A STUDY OF TEACHER SOLICITATIONS AND STUDENT RESPONSES DURING READ-ALOUDS WITH KINDERGARTEN, FIRST GRADE, AND SECOND GRADE STUDENTS

A Dissertation

by

NORMA GARZA GARCÍA

Submitted to the Office of Graduate Studies of Texas A&M University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2007

Major Subject: Curriculum and Instruction
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Approved by:

Co-Chairs of Committee, Donna E. Norton
James F. McNamara
Committee Members, Mark Sadoski
Juan R. Lira
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ABSTRACT

A Study of Teacher Solicitations and Student Responses During Read-Alouds with Kindergarten, First Grade, and Second Grade Students. (August 2007)

Norma Garza García, B.S., Texas A&I University at Laredo;
M.S., Laredo State University

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Read-alouds can be very useful in the classroom to assist students in gaining knowledge and improving reading skills. Educational research documents that there is a link between reading aloud to children and successful beginning reading experiences. Furthermore, the reading research community has established a link between listening comprehension and reading comprehension. However, the value of “talk” or interaction prompted by read-alouds is an area in need of investigation given, what we know about emergent literacy instruction in the context of school reform mandates.

The purpose of this investigation was to provide a baseline description of the nature of reading instruction with regard to teachers’ solicitation practices and congruence of student responses as these interactions occur during read-alouds with Kindergarten, first, and second grade students. The significance of this study was to advance the knowledge base of the nature of read-alouds within the context of teacher solicitations and student responses accounting for the value of interaction in the classroom as a means to enhance the literary experience.
Twenty-four teacher participants (236 student participants) conducted one read-aloud of a given title without changing any of their read-aloud practices. Audio recordings of the read-alouds were transcribed, coded and categorized into efferent or aesthetic solicitations. In addition, each teacher solicitation-student response unit was coded as congruent or incongruent. The two newly established categories were then utilized to examine the nature of efferent and aesthetic teacher solicitation-student response occurrences and interactions during read-alouds of the twenty-four teacher groups and by grade level.

Overall, the data analysis revealed that teacher solicitation practices (aggregate and by grade level) appear to indicate a strong use of efferent solicitations during read-alouds. In addition, there appeared to be no relationship between teacher solicitation and student response congruency with the frequency of teacher solicitations for either efferent or aesthetic teacher solicitation-student response units.
DEDICATION

To my husband, Ramiro Ricardo García
Thank you for being my best friend and loving me the way you do.

To my children
Noemí Gisell and Ramiro Ricardo, Jr.
You are the most wonderful gifts life has given me.
ACKNOWLEDGMENTS

The acknowledgments below reflect my heartfelt appreciation for individuals who caringly made this journey with me. Although the journey was long, I always felt that these individuals were placed in my path to inspire me and help me to persevere.

To the greatest force that inspired me to transcend my limitations—the members of my committee:

Dr. Donna E. Norton, committee co-chair. Thank you for raising my awareness to the beauty and the power of children’s literature and helping me see my role as a leader to ensure that children experience the wealth and strength of their culture found in books.

Dr. James F. McNamara, committee co-chair. Thank you for recognizing the value of my study and teaching me how to take it to greater heights. I especially appreciate your intense instruction during the countless sessions you crafted just for me. I would have not completed the study had it not been for your guidance and support.

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Besides the wonderful support I received from Texas A&M University and Texas A&M International University, there was a whole team of individuals who watched me reinvent myself and caringly helped me through the years.

Zapata County Independent School District. To Mr. Romeo Rodriguez, Jr.: Thank you for allowing me to seek my dream. Leaders like you tear down the walls that serve as obstacles for people like me. A special thanks to all the board members. You have made Zapata County ISD a place that encourages all its employees to “touch a star.”

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CHAPTER I
INTRODUCTION

Educational research has established a strong link between reading aloud to children at an early age and beginning reading success (Kerr & Mason, 1994). Critical to the moment of a successful literary experience are the occurrences Vygotsky (1978) describes as being within the “zone of proximal development” (p. 86). His view of learning is described as two-faceted: social and psychological. The social aspect can be served with activities such as interactive read-alouds affording children the opportunity to learn by participating in social interaction, while the psychological aspect is addressed when students internalize literacy concepts with guidance or assistance from a teacher (Kerr & Mason, 1994, p. 134). Strickland and Feeley (2003) suggest that Vygotsky’s developmental theory emphasizes the critical role interactive language plays “in the language and cognitive development of children” (p. 343).

A term to describe early reading and writing is emergent literacy (Teale, 1995, pp. 70). The transition from an emergent reader to a mature reader may be facilitated by utilizing an emergent literacy framework supported by a literature-based reading program. One of the components of an emergent literacy program is read-alouds. The paradigm shift from reading readiness, a term that was used prior to the mid-1980s, was made because researchers began to look at “reading and writing development from the

This dissertation follows the style and format of American Educational Research Journal.
child’s point of view” (Teale, 1995, p. 71). This new way of studying literacy development employed certain characteristics of an emergent literacy framework while incorporating strategies that empower children to think and learn about written language; therefore, allowing them to develop literary understanding as they develop from an emergent to a mature reader. This logic is the basis for the framework of a classroom which incorporates the emergent literacy paradigm.

Read-alouds are a critical component of a literature-based reading program (Morrow & Gambrell, 2000; Allen, 2000). Such a program utilizes literature “…to develop and support the reading curriculum” (Norton, 1992, p. 5). Norton (1992) outlines a historical perspective of literature-based reading instruction. In her discussion she describes three different structures which emerged and evolved during the nineteenth and twentieth century. These three structures account for the components in literature-based programs we see today: core literature, cognitive skills (literary criticism), and psychological responses to literature. The third structure can further be described as the component of a literature-based reading program which emphasizes the relationship between the reader and the text (Norton, 1992).

The common thread of both the emergent literacy and the literature-based paradigms is the use of read-alouds as a vehicle to address cognitive, social and psychological facets of learning. Children’s literature is widely used in effective literature-based reading programs (Norton, 1992).
Statement of the Problem

While the educational community values developing the cognitive skills of children, interaction with text in such a way that enables “exploration” and enhances the literary experience (Rosenblatt, 1965, 1982, 1985, 1994, 2004) may not be emphasized. Rosenblatt’s transactional theory describes a shift of attention which occurs along a continuum. According to the theory, a reader can choose from two stances during reading: the efferent stance (The reader’s purpose is to read to acquire information.) and the aesthetic stance (The reader’s intent is to experience the text.). She contends that readers experience text when they interact with the text and explore it; therefore, they reach a lived-through experience or evocation (Rosenblatt, 1965, 1982, 1985, 1994, 2004). Emergent literacy instruction incorporates read-alouds and “response-to-literature activities...[such as] discussion, writing, art, music, and dramatic re-enactments” (Teale, 1995, p. 72). However, “…storybook readaloud[s]...[are] not consistent across classrooms...” (Sipe, 1996, p. 3) suggesting that teachers’ understanding of what constitutes a read-aloud and/or how to conduct a read-aloud varies and children’s literary development may be affected by teacher reading styles (Sipe, 1996, p.3).

Statement of the Purpose

The purpose of this investigation is to provide a baseline description of the nature of reading instruction with regard to teachers’ solicitation practices and congruence of student responses as these interactions occur during read-alouds with Kindergarten, first, and second grade students.
The significance of the research concerning the positive effects read-alouds seem to have on student performance (Anderson, Hiebert, Scott, & Wilkinson, 1985), the emphasis on emergent literacy (Teale, 1995), the characteristics of literature-based reading instruction (Morrow & Gambrell, 2000; Allen, 2000; Norton, 1992), the role of teacher questioning practices on student success (Ruddell, 1995), and the prominence of basal reading instruction (Anderson, et al., 1985; Lira, 1985; Savage, 1998) suggest that there is sufficient documentation to support the need to look at the value of “talk” and interaction during read-alouds. Doing so seems particularly important, since there is an apparent lack of documentation concerning the role of teacher questioning practices during read-aloud instructional experiences with students in Kindergarten through second grade in light of what is known about emergent literacy and current school reform mandates.

Research Questions

This research study is directed at answering the following questions:

1. What are the frequencies and percentages of efferent and of aesthetic solicitations provided by all (K-2) participating teachers during read-alouds?

2. What are the frequencies and percentages of efferent solicitations provided by teachers in each grade (K-2) during read-alouds?

3. What are the frequencies and percentages of aesthetic solicitations provided by teachers in each grade (K-2) during read-alouds?
4. What are the frequencies and percentages of congruence and incongruence associated with efferent and with aesthetic solicitations provided by all K-2 participating teachers during read-alouds?

5. What are the frequencies and percentages of congruence and incongruence associated with efferent solicitations provided by teachers in each grade (K-2) during read-alouds?

6. What are the frequencies and percentages of congruence and incongruence associated with aesthetic solicitations provided by teachers in each grade (K-2) during read-alouds?

7. What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve efferent solicitations?

8. What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve aesthetic solicitations?

**Definition of Terms**

Some key terms and definitions used in this investigation are as follows:

1. *Aesthetic Stance*—For the purpose of this study, the aesthetic stance involves teacher questions and students’ verbal responses which elicit appreciation of the text (Rosenblatt, 1994, p. 25).

2. *Barrett’s Taxonomy* (Barrett, 1967; cited in Pearson & Johnson, 1978)—A classification system of reading comprehension categories that can be used as a tool for teachers when developing learning activities and evaluative techniques (including questions) which address the levels of cognition emphasized in a reading program. The
four categories are literal meaning, inference, evaluation, and appreciation. For the purpose of this study, literal, inference, and evaluation will fall within the efferent (Rosenblatt, 1965) side along the reading continuum. The appreciation category will be used to identify questions which fall on the aesthetic side along the reading continuum.

3. **Cognitive Domain**—“...[T]he psychological field of intellectual activity” (Harris & Hodges, 1995, p.34).

4. **Congruence**—Congruence will be “…perceived if the intent of the teacher solicitations was matched by an acceptable student response” (Lira, 1985, p. 76). That is, a teacher solicitation-student response unit is congruent if the student’s verbal response satisfactorily addresses the teacher’s solicitation. Conversely, an incongruent response is a response which does not match the teacher’s solicitation. For example:

   **Teacher:** Why do you think Pepe was called Speedy?
   
   **Student:** Pepe was the fastest sprinter on his track team.

This teacher solicitation-student response unit is congruent because the student correctly infers that fast runners are sometimes called “Speedy.” Therefore, an incongruent response would be one that does not address the question satisfactorily. For example:

   **Teacher:** Why do you think Pepe was called Speedy?
   
   **Student:** Pepe was the son of the baker. (No connection was made between speed and running.)

The teacher solicitation-student response unit is incongruent because the student had available information to make the connection, but was not able to connect speed to
running on a track team. Instead, the student referred to Pepe’s father who was a spectator in the story.

5. **Efferent Stance**—For the purpose of this study, the efferent stance will indicate a teacher verbal solicitation and/or student verbal response which focuses attention on concepts and ideas found in the text during a read-aloud (Rosenblatt, 1994, p. 24).

6. **Emergent literacy**—“development of the association of print with meaning that begins early in a child’s life and continues until a child reaches the stage of conventional reading and writing…” (Harris & Hodges, 1995, p. 70).

7. **Literature-based instruction**—The use of literature to support the reading curriculum and reading instruction, instead of teaching reading skills in isolation (Norton, 1992, p. 5).

8. **Read-aloud**—For the purpose of this study: A read-aloud or an interactive read-aloud (Barrentine, 1996) is a classroom activity that involves teacher solicitation-student response-type dialogue during a read-aloud, sometimes referred to as storybook reading (Collins, 2005), teacher book reading (Dickinson & Smith, 1994), storyreading (Cochran-Smith, 1984), shared reading (Whitehurst & Lonigan, 2001), and storybook read-alouds (Sipe, 2002).

9. **Zone of Proximal Development (ZPD)**—“...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p.86).
**Limitations**

Although this study provides new information for investigating teacher questioning behavior and student responses during interactive read-alouds, two study limitations must be kept in mind.

The first limitation deals with the influence of sampling. Specifically, a basic limitation of the study from a sampling perspective is that the actual teacher sample is an intact group of K-2 (certified) English reading teachers in one school district. Although the findings may contribute to making generalizations about teacher questioning behavior and student response behavior for the participating school district, a larger study sample of school districts would be needed to determine if the patterns, trends, and/or relationships found in this study can be generalized to a larger population of K-2 English reading teachers.

