally, Zagora (2011), in an effort to promote transfer of writing skills from language arts to social

studies, intensively integrated writing into her curriculum, thus simultaneously enhancing both students' writing skills and social studies knowledge.

Interplay Between Reading Strategy Instruction and Motivation to Create Engaged Learners

Learning Engagement

Although the definition of cognitive engagement varies, all definitions contain task analysis by students that involves meaningfulness and thoughtfulness. Immersion in a task is seen when a student is engaged (Paris & Paris, 2001). Pintrich and DeGroot (1990), stated, "In general, the research suggests that students who believe they are capable engage in more metacognition, use more cognitive strategies, and are more likely to persist at a task than students who do not believe they can perform the task" (p. 34). Engagement was also discussed by Dowson and McInerney (2004), who looked at how engagement was quantitatively and qualitatively increased through successful strategy use and achievement goal setting. Blumenthal (1992) characterized engagement and effect on use of learning strategies by the task dimensions of "variety, diversity, challenge, control, and meaningfulness" (p. 272).

Reading Engagement

Reading engagement is generally defined from Guthrie, Van Meter et al. (1998) as "the mutual support of motivations, strategies, and conceptual knowledge during reading" (p. 261). The framework from Guthrie, Wigfield, Barbosa et al. (2004) comprises both motivational support and strategy instruction. The four characteristics of engaged readers outlined by the researchers are: cognitive competence (use of comprehension skills and

comprehension strategies), motivated, knowledge-driven, and socially interactive in learning. As reading engagement includes cognitive competence, the investigation of metacognition as it relates to reading is essential.

Combining Motivational Support and Strategy Instruction

The National Reading Panel Report (2000) discussed how strategy instruction can actively involve readers and how motivated readers read more text. The report looked at instructional practices for both individual and multiple strategies, endorsing the effectiveness of combining motivational support and strategy instruction.

Selected researchers who have investigated the links between metacognitive reading strategies and motivation include Collins et al. (1996) with a meta-analysis of learners and instruction, who found strong relationships and increases in reading comprehension. Furthermore, Chan (1994) studied the developmental pattern of attributional beliefs along with the relations among expectations of success, strategic learning and achievement in adolescent reading. She found that students in grades seven and nine who believed they had personal control over their learning outcomes, who did not feel helpless in learning, and who felt competent, were the most likely to use strategies.

Additionally, Borkowski et al. (1990) also observed the component of motivation in metacognition and reading. They found the importance of personal and affective influences on academic performance, such as personal-motivational factors to energize self-regulation strategies. A student's personal state of motivation is strongly influenced by self-concept, attitudes about learning and self-control (Borkowski et al., 1990).

The CORI Framework

For purposes of this study, the work on reading engagement by Guthrie, Wigfield and colleagues provides a comprehensive educational framework for further adding to research in this area as it combines strategy instruction with motivation support (Guthrie & Wigfield, 2000). This instructional model, called Concept-Oriented Reading Instruction or CORI (complete detail in Guthrie, Wigfield & Perencevich, 2004), consists of several assertions, beginning with the aforementioned definition of reading engagement as both motivated and strategic. Next, it presents evidence of a correlation between reading engagement and increased reading comprehension. In addition, the instruction of strategies and the presence of motivators in a classroom increase engaged reading. Finally, the perspective that such an educational structure which combines strategy instruction along with motivational support can result in improvements in reading engagement and comprehension (Guthrie & Wigfield, 2000).

Guthrie, van Meter et al. (1998) discussed CORI and included seven principles that are interdependent: classrooms centered on a conceptual theme, real-world interactions, self-direction, collaboration, strategy instruction, self-expression, and coherence. Two other characteristics, providing interesting text and time to read for students, were also included in Guthrie, Cox et al. (1998). Thus the framework of CORI outlined by these researchers was used in the study in the area of social studies. As much of this work has focused upon science, the addition of social studies to the literature will enrich the knowledge base for reading engagement.

For a proper perspective, it is beneficial to review a chronology of selected studies by these researchers. In 1997, Wigfield and Guthrie looked at the amount of reading of children in relation to their motivation and found reading motivation to possess multiple dimensions. Furthermore, intrinsic motivation was measured as the strongest predictor of the amount and type of reading. Following along these lines, Guthrie, Anderson, Alao and Rinehart (1999), Guthrie, Cox et al. (1998), and Guthrie, Van Meter et al. (1998), reported on how CORI increased reading engagement. Students were compared to others who received traditional instruction and found that CORI students demonstrated increased strategy use and text comprehension, concurrent with higher motivation levels.

Subsequent studies, such as Guthrie, Wigfield and VonSecker (2000) focused on particular classroom practices such as hands-on (real-world interaction), competence support (strategy instruction), and autonomy support (self-directed learning) and compared them with traditional pedagogy. Guthrie et al. (2006) focused upon the motivator of providing stimulating tasks through science interactions. The researchers of the study demonstrated that motivation for reading was increased with the number of stimulating activities present. There was also an indirect effect to increase reading comprehension on standardized testing.

Guthrie, Wigfield, Barbosa et al. (2004) and Wigfield, Guthrie, Tonks and Perencevich (2004) reported on the integration of five motivational practices with six cognitive strategies. This framework was compared to pedagogy that provided strategy instruction without the motivational components and also a traditional instructional method. Of note for this study are the incorporation of the motivator of choice and the strategy of summarizing text. The researchers demonstrated that students who were given choices and

autonomy support scored higher on reading assessments than other students who did not receive choices. In CORI, choices are matched to students' abilities and lead to encouragement for student autonomy, thus ultimately increasing intrinsic motivation. Furthermore, the range of metacognitive reading strategies provided by instructors included the summarizing of text.

Guthrie, Hoa et al. (2007) added to the literature by again endorsing previous research supporting motivational and strategic variables to improve the reading comprehension of students. They studied four motivators including perceived control, which they defined as the impact of choice on reading. Students were given choices of what book to read, and those who demonstrated the highest levels of this motivator enjoyed choosing their own books and controlling their own reading through such aspects as topic choice, location to read, and time chosen to read. The researchers demonstrated that the motivator of choice was statistically significant, explaining 22% of the variance in the improvement of student reading comprehension.

Guthrie, McRae and Klauda (2007) conducted a meta-analysis of 11 CORI studies that used the instructional practices of relevance, choice, success, collaboration and unit themes that demonstrated increases in motivation along with instruction in strategy use. Once again, choice increased student autonomy and intrinsic motivation. Explicit strategy instruction through modeling, scaffolding and teacher-assisted practice was also included in this comprehensive report.

Reading Engagement as a Mediator

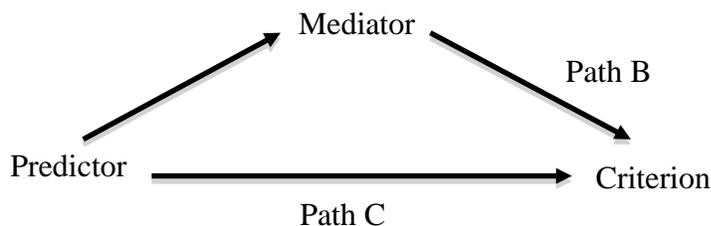
The impact of the CORI model was further evaluated by Wigfield et al. (2008) with the

use of mediation analysis (Baron & Kenny, 1986) to infer that reading engagement mediated the effects of reading comprehension and use of reading strategies. MacKinnon, Fairchild and Fritz (2007) state, “mediating variables are behavioral, biological, psychological, or social constructs that transmit the effect of one variable to another variable. Mediation is one way that a researcher can explain the process or mechanism by which one variable affects another” (p. 594).

According to Baron and Kenny (1986), the purpose of determining a mediator is to attempt to understand internal psychological states such as motivation and engagement, measured by attitudes, on outward performance, such as reading comprehension levels, measured by assessments. A variable may be thought of as a mediator to the amount that it contributes to the relation between the predictor and the criterion. Baron and Kenny’s (1986) model includes a three-variable system whereby two causal paths lead to the outcome variable. The first path is the direct impact of the independent variable to the outcome variable (path c). The second path is indirect and is from the independent variable to the mediator (path a) and the mediator’s impact to the outcome variable (path b) (Figure 2).

Figure 2

Baron and Kenny (1986) mediation model



A variable is determined a mediator if variations in levels of the independent variable significantly relate to variations in the proposed mediator (path a) and if variations in the mediator significantly account for variations in the dependent variable (path b). Lastly, when the paths are controlled, the direct relation between the independent and dependent variables that was previously significant (path c) should no longer demonstrate significance. The strongest mediation that could occur would be if this relation were found to be zero, which would show one prevailing mediator. As real world interactions contain a number of possible mediators, a more realistic goal is reduction of the direct interaction between the independent and dependent variables. This can still provide evidence that a mediator is a strong factor in the changes to the independent variable.

Of particular interest to the current study, because it is modeled after the CORI program, Wigfield et al. (2008) examined the higher scores of CORI students on reading comprehension, reading strategy use, and reading engagement versus the two control groups and posited that reading engagement is an integral part of successful instruction. The three criteria used in this study were modeled after Baron and Kenny (1986). First, they held that the level of student reading engagement and the level of reading outcomes, defined as reading comprehension and reading strategies, should positively relate. Second, that the instructional engagement practices (reading strategy instruction and the presence of motivators) should positively affect both reading outcomes and engagement. Finally, after controlling for students' engaged reading, a reduction or elimination of previously significant effects of instructional engagement practices should be reduced or eliminated.

After finding correlations between reading engagement and reading comprehension, they also demonstrated that reading engagement and reading outcomes were significant. They then controlled for the level of reading engagement by constructing a multivariate analysis of covariance (MANCOVA) with the three instructional groups as the independent variable and reading comprehension and strategy assessments as dependent variables. Reading engagement was entered as the covariate. The researchers' anticipated that this analysis would show no treatment effect, which was observed as correct. As the previous analysis had displayed significance of the independent variable (instructional groups) on the dependent variables (reading outcomes) without the covariate, the Baron and Kenny (1986) conditions for observing mediation were present.

The results led them to infer that reading engagement acted as a mediator on the outcomes of reading comprehension and use of reading strategies. Therefore, Wigfield et al. (2008) demonstrated that higher levels of reading engagement resulted in greater increases in reading comprehension and reading strategy use. The authors pointed out that this discovery highlights the importance of incorporating engaging instruction to increase reading motivation and reading comprehension.

Reading and African American Students

As the students in this study are predominantly African American, recent studies and articles on reading instruction for middle school African American students were reviewed. Flowers (2007) declared that even with recent gains in reading scores from African American students (NAEP, 2005), "reading achievement gaps by race still persist among the nation's

school children” (p. 424). Flowers (2007) advocated that more research is required to develop strategies tailored for African American students at all levels of reading.

Lindo (2006) agreed that literature in reading instruction for African American students remains deficient as she reviewed research to determine the amount of reading instruction experiments for African American students. Only 0.21% of the research articles contained 85% or more African American participants. Lindo also strongly recommended the creation of more intervention studies focused upon African American students.

Recent reading studies on African American students specific to middle school include reading supplementary programs for middle school students (Alawiye & Williams, 2005; Reis et al., 2007), which were shown to result in positive outcomes. Furthermore, McKeown, Beck and Blake (2009) studied urban fifth graders, 58% African American and 49% qualifying for lunch benefits. The researchers provided instruction to enhance reading comprehension that included strategies instruction, content instruction, and basal instruction. Similarly, Mac Iver and Kemper (2002) focused upon a reading instruction program called Direct Instruction (DI) in a longitudinal study in City of Baltimore schools with positive results. Shippen, Houchins, Steventon, and Sartor (2005) also looked at two different DI reading programs and focused upon decoding strategies by urban seventh graders showing significant improvements in reading. Focusing on reading and attitude, Reis et al. (2007) examined an enriched reading program in an urban school through sixth grade, measuring reading comprehension, fluency and attitude regarding reading. Students in the treatment group demonstrated significant gains in all three measures of comprehension, fluency and attitude.

Nevertheless, as outlined, most of these existing studies have focused on urban students at low income levels and do not contain motivators as part of reading instruction. This study's focus upon middle class African American students in sixth grade makes it unique as no intervention studies have explicitly compared a reading engagement model with strategy only and choice only conditions for a sample similar to these students. The study fills the need to combine strategy instruction and choice to increase reading engagement and comprehension as detailed in the Methods section.

CHAPTER 3 - METHODS

Research Problem

The research problem centers upon how to create conditions in a sixth-grade social studies classroom that result in engaged readers who use metacognitive strategies to comprehend text well. Research on early adolescent students reveals significant declines in intrinsic motivation for reading (Eccles, Wigfield et al., 1993) and points out the need for metacognitive strategy use (Baker & Brown, 1984) among middle school students. Teacher practices and interactions with students are often a cause of student disengagement and low reading performance (Juvonen, Nishina & Graham, 2006; NAEP, 2005). Research indicates that explicit instruction involving motivation support and metacognitive support for reading strategy use in the context of a discipline such as social studies is an efficient and effective means of increasing reading comprehension (National Reading Panel, 2000). Studies also show evidence that reading engagement mediates the relations between instruction and comprehension (Guthrie et al., 2006; Wigfield et al., 2008). There is a significant need to understand effective instruction for African American adolescents. To date, there are no intervention studies that have explicitly compared a reading engagement model (i.e., strategy plus choice) with strategy only and choice only conditions for a sample of middle school African American students. My study addresses this crucial need in the field.

Research Purpose

The purpose of this study was to investigate the effects of explicit strategy instruction in summarizing and choice as an instructional practice for increasing students' reading engagement and expository text comprehension.

Research Questions and Hypotheses

1) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ situated intrinsic motivation?

Hypothesis A: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students’ situated intrinsic motivation when compared with a “summarizing instruction only” condition and a “choice only” condition.

2) Does metacognitive strategy instruction in summarizing significantly increase students’ content knowledge in their pretest to posttest summary writing?

Hypothesis B: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports both student choice and summary writing will significantly increase students’ content knowledge in their pretest to posttest summary writing.

3) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ comprehension of expository text in a social studies topic?

Hypothesis C: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will show significant pretest to posttest increases in students’ expository text comprehension

when compared with a “summarizing instruction only” condition and a “choice only” condition.

4) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ self-reported long-term reading engagement in social studies?

Hypothesis D: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students’ self-reported long-term reading engagement when compared with a “summarizing instruction only” condition and a “choice only” condition.

5) Will reading engagement mediate the relations between instruction and expository text comprehension?

Hypothesis E: In response to an instructional condition which supports *both* student choice and summary writing, reading engagement will act as a mediator (Baron & Kenny, 1986) to cause significant increases in expository text comprehension.

6) Will students report being engaged more often in an instructional condition which supports *both* student choice and summary writing when compared with a “summarizing instruction only” condition and a “choice only” condition?

Hypothesis F: Students in an instructional condition which supports *both* student choice and summary writing will report being engaged significantly more than students in a “summarizing instruction only” condition and a “choice only” condition.

Design of Study

The relations among summarizing instruction, support for student choice, reading engagement, and expository text comprehension were examined using a quasi-experimental pretest, posttest design with a concurrent embedded mixed methods design (QUANqual) (Cresswell, 2009). A mixed methods approach was utilized to provide a comprehensive and rich understanding of the results from providing both summarizing instruction and choice on students. The concurrent design applies because all types of data were collected at the same time and the embedded element refers to the phenomenological qualitative data collection, which was used to understand participants' subjective experiences during classroom instruction as a smaller portion of the overall design. Thus, the quantitative portion of the design analyzed the outcomes while the qualitative portion concentrated upon students' subjective experiences. More specifically, this quasi-experimental design and analysis focused on three groups of students who were matched for demographics and test scores at pretest to examine outcomes of an instructional unit taught in three different manners. The experimental condition included summarizing instruction with the provision of student choice in order to enhance students' motivation and competencies with reading comprehension. A second condition was the choice only condition. The third condition included a summarizing instruction only component. Exact design of each condition is included in *Appendix H*. Groups were randomly assigned to conditions.

Table 1

Instructional Conditions

	Summarizing Instruction	No Instruction
Choice Provided	Group 1: Experimental condition	Group 2: "Choice only"
No Choice	Group 3: "Summarizing instruction only"	

Previous reading achievement was the control variable in this study. Measures of all variables and implementation of the instructional design was administered over a five-week period of time from February to March 2010.

The Variables

Independent variables. The independent variables included provision of student choice and teaching summarizing skills. Specifically, the instructional unit integrated the explicit instruction of a reading strategy, summarizing, and the inclusion of student choice during a unit on Ancient Rome.

Dependent variables. The dependent variables were situated intrinsic motivation, reading strategy use, expository text comprehension, and engaged reading (motivation plus reading strategy use). As previously stated, it was expected that in response to the instructional unit, students would demonstrate significant increases for all four dependent variables.

Control variable. The control variable was previous reading achievement. This variable was measured through standardized reading test scores and was controlled to eliminate differences among students and the scores are obtained merely to show that the

students were within normal grade-level range. The text for all pretests and posttests was from the same publisher at the same reading level to ensure comparable measures.

Participants

The participants were 66 students in sixth grade, three sections of 22 each, in a religiously-affiliated independent school in Prince George's County, Maryland. The school population's racial composition is 74.6% African American, 3.1% Asian American, 1.5% Latin/Hispanic, 17.5% Caucasian, and 3.3% multi-racial. The sixth grade population used in the study was 85% African American and 15% other. The percentage of students receiving financial aid for the 2008-09 school year was approximately 4%. Participants were proportionally equal with regard to gender.

All students were within normal two-year range for reading scores; two students required additional time on assessments. The three teams were close to equal in social studies assessments. For example, in the first unit test of the year, averages for the three teams were 86.27, 86.41, and 85.86. Also, first quarter grades revealed similar averages. Additionally, the students met on a rotating schedule; therefore, all three sections received the instruction at various times of the school day during the instructional unit period. This condition eliminated any differences resulting from student attention variability during instruction time in the school day.

Before the study began, a letter was sent home to parents signed by the head of school and the researcher notifying them of the study. No consent forms were necessary as the study was conducted under normal instructional purposes and was deemed exempt by The Catholic University of America's Protection of Human Participants Committee.

Context

School Context

The school is situated in suburban Maryland outside of Washington, D.C. The school's mission states that it:

Educates preschool through eighth grade students by offering a challenging, diverse, supportive, and safe environment where children can excel academically, artistically, athletically, and spiritually. The School encourages students to achieve excellence and embrace responsibility. [It] is dedicated to educating the whole child in a comprehensive, well-rounded program that lays the foundation for all children to reach their potential as they develop independent habits of mind as well as a lifelong passion for learning.

The school's philosophy statement is as follows:

The School provides a comprehensive education in an atmosphere that is purposeful, focused within a framework which emphasizes the growth of each child as a whole person. This framework is represented by the school symbol, the triangle of Faith, Arts, and Knowledge.

The majority of students at the school enter during pre-school or kindergarten.

Tuition for a private school in the area is in the middle range of \$10,350 per year per student (2009-10). Class sizes are held at a maximum of 22 per section, with a total of three sections in each grade in the middle school. The school hours are from 8:55 am to 3:30 pm each day. The middle school operates on a rotating block schedule, with most classes 80 minutes each. Students attend four blocks per day; classes splitting in the block include physical education

(daily), music, art, and Spanish. After two periods, students have a 50-minute period of lunch and recess each day.

Classroom Context

Layout. The classroom is in the corner of a wing used by fifth and sixth grade students. It has windows on two of the four sides and the room is carpeted. Each student in the homeroom has a cubby to store belongings and a closet is provided to store coats and jackets. A chalkboard and whiteboard are in the front of the classroom with 22 student desks and one teacher desk. There is also a high-backed stool at the front of the room for use during instruction.

The classroom provides closet and shelf space for classroom materials including supplemental text and activities to enhance learning. A bookcase contains a variety of grade-level social studies supplemental books for student use and a large shelf on top of a storage cabinet is used to lay out materials used in class each day that include supplementary readings in trade books, online subscription services, Junior Scholastic magazines, and creative projects. In addition, technology equipment for the classroom includes an LCD projector connected to a laptop computer and speakers. This allows for instruction using technology that includes a variety of digital media formats.

Seating. The 22 student desks and chairs are arranged in three rows facing front in groups of two to three across. This permits for ready-made groups for use in short exercises. Students can easily form groups around them. The arrangement also allows floor room around the room for students to go for other group exercises. Students never sit for an entire

class period as the researcher-practitioner feels it is essential for middle school students to move around. This enhances both attention and engagement.

Teacher. The author was the researcher-practitioner for the study and at the time of the study was in her eighth year of teaching. She is a social studies teacher with a bachelor of arts in psychology, a master of arts in international affairs, a master of arts in education, and is pursuing a doctorate in educational psychology.

Her philosophical framework includes both social constructivism and advocacy participatory paradigms. Social constructivism applies because she desires to create a sense of meaning for her students and make a difference in the classroom right now and in other classrooms in the future. Advocacy/participatory describes her beliefs because she wants to give her students opportunities to become better learners through practices that she feels will create engaged learners. She desires to implement these practices with her students as they work together for success. Overall, she wants to make a difference in both her students' and other learners' lives. She wishes to create a classroom of lifelong learners. Her hope is that the practices discovered and implemented through this study will be transferable to other teachers' classrooms.