The second limitation deals with the extent to which the actual study treatment provides a basis for generalization. Specifically, for the purpose of this study, the treatment consists of using only one text for the interactive read-aloud behavior to be observed. Accordingly, the patterns, trends, and/or relationships that emerge in this inquiry can not be used to generalize across other similar texts researchers might use in future interactive read-aloud studies having the same purpose addressed in this study.
CHAPTER II

REVIEW OF RELATED LITERATURE

This study explores teacher-student verbal interaction during read-alouds. The review of the literature is a discussion of topics which are directly related to the reading (listening) experience during a teacher-directed read-aloud and will be divided into the following sections: (1) Vygotsky’s contributions to the understanding of literacy development; (2) emergent literacy in a literature-based reading program and read-alouds; (3) characteristics and benefits of read-alouds; (4) policy and reading instruction; (5) the link between listening and reading comprehension; (6) the connection between reading process models, listening comprehension and read-alouds; (7) teacher stance and questioning behaviors and read-alouds; (8) taxonomies and reading comprehension; (9) critiques of taxonomy use and rationale for selected category scheme; (10) Solicitation-Response Unit About Reading Content; and (11) rationale for selected protocol.

Vygotsky’s Contributions to the Understanding of Literacy Development

One of Vygotsky’s (1978) contributions to the understanding of literacy development is a description of a construct involved in school learning called the zone of proximal development (ZPD) (p. 85). This concept draws on what is already known about matching learning to the student’s developmental level. The developmental level of a student is evident in the tasks that a student can do independently and is also indicative of mental ability. To determine the zone of proximal development of a student, one would need to figure the “distance between the actual developmental level
as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). An implication of this concept for emergent readers and a literature-based program during read-alouds is that the level of the literature children listen to can be at the ZPD; thus ensuring that “what a child can do with assistance today she will be able to do by herself tomorrow” (Vygotsky, 1978, p. 87). In other words, a teacher can select a read-aloud at a level slightly higher than the listening level of the students, and with assistance the students will experience comprehension success.

Another of Vygotsky’s contributions to the understanding of literacy development is his social-cultural view of learning. He emphasized that learning best takes place in a social setting. In one of his experiments, Vygotsky observed that children needed to talk when trying to accomplish a difficult task. At times, this speaking became self-talk which eventually emulated adult talk. In this way, he emphasized the role social interaction with an adult and/or peers played during cognitive development. When children can articulate what they know (cognitive ability), an “actual” level can be determined. The “potential” level can be determined when a student has difficulty with a task. Since the “potential” level is always slightly higher than the “actual” level of development, the assistance of another person (adult or peer) more knowledgeable of the task at hand will benefit the students by enabling students to reach a higher cognitive level (Vygotsky, 1978, pp. 86-87). After students practice and
master the task, assistance can be removed. Thus, a read-aloud can be conducted at the “potential” level of the students and may result in increased cognitive development.

**Emergent Literacy in a Literature-based Reading Program and Read-Alouds**

The emergent literacy paradigm is based on four principles: (1) Children need to be involved in reading and writing activities every day. (2) A print-rich environment must be evident in the classroom. (3) Written language activities must be functional and relevant. (4) Children must be engaged in play while participating in activities in which written language is produced in a purposeful manner (Teale, 1995, p. 71).

The first principle involves read-alouds and lap reading. An emergent literacy/literature-based classroom serves as an extension of services provided by child care providers and builds on the experiences children bring with them from home. In this way, the teacher utilizes the read-aloud setting as a means of promoting reading and writing as related language components. The act of reading to children also gives a teacher the opportunity to point out elements of print. Since listening, speaking, reading, and writing (i.e. such as pointing at writing conventions and writer’s craft) are involved in read-alouds, teachers are able to model all these elements of language (Sipe, 1996). As students are reading (or pretending to read) to each other, they can mimic and model what they have learned about language (Teale, 1995).

The second principle is providing students with a print-rich environment. The availability of authentic children’s literature, trade books, lists, children’s writing, paper, pens, and other writing material allows for children to see that the teacher values writing and books (Teale, 1995). The use of these books by the teacher and the students
reinforces to the children the value of real language and stories with well developed characters (Sipe, 1996).

The third principle is written language must be functional and relevant. Students should be allowed to respond to literature. Before, during, and after listening to a read-aloud, students should have the opportunity to talk about the book and extension activities should be provided so that listening, speaking, reading, and writing activities are connected to the story. This way, students can make the connections of book and print while enjoying the functions of language. In addition, children can begin to recognize “printed words and apply already developed oral comprehension skills to written text, and a transition to literate school discourse in which new comprehension skills develop that are adapted to the progressively increasing cognitive demands of school discourse” (Frederiksen, 1979, p. 156).

The fourth principle calls for the engagement of children in play while participating in activities. For example, by using a variety of oral language games and read-alouds of nursery rhymes and poems, children make the letter-sound connection as they develop phonemic awareness and the alphabetic principle (Teale, 1995).

Instructional activities which are characteristic of emergent literacy in a literature-based classroom are: (a) large and small group teacher-led story book readings; (b) student-conducted storybook readings; (c) authentic language activities; (d) literature response activities; (e) writing; (f) phonemic awareness activities; and (g) letter-sound activities (Teale, 1995, pp. 71-72). In addition, an early childhood teacher who utilizes “talk” effectively (Hansen, 2004) in the classroom facilitates the
development of four of the five components recommended by the National Reading Panel Report (2000) which are phonemic awareness, fluency, vocabulary, and comprehension.

**Characteristics and Benefits of Read-Alouds**

To date, the educational research community has documented the benefits of read-alouds. The landmark report, *Becoming A Nation of Readers* (Anderson, Hiebert, Scott, & Wilkinson, 1985) informed educators that “The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children” (p. 23). As previously mentioned, read-alouds are a component of both emergent literacy (Sipe, 1996) and literature-based reading programs (Morrow & Gambrell, 2001). In this study, a read-aloud and/or interactive read-aloud is a classroom activity in which the teacher (an adult) reads to students and teacher solicitations-student response-type dialogue takes place. One study (Moen, 2004) referred to read-alouds as a teacher reading fiction, non-fiction and even poetry to children. Another study used the term book reading as a read-aloud event (Dickinson & Smith, 1994). Other researchers (Morrow & Gambrell, 2001; Sipe, 1996) refer to storybook reading when describing teachers reading to children. Similarly, others (Whitehurst & Lonigan, 2001) refer to read-alouds as shared reading. In addition, one study refers to story reading when describing a parent reading to her child (Cochran-Smith, 1984). Much of the literature does not distinguish read-alouds from reading aloud to children; however, a few studies are somewhat descriptive of teacher read-aloud techniques and will be indicated as such. The research on teacher use of read-alouds
ranges from surveys quantifying the use of read-alouds to studies indicating that read-alouds are an effective component of a literature-based program, and even what constitutes an effective and/or ineffective read-aloud.

**Read-Aloud Prominence in the Classroom**

Researchers (Baumann, Hoffman, Moon, & Duffy-Hester, 1998; Baumann, Hoffman, Duffy-Hester, & Ro, 2000) proposed to replicate to some extent the study conducted by Austin and Morrison (1963) which described the reading instructional practices of educators throughout the United States. Baumann et al. (1998) randomly selected a total of 3,199 Pre-kindergarten—fifth grade teachers from a national list of 907,774 available subjects to participate in the survey. A total of 1,207 surveys qualified for review. The survey results indicated that during the language arts block teachers generally used a combination approach (approximately 55 minutes skills-based/ 42 minutes for extension activities) to teach reading. The use of reading aloud to children was included within the approximately 42 additional minutes used for extension activities. No mention was made about how teachers read aloud to children; nor was there a description of the purpose of the read-aloud.

A study of the characteristics of read-alouds from 537 classrooms conducted by Hoffman, Roser, and Battle (1993) indicated that 76 percent of primary grade teachers read aloud to their students compared with 69 percent at the intermediate grades. Additional information from the study indicated that trade books were used frequently in classrooms observed.
In addition, Morrow and Gambrell (2000) reviewed several studies which included surveys exploring the features of literature-based instruction. Morrow and Gambrell contend that a strong read-aloud program is indicative of a literature-based program. Reading quality literature to children daily is indicative of their definition of read-alouds. Morrow and Gambrell found that the use of daily read-alouds in elementary classrooms increased from 45 percent in 1980 to 85 percent in 1994.

However, a survey conducted by Hoffman, Roser, and Battle (1993) indicated that even though teachers intended to use read-alouds as part of effective reading practices, the average amount of time teachers read aloud to students was approximately ten to twenty minutes. In addition, the majority of the teachers spent five minutes or less in discussion before or after the read-aloud. Furthermore, the survey results indicated that teachers did not select books based on a unit of study.

The Benefits of Read-Alouds

Cochran-Smith (1984) helped advance the previous understanding of what we know of story reading and the role story reading plays in the “making of a reader.” The researcher compiled previous research on story reading and provides an explanation of five dimensions to story reading. The first dimension involves a constructive process. That is, children appear to make sense of stories they hear by utilizing a combination of memory and internal mental operations like processing information. The second dimension was derived from research findings involving parents indicating that story reading and dialogue are very significant for children as they develop an understanding of the world through the use of their imagination. In addition, the parent-child story
reading episodes contribute to future positive attitudes towards reading. The third dimension described is that story readings help young children develop a concept of story as they develop their aesthetic sense of literature. By developing this ability, children also develop their ability to create and tell stories with more complex characters and plots. The fourth dimension is based on a mother-child story reading study which describes the story reading as a dialogue between mother and child. The findings indicated that the mother focused on labeling while the child pointed, smiled, laughed and vocalized (Cochran-Smith, 1984, p. 19). This dialogue appeared to model taking turns. The fifth dimension indicated that patterns of story reading are cross-culturally diverse. For example, children who struggled in school were not acculturated to certain school-oriented linguistic and social patterns. The children had not been read to, so they did not have experiences such as labeling or literacy behaviors. Conversely, children who were exposed to literacy early on developed the discourse patterns of the educated sector.

In a study of emergent literacy, Whitehurst and Lonigan (2001) indicated that during shared reading with 2-3 year olds, the adult usually asked questions that describe “objects, action, and events on the page…” (Whitehurst & Lonigan, 2001, p. 23). A typical question may be “What is this?” In addition, questions asked by an adult to 4-5 year olds revolve around making connections with text and the child’s experiences. For example, “Have you ever seen a duck swimming?” (Whitehurst & Lonigan, 2001, p. 23).

Numerous articles credit the use of read-alouds as a teaching strategy that improves student performance and student engagement. For example, read-alouds are
highly recommended to teachers of English Language Learners (ELL’s) as a way to improve vocabulary. A study by Freeman and Freeman (2000) concluded that group vocabulary scores improved 40 percent when teachers read stories aloud to students three times a day for one week. The read-alouds were conducted by trained teachers who utilized reading techniques like pointing to pictures, gesturing, and paraphrasing.

Informational and narrative texts have also been utilized in read-alouds to meet instructional objectives pertaining to emergent literacy, oral experiences, vocabulary, listening, and reading comprehension of English Language Learners (Hickman, Pollared-Durodola & Vaughn, 2004). Collins (2005) reported on the impact of read-alouds emphasizing certain strategies that improved the vocabulary of English Language Learners. The study of 4-5 year-olds investigated the effects of storybook reading on vocabulary growth. Another focus of the study was to determine the effects of repeated readings with explanations of key vocabulary words. The experimental group listened to two stories three times a week for three weeks. A standardized method of delivering the read-aloud employed ample scaffolding like focusing on illustrations, brief definitions, utilizing synonyms, gestures and using the targeted vocabulary words in another context (Collins, 2005, p. 407). The control group also heard two stories three times a week for three weeks. However, no scaffolding was employed during the delivery of the read-alouds. The results indicated that significant improvement was evident in vocabulary acquisition. In addition, the study advanced the understanding of vocabulary acquisition of ESL preschool children. The researcher found that students who had higher L2 (second language) receptive scores showed greater improvement over the students
whose L2 receptive scores were low. The implications for instruction offered by the researcher indicated that explaining targeted vocabulary during read-alouds is beneficial to all L-2 levels of second language learners.

Elley (1989) found that vocabulary explanation to children during read-alouds versus no vocabulary explanation yielded vocabulary acquisition in two studies. However, the first study employed no teacher explanations and yielded 15 percent gains, whereas, the second study which employed teacher vocabulary explanations yielded 40 percent gains. Although the difference in gains between the two studies is significant, the findings indicated that the impact of read-alouds was notable.

Besides improving vocabulary, read-alouds help children improve comprehension and decoding skills (Allen, 2000; Morrow & Gambrell, 2000; Anderson et al., 1985; McKeown & Beck, 2006). In addition, Howe (2000) found that when reading skills were taught to 20 fourth graders through listening activities while reading aloud to them, reading levels and reading comprehension improved.

Studies have also shown that the interactive behavior of children during read-alouds helps to enhance the quality of their reading experiences (Morrow & Gambrell, 2000; Durkin, 1993; Martinez & Roser, 1995; Purves, 1988; Green & Harker, 1973; Rosenblatt, 1965, 1985, 1994; Madura, 1995). In addition, engaging students in talk before and especially after the read-aloud can be beneficial since children can add to their world experiences vicariously. Almost effortlessly, as children talk about the story, vocabulary from the text can be used and this experience helps the student construct a deeper understanding of the story (Hansen, 2004). In addition, Adams (1990) reported
that verbal expression is improved when read-alouds are interactive with open-ended solicitations. That is, “…[T]he group contributes to the creation of the individual, just as the individual contributes to the creation of the group” (Kelly & Green, 1998, p.154). However, Wells (1995) explains that when the teacher is in complete control of the interactions with an initiation-reply-evaluation (I-R-E) pattern, student interaction is limited since the natural conversation patterns are hindered.

Ganske, Monroe, and Strickland (2003) conducted an informal survey asking 191 teachers in the United States to list three questions they considered most important to help them work with struggling readers. After citing the questions, the researchers listed research-based recommendations for each of the concerns. The question that teachers found most pressing when dealing with struggling readers was what to do with students lacking motivation. Teachers reported that years of continuous failure resulted in apathy, negativism, and anxiety in students when dealing with reading activities. The researchers recommended regularly scheduled read-alouds as a way to utilize students’ interests, create print-rich environments and then entice students to self-select books to read.

In a study to determine what lies behind poor test scores, Valencia and Buly (2004) indicated what educators can do to help students who fail state reading assessments. After identifying 108 fourth graders who had failed their state reading assessment, Valencia and Buly administered a series of diagnostic tests to identify the specific needs of the students. The students fell into six clusters: word callers, struggling word callers, word stumblers, slow comprehension, slow word callers, and
disabled readers. The researchers profiled each cluster by describing their areas of need, then provided recommendations based on researched best practices with struggling readers. Interestingly, for each student cluster profiled, read-alouds were among the teaching practices suggested as a scaffolding technique to help students acquire grade level vocabulary, ideas, and concepts.

Another study cited demographic characteristics that affected phonemic awareness and concepts of print development of Kindergarteners. Nichols, Rupley, Rickelman, and Algozzine (2004) found that low socioeconomic status children and Latino children did not develop phonemic awareness and concepts of print at the end of Kindergarten as cited in the National Reading Panel’s Report (2000), although significant gains were made from pre-test to post-test. The teacher participants were provided with four professional development seminars focusing on: sound matching, word family activities, word making, and read-alouds. All seminars focused on developing phonemic awareness, since the school district had identified the need for phonemic awareness instruction, and read-alouds were emphasized as a way to support phonemic awareness instruction.

While the literature predominantly describes studies of read-alouds in American classrooms, experimental studies conducted in Israel have also indicated that reading aloud to Kindergarteners who typically listen to their local dialect benefited from read-alouds (Strickland & Morrow, 1990). Initially, teachers were apprehensive because they believed that five year olds could not follow stories in Arab, since traditionally, teachers would just utilize story telling strategies. The teachers read aloud to children for 15 to
20 minutes daily for five months. It was concluded that the students who were read to outperformed their peers in the control group in listening comprehension, language usage, and vocabulary. In addition, teachers noted that the students in the experimental group expressed themselves much better.

Read-alouds can also be used to advance the level of awareness about learning disabilities and help students become empathetic (Prater, Dyches, and Johnstun, 2006). Although only 90 books on the subject of learning disabilities were identified as having been written within the past one hundred years, no material was located that would actually teach children about learning disabilities. Since characters and situations describing learning disabilities are presented in the books, the researchers suggest that children could learn to empathize with their counterparts who were learning disabled through the books. Prater, Dyches, and Johnstun (2006) indicated that such materials could not only promote awareness about learning disabilities, but they can also provide students with modeling of appropriate reading behavior while exposing students to vocabulary and sentence patterns they may not yet be able to read.

Factors Affecting Read-Alouds

Researchers have written about effective techniques teachers can use to introduce storybooks to children (Clay, 1991). While Clay outlines benefits of read-alouds, she also promotes the use of book introductions as a scaffolding technique. She contends that rich book introductions promote interaction, accessibility to different texts, and allow for children to link the topic to prior knowledge. In addition, book introductions reinforce correct answers while coaching children to answer correctly and survey
students to see what they already know about the topic of the book. They also serve as excellent strategies to present new knowledge. When an introduction is effective, the teacher can readily see through student responses whether children are following along and understanding.

Smolkin and Donovan (2000) report that interactive information book read-alouds can be effective when: (a) teachers help students establish links between portions of the text by using scaffolding techniques; (b) teachers model to students summarization techniques; (c) teachers help students become aware of text structure; (d) teachers assist students to establish prior knowledge; and (e) teachers model comprehension techniques like rereading, rephrasing, and summarizing through the use of think-alouds.

Researchers have determined what factors may affect read-alouds negatively. In a study of read-alouds of a multi-ethnic primary grade classroom, Copenhaver and Carpenter (2001) describe how a highly structured literary program may reduce and/or eliminate the opportunities for students to engage in interaction because of rushed read-aloud practices of a teacher whose school did not value read-alouds. It was also noted that the teacher relied heavily on an Initiation-Response-Evaluation (I-R-E) pattern; therefore, eliciting mostly efferent-type questions. The teacher was surprised to learn that her practices were marginalizing the students whose answers did not conform to her expectations. Zarillo and Cox (1992) suggest that teachers often revert to the efferent stance when read-aloud time is limited.
Another factor that may negatively affect read-aloud effectiveness besides limited read-aloud time is the lack of read-aloud strategies and awareness of what constitutes an effective read-aloud. Warren and Fitzgerald (1997) assert that reading aloud to children doesn’t always guarantee reading skills growth. Furthermore, Hoffman, Roser, and Farest (1988) found that some teachers use few read-aloud strategies when reading aloud to students. However, when strategies were used, teachers appeared to increase their read-aloud time from 10 minutes to 23 minutes and student engagement was increased (Hoffman, Roser, & Farest, 1988). Read-alouds can also be interactive as teacher and student(s) actively engage in dialogue about the text, though the teacher is the one reading the text to the students.

According to Fisher, Flood, Lapp, and Frey (2004), there are seven important components of effective interactive read-alouds. The seven components noted by the researchers are: (a) text selection; (b) preview and practice; (c) clear purpose; (d) modeling fluent reading; (e) animation and expression; (f) discussing the text; and (g) independent reading and writing activities after the read-aloud. When observing a sample of 120 teachers, the researchers found that teachers were fairly consistent in text selection, showed animation and expression while reading, and established a purpose for reading. However, the observation data also indicated that teachers were not consistent in previewing and practicing the books, modeling fluency, and providing post reading literacy activities. The researchers asserted that in order to augment the read-aloud experience for students, teachers must become good orators and practice reading the book orally.
Although the value of read-alouds has been well documented, studies have also indicated that “just” reading to children may not contribute to improved comprehension (Hoffman, Roser, and Farest, 1988). Similarly, research has also indicated that in order for read-alouds to be effective, certain strategies should be present (Fisher, Flood, Lapp, and Frey, 2004). Furthermore, the research on read-alouds appears to document the extensive use of the efferent stance; therefore, teacher studies that describe the extent to which teachers utilize the aesthetic stance during read-alouds appear to be limited.

**Teacher-Student Behavior and Read-Alouds**

Read-aloud research has also been conducted to determine student behaviors during read-alouds. Beck and McKeown (2001) recognized the importance of read-alouds, but set out to explore the kinds of text and talk that make read-alouds effective in developing children’s language and comprehension skills. After observing Kindergarten and first grade teachers during read-alouds, the research team observed that children tended to respond based on the pictures they saw and didn’t necessarily respond to the question. In addition, the children observed tended to rely on prior knowledge to answer questions. Two types of teacher-student interactions were prevalent. One type of teacher talk called for students to clarify part of the text or a vocabulary word. The other talk pattern was based on simple details based on the text, which resulted in one to two word answers that were straight from the text. To address what they had observed, the authors developed a read-aloud model called Text Talk in order to make read-alouds more engaging (McKeown & Beck, 2006). Instead of showing children pictures first or during a read-aloud, the teachers waited until after the read-aloud and asked children to
listen to the text and question closely before answering. Teacher talk focused on children’s language development by asking open-ended questions. Explicit teaching and high levels of interaction resulted in student responses that were more focused and related to the text. Teachers learned to scaffold questions and redirect students when answers were too simplistic by paying attention to the types of questions students asked. In this study, it appears that when teachers recognized that read-alouds could be more effective, they were likely to pay closer attention to the types of questions they asked. This study had important findings that reinforce the notion that read-alouds can be an integral part of a reading program, since it appears that there was a focus on constructing meaning from text, using pictures and text to build vocabulary and make connections based on prior knowledge. In addition, McKeown & Beck (2006) found that just asking questions about the text is not enough. Instead, the teacher has to be very skillful in probing the students until they make connections while they articulate their in-depth understanding of the text.

When analyzing the “talk” children used when six initially unfamiliar texts were read three times each, Martinez and Roser (1985) found similarities in both the home and the preschool children’s talk. Four categories emerged and were used to describe the changes in their talk during read-alouds. The first category indicated that children tended to talk more when the story was familiar. That is, it appeared that when children listened to a story for the first time, they were quiet and chose not to discuss it. As the story was read repeatedly, the children became more vocal. The second category involved the changes in form the “talk” took when the story became familiar. The child
at home asked more questions when the story was not familiar and made more comments with a familiar story. Although the researchers were not able to determine whether the students in the preschool asked more questions with unfamiliar texts, they did make more comments with familiar texts. The third category described the change in “talk” as the story became familiar. Both groups, the child at home and the children in preschool, showed a shift in focus as the stories became familiar. Although neither group showed a single pattern, the focus “in the school setting …[was] more about story language, events, settings, and titles as the stories became familiar. The child at home tended to talk more about details, events, and story language when the stories were familiar” (Martinez & Roser, 1985, pp. 785-786). The fourth category addressed increased depth of understanding. Increased familiarity of the story appeared to prompt focus on different portions of the story. In general, the researchers concluded that repeated readings offered the children ample opportunities to further clarify and understand as they made connections with previous knowledge.

Dickinson and Smith (1994) built on what is known about the benefits of read-alouds at home and in preschool. The focus of the 25 classrooms represented in this longitudinal study was to answer two questions. The first question involved teacher-child interaction patterns, and the second question involved sustained effects of teacher read-aloud style on literacy development within the course of twelve months. Utilizing the sociocognitive conceptual framework, teacher-student talk was categorized into three concepts. The first category involved identifying difficult kinds of thinking processes, such as analysis, inferences, and evaluation. The second category involved talk at
lower-level cognitive demands, such as labeling and simple recall. The third type of talk involved managing the read-aloud. The results indicated three pronounced relationships: (1) Teachers and students tend to talk at proportionately the same amounts of time and the talk is distributed among before, during, and after read-alouds. (2) Classroom settings which supported more total talk appeared to engage children in more cognitively demanding opportunities. (3) Finally, in classrooms where total talk was encouraged, there appeared to be more managerial types of talk (Dickinson & Smith, 1994, p. 110).

In a recent study that examined student behavior during read-alouds, Pantaleo (2004) explored textual connections made by first graders as they encountered read-aloud opportunities in small group and whole group read-aloud settings. Transcriptions of the read-aloud sessions and observational field notes showed that students made inter-textual connections as they interacted with each other about the book. As read-aloud sessions and discussions continued, the students showed that they could contribute as individuals and could identify with the group while adapting and changing as they exchanged ideas. In addition, the adult-student exchanges provided a forum for scaffolding, interpreting, and synthesizing new ideas and connections. While the dialogues occurred, teachers allowed students to make different connections and experience aesthetics. Thus, researchers concluded that listening to stories and talking about stories can change the learning community within the classroom.

Even customized texts have value when reading aloud to children. In an attempt to facilitate early literacy to Kindergarten children in a dual language program, Project SEEL (Systematic and Engaging Early Literacy Instruction) incorporated the use of
read-alouds utilizing teacher- and student-created text (Culatta et al., 2004a). The project’s rationale emphasized interactive literacy activities to substitute for the more prevalent phonics direct instruction methods commonly used. The outcome data indicated that while high student engagement in creating the text was evident, no difference in phonics skills was noted between the participating group and the non-participants. The researchers pointed out that phonics skills had probably already been developed by the time the two groups were compared. The report suggested that although the quantitative aspect of this project was weak and could not report meaningful skills gains, the high level of engagement of the students was notable (Culatta et al., 2004b).