The design of the study contained measures to ensure a maximum level of objectivity. For example, exact scripting for an administrator who does not teach the students was created for all of the pretest and posttest measures (see *Appendix A*). Also, all lesson plans designed for the study are detailed in the procedures section. Furthermore, the researcher did not look at any of the data collected from the study until its completion in order to make certain that the lessons remained unbiased and consistent. This was ensured by audiotaping of the

instruction and coding of an instructional fidelity checklist sheet by an individual outside of the school setting (see *Appendix I*).

Curriculum. The curriculum for sixth grade social studies is the study of ancient civilizations through the Renaissance including geographical, historical, economic, political, and cultural relationships. The areas emphasized include early African, European, and Asian civilizations.

Classroom atmosphere. The classroom is not a quiet place, but one of noisy activity, and the instructor works hard to create a place of comfort for her students to express themselves. She always reminds them that if they are doing their best, they will learn and grow. She supports them to take risks and challenge them to do more than they think they can. She encourages students to participate and ask questions. She ensures that every student participates in some form during a class period.

As most days are 80-minute block periods, she is able to delve deeper into a topic and does not have to rush students. This is an ideal environment for the middle school-aged student as it allows more time for skill-building as well as increased content knowledge. A typical day in the class begins with a warm-up while students get out homework to review. Each day is different, as she includes a variety of ways to instruct the students that incorporate discussions on readings, both with the full class and in small groups. Readings in small groups with questions are held to get students to apply the material learned. The instructor uses the projector for notes and presentation of visuals such as maps or artifacts, for example. She also utilizes the projector to show short or longer videos on the unit, most often following up with discussions. Enrichment activities are often included that illustrate a

topic in the unit to provide students with more information from the text and the opportunity to solve problems. She frequently incorporates art into their work to develop their creativity.

Procedures

The instructional unit content was Ancient Rome, taking place over a five-week period, and the author served as the researcher-practitioner for the study. The three class sections were randomly assigned to one of three conditions: one section of students (Group 1) received instruction in summarizing and were provided with student choice; the second section of students (Group 2) were provided with student choice alone; the third section received instruction in summarizing alone (Group 3). Note that classes meet two to three days per week in a rotating block schedule of approximately 80 minutes per class.

Instruction in summarizing and the presence of choice were included in the subject content of Ancient Rome using the class textbook and other sources including print and multimedia as normally taught in the curriculum.

Students possessed background knowledge on the ancient civilizations of Egypt and Greece before beginning this unit. Students continually tied knowledge of our own cultural, government and history with that of Rome, finding similarities and differences. Previous students expressed a high interest in Rome when taught the unit on such daily life topics as family life, homes, religion, clothing, hairstyles, entertainment, athletics and food.

Additionally, due to their background in early American history, which the same instructor teaches them in fifth grade, they demonstrated interest in how our government is similar to the Roman Republic. Finally, they showed a desire to know how the Roman legacy has

impacted our society today in such areas as the art, military, architecture, engineering, and literature.

Instructional Methodology

As outlined in the literature review, many studies detail the benefits of reading strategy instruction through direct teacher instruction and modeling (Berkowitz & Cicchelli, 2004; Case & Gunstone, 2002; Duffy, Roehler et al., 1987). For this study, the reciprocal teaching model was used as it is designed for the development of comprehension monitoring reading activities (Palincsar & Brown, 1984), including summarizing, through direct instruction and modeling. Furthermore, Armbruster and Gudbrandsen (1986) justified the use of direct instruction in reading for social studies.

Furthermore, the study is based on the work on reading engagement by Guthrie, Wigfield and colleagues that provides a comprehensive educational framework for combining strategy instruction with motivation support (Guthrie & Wigfield, 2000). This instructional model, called Concept-Oriented Reading Instruction or CORI (complete detail in Guthrie, Wigfield & Perencevich, 2004), presents evidence of a correlation between reading engagement and increased reading comprehension which includes the instruction of strategies and the presence of motivators in a classroom.

Finally, the study was designed with culturally responsive teaching strategies detailed by Ford and Kea (2009) that include discussions, group work for collaboration and cooperative learning. It also recognized that activities incorporating elements of music and movement are important for increasing and maintaining engagement in the classroom (Allen & Boykin, 1992). For example, the instruction included skits, group work, reading choices,

and other activities that promote student movement, collaborative and creative work to enhance learning. All of these are based on student interest in order to increase autonomy.

Instructional Content

The instruction of the reading skill of summarizing occurred throughout the unit on Ancient Rome for Groups 1 and 3 in the study, thus in the detailing of instruction to follow, “*summarizing*” applies only to Groups 1 and 3. At the same time, students in Groups 1 and 2 were given choices about what to read in order to demonstrate the importance of motivators on the success of instruction through multiple ways used in the CORI framework, “*choice*” applies only to Groups 1 and 2. At the end of each day of instruction, students in all three sections completed daily reading motivation logs based on the Experience Sampling Method (ESM) (Hektner et al., 2007) in order to measure students’ situated intrinsic motivation in social studies text.

Following are details of the instructional content for Ancient Rome. Please see Appendix F for a Concept Map on the unit and Appendix G for samples of instructional materials.

Day 0. Pretests for all three sections were administered for previous content knowledge, motivation, summarizing and comprehension.

Day 1.

Summarizing. Instruction began with an introduction of summarizing as a reading skill and providing a definition of summarizing. A summary is defined as stating the important ideas and details in a text. The characteristics of a good summary include brevity, description of the main topic or theme of the reading, inclusion of only relevant information,

omission of extraneous details, clearly organized, and restatement of the text's meaning in the own words of the writer (Marinak, Moore, Henk, & Keepers, 1998). Students were then showed why summarizing is important for remembering what they have read and demonstrating their understanding. The rules of summarization (Brown & Day, 1983) were discussed. These five rules, as outlined in the review of the literature are: 1) elimination of inconsequential information; 2) elimination of superfluous information (rules 1 and 2 are also referred to as "copy and delete"); 3) substitution of a term that puts a group of events into one category; 4) substitution of a term that puts a list into one category; 5) determining the author's topic sentence; 6) and creation of a topic sentence if none exists. The goal for the students was to reach at least rule five.

Next, the steps to summarize were discussed that include identification of the subject, identification of the main points, and using one's own words to write the summary by combining the ideas into sentences or a paragraph. The passages read by the students were approximately 200 words and summaries produced by the students were approximately 50 words, following Armbruster et al. (1987). Students actively created charts and illustrations to help them remember the elements of summarizing.

Choice (Group 1). Students chose the design of their chart on summarizing and creation of their own selected illustrations.

Day 2.

Summarizing. The instructor demonstrated summarizing through showing examples of good and poor summaries. Students began by listening to oral readings and oral summaries and the instructor solicited student feedback as to the quality of the summaries.

Choice. The instructor asked students to select their own groups to define the word “choice.” Each group worked to present a definition to the class in their own format. The class next discussed how to make good choices.

Note: after this day, students did not have class again for 13 days due to weather-related closings of school and Presidents’ Day holiday.

Day 3.

Summarizing. After review of previous instruction, the instructor again modeled, this time using written text and providing students with graphic organizers for beginning instruction. Similar to Hare and Borchardt (1984), she provided examples of poor, good and polished summaries.

Choice. Each group presented their choice definition to the class and examples included skits, rap songs, and their own examples from experiences. The class reviewed the definitions and discussed how to make good choices, which lead to feeling comfortable when a choice is made. Students chose how to complete the graphic organizers of the summaries.

Day 4.

Summarizing. The instructor provided teacher-guided practice through individual, group and class activities. For this day, she removed newspaper headlines from newspaper articles. Students read the article and selected a headline from a list, transitioning to creating their own headline to see how it compared to the correct headline. Students were provided a choice of articles from an Ancient Roman newspaper collection produced by Time Life Education for this exercise.

Choice. Students divided into groups of their choice and selected an article to present to the class in a format of their choice. Students had an open book quiz and had a choice of which questions to answer.

Day 5.

Summarizing. Students next read a selection of social studies text in pairs and orally summarized the information.

Choice. Students were provided a choice of partners for the reading and oral summary.

Day 6.

Summarizing. The class followed up with individual student readings selected from a choice of topics, and students wrote individual summaries to provide a measure of growth thus far in the skill of summarizing from the original pretest. Articles were from another set of the previously discussed Roman newspaper collection. Students were asked to use a word web graphic organizer and write a one-paragraph summary.

Choice. Students selected their readings from a range of topics.

Day 7.

Summarizing. The instructor then guided the class to create a group summary statement. As a class, students read a social studies selection in class from Roman Empire magazines on the lives of the rich in Ancient Rome. Students were asked to list the important ideas on the board and were guided to create a group summary statement. Furthermore, students watched a video on Pompeii to further improve their summarizing skills. They were directed to take notes on the video and create a typed summary from their notes.

Choice. Students used their own format for note taking.

Day 8.

Summarizing. The instructor continued to provide students opportunities for independent practice through writing summaries of social studies readings. These included both assigned and student choice reading on a variety of Ancient Rome topics within the general categories of daily life, government and law, and the legacy of Rome. Finally, all three sections of students went to the computer lab to read online passages of approximately 200 words on Roman daily life, then wrote, typed and printed a 50-word summary. This exercise illustrated the process of producing summaries for the students and it gave them additional assistance in editing and reducing the summaries to the correct length.

Choice. Students chose the topics to read on Roman daily life in the computer lab. Upon returning to class, students divided into groups to do a role-play on how to make good choices and demonstrate satisfaction with those choices. Also, they showed how choices make them feel in control of their learning (autonomy support). The instructor also asked students to provide feedback as to whether or not they made good choices and if they were satisfied with those choices.

Note: for the next day of class, students took an all-day field trip to a museum to visit exhibits on Ancient Greece and Rome

Day 9.

Summarizing. Students chose one of the following topics: Roman bathhouses, gladiators, food and dining, weddings, and architecture. This created five groups for skits and each group read an article selected for their topic. Each group created a skit summary of

their article and presented it to the class. Class members were allowed to ask questions after each presentation to clarify content.

Choice. Students chose their topic for skit and the format of their presentation to the class.

Day 10.

Choice. During the review for the test, students in the choice groups were allowed to choose their groups for the Jeopardy review game.

Day 11.

Choice. On the unit test, students chose three short answer questions to answer from a list of six.

Day 12.

The instructor conducted posttests in all three class sections on motivation, summarizing and comprehension to determine growth from the original pretests.

Implementation Fidelity

As the author served as the researcher-practitioner for the study, she did not look at any of the data collected from the study until the entire unit was completed. Furthermore, she audiotaped her instruction at various points to ensure implementation fidelity and consistency in her methods of instruction. The self-reports from the questionnaires were also given by another teacher. This reduced the bias of the John Henry effect.

To ensure honest and accurate self-reporting, the administrative procedures (*Appendix A*) contained several repeated phrases to encourage students to be forthcoming. For example, the administrator read:

Your teacher is interested in finding out your views on some topics in school like reading and social studies, so you are going to be filling out a questionnaire with your views. There are no right or wrong answers.

In addition, the administrator read:

It is very important that you be honest so she can understand your views. All of your responses will be anonymous. When you get the questionnaire you will see that your name will go on a separate piece of paper attached to the questionnaire. This will be torn off after they are collected, so no one will know your responses.

Finally, another direction from the administrator stated, "Please remember that you are to be completely honest during this exercise and your responses are anonymous." Also, as names are anonymous, this helps to encourage students to be truthful.

To ensure implementation fidelity for the summaries and reading comprehension assessments, a total of four readings were given, two pretest and two posttest. As these are all from the same publisher, are written for the same reading level, and are approximately the same length of 200 words, they are comparable. The two readings for the pretest were on Ancient Greece and the two readings for the posttest were on Ancient Rome. All readings were on different topics. Furthermore, another teacher conducted the instructions and administration and students were told that their responses were anonymous and were encouraged to do their best. They were told that they would receive a completion grade on the assignment instead of a higher-stakes letter grade that would judge the quality of each summary. The purpose was to relieve test anxiety but not to the point where they would not try as a zero on the assignment would result.

Implementation Reliability

To ensure reliability, the group of 66 students were given the same motivation test over time to provide reliability stability. To ensure inter-rater reliability, the summaries were typed to avoid handwriting bias and scored by five experienced raters to ensure the ratings agree using the rubric and samples from expert summaries.

Human Subjects

As the curriculum content was provided to all students in an effort to increase student performance, no concern for subjects was present. Additionally, all materials were coded so that identification of student names was not possible. The informed consent process followed The Catholic University of America's Protection of Human Participants Committee guidelines.

Measurement of the Dependent Variables

Another experienced classroom teacher conducted all testing to ensure implementation fidelity and consistency. A script of directions was read to students when each test was administered for reliability (see *Appendix A*). The six research questions were answered to assess changes in the four dependent variables as a result of the instructional unit in the analysis of the data.

1) In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students' situated intrinsic motivation?

Hypothesis A: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students' situated intrinsic motivation when compared with a "summarizing instruction only" condition and a "choice only" condition.

Measurement: Students' situated intrinsic motivation in social studies text was qualitatively measured using daily reading motivation logs completed by students (Hektner et al., 2007).

2) Does metacognitive strategy instruction in summarizing significantly increase students' content knowledge in their pretest to posttest summary writing?

Hypothesis B: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports both student choice and summary writing will significantly increase students' content knowledge in their pretest to posttest summary writing.

Measurement: Brown and Day's (1983) six rules of summarization, which are ranked in order of sophistication, were used to evaluate the student summaries and the procedure and scoring technique are from Armbruster et al. (1987). Blind raters received typed transcriptions of summaries and ratings were derived from coding for content in relation to expert summaries written by experienced middle school teachers. Scoring used ANOVA for comparison between the groups.

3) In comparison to a "summarizing instruction only" instructional condition and a "choice only" instructional condition, does an instructional condition which supports *both*

student choice and summary writing significantly increase sixth-grade students' comprehension of expository text in a social studies topic?

Hypothesis C: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will show significant pretest to posttest increases in students' expository text comprehension when compared with a "summarizing instruction only" condition and a "choice only" condition.

Measurement: Comprehension of expository texts were measured through using analysis of student essays through the same procedure and scoring and quantitative techniques as the summary writing.

4) In comparison to a "summarizing instruction only" instructional condition and a "choice only" instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students' self-reported long-term reading engagement in social studies?

Hypothesis D: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students' self-reported long-term reading engagement when compared with a "summarizing instruction only" condition and a "choice only" condition.

Measurement: Students' long-term motivation in social studies text was measured pretest and posttest through a modified version of the Perceptions for Reading Motivations Questionnaire (Guthrie et al., 2009), combined with the scores for the content of summary writing using ANOVA.

5) Will reading engagement mediate the relations between instruction and expository text comprehension?

Hypothesis E: In response to an instructional condition which supports *both* student choice and summary writing, reading engagement will act as a mediator (Baron & Kenny, 1986) to cause significant increases in expository text comprehension.

Measurement: Baron and Kenny's (1986) mediator model investigated reading engagement as the mediator between the two independent variables and the dependent variable of expository text comprehension.

6) Will students report being engaged more often in an instructional condition which supports *both* student choice and summary writing when compared with a “summarizing instruction only” condition and a “choice only” condition?

Hypothesis F: Students in an instructional condition which supports *both* student choice and summary writing will report being engaged significantly more than students in a “summarizing instruction only” condition and a “choice only” condition.

Measurement: Students' situated intrinsic motivation in social studies text using daily reading motivation logs completed by students (Hektner et al., 2007) was compared among the three groups.

Pretests

Motivation measure. The first pretest measured motivation level for reading and social studies. This questionnaire is based on the latest versions of the *Perceptions of Reading Motivations Questionnaire* (PRMQ) from Guthrie et al. (2009) and tailored to the discipline of social studies (see Appendix B). This tool has been widely used to assess

reading motivation for this age level, thus making it an appropriate choice (Guthrie, Anderson et al., 1999; Guthrie, Cox et al., 1998; Guthrie, Hoa et al., 2007; Guthrie, McRae, & Klauda, 2007; Guthrie, Van Meter et al., 1998; Guthrie, Wigfield, Barbosa et al., 2004; Guthrie et al., 2006; Guthrie, Wigfield & VonSecker, 2000; Wigfield et al., 2008; Wigfield, Guthrie et al., 2004). The questionnaire includes a variety of constructs associated with reading motivations to assess students such as self-efficacy, reading orientation (enthusiasm, avoidance, and perceived challenge), and choice. For example, “I am a good reader” is a measure of self-efficacy, while “Reading is boring to me” regards avoidance.

Questions were added regarding social studies to the instrument. For example, “I choose books about social studies topics that I like to read”, measures both choice and social studies motivation. Scoring for the items is on a 4-point Likert-type scale ranging from “very different from me” to “a lot like me”.

Previous research using fifth graders as participants in using the Motivation for Reading Questionnaire (MRQ), the previous version of the PRMQ, found avoidance to be negatively correlated with the amount of and scope of reading, thus showing the intrinsic motivation at the opposite spectrum from work avoidance. Furthermore, students with higher levels of reading motivation self-reported that they read more and at a wider variety than students with low levels of intrinsic motivation (Wigfield & Guthrie, 1997).

This was further shown by Baker and Wigfield (1999) and expanded to include both fifth and sixth grades with a population containing African American students. They found that the constructs of self-efficacy, challenge, and avoidance were qualitatively different through analysis of a three-factor model. This study also looked at gender, ethnicity and

family income analysis showing significant ethnicity differences on all scales except curiosity, social, and work avoidance. In addition, African American students scored higher than Caucasian students on self-efficacy, importance, recognition and competence. Baker and Wigfield (1999) postulated African American students scored this way because of the multidimensionality of reading motivation due to variations among characteristics that facilitate engagement or disengagement. In addition, the researchers claimed the results provided stronger relations between motivation and achievement for Caucasian students than for African American students.

As African American students comprised the predominant group in the study and as the population of African Americans in the Baker and Wigfield (1999) study was from an inner city school, the author examined if differences exist for this population of middle income students in these motivational constructs from the Baker and Wigfield (1999) findings. It was anticipated that students would compare more to the Caucasian students of the Baker and Wigfield study regarding relations between motivation and achievement.

Guthrie, Wigfield, Barbosa et al. (2004) used 18 items from an abbreviated version of the MRQ that focused upon self-efficacy for reading and intrinsic motivation features of student desire for challenge, participation, and curiosity. These three factors accounted for 59% of the variance and correlated with reading achievement scores of individual students.

Most recently, Guthrie et al. (2009) investigated different profiles of reading motivation for fifth grade Caucasian and African American students using the most recent version of the Perceptions for Reading Motivation Questionnaire (PRMQ). They found that for Caucasian students, self-efficacy and reading comprehension correlated significantly

$r(176) = .29, p < .01$, and for African American students, the correlation was $r(52) = .36, p < .01$. Regarding perceived difficulty, negative correlations were found for both Caucasian ($r(176) = -.60, p < .1$) and African American ($r(52) = -.51, p < .01$) groups. Thus the instrument continually demonstrates significant correlations between motivational constructs that apply to the study's focus.

Summary writing measure. The second pretest consisted of summaries written by the students to assess use of the strategy of summarizing before the instructional unit. The material used is a booklet of readings on Ancient Greece, which is the previous instructional unit. The publisher of this booklet, Perfection Learning, is the same as for the booklet used for the posttest on Rome, thus providing students with comparable reading level, style and format for both readings.

The technique for analyzing summaries was developed from Armbruster et al. (1987) who explored the effects of text structure instruction, using two groups of fifth grade students whereby one group was instructed in summarizing using a new methodology and the other instructed in traditional methodology. The procedures used from that study consisted of presenting students with a 200-word passage to summarize. Summaries were not to be longer than fifty words. For the passage, a total of twenty minutes was allotted for students to read the passage and write a summary.

The scoring of the summaries again were based on Armbruster et al. (1987) with the readings parsed into idea units listed in the order they appeared in the passage and the relative importance of the idea units ranked into levels of importance. Three content experts were engaged who possessed familiarity with the instructional unit to create expert

summaries for each passage that contained these elements. The scores of these three experts were combined to create a content coding scheme to be used by the raters. Five adult raters were trained to use the expert summary as a model along with the rubric (see *Appendix C*) to rate student summaries using the idea units contained in the passage. Armbruster et al. (1987) found inter-rater agreement of 94%.

The student summaries were then typed, assigned a number, and presented randomly to the blind raters. The typing of the summaries prevented scoring bias that may have occurred due to immature or poor handwriting of the students. The raters were not provided any information as to the identities of the students. The instructor did not participate in the coding process so as to ensure objectivity. Comparison of the scoring from all raters ensured inter-rater reliability of the summary and comprehension assessment scores.

In their analysis after the two groups received instruction, Armbruster et al. (1987) found that trained subjects provided a significantly higher percentage of idea units at Level 1, which comprised the most important idea units, than at the four sub-levels. This group had less Level 4 (least important) idea units in their summaries than the traditional group, although increases in Level 5 (extraneous ideas). The experimental group also displayed better organized summaries that received higher quality ratings for organization, focus and integration.

For this study, the scoring procedure was modified to individually analyze content. Content includes the main idea and supporting details (idea units) and the goal is to show significant increase in content level at the end of the study. It was postulated that summary expertise would increase.

Expository text comprehension measure. A third pretest assessed student expository text comprehension level through writing an essay after reading another selection on Ancient Greece. Again, this passage came from the same publisher as for the pretest using Rome, providing comparable analysis of reading comprehension. For the second passage, students had ten minutes to read and study the passage before it was removed. Students then received ten more minutes to write an essay on content of the passage, the same procedure used in the second assessment in Armbruster et al. (1987). The essay assessed comprehension using the same methodology from the summary to demonstrate the number of ideas correctly interpreted from the passage (see *Appendix C*).

Test Administered During the Instructional Unit

Situated motivation measure. All three classes of students completed daily inventories to assess motivation levels. Measurement of students' situated motivation in social studies text was through daily reading motivation logs completed by students based on the Experience Sampling Method (ESM) (Hektner et al., 2007) to determine motivation levels and flow states. ESM is a method for collecting information about students' subjective experiences in order to understand participants' subjective experiences during classroom instruction. This allows students to provide their feelings at that moment in time.

Phenomenology in this study is used as it describes the lived experiences of the students during the instructional unit, the phenomenon. ESM is considered systematic phenomenology as it deals with how people feel about their experiences instead of what they do. Its emphasis on lived experience uses investigation by naturalistic observation combined with measurement using scaled surveys. In addition, experience can be analyzed by both

intrapersonal and interpersonal methods. Intrapersonal is important as stability is assumed within a person and standardized scores can compare how an individual deviates from their own average regarding feelings (Hektner et al., 2007). By collecting samples at the end of each class period, distortions from delayed measurement are prevented and a quantitative analysis of the data can provide richness to student motivational states and how they fluctuate (see Appendix E).

Flow is a state whereby a person is both challenged and possesses the skill to perform an activity. For flow to occur, both of these variables should be high and in balance (Hektner et al., 2007). Furthermore, “flow is characterized not only by a balance of challenges and skills but also by deep concentration, loss of self-consciousness, and deep engagement” (p. 46). These samples attempt to capture the flow experience, not just the conditions necessary for flow to take place.

The validity of ESM is assured due to its use for measuring the natural experiences of participants. ESM obtains responses on an immediate basis and reduces problems with recall. As students were given the ESM at the end of each class period, students provided timely feedback on the class and assessed in the same location each time. In addition, since students did not share their responses with each other, answers based on social desirability were decreased. Students also got used to taking the ESM and it is postulated provided more realistic feedback than from a one-time questionnaire. Furthermore, ESM studies provide evidence that different emotional states such as “happy” and “sociable” expected to vary together have been demonstrated to occur at the same time.

The reliability of ESM in measuring internal states is shown in measuring the internal consistency of items using Cronbach's Alpha, which measures the internal consistency of the scale items with similar samples of students. Several studies demonstrated consistency across internal states, including for intrinsic motivation, resulting in an Alpha range of .72-.76. Finally, ESM displayed long-term stability using correlation coefficients for both intrinsic motivation (.53) and flow (.53) over a two-year period.

Implementation fidelity measure. Instruction was audiotaped at various points to ensure implementation fidelity and consistency in the methods of instruction (see *Appendix D*). For the summaries and reading comprehension assessments, four comparable readings were given from the same publisher, written at the same reading level, and of approximately the same length. In addition, fidelity was assured through administration by another teacher and anonymity of student responses.

The author did not participate in the coding process so as to ensure objectivity. The scores of three experts were combined to create a content coding scheme used by the raters and the adult raters were trained to use the expert summary and rubric. Typing of the summaries prevented scoring bias and raters did not receive any information as to the students' identities. Comparison of the scoring from all three raters ensured inter-rater reliability of the summary and comprehension assessment score and it was expected to find high inter-rater agreement due to these measures.

Posttests

Motivation posttest measure. After the instructional period, the second administration to all three classes of the motivation level for reading and social studies

questionnaire determined changes in motivation levels with additional questions pertaining to student choice preferences included at the end of the questionnaire (see *Appendix D*).

Summary writing posttest measure. Furthermore, as previously discussed, a booklet of readings on Ancient Rome assessed the use of the strategy of summarizing using the same methodology as the pretest. Students wrote a summary of a reading to assess the skill of summarizing.

Expository text comprehension posttest measure. As with the summary writing measure, a booklet of readings on Ancient Rome assessed expository text comprehension. Students wrote an essay on a reading as in the pretest to assess the skill of expository text comprehension.

Measures Summary

Table 2

Summary of Instrumentation

The table below provides a summary of the measures utilized in this study.

Construct Measured	Measure	Variable	Procedure
Situated Intrinsic Motivation	Reading motivation logs	Dependent Variable	Administered at the end of each day's instruction
Long-Term Reading Motivation	Perception of Reading Motivation Questionnaire (PRMQ)	Dependent Variable	Administered in class as pretest and posttest

Construct Measured	Measure	Variable	Procedure
Summary writing	Rubric for summary writing	Dependent Variable	Administered in class as pretest and posttest
Expository text comprehension	Rubric for essays	Dependent Variable	Administered in class as pre- and posttest
Engaging Instruction	Fidelity Checklist	Dependent Variable	Observation and videotaping of instruction by another teacher

Limitations of the Measures

The measures are limited, for example, as self-reports of the students obtained from the motivation questionnaires could contain bias without proper structuring of the administration of the questionnaires, both pretest and posttest.

Furthermore, the study has several threats to validity that needed to be taken into account and monitored. Threats to internal validity include differential selection of participants and pretest sensitization. As the class groupings of the three sections were already formed, the class sections could show differential selection of participants whereas one section could be less motivated than another. In addition, because the students were taking a pretest for summary writing, it might have modified how they paid attention to the material through the treatment, making them more sensitive to the material, and resulting in posttest improvements.

Threats to external validity included pretest sensitization, pretest-treatment interaction, and reactive arrangements. As with internal validity and the pretest, the students might have changed their responses for the motivation questionnaire due to a pretest if this was not taken into account and it would be difficult to generalize the results. However, this

would be more unlikely for the summaries, as the readings are different. Also, due to selection-treatment interaction, because the groups are nonrandom participants, the findings of the study may not represent the general population. Lastly, another threat to external validity is the reactive arrangement of the John Henry effect. This effect can influence participants in a study who are aware of being in the study to work harder for perceived compensation, desiring to please the teacher.

Control of limitations. The limitations described have minimal impact on the results of the study. For instance, the self-report bias and John Henry Effect were limited as a detailed script was written for the administrator that reminds students several times to respond honestly and do the best they can. Although class groupings already existed, the random assignment of treatments to the three academically comparable groups reduced risk of this limitation. Pretest sensitization was controlled for both pretest and posttest readings of summaries and comprehension essays as there were four different passages. Also, the time span difference of over a month of the motivation questionnaire administration ensured that students did not remember precise questions or responses and directions again specify honesty about current beliefs. The timing and precision of the procedures in the study should demonstrate the changes and differences between groups effectively.

Measurement of Control Variable

Control Variable: Previous Reading Achievement

Previous reading achievement was controlled to eliminate differences among students and the scores were obtained merely to show that the students are within normal grade-level range. Previous reading achievement was measured through standardized reading test scores.

Students take the Stanford Achievement Test in the spring of each year; thus, scores from the spring of 2009 were used to determine reading levels of students.

Data Analysis

Comparison of the pre-, during- and posttest measures assessed changes in the four dependent variables of situated intrinsic motivation, reading strategy use, expository text comprehension, and engaged reading (motivation plus reading strategy use) as a result of the summarizing instruction and presence of choice in the classroom. It was anticipated that the measurements would show significant increases in all four dependent variables for the group receiving both summarizing instruction and choice because of the power created by the combination of the two independent variables.

Descriptive data for the dependent variable of situated intrinsic motivation was gathered qualitatively through the daily reading motivation logs and analysis quantified through Z-scores. Descriptive data for the dependent variables of reading strategy use, expository text comprehension and engaged reading included pretest and posttest means, standard deviations, and range of scores using inferential statistics of one-way ANOVA and ANCOVA detailed in this section.

Dependent Variable: Situated Intrinsic Motivation

The ESM (Hektner et al., 2007) was qualitatively analyzed to identify patterns and variations of motivation among and between the participants' subjective experiences and reactions to the instruction in all three groups. The collection of samples at the end of each class period prevented distortions from delayed measurement and provided data on fluctuations in situated motivation in social studies text and flow states.

Both student intrapersonal and interpersonal experiences were analyzed. Interpersonal experiences were compared between students within and among the three classes. This provides a comprehension picture of the instructional unit on a day-by-day basis. To compute the Z-scores, the raw scores were transformed with a person's mean score on a variable as 0 and scores one standard deviation above as 1.0 and one standard deviation below as -1.0. This allows for comparison of an individual from their average on a variable. This allowed for observation of daily variations and comparison with the lesson content and even time of day of the class since classes rotate weekly.

Dependent Variable: Summary Writing

As previously discussed, Brown and Day's (1983) six rules of summarization, which are ranked in order of sophistication, were used to evaluate the student pretest and posttest summaries, along with the pretest and posttest comprehension essays and the procedure and scoring technique are from Armbruster et al. (1987). Three content experts were engaged who possessed familiarity with the instructional unit to create expert summaries and comprehension essays for each passage as executed by Armbruster et al. (1987). The scores of these summaries and comprehension essays based on content were combined to create a content coding scheme to be used by the coders. The student summaries and comprehension essays were typed by an independent person, each assigned a number, and presented randomly to five blind coders. The typing of the four sets of 66 writings prevented scoring bias that may occur due to immature or poor handwriting of the students.

The five coders did not know any information as to the identities of the students. The training of the coders consisted of reviewing carefully the expert summaries and essays

for each of the readings so they would know the target content. After reviewing the rubric, they were presented with samples from student writings on the reading selections from the previous school year and asked to score them. These were discussed and reviewed in detail to ensure that each coder understood how to properly score each writing assessment and all questions were answered. The training period continued until agreement of scores was within one point to ensure inter-rater reliability. Finally, the coders were presented with one set of writings at a time, scoring all in the set of 66. This was repeated for the other three writing assessments. The author did not participate in the coding process so as to ensure objectivity.

A mixed between-within subjects analysis of variance (ANOVA) compared changes in the three groups from pretest to posttest. The ANOVA was used to analyze the changes from pretest to posttest of means among the three independent comparison groups created by the three conditions, both within groups and between groups. As previously described, Group 1, the experimental condition, received both summarizing instruction and choice; Group 2, the “choice only” condition, only received choices in the classroom during the instruction unit; and Group 3, the “summarizing instruction only” condition, only received summarizing instruction.

The one-way ANOVA analyzed the dependent variable of summary writing skill for all three groups, allowing the author to make a single inference about the populations associated with the samples. For within group comparisons, the author expected significant improvements in summarizing skills in the groups receiving summarizing instruction from pretest to posttest. For between group comparisons, the author anticipated that the pretest

scores of summary writing would be similar among the three groups. A significant posttest difference between the three groups was expected, especially the comparison of the “choice only” group and the two other groups that receive the summarizing instruction. The author also anticipated a significant difference between the experimental condition that received both summary instruction and choice and the “summarizing instruction only” group.

Dependent Variable: Expository Text Comprehension

The scoring of the essays for expository text comprehension followed the same procedures for summary writing. The three groups were compared using the same mixed between-within subjects analysis of variance (ANOVA).

Dependent Variable: Reading Engagement

Students’ long-term motivation in social studies text was measured pretest and posttest through the modified version of the PRMQ (Guthrie et al., 2009), combined with the scores for the content of summary writing. As each student’s questionnaire and summary was assigned a number, the identities of the students remained anonymous, but individual scores could be tracked for motivation and could be compared with the scores for the summaries. The reading motivation and summary scores were standardized and added together to ensure equal contribution to the total reading engagement score. The reading engagement scores were compared between the three groups using mixed between-within subjects ANOVA to determine if significant differences occurred between and within the three conditions.

Mediation Effect of Reading Engagement

This study examined reading engagement as a mediator on the relations between instruction and expository text comprehension using the structure of Baron and Kenny (1986) and Wigfield et al. (2008). In the current study, it was important to examine the effects of reading engagement on reading comprehension to help determine if engaging instruction is a positive influence on reading comprehension. To infer mediation, three criteria were used. First, the study determined if positive relations existed between reading engagement and expository text comprehension. This was conducted by examining the correlations between reading engagement and expository text comprehension. Second, the study looked at how instructional practices effected expository text comprehension. Third, the researcher controlled for the level of reading engagement using an analysis of covariance (ANCOVA) with the three instructional groups as the independent variable and expository text comprehension posttest as the dependent variable. Reading engagement posttest was then entered as the covariate. In order for reading engagement to be inferred as a mediator, the ANCOVA would have to show an insignificant or reduction in effect in comparison with the original effect of the three instructional conditions on expository text comprehension. The anticipated result was a reduction, or partial mediation, of reading engagement on expository text comprehension. The inference from this occurrence would be that higher levels of reading engagement resulted in greater increases in expository text comprehension.

Amount of Engagement

The ESM (Hektner et al., 2007) was used to analyze the amount of times students report being engaged between the instructional condition which supports *both* student choice

and summary writing when compared with the “summarizing instruction only” condition and the “choice only” condition.

Control Variable: Previous Reading Achievement

Student Stanford Achievement Test scores were used as the control for previous reading achievement measurement and will determine the reading levels of students. An analysis of this data was conducted through computing the means for each group, comparing the three means, and determining if the means were significantly different using a one-way ANOVA.

In conclusion, the need was addressed for effective instruction to increase reading engagement and comprehension in the study. The mixed-methods design provided a complete analysis of the effects of the instructional conditions on the three groups. The simultaneous instruction of the unit and comparable classes added to measures employed to ensure reliability, validity, and consistency in the study design, implementation, and analysis. The study will enhance literature on reading engagement, specifically the combination of summarizing instruction and providing choices in a social studies classroom. Measures of the four dependent variables of situated intrinsic motivation, reading strategy use, expository text comprehension, and engaged reading (motivation plus reading strategy use), along with the analysis of the mediator effect of reading engagement between instruction and expository text comprehension, will provide wide-ranging data for the study.

CHAPTER 4 - RESULTS

Relations Among Variables

The relationship between pretest and posttest measures of the dependent variables of summary writing, expository text comprehension, motivation, and reading engagement were investigated along with the control variable of previous reading scores. The independent variables included teaching summarizing skills and provision of student choice. Specifically, the instructional unit integrated the explicit instruction of a reading strategy, summarizing, and the inclusion of student choice during a unit on Ancient Rome. The dependent variables were situated intrinsic motivation, reading strategy use, expository text comprehension, and engaged reading (motivation plus reading strategy use). The control variable was previous reading achievement and was measured through standardized reading test scores.

Preliminary analyses were performed to ensure no violations of the assumptions of normality, linearity and homoscedasticity.

Table 3

Means and Standard Deviations of Variable

	<i>N</i>	Min.	Max.	<i>M</i>	<i>SD</i>
Summary Pre	66	0	4	.89	.88
Summary Post	66	0	5	2.48	1.07
Comprehension Pre	66	0	4	.97	.86
Comprehension Post	66	0	4	1.39	1.01
Pre Reading Scores	66	602	773	675.45	37.78
Motivation Pre	66	34	97	59.03	15.93
Motivation Post	66	36	97	60.70	16.05
Engagement Pre	66	-3.05	4.50	0.00	1.56
Engagement Post	66	-3.96	2.68	0.00	1.52

Pearson product-moment correlation coefficients were obtained for all variables, both pretest and posttest, and between groups. The upper right half of the table shows posttest in March; the lower left shows the pretest in February.

Table 4

Pearson Product-Moment Correlations Between Standardized Measures

Measure	1	2	3	4	5
1. Summary Writing	--	.35**	.04	.72**	.27**
2. Comprehension	.10	--	.17	.36**	.23
3. Motivation	.16	.10	--	.72**	.37**
4. Reading Engagement (Summary Writing + Motivation)	.76**	.13	.76**	--	.44**
5. Previous Reading Scores	.05	.25*	.31*	.23	--

N=66

**p*<.05

***p*<.001

Table 5

Pretest and Posttest Pearson Product-Moment Correlations for Standardized Measures

Variable	Correlation
Summary Writing	.14
Comprehension	.05
Motivation	.88**
Reading Engagement	.60**

N=66

**p*<.05

***p*<.001

Previous Reading Achievement

To control for previous reading achievement, the students' scores on the Stanford Achievement Test provided the reading levels of students. An analysis of this data was conducted through computing the means for each group, comparing the three means, and determining if the means were significantly different using a one-way analysis of variance

(ANOVA). Analysis showed that there was no significance difference in the three groups regarding previous reading scores [$F(2, 63)=1.66, p=.20$].

Situated Intrinsic Motivation

In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ situated intrinsic motivation?

The Experience Sampling Method (ESM) (Hektner et al., 2007), completed at the end of each class by students, was analyzed to identify patterns and variations of situated intrinsic motivation between the participants’ subjective interpersonal experiences and reactions to the instruction in all three groups. This provided a comprehension picture of the students’ subjective experiences during classroom instruction on a day-by-day basis. The ESM is also used to measure flow, a state whereby a person is both challenged and possesses the skill to perform an activity “characterized...by deep concentration, loss of self-consciousness, and deep engagement” (Hektner et al., 2007, p. 46).

The total score of the ESM was used to compute Z scores in order to apply a standardized scale for comparing data that analyzes experience in different contexts as detailed in Hektner et al. (2007). The scores for the three groups were analyzed using a one-way analysis of variance (ANOVA) and the scores differed significantly among the three groups ($F(2, 689)=10.24, p<.00$). Table 6 displays data from all students on all 11 days when the ESM was given at the end of class.

Table 6

Descriptive Statistics for ESM Total Scores

Group	<i>N</i>	<i>M</i>	<i>SD</i>
Both	233	-.05	1.06
Choice Only	232	.23	.07
Summarizing Instruction Only	225	-.18	.89

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1, “both” ($M=-.05$, $SD=1.06$) was significantly different from Group 2, “choice only” ($M=.23$, $SD=1.01$). Furthermore, Group 2 was also significantly different from Group 3, “summarizing instruction only” ($M=-.18$, $SD=.89$). Groups 1 and 3 did not differ significantly.

Summary Writing

Does metacognitive strategy instruction in summarizing significantly increase students’ content knowledge and accuracy in their pretest to posttest summary writing?

The analysis for the dependent variable of summary writing was a mixed between-within subjects ANOVA which tested the impact of the three instructional conditions on students’ summary writing scores between pretest and posttest. The main effect for the summary writing test showed that the scores increased significantly between pretest and posttest [$F(1, 63)=102.95$, $p<.00$] with a large effect size of .62. The interaction effect was not significant [$F(2, 63)=1.77$, $p=.18$, partial eta squared=.05], meaning that the effect was the same across the three groups between pretest and posttest. Finally, the main effect comparing the three groups was not significant [$F(2, 63)=2.17$, $p=.12$] and the effect size

was moderate (.06). This shows no differences among the three groups using data from both the pretest and posttest. The means and standard deviations are presented in Table 7.

Table 7

Descriptive Statistics for Pretest and Posttest Summary Writing Scores

Time Period	Group	<i>N</i>	<i>M</i>	<i>SD</i>
Pretest	Summary	22	1.05	0.72
	Writing	22	0.77	0.81
	Summarizing Instruction Only	22	0.86	1.08
	Total	66	0.89	0.88
Posttest	Summary	22	2.77	0.81
	Writing	22	2.64	1.29
	Summarizing Instruction Only	22	2.05	0.95
	Total	66	2.48	1.07

Expository Text Comprehension

In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ comprehension of expository text in a social studies topic?

The analysis for the dependent variable of expository text comprehension was also a mixed between-within subjects ANOVA which tested whether there were effects for the three instructional conditions on students’ expository text comprehension scores between pretest and posttest.