A recent study (Laman, Smith, & Kander, 2006) described the impact one read-aloud about racial segregation had on the lives of children. A teacher read *Freedom Summer* (Wiles, 2001) to the class. This multilingual/multiage classroom consisted of 23 first through third graders. Although the teacher intended to read the book once, the children were so moved by it that their questions became research fodder for a multiyear inquiry. Using a critical inquiry approach which encouraged active engagement of learners, the students became absorbed in critical inquiry and self-directed activities which led them to answer a variety of research questions. For example, some students became very interested in topics like the Jim Crow Laws, and then their interest developed into investigating other policies and law-making bodies, such as textbook adoptions, local city council meetings, and even questioning their own failing school rating. One first grade English Language Learner even conducted interviews and
conducted inquiries through book and internet searches to find out how Hispanics were also affected by the Jim Crow Laws. When she presented to the class, she was honest about telling the group that there were some words she didn’t understand.

After seven months, the teacher read the book again to the students. This time the students had a cultural model to work with. The students were instructed to categorize each character as they listened to the read-aloud. Each character was to either fit or break the mold of a cultural model of categories, such as ally, bystander, target, or perpetrator. As the researchers coded the small and large group conversations, they found that given the opportunity, children asked very insightful questions about books read to them and participated in discussions such as differences and inequities in gender roles and race. In addition, the researchers found that students who were not as vocal in a large group obtained an opportunity in small groups to speak up on issues they were not likely to discuss in large groups. Furthermore, the researchers observed that students also read aloud to each other as they researched their own topics. Perhaps one of the significant findings in this qualitative study was the way the students in the class evolved in their own views and understanding of critical issues as they actively investigated questions they came up with during group discussions of the issues presented in the read-aloud.

Repeated read-alouds can also be utilized by teachers to model to children that rereading is a part of becoming literate. Yaden (1988) reported that besides helping Kindergarteners develop good literacy habits, rereading text to children may help students develop a deeper understanding of the text by allowing them to make sense of
text a little at a time, while developing the ability to ask higher order questions as a
deep understanding of the text evolved. Yaden found that a five year old who was
read the same story six times over the course of two weeks asked questions that appeared
to be predominantly about illustrations (56% of the questions) rather than vocabulary
(37%). However, higher order questions occurred after the fourth reading. Yaden
suggested that perhaps one reason the five year old asked the most questions about
certain sections reflected the way the child understood the story. Furthermore, the
questions may have been about the child’s favorite sections. In addition, when the child
appeared to remain silent while listening, the observer suggested that the reason may
have been because the child was deeply involved in the story (Yaden, 1988, p. 559).

Recently, Sipe & McGuire (2006) found that read-alouds can also be resisted by children. When doing so, children can express themselves as they interpret and
comprehend the opposing element of the read-aloud. Learning opportunities can be
tapped into as children “give voice to their insecurities, anxieties, questions, and
struggles” (Sipe & McGuire, 2006, p. 6). The researchers analyzed 74 transcripts of
children in Kindergarten through second grade. The “talk” during interactive story book
read-alouds was categorized into six types of resistance. The children’s talk appeared to
be intertextual, preferential or categorical, reality testing, engaged or kinesthetic,
exclusionary, and/or literary critical. The first category in the typology developed by the
researchers was intertextual. Intertextual resistance results when students hear a read-
aloud of a new version of a familiar story. The first version of a story appears to be the
version the students use to judge subsequent versions or variants of the story, such as the
Cinderella stories. Upon listening to a variant of a Cinderella story, such as *Mufaro’s Beautiful Daughters* (Steptoe, 1987), students may question certain story elements, such as the setting. Preferential or categorical resistance is seen when students do not want to read a book based on the cover. Sometimes students may consider the story to be too scary or students may have decided that they do not like certain genres or books. Reality testing occurs when children, especially after Kindergarten, question whether something in the book is not real. Comments made by children indicate that students use their own experiences and worldview to determine what’s real. The researchers observed a fourth category which they called engaged or kinesthetic resistance. This type of resistance was observed when children reacted to a story that was too painful and alarming. Although the students may understand and accept the realities of life, they reject the story based on the emotional strain brought about by the evocation they experienced. Exclusionary resistance is the fifth category in the typology. In this category, children demonstrated objection to the story because they felt left out and could not or would not relate to the story character(s). They may have objected to the way a character was portrayed because of racial or ethnic bias. Lastly, literary critical analysis consisted of objection to an element of the story, often blaming the author or a part of the story may not have made sense or there was a disagreement with the author’s message.

Observing and studying resistance to any element of stories is significant because doing so appears to give another perspective to the understanding of the types of behavior children can display during read-alouds.
Policy and Reading Instruction

Policy has influenced reading instruction to the point that some teachers have adopted practices with a heavy emphasis on skills-based instruction, while de-emphasizing holistic practices that include read-alouds. To further illustrate the effects of policy on reading instruction, it is necessary to draw on past and present policies which promote high standards for literacy performance (Raphael & Au, 2005, p. 206).

The First Grade studies conducted in the 1960’s were intended to determine best practices for reading instruction. They were primarily driven by the notion that: (1) reading involved word recognition and comprehension; (2) word recognition is key for comprehension; and (3) the level of complexity of the orthographic system is an obstacle for reading acquisition (Dressman, 1999, p. 258). Although the 1990s brought about attention to the social, cultural, and political aspects of reading instruction, it was established that an emphasis on phonemic awareness plays a critical role in determining whether or not students acquire literary skills. While attempts have been made by researchers to help practitioners adopt teaching strategies that address reading through a balanced reading approach (skills-based and literature-based), it appears that the First Grade studies have been perceived as the conceptual grounding for policy on the teaching of reading (Dressman, 1999).

The National Commission on Excellence in Education published “A Nation at Risk” (1983). This report was the catalyst from which reforms in education originated. One of the expectations in the report indicates that educational reform should address excellence for all. The report also called for requiring students to demonstrate mastery
through testing before a diploma is granted. Similarly, the No Child Left Behind Act (USDE, 2001) mandates that every state must set standards and measure student progress yearly in math and reading. As a result, state-mandated testing has brought about an accountability movement. An example of the No Child Left Behind Act mandates can be observed in Texas. The state of Texas has initiated the Student Success Initiative (TEA, 2002), an accountability system that utilizes tests to determine students’ promotion and eligibility for graduation. This plan, which was first implemented in 2002-2003, required third graders to pass a reading test for promotion. While many arguments can be made about high stakes testing, one major concern is the impact this accountability mandate has on literacy instruction, even though it is designed to improve academic achievement (Valencia & Villarreal, 2003). When measurement-driven instruction is adopted, teaching to the test narrows the scope of the curriculum to the point that teachers will teach students only the skills needed to meet the standards assessed (Valencia & Villarreal, 2003, p. 617). Consequently, a skills-based classroom can “displace[s] quality literacy instruction in favor of test preparation—the repetitive practice of developing test-taking skills and using practice tests with items from previous versions of the test” (Valencia & Villarreal, 2003, p. 617).

Assessment policies set forth in Texas and California ignore the socio-cultural view of reading which emphasizes the notion that reading is a social act, and that the classroom setting greatly affects reading performance. On the contrary, these policies appear to rely heavily on the premise that phonemic awareness and phonics instruction can only be taught to children who are phonemically/phonologically aware. These
policies have been criticized even though they are based on empirical studies referred to in Stanovich’s (1986) Matthew Effect and Marilyn Adam’s, Beginning to Read: Thinking and Learning About Print (1990). The Matthew Effect describes the struggling reader’s cycle of failure. Stanovich (1986) contends that the cycle of reading failure begins when struggling beginning readers are not given assistance during the early stages of reading. Lack of reading practice then leads to poor vocabulary; therefore, students struggle with comprehension because of limited wide reading, a practice that could be facilitated through read-alouds.

Another publication that has influenced policy has been Beginning to Read: Thinking and Learning About Print (Adams, 1990). The book’s intent was to report on the last thirty years of reading research. This comprehensive text outlines important findings of factors that affect early literacy and builds on the literacy acquisition model described by Stanovich. The emphasis on early reading teaching practices is further justified through the connectionist theory which postulates that “knowledge is built upon the elements, pieces, or components of our experiences, but that it consists of learned relations among them” (Adams, 1990, p. 196). What’s overlooked in policy but is emphasized by Adams (1990) is a socio-cultural approach to reading which calls for a learner-centered approach with emphasis on the premise that learning is social and that interaction between teacher and students is critical for student learning.

Adam’s (1990) work addresses research-supported literary practices, and it has implications for reading programs, particularly for the beginning reader. The importance of phonological awareness, phonemic awareness, alphabetic principle, orthographic
principles, and oral word reading fluency are stressed, but a strong case for reading for meaning is also made. The development of these components is particularly important for struggling readers and children of low socio-economic background. Although it appears that legislation for curriculum policy utilizes these research-supported implications and best practices to design staff development and testing programs as cited in the No Child Left Behind Act (USDE, 2001), reading instruction and reading assessments do not reflect what is known about best practices in the teaching and assessing of reading. As a result, national and state initiatives have influenced reading instruction in classrooms which typically focus on teacher-directed, skills-based literacy instruction and may leave out social-cultural activities such as interactive read-alouds (Dressman, 1999).

The 2002 National Assessment of Educational Progress (NAEP) indicated that the overall Hispanic and Black 12th grade students score at about the same as average eighth grade Asian/Pacific or White students. A review of the research for causal factors indicated that very little instruction on higher level thinking is afforded to students of diverse backgrounds. Diverse background students differ in the characteristics of mainstream students in: ethnicity, socioeconomic status and/or primary language (Raphael & Au, 2005). In addition, teaching practices and low expectations encompass low level skills instruction which in turn provide a poor fit of instructional practices because of the erroneous philosophy that minorities and low socio-economic students can not function at higher levels of instruction (Raphael & Au, 2005).
In the 2009 NAEP, students are going to be required to successfully answer questions, 70 percent to 80 percent of which call for the integration, interpretation, critiquing, and evaluation of texts read independently (Raphael & Au, 2005, pp. 206-207). Up to one-third of the questions are lower level questions and written response to questions will take a major role (Raphael & Au, 2005). The text examinations and reader-text connections are the types of questions students will be encountering and may be addressed through reader response and aesthetic-based questions facilitated through read-alouds.

The adjustments in instructional practices needed in order for students to perform at the 2009 NAEP standards contradict what is presently occurring in the classroom (Raphael & Au, 2005). The research on the benefits of read-alouds and the types of questions teachers tend to ask during reading instruction (see Teacher Questioning Techniques and Stance in Chapter II) suggests that there is a conflict between what we know about effective literacy teaching practices which include read-alouds and the teaching practices teachers appear to adopt due to testing mandates.

**The Link Between Listening Comprehension and Reading Comprehension**

In a synthesis and discussion of the definition of listening, Hirsh (1986) compiled and reviewed definitions produced by different scholars that date from the 1920s. Hirsh then grouped the scholars’ definitions into three different families of scholars. One group of scholars views listening as a linear process that connects listening to a series of events all dependent on the previous one. The second family stems from a process paradigm. Process definitions involve very technical explanations beginning with the sound
(stimuli) that first enters the human ear. These sounds are converted into symbols which are connected to past experiences and are then interpreted, integrated, and remembered by the brain (Hirsh, 1986, p. 8). The third family of scholars presents a view of listening which describes a combination of complex activities that are connected and involve physiological, neurological, and psychological factors. Hirsch completed the synthesis with a list of “ten clearly different components of [listening] activity” (Hirsh, 1986, p.9). They are:

(a) a neurological aspect or hearing, (b) interpretation of the sound stimuli, (c) understanding the sound stimuli, (d) assigning meaning to the sound stimuli, (e) acting or reacting to the sound stimuli, (f) selectively receiving some of the sound stimuli and ignoring others, (g) remembering what was communicated, (h) purposefully attending to the sound stimuli, (i) analyzing the information presented, and (j) utilizing past experiences as a filter of the communicated information (Hirsh, 1986, pp. 9-10).

In general terms, listening has been described as utilizing a mixture of both cognitive processes and behavioral responses. In more specific terms related to reading comprehension, listening refers to attending to what is heard, understood, remembered, interpreted, and evaluated (Bostrom, 1996). In addition, Ronald and Roskelley (cited in Hyslop & Tone, 1988) “define listening as an active process requiring…prediction, hypothesizing, checking, revising, and generalizing…” (p. 2). For the purpose of this study, listening comprehension is the same as Snow and Sweet (2003) propose for reading comprehension. That is, “…reading [listening] comprehension [is]…the process of simultaneously extracting and constructing meaning” (Snow & Sweet, 2003, p. 1).
The link between listening comprehension and reading comprehension has been established (Lundsteen, 1979; Pearson & Fielding, 1983; Sticht, 1984; Sticht & James, 1984; Juel & Leavell, 2001; Hyslop & Tone, 1988; Howe, 2000). “Listening and reading are somewhat analogous processes, psychologically speaking, since each involves the act of perception” (Many, 1965, p. 110). Listening and reading skills are very similar, and the “cross modal transferability of skills” (Howe, 2000, p.3) supports the notions that: (a) listener and reader receive the same message; (b) reading is the representation of words that are heard; (c) reading comprehension skills are taught through listening skills; (d) there’s a positive correlation between reading ability and listening ability; (e) and the same cognitive skills needed to construct meaning while listening are the same as those required for reading (Howe, 2000, p. 3). Studies have indicated that among the antecedents of learning to read are phonological awareness, the alphabetic principle, and listening comprehension. Furthermore studies indicate that listening comprehension affects reading performance in the first grade (Juel & Leavell, 2001; Kinnunen, Vauras, & Niemi, 1998). Abelleira (cited in Hyslop & Tone, 1988) asserts that listening comprehension should be taught by using a model that focuses on the auditory system functions to determine decoding, following verbal instruction, and reading comprehension skills like, inference, details, sequence, main idea, fact and opinion, and mood (p. 3).