Despite a significant main effect demonstrating that the scores between pretest and posttest were different [$F(1, 63)=9.75, p<.00$, partial eta squared=.13], the interaction effect was significant [$F(2, 63)=12.89, p<.00$] with a large effect size (.29), showing that the

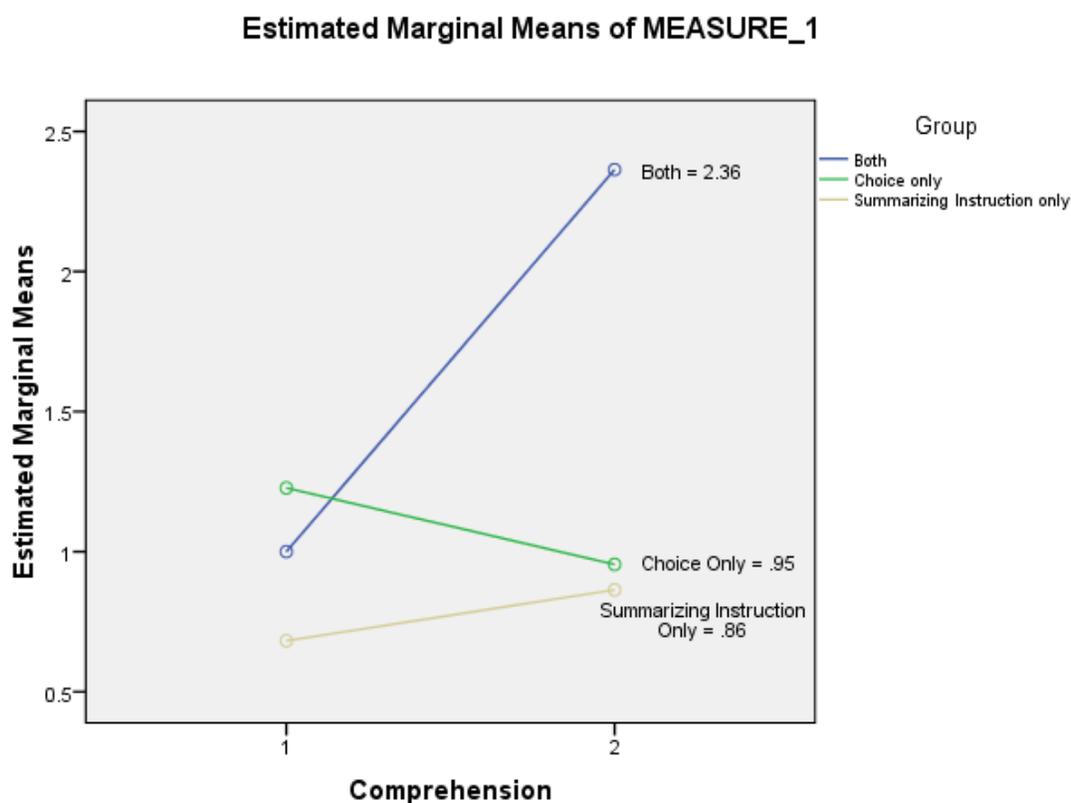
change in scores from pretest to posttest was different for the three different groups (see Figure 2). Post-hoc comparisons using the Tukey HSD test indicated that the mean scores for all three groups did not differ significantly in the pretest ($p=.11$). Regarding the posttest, post-hoc comparisons showed Group 1, which received both instruction in summarizing and choices in the classroom (“both”), differed significantly from both Group 2, “choice only” ($p=.01$) and Group 3, “summarizing instruction only” ($p<.00$) in posttest scores. Expository text comprehension posttest scores did not differ significantly between Groups 2 and 3 ($p=.14$). There was also a statistically significant main effect for group [$F(2, 63)=14.42$, $p<.00$] with a large effect size (.31), demonstrating that the groups differed significantly from pretest to posttest.

Table 8

Descriptive Statistics for Pretest and Posttest Expository Text Comprehension Scores

Time Period	Group	<i>N</i>	<i>M</i>	<i>SD</i>
Expository Text Comprehension Pretest	Both	22	1.00	0.54
	Choice Only	22	1.23	0.81
	Summarizing Instruction Only	22	0.68	1.09
	Total	66	0.97	0.86
Expository Text Comprehension Posttest	Both	22	2.36	0.49
	Choice Only	22	0.95	0.84
	Summarizing Instruction Only	22	0.86	0.83
	Total	66	1.39	1.01

Figure 3
Graph of Expository Text Comprehension ANOVA



Long-Term Reading Engagement

In comparison to a “summarizing instruction only” instructional condition and a “choice only” instructional condition, does an instructional condition which supports *both* student choice and summary writing significantly increase sixth-grade students’ self-reported long-term reading engagement in social studies?

Motivation Inventory

The questionnaire to measure the motivation level for reading and social studies is based on the latest versions of the *Perceptions of Reading Motivations Questionnaire*

(PRMQ) from Guthrie et al. (2009). The original tool has been broadly used to assess reading motivation and includes constructs such as self-efficacy, reading orientation (enthusiasm, avoidance, and perceived challenge), and choice. For this study, questions were added regarding social studies motivation to the instrument. Further exploration through correlations resulted in elimination of the social studies motivation questions, as they did not show consistent correlations with the original questions, thus questioning their reliability. It was therefore decided to retain the 21 questions from the original PRMQ in the final analysis as they have been verified in numerous studies with much larger participants (Guthrie, Anderson et al., 1999; Guthrie, Cox et al., 1998; Guthrie, Hoa et al., 2007; Guthrie, McRae, & Klauda, 2007; Guthrie, Van Meter et al., 1998; Guthrie, Wigfield, Barbosa et al., 2004; Guthrie et al., 2006; Guthrie, Wigfield & VonSecker, 2000; Wigfield et al., 2008; Wigfield, Guthrie et al., 2004).

Reading Motivation

The analysis for the dependent variable of reading motivation was a mixed between-within subjects ANOVA which tested the effect of the three instructional conditions on students' motivation scores between pretest and posttest. Reading motivation was obtained by adding the 21 original questions for motivation obtained from the PRMQ.

The main effect for motivation illustrated that scores changed significantly between pretest and posttest [$F(1, 63)=4.61, p=.04$], with a moderate effect size (.07). The interaction effect was not significant [$F(2, 63)=2.04, p=.14, \text{partial eta squared}=.06$], meaning that the effect was the same across the three different groups between pretest and posttest. Lastly, there was not a statistically significant main effect for group [$F(2,$

63)=1.35, $p=.27$, partial eta squared=.04], displaying no differences among the three groups using data from both the pretest and posttest. The means and standard deviations are presented in Table 9.

Table 9

Descriptive Statistics for Pretest and Posttest Motivation Scores

Time Period	Group	<i>N</i>	<i>M</i>	<i>SD</i>
Motivation Pretest	Both	22	60.41	11.39
	Choice Only	22	60.18	12.76
	Summarizing Instruction Only	22	56.50	14.44
	Total	66	59.03	12.85
Motivation Posttest	Both	22	62.32	11.32
	Choice Only	22	63.64	13.59
	Summarizing Instruction Only	22	56.14	13.36
	Total	66	60.70	13.02

Reading Engagement

The analysis for the dependent variable of reading engagement was a mixed between-within subjects ANOVA which tested the outcome of the three instructional conditions on students' pretest and posttest reading engagement scores. Standardizing the scores for summary writing and motivation, then adding them together obtained the reading engagement score. Scores were standardized to ensure summary writing and motivation contributed equally to the score for reading engagement.

The interaction effect was significant [$F(2, 63)=3.08, p=.05$] with a moderate effect size (.09), showing that the change in scores from pretest to posttest was different for the three groups. Post-hoc comparisons on the posttest scores using the Tukey HSD test indicated that the mean scores for the three groups differed significantly ($p=.01$). Between

Group 1 (“both”) and Group 3 (“summarizing instruction only”), $p=.02$; and for Group 2 and Group 3, $p=.02$. The reading engagement scores for Groups 1 and 2 were not significantly different in the posttest ($p=.99$). There was not a statistically significant main effect for group [$F(2, 63)=2.53, p=.09$] with a moderate effect size (.07), showing that the groups did not differ significantly in their scores from pretest to posttest.

Table 10

Descriptive Statistics for Pretest and Posttest Reading Engagement Scores

Time Period	Group	<i>N</i>	<i>M</i>	<i>SD</i>
Reading Engagement Pretest	Both	22	0.28	1.22
	Choice Only	22	-0.05	1.37
	Summarizing Instruction Only	22	-0.23	1.91
	Total	66	0.00	1.52
Reading Engagement Posttest	Both	22	0.39	1.15
	Choice Only	22	0.37	1.52
	Summarizing Instruction Only	22	-0.76	1.37
	Total	66	0.00	1.44

Reading Engagement as a Mediator

Will reading engagement mediate the relations between instruction and expository text comprehension?

Reading engagement was examined as a mediator on the relations between instruction and expository text comprehension. The correlations between posttest reading engagement and posttest expository text comprehension were found to be significant ($r=0.36$). To test for mediation (Baron & Kenny, 1986; Wigfield et al., 2008), an analysis of covariance (ANCOVA) was conducted with the three instructional groups as the independent variable,

expository text comprehension posttest as the dependent variable, and reading engagement posttest as the covariate. The assumption of homogeneity of regression slopes was found not significant ($p=.53$), indicating that the covariate did not interact with the treatment conditions and was thus independent. The ANCOVA showed a significant relationship between the covariate (reading engagement posttest) and the dependent variable (expository text comprehension posttest) with a large effect size [$F=7.20$, $p=.01$, partial eta squared=.10].

In order for reading engagement to be inferred as a full mediator, the ANCOVA would have to show an insignificant effect in comparison with the original effect of the three instructional conditions on expository text comprehension. Partial mediation would occur with a reduction in effect from the original effect, which was the prediction for this analysis. As interactions in the real world include numerous possible mediators, a reduction in effect is a more realistic goal (Baron & Kenny, 1986). As previously reported, the expository text comprehension posttest showed that Group 1 was significantly higher than groups 2 and 3 in their scores. Analysis of variance comparing the three groups on posttest expository reading comprehension scores was $F(2, 63)=28.3$, $p<.00$. After controlling for reading engagement, a significant difference between comprehension scores in the three groups still existed [$F(2, 63)=25.05$, $p<.00$]; however, the size of the effect was reduced when reading engagement was removed. Adjusted means obtained after removal of the reading engagement covariate appear in Table 11.

Table 11

Descriptive Statistics for ANCOVA

Condition	Group	<i>N</i>	<i>M</i>	<i>SD</i>
Expository Text	Both	22	2.29	1.15
Comprehension	Choice Only	22	0.92	1.52
Posttest with Reading	Summarizing Instruction	22	0.98	1.37
Engagement as Covariate				

Amount of Engagement

Will students report being engaged more often in an instructional condition which supports *both* student choice and summary writing when compared with a “summarizing instruction only” condition and a “choice only” condition?

As previously discussed, engagement is linked to flow theory, characterized by the balance between high challenge and high skill to perform an activity (Hektner et al., 2007). The daily reading motivation logs completed by students based on the Experience Sampling Method (ESM) (Hektner et al., 2007) examined situated motivation levels and flow states at that moment in time. The daily levels of flow are displayed in the bar graphs of Figures 4 and 5. Furthermore, all instructional days are shown in Table 17, along with the corresponding activity that day and the group(s) reporting flow states. Flow states were determined by examining the total score of the daily reading motivation logs (ESM) with students in flow reporting high levels of challenge, skill and enjoyment. Flow was determined when the total score of a day was above the mean for that group. In addition, days with minimal choices provided to Groups 1 and 2 (the choice groups) are detailed. Note that all activities for Group 3 did not contain choices and summarizing instruction activities

were not presented to Group 2. The overall means for the two choice groups (1 and 2) were higher than for the Summarizing Instruction Only group (3). Flow was evident for Group 1 on days 2, 3, 4, 8, 9 and 10; for Group 2 on days 2, 4, 6, 7, 8, 9, and 10; for Group 3 on days 9 and 10.

Figure 4

Levels of Flow by Group and Days

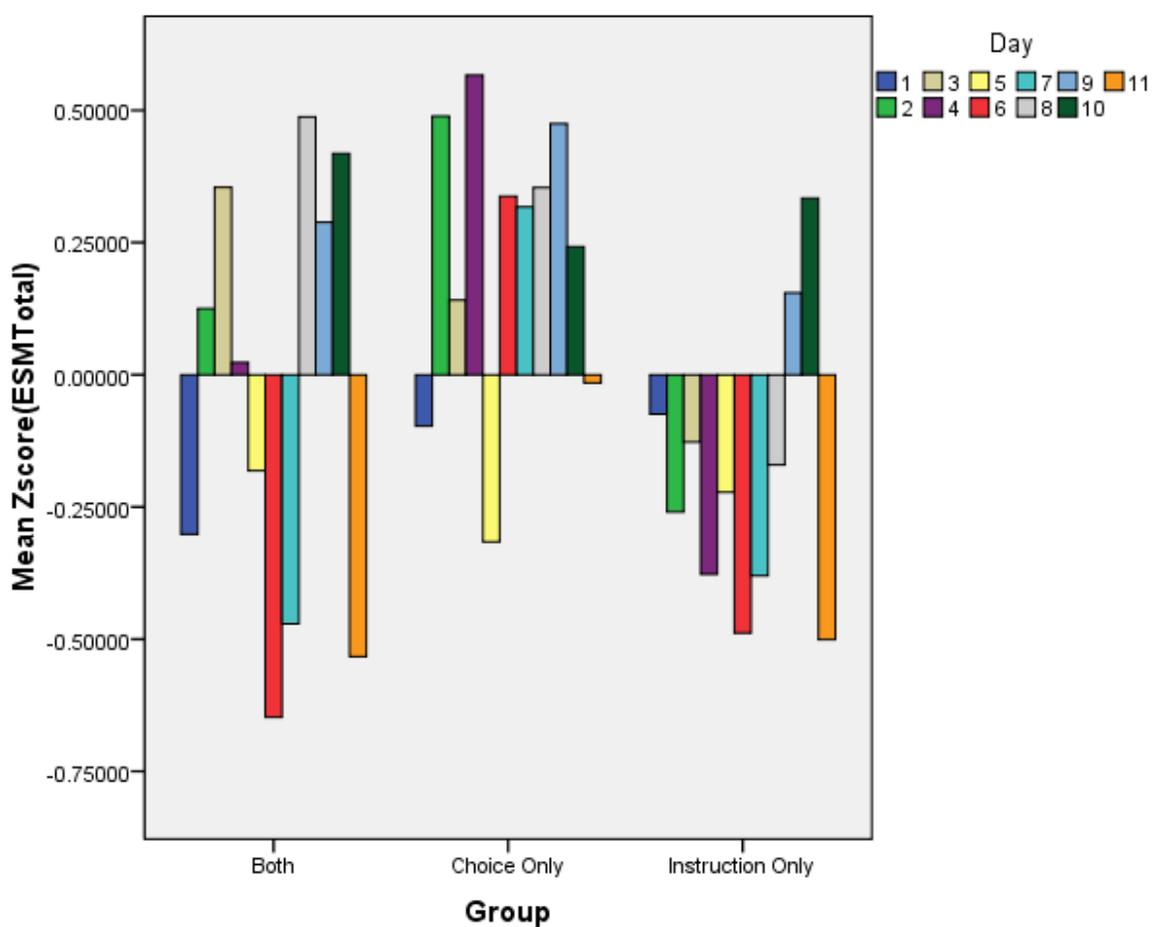


Figure 5

Levels of Flow by Day and by Group

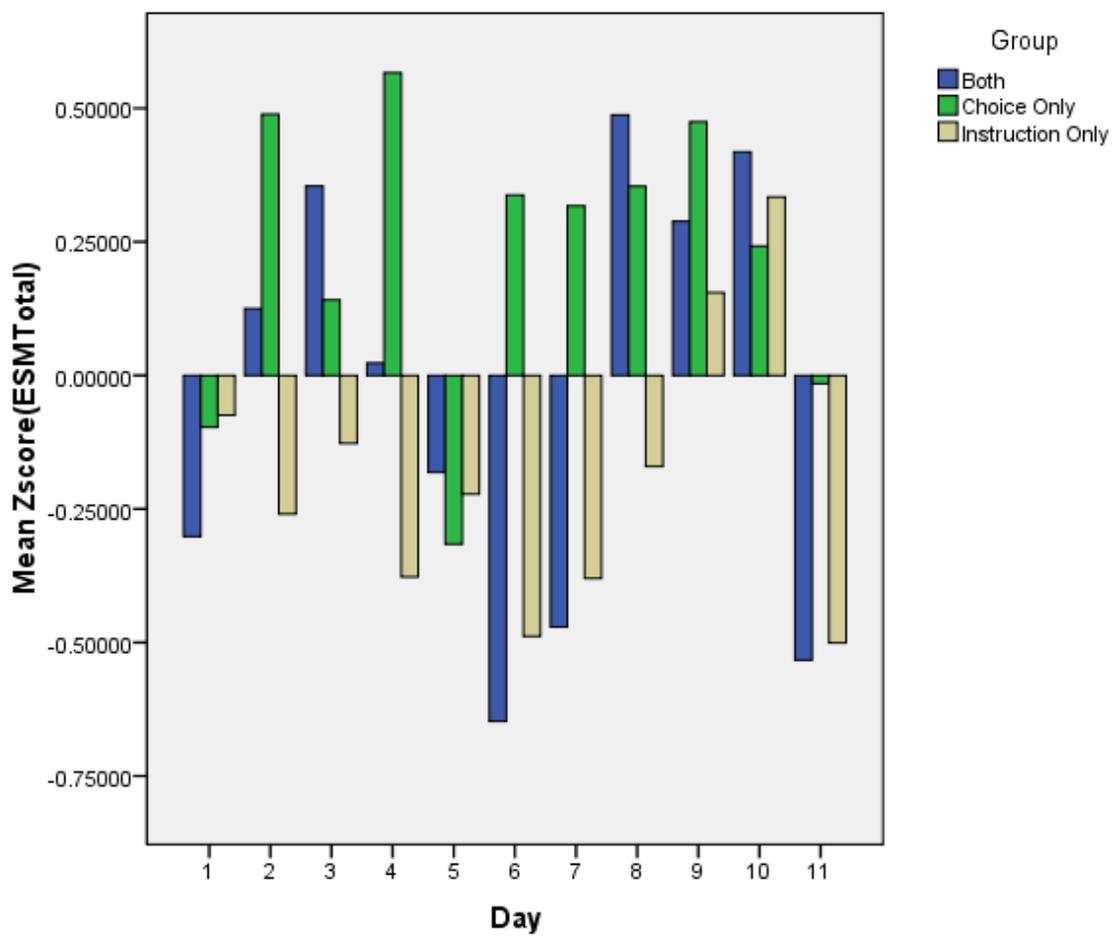


Table 14

Student Reports of Flow

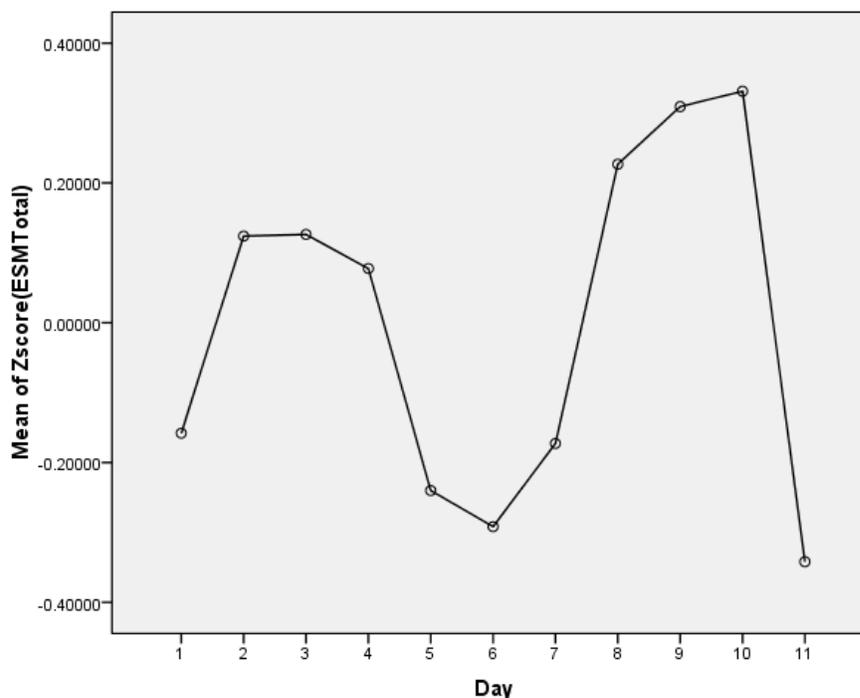
Day	Activity	Group 1: Summarizing Instruction and Choice (Total ESM Mean = 20.36)	Group 2: Choice Only (Total ESM Mean = 22.12)	Group 3: Summarizing Instruction Only (Total ESM Mean = 19.49)
1 – Feb. 2	Introduction to Summarizing for Groups 1 and 3 (minimal choices)	18.73	20.04	20.19
2 – Feb. 4	Choice of groups to create a definition of choice	Flow (21.47)	Flow (23.82)	19.00
3 – Feb. 18	Choice groups' presentation of definition	Flow (22.95)	21.58	19.85
4 – Feb. 23	Choice of questions on quiz; Creating headlines with choice of articles from Roman Life newspapers	Flow (20.82)	Flow (24.32)	18.24
5 – Feb. 25	Summarizing Instruction for Groups 1 and 3 (minimal choices)	19.50	18.64	19.24
6 – Feb. 26	Choice of article to read on Roman daily life from Roman life newspapers	16.50	Flow (22.84)	17.52
7 – March 2	Video on Pompeii – choice of how to take notes	17.64	Flow (22.71)	18.22
8 – March 4	Computer lab -- choice of article on Roman life and role-play on choices	Flow (23.11)	Flow (23.11)	19.57

Day	Activity	Group 1: Summarizing Instruction and Choice (Total ESM Mean = 20.36)	Group 2: Choice Only (Total ESM Mean = 22.12)	Group 3: Summarizing Instruction Only (Total ESM Mean = 19.49)
9 – March 11	Create a skit from an article – choice of topic and groups	Flow (23.73)	Flow (23.73)	Flow (21.67)
10 – March 12	Jeopardy review game – choice of groups	Flow (22.23)	Flow (22.23)	Flow (22.82)
11 – March 16	Test on Ancient Rome – choice of questions on test	17.24	20.57	17.44

In addition, using the Z scores derived from the ESM, an ANOVA further analyzed the days and found significant differences on amount of engagement ($F=3.98, p<.00$).

Displayed by Figure 5, the days above the standardized mean of zero were 2, 3, 4, 8, 9 and 10, coinciding with the previous analysis.

Figure 6

Daily Analysis of ESM Totals

Finally, on the motivation posttest students were given a list of the choices that had been provided during the unit and asked to indicate their preferences (see *Appendix D*). Students reported preferences of the following choices ranging between 50-100%, which coincides with the daily reading motivation logs and the reported level of flow during the class when some of these particular activities occurred. Note that both groups provided with choice always had a choice of groups, partners and seating throughout every date of the unit, all chosen by the students as of high importance. Overall, the choices preferred involved interactions with other students or choice of academic work such as homework and assessments.

Table 15

Student Posttest Reports on Choice Preferences

Choice	Group 1: Summarizing Instruction and Choice	Group 2: Choice Only
A – Choice of Skit group on making good and bad choices	95%	81.8%
D - Choice of skit topic and group on Roman Life	90.9%	59.1%
E - Choices of questions on test/quiz	54.5%	72.7%
F - Choice of Groups	100%	90.9%
G - Choice of Seats	100%	95.9%
H - Creating questions from a reading and choosing someone to ask them to	50%	68.2%
J - Creating a vocabulary exercise from a choice of crossword, word search, or illustration	68.2%	63.6%
K - Choice of partners for activities	100%	95.5%

CHAPTER 5: DISCUSSION

The study detailed several important findings on the topic of reading engagement and reading comprehension. The study's most important result was that the combination of explicit instruction in the reading strategy of summarizing and providing meaningful choices in the classroom produced significant increases in expository text comprehension among sixth grade social studies students when compared to groups that received only the strategy instruction or only choices. The experimental condition resulted in improved expository text comprehension in students who both learned the strategy and chose to use it, which creates student reading engagement. In addition, the two groups that had the motivator of choice present in the classroom demonstrated significant differences in the reading engagement posttest in comparison with the third class, which did not receive choices. A further contribution of the study regards reading engagement inferred as a partial mediator between instruction and expository text comprehension. Lastly, the study increases knowledge about the types of student choice preferences, with these choices coinciding with reported levels of high engagement. The findings are detailed using the six hypotheses outlined in the study. These hypotheses include the study's effects on situated intrinsic motivation, summary writing, expository text comprehension, long-term reading engagement, reading engagement mediation, and the amount of engagement.

Situated Intrinsic Motivation

Hypothesis A: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will

significantly increase students' situated intrinsic motivation when compared with a "summarizing instruction only" condition and a "choice only" condition.

The Experience Sampling Method (ESM) (Hektner et al., 2007), completed by students, provided a comprehensive picture of the students' subjective experiences during classroom instruction on a day-by-day basis was also used to measure flow. Scores differed significantly among the three groups, showing higher means of the two groups receiving choices in the classroom than the group with no choice. Post-hoc comparisons showed that the "choice only" group (Group 2) was significantly higher than the other two groups, demonstrating greater levels of situated intrinsic motivation overall throughout the instructional unit. Therefore, the hypothesis was not confirmed for the instructional condition group (Group 1), as the "choice only" group reported the highest overall level of situated intrinsic motivation.

Nevertheless, previous research on choice was affirmed, as students provided with meaningful choices reported feelings of autonomy, thus intensifying intrinsic motivation and interest in a subject or topic (Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991; Katz & Assor, 2007; Parker & Lepper, 1992; Zuckerman et al., 1978). Lastly, use of the ESM in the context of social studies was a new application of the measure.

Summary Writing

Hypothesis B: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports both student choice and summary writing will significantly increase students' content knowledge in their pretest to posttest summary writing.

The results of the summary writing ANOVA showed a significant change between pretest and posttest for all three groups, although only Groups 1 and 3 received instruction in summarizing. Additionally, the effect was the same across the groups between pretest and posttest. Therefore, although all three groups increased their summary writing scores significantly, the changes were approximately equal for each group. This finding did not support the hypothesis that the instructional condition group would significantly increase summary writing scores when compared to the other two groups.

The summary writing assessment consisted of summaries written by the students. The material used for the pretest was a booklet of readings on Ancient Greece, the previous instructional unit, whereas the posttest was the same series on Ancient Rome. This provided students with readings of comparable reading level, style and format.

The methods for procedures and scoring of the summary writing were based on Armbruster et al. (1987). The procedures consisted of presenting students with a 200-word passage to summarize with instructions that the length not be longer than fifty words. For the passage, a total of twenty minutes was allotted for students to both read the passage and write a summary. The scoring procedure in this study was modified to individually analyze content. Content includes the main idea and supporting details (idea units) and the goal was to show significant increase in content level at the end of the study.

Expository Text Comprehension

Hypothesis C: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will show significant pretest to posttest increases in students' expository text comprehension

when compared with a “summarizing instruction only” condition and a “choice only” condition.

The differences between the three groups in expository text comprehension exhibited the most compelling support for the combination of explicit reading instruction and motivational support in the classroom and thus the hypothesis was confirmed. The group receiving both instruction in summarizing and choices (Group 1) improved significantly in expository text comprehension from pretest to posttest and in comparison with the other two groups. In addition, the Tukey HSD test affirmed that the mean score for Group 1 differed significantly from the other groups, while the comparison between Groups 2 and 3 indicated no significant difference.

This demonstrates the necessity for including both explicit reading strategy instruction and motivational support in instructional design, as students possessed both the skills to demonstrate improved expository text comprehension and also the desire to demonstrate these skills, as found in previous literature that incorporated instruction in multiple reading strategies and a variety of motivational supports (Guthrie, van Meter et al., 1998; Guthrie, McRae, & Klauda, 2007; Guthrie & Wigfield, 2000; Guthrie, Wigfield, Barbosa et al., 2004; Guthrie, Wigfield & Perencevich, 2004; Guthrie, Wigfield et al., 2006; Wigfield, Guthrie et al., 2004; Wigfield et al., 2008). In fact, the “choice only” group (Group 2), without any instruction in the skill of summarizing, actually went down in their performance, as they did not possess the skill to understand the text through use of summarizing. Furthermore, the group with no choices (Group 3) showed only a small improvement, indicating a lack of motivation to use the skill.

The methods for procedures and scoring of expository text comprehension were again based on Armbruster et al. (1987). For this assessment, students had ten minutes to read and study the passage before it was removed. Students then received ten more minutes to write an essay on the content of the passage. The essay assessed comprehension using the same methodology from the summary to demonstrate the number of ideas correctly interpreted from the passage.

Long-Term Reading Engagement

Hypothesis D: In response to a five-week long instructional unit on Ancient Rome, an instructional condition which supports *both* student choice and summary writing will significantly increase students' self-reported long-term reading engagement when compared with a "summarizing instruction only" condition and a "choice only" condition.

The change in reading engagement scores from pretest to posttest was significantly different for the three groups and the effect size was moderate. Post-hoc comparisons on the reading engagement posttest scores revealed that the instructional condition group (Group 1) and the "choices only" group (Group 2) were significantly different in the posttest from the "summarizing instruction only" group (Group 3), which did not receive choices. This partially affirms the hypothesis that providing summarizing instruction and offering meaningful choices to students will increase reading engagement, as the instructional condition group was expected to show significant differences in reading engagement with both the "choices only" and "summarizing instruction only" groups. This result can be inferred as an example of the power of the motivator of choice.

Reading Engagement as a Mediator

Hypothesis E: In response to an instructional condition which supports *both* student choice and summary writing, reading engagement will act as a mediator (Baron and Kenny, 1986) to cause significant increases in expository text comprehension.

This study inferred that reading engagement acted as a partial mediator on expository text comprehension, supporting the hypothesis and previous research (Guthrie, Wigfield et al., 2006; Guthrie, Wigfield et al., 2008) using the Concept Oriented Reading Instruction (CORI) framework.

The test for mediation, modeled upon Baron and Kenny (1986) and Wigfield et al. (2008), used three criteria to establish mediation. First, the correlations between posttest reading engagement and posttest expository text comprehension, along with examination of the relationship between the covariate (reading engagement posttest) and the dependent variable (expository text comprehension posttest) demonstrated by the ANCOVA were precursors to the mediation analysis and, as expected, both were significant.

An analysis of covariance (ANCOVA) established the three instructional groups as the independent variable, expository text comprehension posttest as the dependent variable, and reading engagement posttest as the covariate. In order for reading engagement to be inferred as a mediator, the ANCOVA would have to show no effect or a reduction in effect in comparison with the original effect of the three instructional conditions on the expository text comprehension posttest. The ANCOVA showed a reduced effect in comparison with the original effect of the three instructional conditions on expository text comprehension when

reading engagement was controlled; thus, it can be inferred that reading engagement acted as a partial mediator on expository text comprehension.

Mediation is a method to explain how one variable influences and interacts with another (MacKinnon, Fairchild & Fritz, 2007). Measurement of mediators such as reading engagement help to understand how psychological constructs influence outcomes of instruction. Previous literature showed that reading engagement mediates the relations between instruction and comprehension (Guthrie, Wigfield et al., 2006; Guthrie, Wigfield et al., 2008), using the CORI framework of instruction in multiple reading strategies and the presence of multiple motivators. This study adds to the literature as it used only one reading strategy, summarizing, and one motivator, choice, in its investigation. This study concurs with Wigfield et al. (2008) that higher levels of reading engagement resulted in greater increases in expository text comprehension. Therefore, this discovery highlights the importance of incorporating engaging instruction to increase reading motivation and reading comprehension (Wigfield et al., 2008).

In this particular study, the importance of reading engagement as a mediator for increasing student expository text comprehension is paramount to successful student learning in both the long and short term. Through providing meaningful choices in the classroom in combination with explicit summarizing instruction, this study demonstrates the need for both in instruction that is designed in a culturally responsive manner. In this instance, the motivator of choice, considered with types of choices important to students, is shown as an important facet of instructional planning.

Amount of Engagement

Hypothesis F: Students in an instructional condition which supports *both* student choice and summary writing will report being engaged significantly more than students in a “summarizing instruction only” condition and a “choice only” condition.

Examination of student ESM self-reports of being in flow, thus engaged, were evident on most days for the students in Groups 1 and 2, demonstrating that providing meaningful choices increased student engagement. This partially supported the hypothesis, as the “both” group was expected to report flow most often. Nevertheless, the low number of times that the “summarizing instruction only” group reporting being in flow gives credence to the importance of choice during instruction.

Furthermore, the wide variety of choices provided to the students were an important factor in influencing the outcome of the study. Choices that were predetermined by the instructor, but also those suggested by students and incorporated into the study, showed as influential in student self-reported levels of motivation. This coincides with previously discussed research regarding choices which found that providing students with meaningful choice increases feelings of autonomy, thus intensifying intrinsic motivation and interest in a subject or topic (Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991; Katz & Assor, 2007; Parker & Lepper, 1992; Zuckerman et al., 1978). In addition, students received about six choices, the optimum number of choices recommended in the literature. This ideal number helped increase situational interest in the topic while not overwhelming them with too many choices (Iyengar & Lepper, 2000).

Reports of Flow

Flow was determined by examining the total score of the daily reading motivation logs (ESM) with students in flow reporting high levels of challenge, skill and enjoyment. Thus, a new example for flow was provided, which is characterized by the balance between high challenge and high skill to perform an activity (Hektner, Schmidt, & Csikszentmihalyi, 2007). A group was observed as in flow on a particular day when their mean for that day was above the z-score mean.

Groups 1 and 2, who were provided with choices in the classrooms, both demonstrated flow when they created a definition of choice in a group (Day 2); chose which questions to answer on a quiz (Day 4); chose articles to read from Roman newspapers with a writing assignment (Day 4); and read a chosen online article in the computer lab along with a writing activity (Day 8). Furthermore, Group 1 was the only one to report flow when presenting their definitions of choice to the class (Day 3). Group 2 was the only one to give an account of flow on Day 6 when they chose an article to read on Roman daily life followed by a writing assignment. Also, Group 2 reported flow on Day 7 when they watched a video on Pompeii and took notes. All three groups exhibited flow on the days they created skits on Roman life (Day 9) and during the Jeopardy Review game (Day 10). The ANOVA further indicated significant differences on the amount of engagement on the days for which students completed ESM forms.

Day 1: No flow. This introductory day did not include choices and was mainly instructional on the reading strategy of summarizing and the content elements on Ancient Rome from the text.

Day 2: Flow for groups 1 and 2. This day included a choice of groups to create a definition of choice. Students were enthusiastic and took their task to create a definition seriously, as recorded in the instructor's notes.

Day 3: Flow for group 1. Groups 1 and 2 presented their definitions of choice to the class in their own format. Instructor observations mentioned that Group 1 was particularly proud of their group definitions.

Day 4: Flow for groups 1 and 2. All three groups took a quiz, but only groups 1 and 2 had a choice of questions on the quiz. The other activity involved articles from Roman life newspapers. The instructions for the three groups were different. Group 1 (both) were instructed to choose articles from the publication to create headlines, then write out the main idea of the article, thus incorporating both summarizing elements and choice. Group 2 students were told to read articles of their choice and were asked to find three interesting ideas from each article. Finally, Group 3 did not have a choice of what articles to read, but had to create headlines and write a main idea from the assigned articles. All three groups were cognitively challenged during the activity; however, Group 1 had a more defined activity tailored to increased summarizing skill than Group 2 and they still demonstrated flow. The same activity without choice for Group 3 demonstrated not as stimulating.

Day 5: No flow. On this day, minimal choices existed as concentration was upon summarizing instruction for Groups 1 and 3, whereas Group 2 participated in another activity that did not involve choices.

Day 6: Flow for group 2. Both Groups 1 and 2 were given a choice of article to read on Roman daily life from the Roman newspapers. Group 1 had to complete a graphic

organizer that contained the main idea and supporting details in order to write a summary on the article. Group 3 had to do the same, but did not have a choice of articles. Evidently this activity was too challenging for Group 1, as they did not indicate flow during this day. However, Group 2, given a choice of articles to read and asked to write down three facts from the article, demonstrated flow.

Day 7: Flow for group 2. All three groups watched a video on Pompeii's destruction by Mt. Vesuvius. Both Groups 1 and 2 had a choice of how to take notes, but Group 1 had to provide a more formal summary and type it out as homework for the next class. Group 2 had to turn in their hand-written notes. Group 3 did not have a choice of note taking, but was given an outline to complete.

Day 8: Flow for groups 1 and 2. On this day, all three groups went to the computer lab to read online articles on Roman life. Groups 1 and 2 were given a choice of article, although Group 3 was told which article to read. Furthermore, Groups 1 and 3 were asked to type a 50-word summary of the approximately 200-word article, whereas Group 2 was asked to create three questions and three answers for their article. Once again, the combination of choices and summarizing in this exercise produced flow for Group 1, whereas Group 3, without choice, did not achieve flow. The choice of topics also produced flow in Group 2 while completing their question and answer task.

Day 9: Flow for groups 1, 2 and 3. All three groups had to create a skit from an article on Roman life. Groups 1 and 2 were allowed to choose a topic of interest to them, whereas Group 3 members were placed in groups. On this day, the activity itself, as it was a skit, may have been a factor in the higher reported levels for Group 3 even though they were

not given choices of groups or topics. As previously discussed regarding culturally responsive instruction, activities that provide movement for students and interaction among students are inherently engaging (Allen & Boykin, 1992; Ford & Kea, 2009).

Day 10: Flow for groups 1, 2 and 3. This day was designed for a review of the material on Ancient Rome in preparation for the unit exam. A Jeopardy review game, displayed in the projector, was designed for all three groups. Although only Groups 1 and 2 were allowed to choose their teams, Group 3 also demonstrated flow in their ESM forms. Similar to the previous day, flow resulted during this day for all three groups due to the engaging nature of the game where students were able to move from their usual seats and work together when they collaborated on answers.

Day 11: No flow. Although Groups 1 and 2 received a choice of short-answer questions on the Ancient Rome test, flow was not seen in any of the three groups. This was most likely due to the anxiety and negative feelings students often associate with formal assessments. Nevertheless, in the final motivation survey, a majority of students from both choice groups indicated they liked having the choice of questions.

Therefore, student self-reports through the ESM of being in flow, thus engaged, were evident on most days for the students in Groups 1 and 2, demonstrating that providing meaningful choices increased student engagement. These choices consisted of a variety of types that ranged from reading topics, note taking, writing and quiz assessments, groups, skits, and technology activities. Because students were involved in many of the choices provided, they were given some control over their learning, increasing ownership as pointed out by Deci and Ryan (1985).

Educational Implications

This study makes several contributions to the knowledge base for engaging instruction that combines explicit instruction of one reading strategy along with one motivator in the classroom. The selection of each of these constructs was made in order to deliberately enhance expository text comprehension and reading engagement in the discipline of social studies. Successful instruction occurred when both strategy instruction in summarizing and the motivator of student choice were present in the classroom.

Situated Intrinsic Motivation

Student choice preferences. Overall, the two classes provided with choices during the instructional unit displayed enthusiasm and commented positively on choices. At the beginning of the unit, these two classes were asked what types of choices they would prefer after discussion regarding making good choices. Previous instructional planning had already included a wide variety of choices in the planned instruction for the unit, such as allowing choice of seats, groups, readings, and research topics.

However, the construct of choice was taken a step further by not only providing those choices the instructor thought were important, but actually asking the students what choices they would like. Both oral discussions with students and written surveys of student preferences were used. This provided students with ownership and relevancy, even beyond that supplied from a variety of choices alone, thus lending to their perception of autonomy and the growth of engagement (Deci & Ryan, 1985; Deci et al., 1991; Flowerday & Schraw, 2000; Katz & Assor, 2007; Parker & Lepper, 1992; Zuckerman et al., 1978). Students' perception of autonomy using choice occurs when teachers allow students to take part in

choosing the task and the goal, along with choice of how to complete, present and assess the task (Alfi, Assor & Katz, 2004; Flowerday & Schraw, 2000; Reeve, Nix & Hamm, 2003) that is of interest to them (Assor, Kaplan & Roth, 2002).

Therefore, because students were given a voice in their learning, they deemed it relevant to their lives. These choices increased the amount of effort and situational interest in Ancient Rome for students. Furthermore, by providing about six choices for skit topics and Roman readings, they were not furnished with too many choices, as recommended by Iyengar and Lepper (2000).

In general, the choices preferred involved interactions with other students or choice of academic work such as homework and assessments. Specifically, these two groups overwhelmingly liked a choice of skit topics, choice of questions on tests and quizzes, choice of groups and partners, choice of seats, choice of questions to create and choice of who to ask them to, and choice of how to create a vocabulary exercise (crossword, word search or illustration). Students enjoyed working with each other on the various topics, especially asking each other questions after a presentation on a topic that they did not read as evidenced by small group and classroom discussions. Therefore, student enthusiasm, demonstrated through their presentations on what they had chosen to read, led to increases in other classmates' interest in that topic.

Additionally, the two choice groups (1 and 2) showed preferences during particular days of instruction that can be traced to the activity itself as an instigator of engagement. This is not surprising due to previously discussed research on culturally responsive instruction that was deliberately included in the instructional planning to ensure all students

were receiving engaging instruction to promote a synchronistic learning environment in the classroom (Allen & Boykin, 1992; Ford & Kea, 2009; Kea et al., 2004).

Choice skits and Roman life skits. The purpose of culturally responsive instruction is for students to make connections between their experiences and what they are learning in the classroom (Gay, 2000). Cultural experiences of the students were detailed in their skits on how to make a good choice. All of the skits displayed a circumstance they had experienced or witnessed regarding choices. Cultural traditions can be incorporated into instruction to make it engaging for students, such as in skits, where students are able to interpret material read on a topic of choice in their own way, even creating a “rap” song to illustrate the content, as occurred with one of the groups.

Groups. Choice of groups and activities involving groups were very important to the students, as indicated by their daily motivation logs on days they were involved in group activities. This concurs with Boykin (1994), who showed that African American students preferred working in groups, which led to increased intrinsic motivation.

Roman life reading choices. Other elements of culturally responsive instruction regard the teacher allowing the students to actively respond to topics by tying them to their own interests, experiences and knowledge (Ford & Kea, 2009). Very often, students were familiar with a Roman place or name due to their interaction with video games, an activity a majority engage in outside of school. In addition, students had seen cartoons and movies dealing with Ancient Roman topics that, whether true or distorted, focused their attention to the material. Due to this familiarity with Roman terms and names, they were more easily understood.

During classroom trade book readings and online research on Roman life, students often commented on the differences and similarities they found with their own life experiences. They discussed the lives on Roman boys and girls regarding education and household tasks as compared with their own. Boys interested in action found Roman legions of interest, in addition to the myths of Roman gods and goddesses. Girls gravitated towards Roman fashion and style, along with entertainment and leisure pursuits.

Summarizing Skill

The reading skill of summarizing helps the organization of ideas, retention, and generalization of information for better comprehension, as reported by The National Reading Panel (2000). When students are metacognitive in their reading, they deliberately use the strategies taught, thus consciously improving their reading comprehension and retention of material (Chan, 1994; Collins, 1994; Fischer, 2003; Gourgey, 1999; Pressley & Afflerbach, 1995). Explicit instruction in summarizing has been investigated by numerous studies (Baker & Brown, 1984; Brown & Day, 1983; Brown, Day & Jones, 1983; Kintsch, E., 1990; National Reading Panel, 2000; Nist & Simpson, 2000) and such instruction was found to be effective for social studies reading comprehension in this study.

In addition, the study provides evidence that summarizing instruction integrates well within the discipline of social studies due to the variety of reading types students are expected to utilize. For example, relevant instruction does not just include the textbook, but primary sources, trade books, newspapers, photographs, and online sources (Key, Bradley & Bradley, 2010). Because a variety of sources were used, along with providing choices of what students could read, this combination contributed to the engagement of students,

demonstrated both in the self-reported motivation inventory *Perceptions of Reading Motivation Questionnaire* or PRMQ (Guthrie et al., 2009) and the daily Experience Sampling Method or ESM (Hektner et al., 2007).