Sticht and James (1984) offer an explanation of processes involved when a student processes language through listening. The term auding is used “to refer to the processes of listening to language and processing it for comprehension” (p. 293). Auding
has implications for the teaching of oral language and reading. Chall (1967) indicated that once a child recognizes a word through listening and uses it through speaking, decoding the printed word would not appear to be too difficult. Goodman and Goodman (1979) explain that competence in oral and written language can help a student use both systems and draw from either one when necessary. Stemming from code, meaning and psycholinguistics perspectives of the reading process, there are three assumptions shared by reading authorities: (a) reading potential—oral language develops first and at higher levels before written language; (b) oral and written language share similar vocabulary and grammar and therefore transfer; and (c) oral language plays an important role for beginning readers (Sticht & James, 1984, p.294). In addition, the concepts of reading potential, transfer and closing the auding and reading gap refer to the reader’s ability to recognize in written form what is already known in spoken form.

Palinscar and Brown (1984) experimented with the use of listening comprehension strategies to enhance reading comprehension. This reading comprehension training included eleven teachers with two groups of six students. The control group consisted of 66 students. Treatment group teachers trained the experimental group during 20 sessions to use four reading comprehension strategies: questioning, clarifying, summarizing, and predicting using the reciprocal teaching method. The results indicated that although the experimental group showed more progress than the control group, the test scores were not very strong. Only 53 percent of the students reached the 70 percent criterion. This study showed promise, but Brown and Palinscar acknowledged that perhaps 20 lessons were not enough.
In order to advance Palinscar and Brown’s (1984) study, researchers (Aarnoutse & Brand-Gruwel, 1997; Aarnouste, Van Bos, and Brand-Gruwel, 1998) attempted to foster reading comprehension through listening strategy instruction. Their study aimed at utilizing reciprocal teaching to teach comprehension strategies through listening only. One aim of this study was to determine whether listening comprehension strategies would transfer to reading comprehension. The researchers found that 9 to 11 year old poor readers who were trained in listening strategy instruction that focused on clarifying, summarizing, predicting, and questioning improved their listening and reading ability, but the results were short-lived. It was noted that reading performance was improved in posttest comparisons even three months after the program ended. Hence, a discussion was offered to explain that the possible reason for the results may have been that the intervention period was not long enough.

Hunsaker (1990) noted that we acquire about 80 percent of our knowledge through listening. Since it has been established that listening skills are prerequisite for literacy development, it stands to reason that listening should be emphasized in the classroom. However, for the last fifty years listening has been neglected and some teachers do not teach or assess it. Furthermore, as listening comprehension and its connection to reading comprehension continues to be studied, evidence suggests that certain reading skills, such as phonological awareness, are positively correlated to comprehension. The implications for reading instruction, especially the development of listening comprehension in children, including students who are learning disabled (Swain, Friehe, and Harrington, 2004) suggest that listening comprehension should be
emphasized. Researchers and teachers have indicated that even now that we know that children who are developmentally delayed, who did not have appropriate language models to listen to, have a learning disability, or are transitioning from their native language into English, can be taught through listening. However, children who have difficulties listening have a difficult time in traditional classrooms where listening is required extensively, but listening approaches are not taught (Swain, Frihe, & Harrington, 2004).

Although the “simple view of reading” (Gough & Tunmer, 1986) explains the listening/reading connection which begins when a listener can segment and blend sounds (phonological skills) that he/she will later decode and blend in order to read. The benefits of this connection is what leads a listener to develop a broad vocabulary and knowledge necessary to draw from when attempting to comprehend what is read. This accomplishment can be further enhanced with read-alouds. During read-alouds, listeners are expected to employ comprehension skills to meaningfully address an array of cognitive demands (Swain, Frihe, & Harrington, 2004).

Language processes are critical to listening comprehension, including the dialogue during interactive read-alouds. Research on language development and its relationship to reading suggests that children of preschool and early elementary ages create theories and hypotheses and constantly test them in order to make sense of the world based on the adult models around them (Ruddell & Ruddell, 1994). The research on phonological, morphological, syntactical and lexical development indicates that children of pre-school age and early elementary grades have developed extensive
knowledge and continue to progress swiftly in their acquisition of language. In addition, children’s conceptual development is evident when they can label objects with words and connect several concepts to certain contexts. Words become tools for communication (Ruddell & Ruddell, 1994, p. 86). Another important aspect of children’s language development during the pre-school and early elementary years is the development of language behaviors. Ruddell and Ruddell (1994) indicate that children use a variety of verbal communication modes throughout the day. Language registers allow for formal, informal and literary exchange depending on the contextual setting. Children become more proficient in moving in and out of these language registers to adjust to different communication demands they encounter in school. For students with a language-rich background, the ability to acquire a variety of language functions is more prominent than for children of homes with limited language use (Ruddell & Ruddell, 1994, p. 88). Interactive read-alouds may facilitate and accelerate this process.

The research on the connection between listening comprehension and reading comprehension is significant to this study because this relationship helps explain the benefits of using read-alouds with students of all cognitive and linguistic levels to teach comprehension skills, especially in the primary grades (Snow, Burns, & Griffin, 1998; Dougherty-Stahl, 2004). Furthermore, verbal interactions during read-alouds that extend along an efferent and aesthetic continuum can influence a student’s ability to experience the text in a more meaningful fashion, therefore enabling the student to reach evocation (Rosenblatt, 1978, 1994).
Reading Process Models and Listening Comprehension

Literacy models have been developed to help explain graphically and in simple terms the components of the reading process (Ruddell & Unrau, 2004). Through models, a reader’s cognitive processes that lead to comprehension are represented metaphorically as they occur simultaneously and as they interact. Researchers employ available theories and knowledge base to: (a) construct models that may assist in reaching a deeper understanding of the complexity of the reading process; (b) assist practitioners to determine where in the reading process a struggling reader may be in need of assistance; and (c) assist teachers in making decisions about appropriate interventions for struggling readers (Ruddell & Unrau, 2004, pp. 1115-1116). Although some models are more elaborate and incorporate several components of the reading process, other models may only emphasize one component. Yet, practitioners can utilize any one component or all components of a model to gain information. The following models are discussed to further advance an understanding of the cognitive processes which may be employed within the context of a read-aloud setting.

The LaBerge-Samuels Model of Automatic Information Processing

The LaBerge-Samuels Model of Automatic Information Processing (Samuels, 2004) is significant to this study because it can help explain what may happen when a reader/listener develops a skill to the level of automaticity. The theory of automaticity (Samuels, 2004) is popular because it helps to explain why comprehension is facilitated by fluency. Since its inception, Samuels used this theoretical framework to support research on how repeated readings can help readers become automatic. Samuels found
that if readers practiced reading the same text repeatedly, fluency and comprehension improved. Given what we know about the transferability of listening comprehension skills, this model seems to have particular exploratory significance for read-alouds in the classroom, if listening skills can be practiced to the point of automaticity.

This information-processing model has been tested and revised numerous times. The system identifies components of information processing involved from print to meaning. Attention plays a critical role in the grounding of this model. External attention can be described as factors which keep the student from paying attention when sensory receptors such as the eyes and ears are affected; thus, it is readily noticeable when the student is not paying attention. Internal factors have to do with the student’s ability to be selective, alert, and capable of receiving and processing information. When a student is attending to the book and is not distracted by other sensory stimuli, then the student is said to be internally engaged. Similarly, the concept of attention can be applied to what happens when students listen attentively and meaningfully respond to a read-aloud. Automaticity may be accomplished during read-alouds if the student were to attend to the information being heard, selectively focus on the stimuli needed to understand what is being read, and successfully process the information being heard.

**Sociocognitive Interactive Model of Reading**

Ruddell and Unrau’s (2004) sociocognitive interactive model of reading is significant to this study because it places specific emphasis on “...the importance of the social context of the classroom and the influence of the teacher on the reading process...[and is associated with] research on teaching effectiveness, classroom
observations, and direct teaching of students at a variety of levels” (Ruddell & Unrau, 2004, p. 1463). The three major components of this model are the reader, affective conditions, and cognitive conditions.

The reader’s meaning-construction process involves factors that interact and are integrated simultaneously. Pre-existing cognitive and affective factors influence comprehension and meaning construction. The affective conditions that may relate to read-alouds are motivation to listen, attitude towards listening, reader’s [listener’s] stance, and socio-cultural values and beliefs (Ruddell & Unrau, 2004, p. 1467). Motivation can be affected by the reader’s [listener’s] intentions to develop the self in the form of self- knowledge, achievement goals, and stance. A reader’s [listener’s] intent to remain focused is also affected by his/her emotional state and instructional setting. The alignment of student and teacher intent, the match between a student’s socio-cultural values and the beliefs a student acquires through his/her family, peers, and community are important for reading achievement (Ruddell & Unrau, 2004, p. 1470).

Similarly, cognitive conditions are important for reading success. Declarative knowledge refers to the student’s ability to identify factual information and display simple understanding of text. Procedural knowledge consists of the student’s ability to use and apply strategies to understand information in depth. Conditional knowledge is the student’s ability to recognize the social context in which the reading [listening] is taking place and therefore acts accordingly (Ruddell & Unrau, 2004, p. 1474).

Cognitive conditions that may affect read-alouds involve declarative, procedural and conditional knowledge, knowledge of language, word analysis, metacognitive
strategies, knowledge of classroom and social interactions, and personal/world knowledge. “Knowledge use and control are at the heart of [the] knowledge-construction process…” (Ruddell & Unrau, 2004, p. 1489).

According to the model, the role of the teacher is not to impart knowledge, but to assist the student in discovering prior knowledge that can be accessed to make connections with new information. Teachers who are influential “in the academic and personal lives of students” (Ruddell & Unrau, 2004, p. 1489) appear to have certain characteristics. Some characteristics that may pertain to read-aloud experiences are: effective planning and monitoring. Influential teachers have extensive knowledge of their content and know how to teach reading and literacy processes. They also know how to engage their students and provide them with ample opportunities for problem solving. In addition, these teachers understand that the learning experience is affected by their ability to exude a caring and genuine interest in their students. They also vary their instructional stance depending on the goals of the lesson. For example, an efferent stance may be utilized to teach concepts in the content areas; however, these teachers may use the aesthetic stance and reader response strategies when teaching literature to help students share their images and feelings evoked by the text. In addition, influential teachers know how to help students look at text from a variety of perspectives, including thinking like the writer (Ruddell & Unrau, 2004).

The learning environment is crucial in motivating students to take part in the lesson which often includes the text. A socio-cultural approach to learning involves the text, the reader, the teacher, and the classroom community. “The learning environment
influences not only the reader’s decisions to engage with the text, but also the way in which the text is engaged” (Ruddell & Unrau, 2004, p. 1498). The meaning-negotiation process involves the interaction of meaning and understanding among the reader, the teacher, the class, and the text. The interaction occurs with the teacher’s intentions focusing on the lesson goals and the students’ understanding of the socio-cultural rules of taking turns and answering questions. This model also focuses on the notion that the meaning is not located in the text only, instead meaning is also brought about by the meaning-construction process which involves the reader, the text, the teacher and the classroom. This view of meaning construction is particularly important to this study, since interactive read-alouds may facilitate meaning, interpretation, evaluation, and appreciation of text. Thus, the role the teacher plays in the socio-cognitive interactive view of reading is critical if cognitive and affective conditions are to be met during read-alouds (Ruddell & Unrau, 2004).

**Dual Coding Theory: A Model of Reading**

The Dual Coding Theory (Sadoski & Paivio, 2004) depicts a model of reading that may encompass efferent and aesthetic aspects of the reading process. Although the model’s scope includes decoding, comprehension and response, this discussion focuses on the aspect of the model which addresses comprehension and response with a brief explanation of how listening to words during a read-aloud may be processed by the student to create mental images. The heart of this model is that “imagery plays an invaluable role in adding concrete sensory substance to...meaning” (Sadoski & Paivio, 2004, p. 1335).
Sadoski and Paivio (2004) point out three pathways that facilitate information processing: “(1) representational processing, (2) associative processing, and (3) referential processing” (p. 1334). Representational processing activates logogens or imagens upon initial recognition of a stimulus. Associative processing involves auditorily processing what has been identified visually and/or orally. If there is a sense of unfamiliarity with a word, then both the visual and phonological logogens are activated; therefore, more time and attention are required to complete the recognition processes. As readers become more skillful, even whole phrases can be called out instantly. This associative processing does not necessarily mean comprehension took place. However, when heteronyms are involved, a reader may need to use context to call out the word and get meaning, since the printed word may be pronounced differently and have different meanings, like the word “bow.” In addition, readers tend to slow down with graphophonemically irregular words and utilize meaning to assist in word recognition, thus slowing down representational processes.