Reading Engagement and Expository Text Comprehension

This study was developed in order to prevent the declines that occur in school motivation and performance during middle school (Eccles & Midgley, 1989; Roeser & Eccles, 1998; Unrau & Schlackman, 2006; Zanobini & Usai, 2002) that are often the result of the school environment and the classroom context that do not take into account student needs (Eccles et al., 1993; Anderman, 2003) and cultural traditions (Kea et al., 2004). Linking metacognitive reading strategies and motivation has shown to improve reading comprehension (Borkowski et al., 1990; Chan, 1994; Collins, Dickson et al., 1996; Guthrie & Wigfield, 2000), and this study adds to literature on the topic. Using the instructional model called Concept-Oriented Reading Instruction or CORI (complete detail in Guthrie, Wigfield & Perencevich, 2004) in a unique way by studying one motivator, choice, and one reading strategy, summarizing, provides data on the power of each and with each other. The significant improvements in expository text comprehension demonstrated by the experimental group receiving both explicit summarizing instruction and choices, along with the inferred partial mediation effect of reading engagement on expository text comprehension, demonstrate the necessary inclusion of both for improving student outcomes in reading.

Limitations and Future Research

There are several recommendations to improve the study. Overall, the study demonstrated that students in the group receiving both summarizing instruction and choices in the classroom displayed significant increases reading comprehension and reported high amounts of engagement during instructional days with a variety of choices. The study would be more powerful by increasing the length of the study through combining it with the previous unit on Ancient Greece, which would add practice in summarizing while continuing to provide a wide variety of choices. CORI studies lasted an entire school year, thus incorporating the full instructional design within the entire curriculum (Guthrie, Wigfield & Perencevich, 2004). From examining expository text comprehension and reading engagement scores, it is predicted that the increased length of the study would show that Group 1 (both summarizing instruction and choice) continue to demonstrate significant increases in expository reading comprehension and also likely significantly increase reading engagement in comparison with the other two groups.

The study is limited by the class groupings of the three sections as they were already formed. However, no significant differences were found in previous reading scores nor pretests of summary writing, expository text comprehension, motivation, or reading engagement scores.

A further potential limitation regards the circumstance of the instructor as researcher. Nevertheless, fidelity was assured, for example, through the audiotaping of instruction and review of audiotapes by an independent evaluator using a checklist (see *Appendix I*). In addition, administration of assessments and inventories were conducted by another teacher

while the researcher was out of the room. Finally, no data was reviewed until completion of the study and data was typed and assigned numbers by an independent person and coded by independent reviewers.

In the future, it is also important to look at the power of choice and its effect on engagement. Is choice more powerful than strategy instruction in summarizing? It would be advantageous to find out to what degree this occurs, especially utilizing a longer time period for the study. A follow-up study could employ instruction in another reading strategy, such as questioning, and if the engagement level was found as comparable, this would reinforce the value of choice. Moreover, another motivator could be substituted for choice to measure the changes in engagement levels to see if they showed declines. Regardless, the study outlines the reasoning behind selecting choice as the motivator and summarizing instruction as the strategy as ideal factors for the discipline of social studies due to its nature and content.

In addition, questions exist as to whether the use of one strategy and one motivator was enough to produce a significant result. Previous CORI studies contained multiple reading strategies and motivators (Guthrie, Wigfield & Perencevich, 2004). What differences could be found if one more reading strategy was included, such as questioning, which would also work well with social studies? This would add more to expository text comprehension levels. For example, summarizing and questioning are very often recommended together in studies investigating and reviewing specific reading strategies as post-reading exercises (National Reading Panel, 2000).

Finally, it would be beneficial to see the effect of this instructional design on another population of students at a private school with different demographics or at a public school

where most likely larger class sizes exist. An alternative would be to conduct the study three more times in consecutive years at the same school to provide a larger sample size of students for analysis in order to give greater credence to the study's hypotheses.

Conclusion

The researcher examined how providing instruction in the reading strategy of summarizing, combined with offering students choices in the classroom, affected situational intrinsic motivation, summary writing, expository text comprehension, long-term reading motivation, and engagement. The results of the study add to previous research on reading comprehension and engagement using Concept-Oriented Reading Instruction (CORI) principles (Guthrie, McRae & Klauda, 2007; Wigfield et al., 2008), altered to focus upon one motivator and one reading strategy. As an investigation about the interactions among motivation and strategy use and their relations to reading comprehension and engagement, it adds further evidence to previous literature that promotes use of these critical instructional practices to increase reading comprehension and engagement (Borkowski et al., 1990; Chan, 1994; Guthrie, Wigfield, Barbosa et al., 2004; Roeschl-Heils & van Kraayenoord, 2003; Wigfield & Guthrie, 1997).

This study helped to keep students attentive and enthusiastic about learning in order to prevent the decline in motivation that often exists at this age (Anderman, 2003; Eccles et al., 1993; Eccles & Midgley, 1989; Roeser & Eccles, 1998; Unrau & Schlackman, 2006; Zanobini & Usai, 2002). The researcher demonstrated the effectiveness of reading engagement principles (Guthrie & Wigfield, 2000; Guthrie, Wigfield & Perencevich, 2004) on sixth grade students, while concurrently striving to curb the decreases in motivation. As

the literature on this topic was deficient and focused upon science and up to fifth grade (Guthrie, van Meter et al., 1998; Guthrie & Wigfield, 2000; Guthrie, Wigfield, Barbosa et al., 2004; Guthrie, Wigfield & Perencevich, 2004; Guthrie et al., 2006), the instructional practices developed for sixth grade social studies students add new applications to the literature. The results can be generalized to similar population groups so that they may be duplicated and expanded upon in other classrooms.

Through the study, the instructor became more conscious of student needs during learning and more sensitive to their interests and the classroom practices that increase engagement in social studies. All activities for the study were created to integrate strategies outlined for increasing student engagement in other literature (Borkowski et al., 1990; Brown, 1997; Collins, Dickson et al., 1996; Guthrie & Wigfield, 2000; Guthrie, Wigfield, Barbosa et al., 2004; Kea, et al., 2004; National Reading Panel Report, 2000; Turner and Meyer, 2000).

The preferences of students were examined to increase their attention and interest in social study topics through incorporation of a variety of choices and instructional methods. The Self-Determination Theory of Motivation (Ryan & Deci, 2000), on which the study is based, includes three innate needs of competency, relatedness, and autonomy in the classroom. The motivator of choice was selected because feelings of autonomy and competence are increased when students are allowed to make meaningful choices during their learning experiences (Ryan & Deci, 2000). In this study, choice was defined as providing the opportunity for students to select from a variety of instructional options based on their interest, ability, and confidence.

Along with motivation, metacognitive reading strategies are needed to create engaged readers with high levels of reading comprehension and are best taught explicitly during adolescence (Cornford, 2002). Adolescent reading metacognition is an ability to create meaning, monitor and evaluate by the reader, and it is influenced by the reader's sociocultural experiences (Pressley & Afflerbach, 1995). In addition, reading metacognition includes knowledge of text structure, tasks, strategies, and the learner characteristics of self-awareness and emotion (Collins, 1994). In this study, summarizing was selected as the reading strategy because it helps students to synthesize ideas and generalize information from texts (National Reading Panel, 2000), an important skill for understanding expository text in the social studies classroom. Furthermore, it follows previous research recommendations of incorporating reading skills instruction within a discipline such as social studies (Brophy & Alleman, 1991; Klinger et al., 1998; National Reading Panel, 2000). The instructional model of Concept-Oriented Reading Instruction (CORI), developed using Self-Determination Theory, combines both motivational support and strategy instruction in reading to produce improvements in both reading engagement and comprehension (Guthrie, Wigfield, Barbosa et al., 2004).

Furthermore, a new demonstration of flow theory was provided (Hektner, Schmidt, & Csikszentmihalyi, 2007), as social studies instruction was not found to be present in the literature on this topic. Finally, the study's population of predominantly African American students adds to reading engagement literature that primarily included mainly Caucasian students as participants (Guthrie, Wigfield, Barbosa et al., 2004; Wigfield & Guthrie, 1997).

Instructors can replicate the distinctive classroom context designed for this study that included the recommendations in previous literature for promotion of self-regulation, self-reflection, collaboration, and culture (Brown, 1997). Thus, the classroom context is a critical element to the development of the learner and the researcher considered the importance of classroom context during both design and implementation. Furthermore, incorporation of the principles of Vygotsky's social constructivist perspective, which includes the development of cognition through culture and social interaction, produces student success (Vygotsky, 1978).

Concurrently, cultural responsiveness builds on social constructivism by incorporating previous experiences and learning styles to increase knowledge and situational interest, thus successful student learning and engagement (Au, 1998; Ford & Kea, 2009; Kea et al., 2004). As the student population for this study was 85% African American, its purpose of design was in order to respond to their cultural needs by creating a sense of relevance, thus resulting in student feelings of ownership over their learning through a constructivist orientation (Allen & Boykin, 1992; Au, 1998; and Ford & Kea, 2009). It is important to recognize the cultural diversity of students and to include such insight into relevant instruction. Most existing studies have focused on urban students at low-income levels and do not contain motivators as part of reading instruction (Alawiye & Williams, 2005; Beck & Blake, 2009; Mac Iver & Kemper, 2002; McKeown, et al.; Reis et al., 2007; Shippen et al., 2005). This study's focus upon middle class African American students in sixth grade makes it unique as no intervention studies have explicitly compared a reading engagement model with strategy only and choice only conditions for a population similar to

these students. Caucasian students were the primary participants in previous reading engagement studies (Guthrie, Wigfield, Barbosa et al., 2004; Wigfield & Guthrie, 1997).

Therefore, the goals of the study of examining the interactions of providing choices and instruction in summarizing, and the resulting effects on expository text comprehension and reading engagement in social studies were accomplished. The results of the study confirm previous research that demonstrated increases in reading comprehension using Concept-Oriented Reading Instruction (CORI) principles (Guthrie & Wigfield, 2000; Guthrie, Wigfield, Barbosa et al., 2004; Guthrie, Wigfield & Perencevich, 2004; Wigfield & Guthrie, 1997), altered to focus upon one motivator and one reading strategy. In addition, it extends previous research in unique ways to the discipline of social studies, to a sixth grade population, and to middle-class African American students. Deliberate classroom interventions, which take into account student diversity and interests through providing meaningful choices, along with proven instructional methodology in summarizing, can improve expository text comprehension levels.

The most notable result was the increased expository text comprehension level shown by the group receiving both strategy instruction in summarizing and the motivator of choice, demonstrating that this combination provided students with both the skill and desire to use that skill. A finding regarding reading engagement showed posttest differences between the two groups who received meaningful choices in the classroom in comparison to the group with no choices, thus affirming the importance of choice. Moreover, the partial mediation of reading engagement on expository text comprehension further adds to the evidence of the importance of including motivational practices in the classroom along with explicit

instruction to produce increases in reading outcomes. Furthermore, the daily ESM inventories showed the importance of providing meaningful choices in the classrooms and their contribution to reading engagement. Finally, knowledge was gained about the types of choices preferred by students as they were given a voice in the types of choices they received in the classroom and these choices matched with the days of high flow or engagement in the ESM inventories. It is hoped this study will lead to more thoughtful instructional practices that will simultaneously increase both student motivation for the long-term and reading skills that students can utilize from middle school and beyond.

Appendix A

Administrative Procedures and Scripts for Pretest and Posttests

Administrative Procedures and Script for Pretest on Summarizing

Students will be assessed on the qualities of a summary they will write on an assigned reading from a trade book. The students have not been instructed on how to summarize and are not to be given any help. The reading is approximately 200 words and is at a sixth grade reading level. Students will be writing a one-paragraph summary of approximately 50 words.

Procedures:

1. Pass out *Greece* booklets to each student and tell them not to open them.
2. Give all students a pen and the summary sheet. Ask students to put both of these in the desk at this time for later use.
3. Please read the script.
4. After 20 minutes is up, please collect booklets, summaries and pens from all students.

Script for Pretest on Summarizing

1. Today you will be doing a reading about Ancient Greece and then writing a summary on what you have read.
2. You will have a total of 20 minutes to both read the passage and write the summary.
3. The summary should be one paragraph in length and should be about 50 words.
4. You should not talk during this exercise and you are not allowed to ask me for assistance on how to write the summary. Just do the best you can.
5. When you are finished, please close your booklet and turn your paper over so that I may collect them.
6. Please do not write in the book as it is school property.

7. You will be receiving a completion grade on this assignment; meaning that if you do your best, you will receive full credit. You will not be graded on how well you wrote the summary.
8. Are there any questions?
9. *(after answering questions)* At this time, please write your full name and the number of your book in the correct place on your summary sheet.
10. Please turn to page 34, “Entertainment and Leisure”.
11. You may begin. *During the exercise, please warn them of 10 minutes left, then 5 minutes left.*
12. *(at end of 20 minutes)*. Please stop. Put down your pen and close the booklet so I may collect them. Thank you for doing such a great job!

Administrative Procedures and Script for Pretest on Reading Comprehension

Students will be assessed on reading comprehension from an assigned reading in a trade book. The students will be instructed to read and study the passage for 10 minutes. At the end of that time, the booklets will be removed and students will be given a paper and pen to write an essay on what they have read. They will have 10 minutes to do so. Students are not to be given any help. The reading is approximately 200 words and is at a sixth grade reading level. Students will be writing a one-paragraph essay of approximately 50 words.

Procedures:

1. Pass out *Greece* booklets to each student and tell them not to open them.
2. Give all students a pen and the essay sheet and ask them not to write anything at this time.
3. Please read the script.
4. After 10 minutes is up, please collect booklets.
5. Read the remaining script.
6. After 10 additional minutes, collect essays and pens from all students.

Script for Pretest on Reading Comprehension

1. Today you will be doing another reading about Ancient Greece and then writing an essay on what you have read.
2. This exercise will be slightly different from the last time when we did this. First, you will have 10 minutes to read and study the passage. You are not allowed to write down anything during this time.
3. After the 10 minutes are up, your book will be collected. You will then have 10 more minutes to write an essay.
4. The essay should be one paragraph in length and should be about 50 words.
5. You should not talk during this exercise and you are not allowed to ask me for assistance on how to write the essay. It is important that you do your best so that Mrs. Littlefield can see how she needs to help you on writing in the future.

6. When you are finished, please turn your paper over so that I may collect it. If you finish early, please do not take anything else out, just sit quietly.
7. Please do not write in the book as it is school property.
8. You will be receiving a completion grade on this assignment; meaning that if you do your best, you will receive full credit. You will not be graded on how well you wrote the essay.
9. Are there any questions?
10. *(after answering questions)* At this time, please write your full name in the correct place on your essay sheet. Then place the essay sheet and pen in your desk.
11. Please turn to page 43, "Greek Coins". This article is only one page. Do not read further in the book.
12. You may begin reading. *During the exercise, please warn them of 5 minutes left.*
13. *(at end of 10 minutes)*. Please stop. Close the booklet so I may collect them. Please sit quietly while I collect the books.
14. *(after collecting all books)* You will now have 10 minutes to write an essay. Please get out your paper and pen and begin. *During the exercise, please warn them of 5 minutes left.*
15. *(at the end of 10 minutes)*, Please stop. Please sit quietly while I collect your essays and pens. Thank you for doing such a great job!

Administrative Procedures and Script for Motivation Pretest

Students will be taking a motivation inventory.
Read the following directions out loud to the students.

Procedures:

1. It will be necessary for you to read each question and give them wait time to circle their answer.
2. During the assessment, please note any confusion students demonstrate with understanding a question and note the question number.
3. Students are to be given a pen and a blank piece of paper to use as a cover to complete the inventory.
4. When passing out the questionnaires, please put them face down.

Script for Motivation Pretest

1. Mrs. Littlefield is interested in finding out your views on some topics in school like reading and social studies, so you are going to be filling out a questionnaire with your views. There are no right or wrong answers.
2. It is very important that you be honest so she can understand your views. All of your responses will be anonymous. When you get the questionnaire you will see that your name will go on a separate piece of paper attached to the questionnaire. This will be torn off after they are collected, so no one will know your responses.
3. I will now pass out the questionnaires, a blank piece of paper, and a pen. Please do not turn the questionnaire over until I say to do so.
4. *(after passing out questionnaire, blank paper and pen)* As I said, I will be reading each question as we go through the questionnaire and you will follow along silently. You may use the blank sheet of paper to cover your answers and help you to keep your place. Please do not read ahead and mark only the answer for the question we are reading.
5. If you have any questions, please raise your hand. Please do not talk or make comments during this exercise. Do you have any questions before we begin? *(after answering questions, then continue)*

6. Please turn over the questionnaire and fill out your name and team number on the top page. When you are finishing, turn to the next page.
7. Please follow along while I read the directions printed at the top of the page: Please answer the following questions on reading and social studies. For each question, circle your answer: 1, Very different from me; 2, a little different from me; 3, a little like me; 4, a lot like me. Does everyone understand? (*answer any questions*)
8. Let us look at the sample questions to get an idea of what these questions will look like. The first sample statement says, "I like to eat ice cream". Decide whether your answer to the statement is very different from me; a little different from me; a little like me; or a lot like me. For example, if I love ice cream and like to eat it whenever I can, I would choose 4; if I like ice cream and enjoy it, but it is not my favorite, I would choose 3; if I eat ice cream every once in a while, I would choose 2; and if I do not like ice cream at all and do not eat it at all, I would choose 1. Now please choose your answer for this sample only.
9. (*after all have finished*) Now let us look at sample 2. This statement says, "I enjoy playing basketball". Once again, decide how the statement fits you, then choose your answer for this sample. Do not turn the page until I say to do so.
10. (*after all have finished*). I want to remind you to please not make comments or talk during this exercise. If you have a question, please raise your hand. Remember to be completely honest for each question. Now we will begin the questionnaire. Please turn to the next page.
11. (*begin reading questions and pause before going on to the next question. After question 7, please say the following*) Please remember that you are to be completely honest during this exercise and your responses are anonymous.
12. (*continue reading questions. After question 14, please repeat the following*) Just another reminder that you are to be honest while you complete the questionnaire.
13. (*repeat #11 after question 21 and repeat #12 after question 30*).
14. (*after last question*) Please turn back to page one and turn over your questionnaire. Thank you for completing the questionnaire. Mrs. Littlefield will be talking to some of you to find out if any of the questions were confusing or hard to understand.
15. (*collect questionnaires and pens*).

Administrative Procedures and Script for Posttest on Summarizing

Students will be assessed on the qualities of a summary they will write on an assigned reading from a trade book. The students have not been instructed on how to summarize and are not to be given any help. The reading is approximately 200 words and is at a sixth grade reading level. Students will be writing a one-paragraph summary of approximately 50 words.

Procedures:

5. Pass out *Rome* booklets to each student and tell them not to open them.
6. Give all students a pen and the summary sheet. Ask students to put both of these in the desk at this time for later use.
7. Please read the script.
8. After 20 minutes is up, please collect booklets, summaries and pens from all students.

Script for Posttest on Summarizing

13. Today you will be doing a reading about Ancient Rome and then writing a summary on what you have read.
14. You will have a total of 20 minutes to both read the passage and write the summary.
15. The summary should be one paragraph in length and should not be more than about 50 words.
16. You should not talk during this exercise and you are not allowed to ask me for assistance on how to write the summary. Just do the best you can.
17. When you are finished, please close your booklet and turn your paper over so that I may collect them.
18. Please do not write in the book as it is school property.
19. You will be receiving a completion grade on this assignment; meaning that if you do your best, you will receive full credit. You will not be graded on how well you wrote the summary.
20. Are there any questions?

21. *(after answering questions)* At this time, please write your full name and the number of your book in the correct place on your summary sheet.
22. Please turn to page 45, "Herculaneum".
23. You may begin. *During the exercise, please warn them of 10 minutes left, then 5 minutes left.*
24. *(at end of 20 minutes)*. Please stop. Put down your pen and close the booklet so I may collect them. Thank you for doing such a great job!

Administrative Procedures and Script for Posttest on Reading Comprehension

Students will be assessed on reading comprehension from an assigned reading in a trade book. The students will be instructed to read and study the passage for 10 minutes. At the end of that time, the booklets will be removed and students will be given a paper and pen to write an essay on what they have read. They will have 10 minutes to do so. Students are not to be given any help. The reading is approximately 200 words and is at a sixth grade reading level. Students will be writing a one-paragraph essay of approximately 50 words.

Procedures:

7. Pass out *Rome* booklets to each student and tell them not to open them.
8. Give all students a pen, a blank piece of paper and the essay sheet and ask them not to write anything at this time.
9. Please read the script.
10. After 10 minutes is up, please collect booklets.
11. Read the remaining script.
12. After 10 additional minutes, collect essays and pens from all students.

Script for Posttest on Reading Comprehension

1. Today you will be doing another reading about Ancient Rome and then writing an essay on what you have read.
2. First, you will have 10 minutes to read and study the passage. You are not allowed to write down anything during this time.
3. After the 10 minutes are up, your book will be collected. You will then have 10 more minutes to write an essay.
4. The essay should be one paragraph in length and should not be about 50 words.
5. You should not talk during this exercise and you are not allowed to ask me for assistance on how to write the essay.
6. When you are finished, please turn your paper over so that I may collect it. If you finish early, please do not take anything else out, just sit quietly.

7. Please do not write in the book as it is school property.
8. You will be receiving a completion grade on this assignment as you did the last time.
9. Are there any questions?
10. *(after answering questions)* At this time, please write your full name in the correct place on your essay sheet. Then place the essay sheet and pen in your desk.
11. Please turn to page 24, "A Dead Language?". This article is only one page. Do not read further in the book.
12. You may begin reading. *During the exercise, please warn them of 5 minutes left.*
13. *(at end of 10 minutes)*. Please stop. Close the booklet so I may collect them. Please sit quietly while I collect the books.
14. *(after collecting all books)* You will now have 10 minutes to write an essay. Please get out your paper and pen and begin. *During the exercise, please warn them of 5 minutes left.*
15. *(at the end of 10 minutes)* Please stop. Please sit quietly while I collect your essays and pens. Thank you for doing such a great job!

Appendix B

Perceptions for Reading Motivation Questionnaire

Directions:

Please answer the following questions on reading and social studies. For each question, circle your answer:

- 1, Very different from me;
- 2, A little different from me;
- 3, A little like me; or
- 4, A lot like me.

Sample Questions

1. I like to eat ice cream.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

2. I enjoy playing basketball.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

Perceptions for Reading Motivation Questionnaire

1. I am a good reader.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

2. I enjoy reading books in my free time.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

3. I read books that help me learn new ideas in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

4. I read more information when I get to choose books in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

5. I know that I will do well in reading this year.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

6. I would rather read science than social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

7. Reading is boring to me.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

8. I like reading to know a lot about a social studies topic.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

9. I read to learn new information about topics that interest me.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

10. I enjoy choosing which Internet sources to read about in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

11. I choose books about social studies topics that I like to read.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

12. I enjoy the challenge of reading a book.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

13. I make important choices in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

14. I enjoy reading interesting books even if they are hard.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

15. I like it when books make me think.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

16. I like choosing the most interesting topics to read in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

17. I read easier books so I don't have to work as much.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

18. When reading, I like to finish quickly so I can do other things.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

19. I find out more about my topic when I get to choose what to read in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

20. I get excited when I am choosing a book.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

21. I like to read new books.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

22. I read to learn new things.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

23. When I get a reading assignment, I skip the reading and go directly to the questions.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

24. When given a choice of reading material in social studies, I get excited.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

25. I read as little as possible.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

26. I wish the books I read would never end.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

27. I usually have a book to read.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

28. I read books that help me learn new ideas.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

29. I do not like to read information books.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

30. It's very important for me to choose when I read.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

31. I wish I didn't have to read for school.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

32. I like deciding what topics I want to research.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

33. I do not enjoy choosing a book.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

34. I enjoy reading books for a long period of time.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

35. I enjoy choosing topics in Roman Life for my independent research.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

36. I read many different books and other materials in social studies.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

37. I choose to read about social studies topics that are meaningful to me.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

38. I like hard, challenging books.

Very different from me	A little different from me	A little like me	A lot like me
1	2	3	4

39. How much time do you spend reading for enjoyment each day?

- 1 I do not read for enjoyment
- 2 About ½ hour per day
- 3 About 1 hour per day
- 4 About 2 hours per day

40. Which of the following types of print do you read frequently? (circle all that apply)

- 1 newspapers
- 2 magazines
- 3 fiction
- 4 non-fiction
- 5 comics
- 6 emails
- 7 web pages

41. On a scale of 1-10, how interested are you in the following topics (scale: 1 = not interested at all to 10 = very interested)?

Native Americans _____

The Middle Ages _____

Ancient Greece _____

Ancient Japan _____

Colonial America _____

Ancient Rome _____

Ancient Egypt _____

Appendix C

Evaluation Rubric for Summary Writing

_____ Essay Code Number

Content

_____ Level 0 = does not state main idea and/or only 1 supporting detail (idea unit)

_____ Level 1 = states 2 to 3 relevant supporting details without a main idea

_____ Level 2 = states 2 to 3 relevant supporting details with a main idea

_____ Level 3 = states 4 relevant supporting details with a main idea

_____ Level 4 = states 5 relevant supporting details with a main idea

_____ Level 5 = states 6 or more relevant supporting details with a main idea

Appendix D

Additional PRMQ Questions for Posttest

42. I liked making the following choices in Social Studies during this unit (choose as many as you like) :

_____ Choice of topic for skit on making good and bad choices

_____ Choice of what articles to read in Roman Newspapers

_____ Choice of articles to read online about Roman Life

_____ Choice of topic for a skit on Roman Life

_____ Choice of short answer questions on the test

_____ Choosing groups for activities

_____ Creating questions for a reading and choosing someone to ask them to

_____ Writing a newspaper article on a chosen topic

_____ Creating a vocabulary exercise from a choice of crossword, word search, or illustration

_____ Choice of partners for activities

Appendix E

Daily Reading Motivation Logs

The first sheet will be pulled off after students have been given coded numbers

Name _____

Date _____

Time _____

Please answer the following based on your feelings after Social Studies class today.

	<i>Not at all</i>	<i>A little</i>	<i>Somewhat</i>	<i>Very much</i>
Did you enjoy what you were doing?	0	1	2	3
Was the class interesting?	0	1	2	3
How well were you concentrating?	0	1	2	3
Did you feel good about yourself?	0	1	2	3
Were you learning anything or getting better at something?	0	1	2	3
Did you have some choice in picking the activities or groups?	0	1	2	3

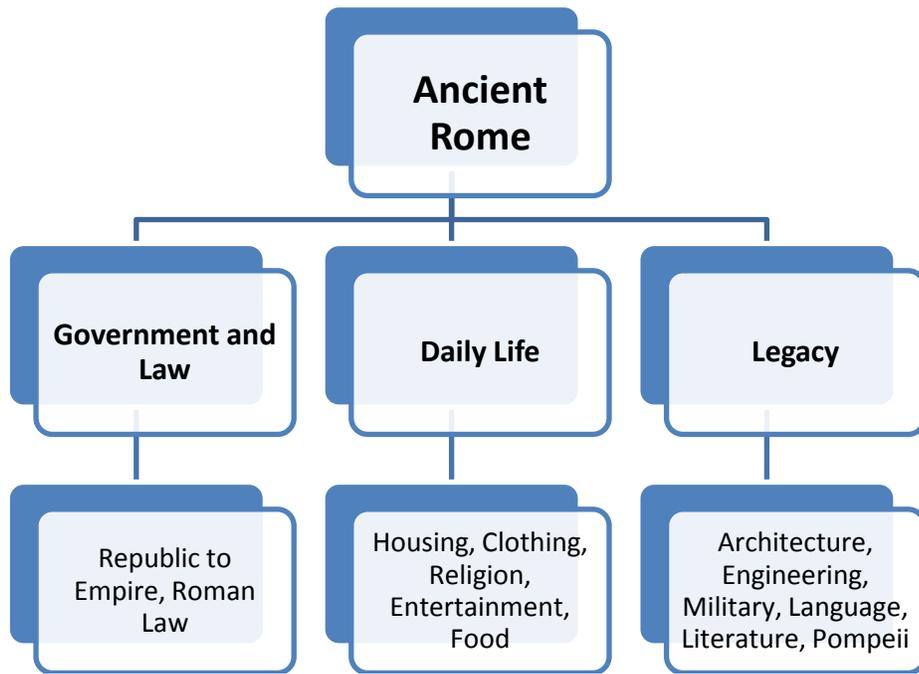
How did you feel about the main activity?

How challenging was it?	0	1	2	3
Was it important to you?	0	1	2	3
How skilled are you at it?	0	1	2	3
Were you succeeding at what you were doing?	0	1	2	3
How important was it to your future goals?	0	1	2	3

Appendix F

Concept Map for Instructional Unit on Ancient Rome

**Concept
Map**



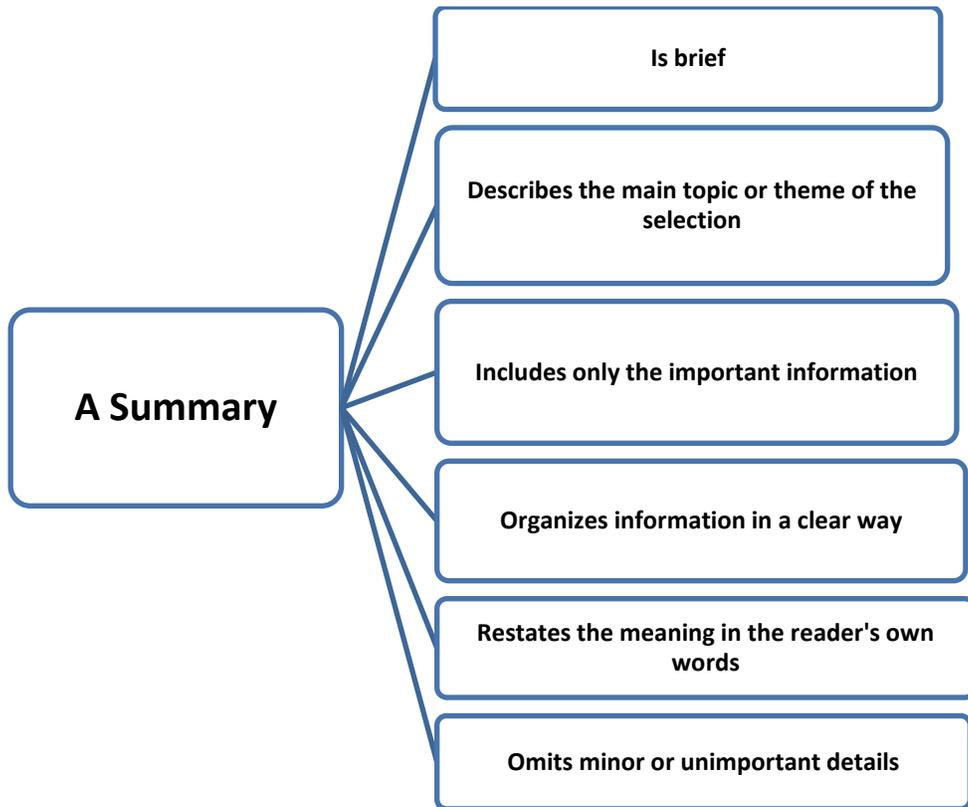
Appendix G

Sample Instructional Materials

Appendix G1

Graphic Organizer

Characteristics of a Summary



Rules to Summarize

1. • Eliminate unimportant information
2. • Eliminate extra information
3. • Substitute a term that puts a group of events into one
4. • Substitute a term that puts a list into one category
5. • Determine the author's topic sentence
6. • Create a topic sentence if none exists

Appendix G2

Modeled Summary

Topic Sentence

The Roman Senate was the most powerful governing body in the Roman Republic.

Supporting Details

1. Senate began as advisors to king, then took control over the government.
2. They decided two consuls would rule and Senate would advise them.
3. Senators served for life.
4. Advice was on a number of important issues both within Rome and with its relations with foreign countries.

Summary

The Roman Senate was very powerful in roman government, members serving for life and advising the two consuls on issues within Rome and its relations with foreign countries.

Appendix G3

Examples of Good and Poor Summaries

The Power of Augustus

#1

Caesar was dead and the people wanted someone new. Augustus was new and he became leader.

#2

Augustus was a smart and powerful ruler. After gaining control, he wanted to share his power with the senate and not act as a monarch. He talked of restoring the republic and did not want to end up like Caesar.

#3

Augustus was a smart and powerful ruler who wanted to share power with the senate, restore the republic, and not rule as a monarch like Julius Caesar.

#4

Augustus did not want to die like Caesar. He wanted to share power with the senate. He did not want to act like a king. He wanted to restore the republic. He showed respect for the Senate. He changed when he won control over Rome. Before taking over, he did not respect the Senate.

Appendix G4

Guided Practice

After reading passage silently, students are instructed to work as a class to develop a summary. Summary developed using PowerPoint in front of the class.

Summarizing Roman Citizens

Main Idea:

Roman citizens were proud to be citizens.

Supporting Details:

1. At first only residents of Rome could be citizens.
2. People had to register for the census to be counted as a citizen.
3. A man could lose his property and become a slave if not registered.
4. Women, children, slaves and freed slaves were not citizens.

Summary:

Roman citizens, made up of male property owners, were proud to be citizens and followed the rules to keep citizenship.

Appendix G5

Independent Group Practice

Creating Headlines from Roman Newspapers

For each article, write the main idea and create a title.

1. Main idea: _____

Title: _____

2. Main idea: _____

Title: _____

3. Main idea: _____

Title: _____

4. Main idea: _____

Title: _____

5. Main idea: _____

Title: _____

Appendix G6

Independent Practice

Summary on Roman Daily Life

- This mini-project will count as a quiz grade.
- Students must pick one topic on the daily life of Ancient Romans and read an article from a website below on that topic.
- After reading the article, type a one paragraph summary on the article.
- Please print out the summary to turn in at the end of class.

<http://rome.mrdonn.org/index.html>

- Clothing and hairstyles
- Baths
- Holidays and festivals
- Roman Houses
- Entertainment – Roman Theater
- Entertainment – Circus Maximus
- Roman Legion (soldiers)

<http://www.uvm.edu/~classics/webresources/life/>

- Athletics
 - Food
-
- When finished, read two other articles of your choice from either website and write 3 questions and 3 answers on each article on the attached sheet.

Article 1 topic _____

Questions and answers:

1.

2.

3.

Article 2 topic _____

Questions and answers:

1.

2.

3.

Appendix H

Design Conditions

All three groups learned identical content on Ancient Rome during the 4-week period which was concurrent with the three instructional conditions.

Experimental condition (Group 1)

The teacher provided instruction on the reading strategy of summarizing and presence of choice as the motivator. Summarizing instruction was taught using the reciprocal teaching model (Palincsar & Brown, 1984). She provided a wide variety of choices in the classroom throughout the unit that range from topics for skits, articles to read, writing assignments, groups, and short answer questions on tests. All instructional materials from Appendix G were used in this condition.

“Summarizing instruction only” condition (Group 3)

The teacher provided instruction on the reading strategy of summary writing as in the first condition. However, students were not provided with the choices given in the experimental condition. She used all instructional materials from Appendix G in this condition, but no choices were given for articles to read and summarize.

“Choice only” condition (Group 2)

The instructional unit content of Ancient Rome matched the previous two conditions. The teacher did not use the materials from Appendix G with the exception of G6, as no summarizing instruction occurred. She used Appendix G6 as students still wrote a summary in the computer lab during the unit. Students received a variety of choices during the unit as in the experimental condition.

Appendix I

Fidelity Checklist of Audiotapes

Day 3 – Feb. 18 (segments 2-16)

	Present	Evidence
Choice Only Group (segments 2-7)		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Groups and definitions were chosen and followed
Choice is matched to students' cognitive level	√	Students understood
Renders some control over own learning to students (e.g. multiple types of choices present)	√	Created own definition
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	Students didn't seem to have questions
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Both Group (segments 8-14)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	
Appropriate scaffolding of SI	√	Asked what is main idea
Provides competence support for strategy use	√	Feedback to student answers
Explanation of importance/usefulness of SI	√	Explained summarizing subject and action
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Feedback on important choices in classroom
Choice is matched to students' cognitive level	√	Students understood feedback
Renders some control over own learning to students (e.g. multiple types of choices present)	√	

	Present	Evidence
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	Instructor interested in feedback
Gives directions in a precise, easy-to-follow way	√	Led discussion of choice
Has planned and is well-organized for lesson	√	Students engaged in voting enthusiastically

	Present	Evidence
Summarizing Instruction Only (segments 15-16)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Subject and main points
Appropriate scaffolding of SI	√	Guided students through 1 paragraph summary
Provides competence support for strategy use	√	Choosing between good and bad summaries
Explanation of importance/usefulness of SI	√	
Instruction Integrity		
Lesson is coherent	√	Explained plan to students
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 4 – Feb. 23 (segments 17-20)

	Present	Evidence
Both Group (segments 17-18)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Students write headlines for main point/summary
Appropriate scaffolding of SI	√	
Provides competence support for strategy use	√	
Explanation of importance/usefulness of SI	√	

	Present	Evidence
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Students selected groups – were pleased about picking groups
Choice is matched to students’ cognitive level	√	
Renders some control over own learning to students (e.g. multiple types of choices present)	√	Students express positive comments on picking groups
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Summarizing Instruction Only Group (segment 19)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Students write headlines for main point/summary
Appropriate scaffolding of SI	√	
Provides competence support for strategy use	√	
Explanation of importance/usefulness of SI	√	
Choice		
Students <u>not</u> provided with choices	√	Teacher selected groups; teacher gave no choice for articles
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Choice Only Group (segment 20)		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Students could select articles and groups
Choice is matched to students' cognitive level	√	
Renders some control over own learning to students (e.g. multiple types of choices present)	√	Could pick facts that were interesting to them
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 5 – Feb. 25 (segments 21-23)

	Present	Evidence
Both Group (segment 21)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	
Appropriate scaffolding of SI		
Provides competence support for strategy use		
Explanation of importance/usefulness of SI	√	Main idea with supporting details in diagram
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Students pick partners
Choice is matched to students' cognitive level	√	
Renders some control over own learning to students (e.g. multiple types of choices present)	√	
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	Four details in diagram

	Present	Evidence
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Summarizing Instruction Only Group (segments 22-23)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Main idea and supporting details
Appropriate scaffolding of SI	√	
Provides competence support for strategy use	√	
Explanation of importance/usefulness of SI		
Choice		
Students <u>not</u> provided with choices	√	No choice of articles
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 6 – Feb. 26 (segments 24-30)

	Present	Evidence
Both Group (segments 24-25)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	
Appropriate scaffolding of SI	√	Main idea, supporting ideas and slightly longer summary
Provides competence support for strategy use	√	
Explanation of importance/usefulness of SI	√	
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Article choice from 4 articles
Choice is matched to students' cognitive level	√	

	Present	Evidence
Renders some control over own learning to students (e.g. multiple types of choices present)	√	
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Summarizing Instruction Only Group (segments 26-27)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Topic and main idea on diagram
Appropriate scaffolding of SI	√	Summary built on diagram
Provides competence support for strategy use	√	
Explanation of importance/usefulness of SI		
Choice		
Students <u>not</u> provided with choices	√	Students given article
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Choice Only Group (segment 28-30)		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Students read two articles—could pick partner
Choice is matched to students' cognitive level	√	

	Present	Evidence
Renders some control over own learning to students (e.g. multiple types of choices present)	√	Could pick partner; picked who asked questions
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	Two questions, two answers
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 7 – March 2 (segments 31-44)

	Present	Evidence
Summarizing Instruction Only Group (segments 31-37)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Steps through process
Appropriate scaffolding of SI	√	
Provides competence support for strategy use	√	
Explanation of importance/usefulness of SI		
Choice		
Students <u>not</u> provided with choices	√	Groups chosen by instructor
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	Main idea – individual; supporting details with group
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Both Group (segments 38-44)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Steps through process
Appropriate scaffolding of SI	√	Main idea given by student

	Present	Evidence
Provides competence support for strategy use	√	Student answered slightly differently on supporting detail but told okay
Explanation of importance/usefulness of SI		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)		
Choice is matched to students' cognitive level		
Renders some control over own learning to students (e.g. multiple types of choices present)		
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 8 – March 4 (segments 45-47)

	Present	Evidence
Summarizing Instruction Only Group (segments 45-46)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Summary typed with word count
Appropriate scaffolding of SI	√	
Provides competence support for strategy use		
Explanation of importance/usefulness of SI		
Choice		
Students <u>not</u> provided with choices	√	No choice of article
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	50 words for length of summary
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Both Group (segment 47)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Summary typed with word count
Appropriate scaffolding of SI		
Provides competence support for strategy use		
Explanation of importance/usefulness of SI		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Selected reading
Choice is matched to students' cognitive level		
Renders some control over own learning to students (e.g. multiple types of choices present)		
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 9 - March 9

Field Trip to Walters Art Gallery

Day 10 – March 11 (segments 48-51)

	Present	Evidence
Summarizing Instruction Only Group (segments 48-49)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Main details in article to skit
Appropriate scaffolding of SI		
Provides competence support for strategy use		
Explanation of importance/usefulness of SI		

	Present	Evidence
Choice		
Students <u>not</u> provided with choices	√	
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Both Group (segment 50-51)		
Strategy Instruction		
Strategy instruction highlighted in lesson	√	Content summary
Appropriate scaffolding of SI		
Provides competence support for strategy use		
Explanation of importance/usefulness of SI		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Chose groups
Choice is matched to students' cognitive level	√	
Renders some control over own learning to students (e.g. multiple types of choices present)	√	Chose and created props
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

Day 11 – March 12

	Present	Evidence
Summarizing Instruction Only Group (segment 52)		
Strategy Instruction	N/A	
Strategy instruction highlighted in lesson		

	Present	Evidence
Provides competence support for strategy use		
Appropriate scaffolding of SI		
Explanation of importance/usefulness of SI		
Choice		
Students <u>not</u> provided with choices	√	Not allowed to pick teams for review game
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Choice Only Group (segment 54-55)		
Choice		
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Picked teams for review
Choice is matched to students' cognitive level		
Renders some control over own learning to students (e.g. multiple types of choices present)		
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

	Present	Evidence
Both Group (segment 56-57)		
Strategy Instruction	N/A	
Strategy instruction highlighted in lesson		
Appropriate scaffolding of SI		
Provides competence support for strategy use		
Explanation of importance/usefulness of SI		

	Present	Evidence
Students make significant decisions during lesson (e.g. what to read, how to do assignment, etc.)	√	Picked teams
Choice		
Choice is matched to students' cognitive level		
Renders some control over own learning to students (e.g. multiple types of choices present)		
Instruction Integrity		
Lesson is coherent	√	
Communicates clearly expectations for student behavior	√	
Gives directions in a precise, easy-to-follow way	√	
Has planned and is well-organized for lesson	√	

References

- Alawiye, O., & Williams, H. S. (2005). Comparative reading gains of african american students in a chapter 1 pull out program. *Reading Improvement, 42*, 98-104.
- Alfi, O., Assor, A., & Katz, I. (2004). Learning to allow temporary failure: Potential benefits, supportive practices and teacher concerns. *Journal of Education for Teaching, 30*, 27-41.
- Allen, B. A., & Boykin, A. W. (1992). African-american children and the educational process: Alleviating cultural discontinuity through prescriptive pedagogy. *School Psychology Review, 21*, 586-598.
- Anderman, L. H. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *The Journal of Experimental Education, 72*, 5-22.
- Andrews, J., Mulcahy, R., & Short, R. (Eds). (1991). *Enhancing Learning and Thinking*. New York: Praeger Publishing.
- Armbruster, B. B., Anderson, T. H., & Ostertag, J. (1987). Does text structure/summarization instruction facilitate learning from expository text? *Reading Research Quarterly, 22*(3), 331-346.
- Armbruster, B. B., & Gudbrandsen, B. (1986). Reading comprehension instruction in social studies programs. *Reading Research Quarterly, 21*, 36-48.
- Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good but relevance is excellent: Autonomy affecting teacher behaviors that predict students' engagement in learning. *British Journal of Educational Psychology, 72*, 261-278.