Representational and associative processing facilitate referential processing. The activation of logogens and imagens by verbal and non-verbal stimuli are critical for reading comprehension. However, imagens are not activated every time logogens are activated, and logogens are not activated every time by imagens. “Some logogens might referentially activate few imagens. Some logogens might activate no imagens at all” (Sadoski & Paivio, 2004, p.1335). This notion helps explain why highly abstract language may produce no or very few imagens.
This model is particularly important to this study because of its implications for listening comprehension given what is known about the transferability of listening comprehension skills and reading comprehension. For example, if a listener can utilize verbal stimuli, phonologically recognize words read aloud, and create imagens, then comprehension can be facilitated. Listening comprehension is positively affected by listening to words that are familiar. If words activate imagens, then imagery is evoked; therefore, listening comprehension can be enhanced.

Once activated logogens spread their activation referentially to one or more imagens in the nonverbal system, associative processing may occur within the system and, in turn, refer back to the verbal system….Furthermore, it [associative processing] supplies inferred information to the interpretation (Sadoski & Paivio, 2004, p. 1335).

The intensity of the imagens could account for not only an efferent understanding of text, but an aesthetic sense as well.

The model addresses two codes in which text is mentally represented. An auditory-motor code can be represented as inner speech. So a reader utilizes inner speech in order to represent text. The other code is through mental imagery. These two (verbal and non-verbal) representations activate associative and referential connections which “form a consistent network that is the basis of meaning, comprehension, and mental models” (Sadoski & Paivio, 2004, 1339). Finally, a deeper more meaningful response is acquired when these connections are vivid with detail to the point of evoking emotions; therefore, adding another dimension to experiencing the text. A response could also take on a more logical position with or without emotion. The Dual-Coding
Theory may serve as mental model which helps explain the thinking processes that may be involved during a read-aloud experience.

**A Transactional Model of Reading**

The paradigm of the New Criticism of the late 1930’s through the 1950’s was challenged by the transactional theory (Rosenblatt, 1965; Church 1997). A shift away from teaching students to derive meaning from text through close analysis was the focus of this new way of teaching and learning. Instead, Rosenblatt contended that the meaning resides in the reader. Although Louise Rosenblatt’s original work was published since 1938, it wasn’t until the 1960’s and early 1970’s that the reader’s role in developing and expressing a personal relationship with the text was acknowledged. While it took Rosenblatt many years to get credit for developing this new theory, it wasn’t until a group of renowned leaders in the field of literature submitted papers to the Colloquium on Reader Response. It was then that the literary community began accepting this new way of teaching literature (Church, 1997).

In 1965, Rosenblatt published *Literature as Exploration* and advanced her transactional theory. Rosenblatt’s explanation follows:

The special meaning, and more particularly, the submerged association that these words and images have for the individual reader will largely determine what the work communicates to *him*. The reader brings to the work personality traits, memories of past events, present needs and preoccupations, a particular mood of the moment, and a particular physical condition. These and many other elements in a never-to-be duplicated combination determine his interfusion with the peculiar contribution of the text (p. 30).
Literature as Exploration (Rosenblatt, 1965) provides suggestions to practitioners on how to utilize aesthetics while teaching reading and literature. Rosenblatt refers to text as a work of art and suggests that teachers should always keep the student’s relationship with the text in mind since the goal should be that literature instruction should provide an active experience instead of a passive experience. Doing so will allow a student to intensify the textual experience through a variety of pathways. One route is through connecting to prior experiences and belief systems. The more the students connect to text, the more emotion and sensual the experience. Therefore, the implications for teachers are that text and activities should be selected to intentionally tap into what is known about aesthetics. The emotional pathway can link students with other students as they are given the opportunity to dialogue about the text. The activation of the imagination is another pathway that can be enhanced through aesthetics. In addition, the mere opportunity to communicate with others about their values represented in the text or the interpretation of the text allows for students to participate and contribute to their classroom as a community. Teachers who are responsive to these pathways can intentionally change the way they teach to affect the learning process which creates an all inclusive dialogue between the text, the reader, and the rest of the students (Connell, 2000; Connell, 2001).

With Rosenblatt’s (1994) The Reader, the Text, the Poem a surge for literature-based reading instruction gave way to a paradigm shift from the belief that meaning resides in the text to student meaning construction facilitated by classroom innovations which incorporated children’s literature in read-alouds emphasizing student choice and
engagement (McGee, 1992). Rosenblatt’s intent was to advance the transactional theory offering an explanation of the efferent and aesthetic continuum of reading classroom approaches to help students appreciate text.

The transactional model stems from the paradigm that describes a shift from the self separate from the world to human perception is reality. That is, “the observer is part of the observation” (Rosenblatt, 2004, p. 1364). Rosenblatt (2004) advanced this paradigm a step further by depicting the transactional view as one process involving the reader, the text, and the experience derived from the reading (listening) episode. Each component is interdependent with the other and together form a transactional relationship. A transactional relationship posits that human beings are part of nature and are continuously in transaction with the environment (Rosenblatt, 2004, p.1365). The transactional model has significant implications for the understanding of the reading process. In addition, this transactional concept helps describe the cognitive, socio-cultural, and aesthetic aspects involved in the reading process with respect to listening comprehension. Furthermore, Rosenblatt asserts that meaning does not reside in the text or in the reader (listener). Instead, she refers to text as a verbal symbol, and claims that the reader (listener) transacts with the text to make meaning. In other words, as the reader brings past experiences to the text, memory helps activate emotion and consciousness (Rosenblatt, 1982). She describes a continuum of a stream of consciousness which extends from an efferent stance on one end and aesthetic stance on the other end. The efferent stance focuses predominantly on extracting meaning from the text. The “selective attention” (Rosenblatt, 1982, p. 1373) depends on what should
be retained from the text. An aesthetic stance focuses on the lived-through experience that is evoked through referents of words which bring about an awareness of emotions, feelings, and sensations called evocation. The influence of the text on the reader can result in emotional, attitudinal and/or intellectual response (Purves & Beach, 1972, p. 35). Aesthetic responses have been described as visualizations of characters, events in the story, talking about favorite parts of a story, and making connections and extensions (Many & Wiseman, 1992, p. 267). Attention can shift from an efferent to an aesthetic stance, and each stance has a variety of meaning-producing aspects. This transaction between reading and thought can occur in both efferent and aesthetic stances and can be derived during and after reading the text.

Rosenblatt (2004) utilized the metaphor of a stream of consciousness to explain the efferent-aesthetic continuum. The first level of meaning was described as the first stream of consciousness. The second stream of consciousness involves reacting to the text. Sometimes the reader shifts attention from responding to the text (evocation) to technical elements of the text and returns to evocation. While in the state of evocation, the reader may respond with varying degrees of interpretation. The simple meaning of the text may then be followed by the need for clarification or interpretation. There is a continuous shift from the first stream of consciousness to the second stream of consciousness as the reader processes the text and moves along the efferent and aesthetic continuum, while trying to make sense of the reading and responding to the text by interpreting it. The efferent-aesthetic continuum can help explain two paradigms of looking at the world—“‘the scientific’ and ‘artistic’” (Rosenblatt, 2004, p. 1374).
The transactional model appears to be applicable to read-alouds. As a student listens to what is being read, the efferent-aesthetic continuum may be utilized. The listener may shift attention from a basic understanding of the text, to responding to the text. When interpreting text, a listener may respond when reaching evocation in a variety of ways, using verbal and/or non-verbal responses.

Probst (1994) suggests that the text must be presented in such a way that students are given opportunities to experience it with their senses as much as possible. Through this encounter with text, students might express thoughts and connections that the author could not have expected. Consequently, an additional perspective about the meaning of the text could bring about another interpretation of the world for students. Probst also contends that the literature program should allow students to use literature as a way to reflect on the human condition. Teachers should not focus exclusively on individual correct/incorrect answers, but should also encourage student collective responses which ensure aesthetic responses; thereby enriching the lives of students by utilizing language and literature to express their views and interpretations. Similarly, Cox and Many (1992) suggest that when teachers utilize a transactional approach, students become “personally, emotionally and intellectually…involved” (p. 28).

Iser’s (1978) description of the interaction between the reader and the text illustrates that the meaning derived by the text is not actually in the text. The reader [listener] also draws from what is not said and fills in the gaps using projection and the imagination, therefore, creates a vivid sense of scenes. The aesthetic experience that is activated from the literary experience in turn utilizes the capacity to tap into the
“potential elements.” In other words, the more the reader [listener] taps into “aesthetically relevant qualities” (Iser, 1978, p. 173), the more robust and profound the actualization of the aesthetic experience.

The various interpretations of the transactional theory described earlier depict the shifting of attention to efferent concerns and aesthetic concerns during the listening comprehension processes. This description of the reading process suggests that a listener may make sense of text during read-alouds and may shift from evocation to response. This description is particularly important to this study because there appears to be a connection between the reader/listener, the text (the listener’s ability to derive meaning) and the poem (the responses evoked by the text as a result of a continued effort by the reader/listener to experience the text). This interaction seems to describe a listener’s thinking processes as he/she processes the read-aloud text.

The Role of Schema Theory in Read-Alouds

Anderson (2004) asserts that readers employ previous knowledge as they engage in text. Besides reading for comprehension, a reader can also engage in text by using previous knowledge during read-alouds. Schema theory postulates that “a reader’s schema or organized knowledge of the world provides much of the basis for comprehending, learning, and remembering the ideas in stories and texts” (Anderson, 2004, p. 594). This organized knowledge is further categorized into units (Rumelhart, 1980). Six hypotheses, some of which rival each other on how schema specifically help in learning and remembering, are presently proposed by researchers: (1) A schema creates “ideational scaffolding for assimilating information” (Anderson, 2004, p. 598).
That is, if the new information fits into an already organized slot, learning is easier. This process is on-going as the reader processes text. (2) A schema can allow a reader to determine what’s important to remember. (3) Inferences can be arrived at because of schema. Since a reader can not adhere to literal messages only, a reader must rely on schema in order to make inferences. (4) Recalling information is facilitated through schema, since information is recalled because of prior knowledge. (5) While a reader is processing text, a reader can decide which information is important and also summarize what’s important. (6) When a reader encounters a gap in remembering, schema can be relied upon through association and inference to fill the gap (Anderson, 2004, pp.598-599).

For example, Anderson, Spiro, and Anderson (1978) asked subjects to read two passages describing a trip to a fancy restaurant and another trip to the groceries. The hypotheses generated for this study predicted that the subjects would learn and remember the details better in the restaurant and the sequence of events when ordering compared to a grocery list since it probably would not be as important to remember items in order due to the nature of the set up in a grocery store. The participants who received the restaurant story remembered more details because of the cross-connections involved in ordering at a fancy restaurant. For example, when one orders a steak, one can also remember that another food item like potatoes will likely follow. The schema of a fine restaurant menu helped the participants remember the food items. However, a grocery store list did not appear to have strong cross-connections.
A reader’s schema can serve many functions. For example, a study conducted by Steffensen, Joag-Den and Anderson (1979) illustrates the value of cultural connections, ideational scaffolding, inferential elaboration and reconstruction. Adult subjects of two different backgrounds (American and Indian) were selected to read the same letters about an American and an Indian wedding. Since adults have well established schema about weddings in their own culture, results showed that Americans spent less time reading the American wedding letter about a wedding and more time reading the Indian wedding letter. The same occurred for Indian subjects. When asked to recall the letter, the idea units remembered by both cultural groups were higher for the letter about a wedding pertaining to their culture.

Other studies indicate that the perspective brought into the reading act has a direct correlation with which information is learned and remembered (Anderson, 2004). In addition, schema theory has strong implications for the instructional setting with regard to stance taken by the teacher and reader in the classroom. If stance is considered when preparing a lesson, it could play a major role in the reading success of students, and the cultural aspect of schema theory could facilitate an enormous emotional connection with the text, thus making the reading experience more meaningful, albeit difficult to measure.

Finally, schema theory has many implications for teaching practices which optimize the use of schema by: activating prior knowledge, establishing prerequisite knowledge, integrating learned knowledge, using advance organizers and recognizing cultural nuances in the text (Anderson, 2004, pp. 604-605). According to schema
theory, readers rely on schema to construct meaning and continuously do so while processing text, thus moving from text-based processing (bottom-up) of information to meaning-based text-based processing (top-down), since the reader uses schema to make sense of text. This interaction characterizes this process as transactional because of the constructive activity involved in reading text, while utilizing schema to internalize the meaning of the text.

The aforementioned concepts embedded in schema theory are helpful in describing cognitive activities that may occur when students are listening to read-alouds. In addition, schema theory also accounts for what may occur when students engage their own understanding of the world as they process text from efferent and aesthetic stances. This transactional mode also describes a listener’s ability to rely on known information to acquire, understand, and appreciate new information.

**Summary of Reading Process Models: Implications for Listening Comprehension**

In summary, researchers have helped explain the reading process through models. Reading process models have been categorized as: bottom-up, top-down, interactive, transactional, dual-code, and socio-cognitive interactive. Each model focuses on some aspect or aspects of the reading process, but do not encompass or describe all the cognitive, linguistic, and social aspects of the reading process. Bottom-up and top-down models concentrate on a linear approach to the reading process, while interactive, dual-code, and transactional models appear to focus on the interplay between print, comprehension, and response. The socio-cognitive interactive model emphasizes the importance of the socio-cultural context of the reading experience. Each of these
models suggests that certain cognitive, linguistic, and/or cultural components are involved in the read-aloud experience. Although the research supporting these models is abundant, there does not appear to be a listening comprehension model. However, drawing on existing models may help explain the listening act as it pertains to the read-aloud experience.

**Teacher Stance, Questioning Behaviors and Read-Alouds**

Although the research on teacher stance and questioning behaviors does not appear to be addressed within the context of read-alouds, a discussion about classroom teacher questioning behavior and stance can help advance the need for teacher questioning behavior and stance research within the context of read-alouds. For example, discourse patterns of post reading discussion have been explored (Almasi, 2002), and have disclosed important implications for teaching practices. Cazden (1986; 1988) describes a pattern associated with the discourse between teacher-student interactions and identified it as Initiate-Respond-Evaluate (IRE). When employing an IRE pattern, the teacher maintains control of the discourse and who gets to talk during the discussion. During the initiation phase, the teacher asks a question, the student(s) respond(s), and the teacher evaluates the response.

Similar to Cazden’s IRE pattern (1986; 1988), Dillon (1988) traced and identified one form of student-teacher dialogue. Recitation is said to be a pattern found in teacher-student dialogue since the time of Plato and Socrates. This pattern consists of a question-answer-evaluation dialogue between the teacher and the student. This pattern was recorded in 1847 when it depicted elementary school teacher-student dialogue...
recitation patterns. Subsequent investigations in 1912 by Romiett Stevens and in 1981
by Susan Stodolsky also describe this distinct dialogue pattern (Dillon, 1988, pp. 86-87).
Dillon (1988) found that although the purpose for which teachers use this discourse
pattern varies and is diverse, it is important to prepare questions beforehand (p.98).
Morgan and Saxton (1991) noted that the art of questioning is a vital part of establishing
a culture in the classroom that is conducive to learning, since effective questioning
“maintains student engagement, stimulates thought, and evokes feelings” (p. 79).

Other research studies conducted in classrooms indicate that “up to 85 percent of
all discourse” (Almasi, 2002, p. 230) is teacher talk. In addition, teacher inquiries about
the text were fact, recall, or literal in nature. Dillon (1988) found that lower-level
questions reduce the cognition, expressive and affective responses of students.
Furthermore, teacher-centered questioning fosters disengagement, since only the student
answering is engaged (Almasi, 2002). On the other hand, peer discussions provide
opportunities for students to improve their higher order thinking skills (Almasi, 2002, p.
232).

Research on teaching and learning indicates that teachers spend the majority of
instructional time on asking student questions. Some of the research suggests that
teachers tend to ask lower level questions. For example, Guszak (1966, 1967) found that
teachers asked approximately 70 percent literal and recall questions, which only required
basic understanding of unimportant facts. The U. S. Department of Education (cited in
Savage, 1998) found that seventy to eighty percent of the questions posed were lower
level questions. Lira (1985) found that teachers tended to rely on questions from
teachers’ manuals of basal reading programs, and as a result asked primarily literal questions during reading comprehension instruction. In addition, teachers’ editions tend to give teachers few alternative activities for critical thought (Savage, 1998). In a study of the influence of teachers on student performance, Ruddell (1994, 2002) found that ineffective teachers tended to ask factual questions 72 percent of the time (p. 287). However, influential teachers asked interpretive and applicative questions 78 percent of the time during instruction (Ruddell, 1994, 2002, p. 287). Rosenblatt (1994) claims that educators should reconsider the influence basal readers have on teaching, since the questioning methods recommended in basal readers tend to emphasize an efferent stance, which without a teacher’s careful consideration, leave few opportunities for students to appreciate the selections by exploring the psychological and aesthetic impact on the reader. When left alone to read fiction and poetry, evidence indicates that students tend to gravitate to an aesthetic stance (Sipe, 1996; Sipe 2002; Galda & Liang, 2003).

In an investigation conducted by Taylor, Pearson, Peterson, and Rodriguez (2003), 88 randomly selected teachers were observed to determine patterns and trends of effects of teaching on students’ reading achievement. The findings indicate that teachers who asked higher order questions had higher performance among their students. In contrast, earlier research by Taylor et al. (cited in Taylor et al., 2003) reveals that questions requiring lower level thinking were answered in two words or less. Activities that maximize cognitive engagement involve students in higher-level thinking about
what they are reading, thereby helping them to make connections with prior knowledge, interpret character traits, and understand thematic connections.

Since student thinking tends to reflect the kinds of questions teachers ask (Galda & Guice, 1997; Blachowicz & Ogle, 2001; Chinn, Anderson, & Waggoner, 2001; Duffy & Hoffman, 1999), researchers claim that the teacher plays a critical role in the success of students. Teachers’ expectations affect stance and the questions they ask before, during, and after reading. Teachers tend to tell students how to read and think about texts. Even pre-reading, during reading, and post-reading questions can trigger an efferent stance. In addition, if students are continuously asked literal questions, they will likely learn to read to answer fact level questions (Galda & Liang, 2003).

The research on teacher questioning behavior, stance and teacher-student verbal interchanges is abundant within the context of classroom practices and reading comprehension activities; however, it does not describe the teacher questioning behavior and verbal interchanges within the context of transactional theory and read-alouds. So, if the research community attempts to advance what is known about the Zone of Proximal Development and the notion that learning is social (Vygotsky, 1978), studies could employ what is known about the importance of verbal interaction as it relates to read-alouds and the transactional theory. In addition, different philosophical standpoints could be utilized to explore the power of teacher-student interaction during read-alouds. For example, Vygotsky (1978) indicated that a child’s verbal development is dependent upon a “complex human structure [which] is the product of a developmental process deeply rooted in the links between individual and social history”
Furthermore, Langer (1995) considers discussion and interaction with text as necessary in order for children to explore the different interpretations of text. In an essay about why we write, the literary theorist, Iser (2000), discussed how theories and constructs help us understand through a more philosophical standpoint what goes on beyond comprehension when readers read literature. In addition, Iser (2000) contends that human beings are attuned to cultural norms that allow for imagination. When one reads, one can assume certain cultural patterns and take on other patterns that culture has engrained. This continuous reshaping permits limitless perspectives that human nature allows. In addition, human beings appear to have a need for fiction in order to step in and out of themselves as they explore different possibilities, make connections, and determine the makeup of the society in which they live.

Furthermore, Galda and Liang (2003) suggest that close attention needs to be paid to the stance teachers take when using comprehension instruction strategies. If literature is to be used for multiple purposes in the classroom, there may be a conflict between reading comprehension instruction and reader response activities.

If students know that they will be asked to recall facts in order to answer the teacher’s questions, they will learn to read for the facts. If students understand that the teacher’s questions will focus on the student’s lived-through experience of the story or poem, then they will learn to read aesthetically (Galda & Liang, 2003, p. 4).

Furthermore, it is necessary to be very intentional about what constitutes appropriate activities to engage students in read-alouds according to transactional theory. For example, the researchers found that many articles and books geared towards classroom teachers suggest that the strategies they illustrate are based on the literature-
based transactional theory; however, these books don’t always provide teachers with authentic literature-based transactional activities. For instance, one book reviewed had a read-aloud unit that suggested that the teacher have pre-reading, during reading, and after reading activities. While the beginning reading activities employed many suggestions for teachers to get students to express and explore the topic/concept to be read, the during reading activities quickly shifted to main idea, character, story problems, and right or wrong factual questions. Culminating activities common in elementary classrooms encourage children to create art-based projects (Galda & Liang, 2003, p.5). Instead, the researchers suggest that open-ended questions, “reading logs, dramatizing, illustrating, writing, dialogue journals, and imaging....have been used successfully to encourage an aesthetic stance to literature and the deep understanding that results from the experience” (Galda & Liang, 2003, p. 5). Apol (1998) suggested that children can be taught to reread text to reexamine, evaluate, and reflect on the text. McDaniel (2004) recommended engaging students in literature as a means to help them view the world through different perspectives and transform themselves. In addition, Madura (1995) found that the aesthetic stance could also involve children in examining and interacting about authors and illustrations. Activities recommended for further exploration of literature included “appreciation of the verbal and visual diversity offered in picture books....[and to encourage students] to read like writers, write like readers, and visualize like illustrators” (Madura, 1995, p.3).

Another factor that affects teacher questioning techniques and stance is the use of basal reading programs. An example of how to improve reading textbooks is provided
by the Texas Education Agency’s Proclamation 98 which required in its textbook adoption policy a more balanced approach to teaching reading by emphasizing the inclusion of unedited and unabridged children’s literature (McCarthey & Hoffman, 1995). An analysis of the five reading programs which qualified to be listed in the conforming list showed vast overall improvement. Even though fewer questions were listed in the teachers’ editions, higher-level efferent questions were offered. However, there appear to be no recent studies indicating to what extent teachers are using these higher-level questions (McCarthey & Hoffman, 1995).

Although teacher stance affects the direction of a lesson, teachers may not be clear on how their choice of stance affects reading comprehension instruction. For example, Guszak (cited in Blachowicz & Ogle, 2001, p. 79) contends that teachers need clearer guidelines when it comes to questioning techniques. If teachers follow the questions from the textbooks or follow their intuition, chances are they will fall into a routine that will minimally develop higher order thinking skills (Gilbert, 1992). In addition, Rosenblatt (1994) contends that when teachers use the aesthetic stance during questioning, student emotions play an important role in establishing text relevancy which may increase student interest, comprehension of text, and “lived through” experience. Furthermore, Barrett (1967) emphasizes the emotional and aesthetic engagement of students with the text as one of the goals of the reading program (p. 23).

McDaniel (2004) points out that teacher ideologies affect the way they teach literature and which literature they teach (p.5). This suggests that teacher stance directly affects literature instruction as well as read-alouds. Similarly, if teachers utilize
questioning techniques from basals, their own ideologies, or follow their own intuition, it is likely that interaction during read-alouds will predominantly be efferent. In addition, teacher questions during read-alouds may be part of a routine with an efferent focus. Moreover, transactional theory suggests that stance taken by both the teacher and the student while engaged with text may affect the outcome of the reading experience.

Furthermore, transactional theorists explain different elements affecting reader response. Readers construct meaning as they actively engage in the social experience in the classroom (Galda & Beach, 2001; Galda & Liang 2003). For example, Langer (1985) explored the way students appear to “envision” text by applying the progressive refinement theory protocol which called for a “text notation system” (p. 588). This system allowed for participants to respond to sections of the text as comprehension was changing and developing. Different cognitive operations (questions, assumptions, schemata, conclusions, and validations) were identified as readers reacted to the genre, content, and text. Langer (1985) discussed how classification systems or taxonomies do not clearly identify what occurs during the comprehension process because they may be too narrow. A more global approach that helps describe the cognitive processes that occur during reading comprehension as readers process text may give us a better understanding of “which questions invoke different levels of cognitive activity, and why” (Langer, 1985, p.601).

Taxonomies and Reading Comprehension

Two major reading pioneers, Huey and Thorndike (cited in Langer,1985, p. 587), viewed reading as a mental activity which requires several cognitive behaviors. In an
effort to describe cognitive behaviors, a variety of taxonomies have been developed. “A taxonomy is a system of categories or classifications that are used for purposes of organization, conceptualization, and communication” (Gilbert, 1992, p. 41). From these models, three general categories of questions are reflected in tests today. They are literal, inferential, and evaluative (Langer, 1985). The following section includes a description and discussion of popular taxonomies and their appropriateness for this study.

For the purpose of this study, a taxonomy that was the most suitable to classify teacher solicitations and student response units into two main categories involving the efferent and the aesthetic types of units is Barrett’s Taxonomy (1967; cited in Pearson & Johnson, 1978). Selecting this taxonomy allowed the researcher to utilize a reading taxonomy that encompassed both sides of the reading continuum as described by Rosenblatt (1965) instead of selecting two different taxonomies. Although Barrett’s Taxonomy has four main categories (as described in the Definition of Terms section of Chapter I), three categories fall under efferent designation and the appreciation category best describes aesthetics.