- Au, K. H. (1998). Social constructivism and the school literacy learning of students of diverse backgrounds. *Journal of Literacy Research*, 30, 297-319.
- Baker, L., & Brown, A. L. (1984). Metacognitive skills and reading. In P. D. Pearson, R. Barr, J. L. Kamil, & P. Rosenthal (Eds.), *Handbook of reading research*. New York: Longman Press, 353-394.
- Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly*, 34, 452-477.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bartlett, M. S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society*, 16 (Series B), 296-298.
- Berkowitz, E., & Cicchelli, T. (2004). Metacognitive strategy use in reading of gifted high achieving and gifted underachieving middle school students in new york city. *Education and Urban Society*, 37, 37-57.
- Blumenthal, P. C. (1992). Classroom learning and motivation: Clarifying and expanding goal theory. *Journal of Educational Psychology*, 84, 272-281.
- Borkowski, J. G. (1992). Metacognitive theory: A framework for teaching literacy, writing, and math skills. *Journal of Learning Disabilities*, 25, 253-257.

- Borkowski, J. G., Carr, M., Rellinger, L., & Pressley, M. (1990). *Self-regulated cognition: Interdependence of metacognition, attributions and self-esteem*. Hillsdale, NJ: Erlbaum.
- Bransford, J., Brown, A., & Cocking, R. (Eds.) (2000). *How people learn: Brain, mind, experience and school*. Washington: National Academy Press.
- Brookhart, S. M., & Durkin, D. T. (2003). Classroom assessment, student motivation, and achievement in high school social studies classes. *Applied Measurement in Education, 16*, 27-54.
- Brookhart, S. M., Walsh, J. M., & Zientarski, W. A. (2006). The dynamics of motivation and effort for classroom assessments in middle school science and social studies. *Applied Measurement in Education, 19*, 151-184.
- Brophy, J. E. (1981). Teacher praise: A functional analysis. *Review of Educational Research, 51*, 5-32.
- Brophy, J., & Alleman, J. (1991). Activities as Instructional Tools: A Framework for Analysis and Evaluation. *Educational Researcher, 20*, 9-23.
- Brown, A. L. (1997). Transforming schools into communities of thinking and learning about serious matters. *American Psychologist, 51*, 399-413.
- Brown, A. L., & Day, J. D. (1983). Macrorules for summarizing texts: The development of expertise. *Journal of Verbal Learning and Verbal Behavior, 22*, 1-14.
- Brown, A. L., Day, J. D., & Jones, R. S. (1983). The development of plans for summarizing texts. *Child Development, 54*, 968-979.

- Brown, R. (2005). Seventh-graders' self-regulatory note-taking from text: Perceptions, preferences and practices. *Reading Research and Instruction, 44*, 1-26.
- Burger, J. M. (1987). Increased performance with increased personal control: A self-presentation interpretation. *Journal of Experimental Social Psychology, 23*, 350-360.
- Case, J., & Gunstone, R. (2002). Metacognitive Development as a shift in approach to learning: An in-depth study. *Studies in Higher Education, 27*, 459-470.
- Catell, R. B. (1966). The scree test for number of factors. *Multivariate Behavioral Research, 1*, 245-276.
- Chan, L. K. S. (1994). Relationship of motivation, strategic learning, and reading achievement in grades 5, 7, and 9. *Journal of Experimental Education, 62*, 319-339.
- Collins, N. D. (1994). Metacognition and reading to learn. *ERIC Clearinghouse on Reading English and Communication, 96*.
- Collins, V. L., Dickson, S. V., Simmons, D. C., & Kameenui, E. J. (1996). *Metacognition and its relation to reading comprehension: A synthesis of the research*. Eugene: University of Oregon.
- Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar and L. A. Stroufe (Eds.), *Self-processes and development: The minnesota symposium on child development* (Vol. 23, pp. 43-78). Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Cornford, I. R. (2002). Learning-to-learn strategies as a basis for effective lifelong learning. *International Journal of Lifelong Education, 21*, 357-368.

- Covington, M. V., & Dray, E. (2002). *The developmental course of achievement motivation: A needs-based approach*. New York: Academic Press.
- Craig, M. T., & Yore, L. D. (1996). Middle school students' awareness of strategies for resolving comprehension differences in science and reading. *Journal of Research and Development in Education, 29*, 226-238.
- Cresswell, J. W. (2009). *Research design*. Thousand Oaks, CA: Sage Publications.
- Deci, E. L., Vallerand, R. J., Pelletier, L.G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist, 26*, 325-346.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Dowson, M., & McInerney, D. M. (2004). The development and validation of the goal orientation and learning strategies survey (GOALS-S). *Educational and Psychological Measurement, 64*, 290-310.
- Duffy, G. G., Roehler, L. R., Rackliffe, G., Book, C., Meloth, M. S., Vavrus, L. G. et al. (1987). Effects of explaining the reasoning associated with using reading strategies. *Reading Research Quarterly, 22*, 347-368.
- Durkin, D. (1993). *Teaching them to read* (6th ed.). Boston, MA: Allyn and Bacon.
- Eccles, J. S., Wigfield, A., Midgley, C., Reuman, D., Mac Iver, D., & Feldlaufer, H. (1993). Negative effects of traditional middle schools on students' motivation. *Elementary School Journal, 93*, 553-574.

- Eccles, J. S., & Midgley, C. (1989). Stage-environment fit: Developmentally appropriate classrooms for young adolescents. In C. Ames & R. Ames (Eds.), *Research on motivation in education* (Vol. 3, pp. 139-186). San Diego: Academic Press.
- Fischer, C. (2003). Revising the reader's rudder: A comprehension strategy: This strategy facilitates literal, inferential, and critical reading comprehension for passive readers who can decode but not comprehend. *Journal of Adolescent & Adult Literacy*, 47, 248+.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34, 906-911.
- Flowerday, T., Schraw, G., & Stephens, J. (2004). The Role of Choice and Interest in Reader Engagement. *The Journal of Experimental Education*, 72, 93-114.
- Flowerday, T. & Schraw, G. (2000). Teacher beliefs about instructional choice: A phenomenological study. *Journal of Educational Psychology*, 92, 634-645.
- Flowers, L. A. (2007). Recommendations for research to improve reading achievement for african american students. *Reading Research Quarterly*, 42, 424-428.
- Ford, D. Y., & Kea, C. (2009). Creating culturally responsive instruction: For students' and teachers' sakes. *Focus on Exceptional Children* 41, 9 1-16.
- Fuhler, C. J., Farris, P. J., & Nelson, P. A. (2006). Building literacy skills across curriculum: Forging connections with the past through artifacts. *The Reading Teacher*, 59, 646-659.
- Garner, R. (1984). Rules for summarizing texts: Is classroom instruction being provided? *Journal of Educational Research*, 77, 304-308.

- Gay, G. (2000). *Culturally responsive teaching: Theory, research, and practice*. New York: Teachers College Press.
- Gehlbach, H. (2006). How changes in students' goal orientations relate to outcomes in social studies. *The Journal of Educational Research, 99*, 358-370.
- Gourgey, A. F. (1999). Teaching reading from a metacognitive perspective: Theory and classroom experiences. *Journal of College Reading and Learning, 30*, 85+.
- Graves, M. F., & Avery, P. G. (1997). Scaffolding students' reading of history. *Social Studies, 88*, 134-139.
- Graves, M., Juel, C., & Graves, B. (2001). *Teaching reading in the 21st century (2nd ed.)*. Boston: Allyn & Bacon.
- Greenway, C. (2002). The Process, Pitfalls and Benefits of Implementing a Reciprocal Teaching Intervention to Improve the Reading Comprehension of a Group of Year 6 Pupils. *Educational Psychology in Practice, 18*, 113-137.
- Guthrie, J. T., Anderson, E., Alao, S., & Rinehart, J. (1999). Influences of concept-oriented reading instruction on strategy use and conceptual learning from text. *Elementary School Journal, 99*, 343-366.
- Guthrie, J. T., Coddington, C. S., & Wigfield, A. (2009). Profiles of motivation for reading among african american and caucasian students. *Journal of Literary Research, 41*, 317-353.
- Guthrie, J. T., Cox, K. E., Anderson, E., Harris, K., Mazzoni, S., & Rach, L. (1998). Principles of integrated instruction for engagement in reading. *Educational Psychology Review, 10*, 177-199.

- Guthrie, J. T., Hoa, L. W., Wigfield, A., Tonks, S., Humenick, N. M., & Littles, E. (2007). Reading motivation and reading comprehension growth in the later elementary years. *Contemporary Educational Psychology, 32*, 282-313.
- Guthrie, J. T., McRae, A., & Klauda, S. L. (2007). Contributions of concept-oriented reading instruction to knowledge about interventions for motivations in reading. *Educational Psychologist, 42*, 237-250.
- Guthrie, J. T., Van Meter, P., Hancock, G. R., Alao, S., Anderson, E., & McCann, A. (1998). Does concept-oriented reading instruction increase strategy use and conceptual learning from text? *Journal of Educational Psychology, 90*, 261-278.
- Guthrie, J. T., & Wigfield, A. (2000). Engagement and motivation in reading. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Reading research handbook* (Vol. III, pp. 403-424). Mahwah, NJ: Erlbaum.
- Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H.,... Tonks, S. (2004). Increasing reading comprehension and engagement through concept-oriented reading instruction. *Journal of Educational Psychology, 94*, 403-423.
- Guthrie, J. T., Wigfield, A., & Perencevich, K. C. (Eds.) (2004). *Motivating reading comprehension: Concept-oriented reading instruction*. Mahwah, NJ: Erlbaum.
- Guthrie, J. T., Wigfield, A., Perencevich, K. C., Taboada, A., Humenick, N. M., & Barbosa, P. (2006). Influences of stimulating tasks on reading motivation and comprehension. *Journal of Educational Research, 99*, 232-245.

- Guthrie, J. T., Wigfield, A., & VonSecker, C. (2000). Effects of integrated instruction on motivation and strategy use in reading. *Journal of Educational Psychology, 92*, 331-341.
- Hare, V. C., & Borchardt, K. M. (1984). Direct instruction of summarization skills. *Reading Research Quarterly, 20*, 62-78.
- Hektner, J. M., Schmidt, J. A., & Csikszentmihalyi, M. (2007). *Experience sampling method: Measuring the quality of everyday life*. Thousand Oaks, CA: Sage Publications.
- Howard, T. C. (2001). Telling their side of the story: African-american students' perception of culturally relevant teaching. *The Urban Review, 33*, 2 131-149.
- Iyengar S., H., G., & Jiang, W. (2004). *How much choice is too much? Contributions to 401(k) retirement plans*. Oxford: Oxford University Press.
- Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology, 79*, 995-1006.
- Juvonen, J., Nishina, A., & Graham, S. (2006). Ethnic diversity and perceptions of safety in urban middle schools. *Psychological Science, 393-400*.
- Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika, 39*, 31-36.
- Katz, I., & Assor, A. (2003). Is autonomy important for non-western students? Examining autonomy as a universal human propensity. Paper presented at the 84th annual meeting of the American Educational Research Association, Chicago.
- Katz, I., & Assor, A. (2007). When choice motivates and when it does not. *Educational Psychology Review, 19*, 429-442.

- Kea, C., Campbell-Whatley, G. D., & Richards, H. V. (2004). *Becoming culturally responsive educators: Rethinking teacher education pedagogy* (Practitioner Brief Series). Tempe, AZ: National Center for Culturally Responsive Educational Systems.
- Key, L. V., Bradley, J. A., & Bradley, K. S. (2010). Stimulating instruction in social studies. *The Social Studies*, 101, 117-120.
- Kintsch, E. (1990). Macroprocesses and microprocesses in the development of summarization skill. *Cognition and Instruction*, 7, 161-195.
- Kintsch, W. (1988). The role of knowledge in discourse comprehension: A construction-integration model. *Psychological Review*, 95, 163-182.
- Kintsch, W., & van Dijk, T. A. (1978). Towards a model of text comprehension and production. *Psychological Review*, 85, 363-394.
- Klingner, J. K., Vaughn, S., & Schumm, J. S. (1998). Collaborative strategic reading during social studies in heterogeneous fourth-grade classrooms. *Elementary School Journal*, 99, 3-22.
- Kosky, C., & Curtis, R. (2008). An Action Research Exploration Integrating Student Choice and Arts Activities in a Sixth Grade Social Studies Classroom. *Journal of Social Studies Research*, 32, 22-27.
- Lederer, J. M. (2000). Reciprocal teaching of social studies in inclusive elementary classrooms. *Journal of Learning Disabilities*, 33, 91-106.
- Lindo, E. J. (2006). The african american presence in reading intervention experiments. *Remedial and Special Education*, 27, 148-153.

- Mac Iver, M. A., & Kemper, E. (2002). The impact of direct instruction on elementary students' reading achievement in an urban school district. *Journal of Education for Students Placed at Risk*, 7, 197-220.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58,, 593-614.
- Marinak B.A., Moore, J.C., Henk W.A., & Keepers M. (1998). *The Pennsylvania Assessment System: Reading Instructional Handbook*. Harrisburg, PA: Pennsylvania Department of Education.
- Massey, D. D., & Heafner, T. L. (2004). Promoting reading comprehension in social studies. *Journal of Adolescent & Adult Literacy*, 48, 26-40.
- McKeown, M. G., Beck, I. L., & Blake, R. G. K. (2009) Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*, 44, 218-253.
- McNamara, D. S., Kintsch, E., Songer, N. B., & Kintsch, W. (1996). Are good texts always better? Interaction of text coherence, background knowledge, and levels of understanding in learning from text. *Cognition and Instruction*, 14, 1-43.
- Meece, J. L. (2003). Applying learner-centered principles to middle school education. *Theory into Practice*, 42, 109-116.
- The National Assessment of Educational Progress (NAEP) (2005). *The nation's report card: Reading*. Washington, DC: U.S. Department of Education.

- Newman, R. S. (2002). *What do i need to succeed...When i don't understand what i'm doing!?: Developmental influences of students' adaptive help seeking*. New York: Academic Press.
- Nist, S. L., & Simpson, M. L. (2000). *College studying*. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Reading research handbook* (Vol. III, pp. 645-666). Mahwah, NJ: Erlbaum.
- North Central Regional Educational Laboratory (NCREL) (2002). *Reading comprehension instruction in grades 4-8*. Retrieved March 1, 2005 from <<http://www.ncrel.org/litweb/comp48/appc.htm>>.
- Ogbu, J. U. (2003). *Black American students in an affluent suburb: A study of academic disengagement*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 2*, 117-175.
- Paris, S. C., Wasik, B. A., & Turner, J. C. (1991). The development of strategic readers. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 609-640). New York: Longman.
- Paris, S. G., & Paris, A. H. (2001). Classroom applications of research on self-regulated learning. *Educational Psychologist, 36*, 89-101.
- Parker, L. E., & Lepper, M. R. (1992). The effects of fantasy contexts on children's learning and motivation: Making learning more fun. *Journal of Personality and Social Psychology, 62*, 625-633.

- Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, 33-40.
- Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. H. Schunk, D.H. & J. L. Meece (Eds.), *Student perceptions in the classroom* (pp. 149-183). Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rayneri, L. J., Gerber, B. L., & Wiley, L. P. (2006). The relationship between classroom environment and the learning style preferences of gifted middle school students and the impact on levels of performance. *The Gifted Child Quarterly*, 50, 104-118.
- Reeve, J. M. (2009). Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. *Educational Psychologist*, 44, 159-175.
- Reeve, J., Nix, G., & Hamm, D. (2003). Testing models of the experience of self-determination in intrinsic motivation and the conundrum of choice. *Journal of Educational Psychology*, 95, 375-392.
- Reis, S. M., McCoach, D. B., Coyne, M., Schreiber, F. J., Eckert, R. D., & Gubbins, E. J. (2007). Using planned enrichment strategies with direct instruction to improve reading fluency, comprehension, and attitude toward reading: An evidence-based study. *The Elementary School Journal*, 108, 3-23.

- Report of the National Reading Panel* (2000). Jessup, MD: National Reading Excellence Initiative.
- Reynolds, P. L., & Symons, S. (2001). Motivational variables and children's text search. *Journal of Educational Psychology, 93*, 14-22.
- Roeschl-Heils, A., & van Kraayenoord (2003). Reading, metacognition and motivation: A follow up of german students in grades 7 and 8. *European Journal of Psychology of Education, 18*, 75-86.
- Roeser, R. W., & Eccles, J. S. (1998). Adolescents' perception of middle school: Relation to longitudinal changes in academic and psychological adjustment. *Journal of Research on Adolescence, 8*, 123-158.
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist, 55*, 68-78.
- Schraw, G., Flowerday, T., & Reisetter, M. (1998). The role of choice in reader engagement. *Journal of Educational Psychology, 90*, 705-714.
- Shernoff, D. J., Csikszentmihalyi, M., Shneider, B., & Shernoff, E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly, 18*, 158-176.
- Shippen, M. E., Houchins, D. E., Steventon, C., & Sartor, D. (2005). A comparison of two direct instruction reading programs for urban middle school students. *Remedial and Special Education, 26*, 175-182.

- Slater, W. H., & Horstman, F. R. (2002). Teaching reading and writing to struggling middle school and high school students: The case for reciprocal teaching. *Preventing School Failure, 46*, 163-166.
- Stefanou, C. R., Perencevich, K. C., DiCinto, M., & Turner, J. C. (2004). Supporting autonomy in the classroom: Ways teachers encourage student decision making and ownership. *Educational Psychology, 39*, 97–110.
- Stipek, D., & Mac Iver, D. (1989). Developmental change in children's assessment of intellectual competence. *Child Development, 60*, 521-538.
- Taylor, S. (1999). Better learning through better thinking: Developing students' metacognitive abilities. *Journal of College Reading and Learning, 30*, 34-43.
- Thurstone, L. L. (1947). *Multiple factor analysis*. Chicago: University of Chicago Press.
- Turner, J. C., & Meyer, D. K. (2000). Studying and understanding the instructional contexts of classrooms: Using our past to forge our future. *Educational Psychologist, 35*, 69-85.
- Unrau, N. J., & Schlackman, J. (2006). Motivation and its relationship with reading achievement in an urban middle school. *Journal of Educational Research, 100*, 81-101.
- Van Dijk, T.m & Kintsch, W. (1983). *Strategies of discourse comprehension*. Orlando, FL: Academic Press.
- Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.

- Wigfield, A., & Guthrie, J. T. (1997). Relations to children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology, 89*, 420-432.
- Wigfield, A., Guthrie, J. T., Perencevich, K. C., Taboada, A., Klauda, S. L., McRae, A., and Barbosa, P. (2008) Role of reading engagement in mediating effects of reading comprehension instruction on reading outcomes. *Psychology in the Schools, 45*, 432-445.
- Wigfield, A., Guthrie, J. T., Tonks, S., & Perencevich, K. C. (2004). Motivation for reading: Domain specificity and instructional influences. *Journal of Educational Research, 97*, 299-309.
- Zagora, V. M. (2011). An approach to integrating writing skills into the social studies curriculum. *Social Education, 75*, 17-21.
- Zanobini, M., & Usai, M. C. (2002). Domain-specific self-concept and achievement motivation in the transition from primary to low middle school. *Educational Psychology, 22*, 203-217.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology, 81*, 329-339.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice, 41*, 64-70.
- Zuckerman, M., Porac, J., Lathin, D., Smith, R., & Deci, E. L. (1978). On the importance of self-determination for intrinsically-motivated behavior. *Personality Social Psychology Bulletin, 4*, 443-446.