**Barrett’s Taxonomy**

Barrett (1967; cited in Pearson & Johnson, 1978) developed a reading comprehension classification system to assist teachers in creating objectives and selecting activities in order to facilitate teaching reading comprehension. “Although this taxonomy was developed in relation to reading, it also has application for listening” (Norton, 1997, p. 279). In Barrett’s discussion of the goals of a reading program, he
indicates that the cognitive dimension should involve children’s demonstration of “different levels of thought in their reading…[and] the affective goals…[should] deal with the child[ren’s] feelings about reading…” (1967, p. 17). Three of the categories (literal, inferential, and evaluation) fit within the cognitive domain while appreciation fits within the affective domain.

Barrett (1967) discusses literal comprehension in terms of thinking activities involving explicitly stated text. The two subcategories briefly described in Barrett (1967) are recognition and recall. Norton (1997) illustrates four subcategories in Barrett’s Taxonomy involving literal recognition (recall of details, recall of sequence of events, recall of comparisons, and recall of character traits). Pearson and Johnson’s (1978) discussion of Barrett’s Taxonomy cite six subcategories under literal comprehension: (1) Recognition or recall of details may lead to more complex tasks of recall and identify. (2) Recognition or recall of the main idea may entail asking a student to locate and/or remember an explicit sentence encompassing the main idea of part or a larger section of the text. Identifying and locating information in explicit statements are the predominant thinking processes involved in recognition (Barrett, 1967; Pearson & Johnson, 1978, p.168). Recall is an intellectual activity which requires a student to “produce from memory” (Barrett, 1967, p. 21; Pearson & Johnson, 1978, p. 169) information that was explicitly stated in the text. Key words in this category are “produce from memory”. (3) Recognition or recall of sequence requires the reader to produce from memory the order of events in a text. (4) Recognition or recall of
comparisons requires a reader to identify commonalities and differences of different elements, such as characters found in the text (Pearson & Johnson, 1978, p. 169).

Inference is demonstrated when a learner utilizes explicit text, prior knowledge and experiences in order to hypothesize and/or predict. Conjectures made by the student are not always explicitly stated in the text. Inferential queries require thinking and imagination. Barrett (1967) lists four general types of inferencing tasks (comparison, cause and effect, character traits, and predicting). Norton (1997) illustrates six subcategories involving Barrett’s inferencing category (supporting details, main idea, comparisons, cause and effect relationships, character traits, and outcomes). Pearson and Johnson’s (1978) discussion of Barrett’s Taxonomy involve eight subcategories. (1) Inferring based on supportive details require a student to utilize the details given by the author and conjectures about additional information, facts or details an author could have used in order to make the selection clearer or more interesting. (2) Inferred main ideas call for the student to come up with the main idea, gist, theme, moral, and general significance of a selection drawing from the information given, but not explicitly stated. (3) Sequences of events are inferred by utilizing clues from the text about when events happened. Sometimes the text may provide two events, but another event may not be explicitly stated. The student would need to conjecture about the possibility of the inferred event based on clues given by the author. (4) Comparisons are inferred by figuring out likenesses and differences involving characters, places, and time. (5) Cause and effect inferences are made when hypotheses are drawn about one element of a selection in relation to another. For instance, a student may be asked to hypothesize
about a character’s dilemma and to conjecture as to why the author only gave some details and not others. (6) When drawing an inference about character traits, a student may be asked to conjecture or hypothesize about a character’s personality based on clues given by the author. (7) Predicting outcomes can be inferred by making a conjecture about an ending based on previous sections of the selection. (8) Figurative language requires that a reader make inferences based on the text (Pearson & Johnson, 1978, p. 171-173).

Evaluation is a cognitive activity in which the student is asked to make an evaluative judgment by utilizing internal or external criteria (Barrett, 1967; Pearson & Johnson, 1978; Norton, 1997). Evaluation may be based on the selection’s accuracy, quality, importance, and/or value. Norton (1997) illustrates three subcategories involving Barrett’s evaluation category (adequacy or validity, appropriateness and worth, desirability or acceptability). Pearson and Johnson (1978) discuss evaluation involving five subcategories. (1) Evaluation of reality or fantasy is determined when a student makes a judgment on whether or not an event in the text could really happen. (2) An evaluation can be made of the facts and the opinions presented in the selection by using prior knowledge, research, or the author’s ability to raise a good argument with adequate support. (3) Students can be asked to evaluate a selection’s adequacy and validity by comparing the information presented with other information that has been established as being valid or adequate. (4) Appropriateness of text can be evaluated by judging whether a section or complete text adequately actually contributes to the message as a whole. (5) When making a judgment of worth, desirability, and
acceptability, the student is asked to draw on personal opinions based on moral and ethical beliefs (Pearson & Johnson, 1978, pp. 173-174).

Appreciation involves all cognitive activities together with the psychological and emotional effect of the selection on the reader. Responding to appreciation questions requires a student to have knowledge of the selection and also attach emotional and aesthetic sensitivity to the selection. The student’s emotional response may be evoked by psychological, artistic, and literary elements of a selection (Barrett, 1967; Pearson & Johnson, 1978; Norton, 1997). Norton (1997) illustrates three subcategories involving Barrett’s appreciation category (emotional response to plot or theme, identification with characters and incidents, and imagery). Pearson and Johnson’s (1978) discussion of the appreciation category involves four subcategories. (1) Emotional response to plot or theme implies that there was an emotional response to the selection. Emotional responses to content queries involve the student’s emotional reaction to the work as a whole or its parts, such as plot or theme. Responses can range from excitement and interest to fear, hate, and boredom. (2) Identification with characters and incidents can be made by relating, empathizing, or sympathizing with a character or an incident. (3) Reactions to an author’s use of language require that students respond to the author’s craftsmanship. (4) Questions about imagery can allow for a student to respond to the author’s ability to effectively draw a picture and/or evoke a sensual stimulation to the point of causing the reader to virtually visualize, hear, smell, feel, or taste (Pearson & Johnson, 1978, pp. 174-175).
Bloom’s Taxonomy

Bloom’s Taxonomy (Bloom, Engehart, Furst & Krathwohl, 1956) is perhaps one of the most cited hierarchical classification systems which provides a theoretical framework describing the cognitive domain. Its original intent was to assist educators and examiners in facilitating communication about curriculum and tests. Bloom’s Taxonomy (Anderson, Krathwohl, Airasian, Cruikshank, Mayer, Pintrich, Raths & Wittrock, 2001) describes a hierarchy of thinking outcomes. The original hierarchical taxonomy was comprised of six categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. Recently, Anderson et al. (2001) upgraded the taxonomy into a more efficient method of representing thinking activities that appear to organize the thinking processes from lower level thinking to higher level thinking. The hierarchical categories changed to: remember, understand, apply, analyze, evaluate, and create.

This revision of Bloom’s Taxonomy describes six categories of the cognitive processes as one dimension. The other dimension is knowledge which is made up of four categories: factual, conceptual, procedural, and metacognitive. These four categories can be placed along a continuum from concrete (factual) to abstract (metacognitive) (Anderson et al., 2001, p. 5). The categories in the new two dimensional framework allow educators to create learning objectives which contain a verb and a noun. The verb part of the objective describes the intended intellectual activity. The noun part of the objective is the expected knowledge that students should gain or produce (Anderson et al., 2001, p. 5). For example, a learning objective could
read like this: *The student will analyze the interrelationships among the structure of Congress and county government.* The analysis component of the objective would require that the student use cognition to take apart what is known about both Congress and county government at the conceptual level. The concept of the structure of Congress and county government require that a student recognize interrelationships among the basic facets of each and how they work together.

For the purpose of reading instruction, one can utilize a one dimensional approach when applying the cognitive domain of the taxonomy. When a student is asked to remember something, the learner is able to draw upon long-term memory. Intellectual behaviors involved in this cognitive activity are: recognizing, identifying, recalling, and retrieving relevant knowledge (Anderson et al., 2001).

Understanding is the ability to “construct meaning from instructional messages, including oral, written, and graphic communication” (Anderson, et al. 2001, p. 67). This cognitive activity encompasses a large range of intellectual capabilities. They are: interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining. Applying calls for one to “carry out or use a procedure in a given situation” (p. 67). Applying cognitive behaviors are illustrated by terms such as executing and implementing (Anderson et al., 2001). Analysis involves the ability to break materials into parts or sections and study how those parts are related. During analysis learners differentiate, organize, and deconstruct (Anderson et al., 2001). When learners evaluate, they make judgments. In order to evaluate, learners must check, test, critique and judge (Anderson et al., 2001). Creating involves putting together elements
to come up with something new. Learners must generate, design and/or construct a unique pattern or structure (Anderson et al., 2001, p. 68).

Although Bloom’s Taxonomy depicts a wide range of cognitive levels, Bloom’s Taxonomy does not have categories depicting aesthetic-type thinking processes. Therefore, for the purpose of this study, it is not appropriate to utilize this taxonomy as a category framework that will assist in describing the frequency of efferent-type and aesthetic-type questions.

**Herber’s Taxonomy**

Herber (cited in Ruddell, 1997) discussed three levels of comprehension: literal, interpretive, and applied. Literal comprehension involves reading the lines; therefore, information is text explicit and answers questions that are directly stated in the text (p. 68). Reading between the lines involves interpretive comprehension; therefore, the meaning of text is implied. Answers are not directly stated and the reader has to make inferences about the author’s intent. In addition, this level of comprehension can require mental activities such as drawing conclusions, interpreting unstated cause-effect relationships, and understanding figurative language (Ruddell, 1997, p. 68). Applied comprehension requires reading beyond the lines. That is, the reader is required to make connections with the text and prior knowledge (Ruddell, 1997, p.69). Applied comprehension requires that students use prior knowledge while making connections with the new information. This taxonomy refers to the relationship between the text and the reader; however, it does not speak to the aesthetic aspect of reading.
Pearson and Johnson’s Question and Answer Relationship

Pearson and Johnson’s (1978) Question and Answer Relationship (QAR) model serves to describe the categories and cognitive behaviors that occur when a student answers a question. While categories (text-explicit, text-implicit, and script-implicit) are based on question and answer relationships, there is still a large dependence on text-based response. This interactive scheme is a system of “categorizing a question depending on where the reader will find information to answer it” (Cox, 2002, p. 282). For example, the answer to a text-explicit question is stated in the text. The answer to a textual-implicit question is inferred in the text. The answer to a script-implicit question requires for the reader to use prior knowledge while using textual information. Langer contends that although this model serves a purpose, it still does not help describe how comprehension develops and changes as a reader processes text (Langer, 1985, p. 588). Although this model involves the text and the reader and is referred to as a transactional model, it does not appear to have a category employing appreciation or aesthetics.

Guszak’s Reading Comprehension Solicitation Response Inventory

Guszak (1966) confirmed previous findings of Austin and Morrison (cited in Guszak, 1966, p. 227) and Henry (cited in Guszak, 1966, p. 227) in his study which indicated that teachers appeared to think of reading-thinking skills as being synonymous with literal comprehension skills. Guszak’s study sought to answer three principal research questions which dealt with the types of questions teachers ask in reading circles, the frequency they asked said questions, and the degree of congruency of each solicitation-response unit. Guszak created the Reading Comprehension Solicitation-
Response Inventory in order to categorize the continuum of reading comprehension questions typically found in reading circles in the elementary grades. The inventory consisted of: recognition, recall, translation, conjecture, explanation, and evaluation. A question was categorized under recognition if it required a student to locate information directly stated in the text. Recall questions required that students retrieve factual information from the text read. Translation questions required the student to represent the previously read material in a symbolic form, e.g. draw a picture, a retelling, a paraphrase, or a verbal representation of figurative language. Conjecture questions (a type of inference) called for students to predict a probable outcome based on the text. Explanation (a type of inference) called for a rationale for a position taken and textual evidence to support the rationale. Evaluation questions required that students make value judgments (Guszak, 1966, p. 229). Although, the efferent side of transactional theory is represented in the solicitation-response inventory, the aesthetic side of the transactional theory is not represented in this category scheme.

Critiques of Taxonomy Use and Rationale for Selected Category Scheme

Critique of Taxonomy Use

Bloom’s Taxonomy is often utilized by educators when preparing and delivering lessons (Ivie, 1998). While the taxonomy was originally developed to assist in developing instructional objectives, the three levels (analysis, evaluation, synthesis) do not necessarily result in higher order thinking. Often teachers ask lower level questions relating to specific isolated skills. Ivie (1998) contends that the concept of higher order
thinking is perhaps too vague and is not easily understood by educators. Thus, Ausubel’s Learning Theory (cited in Ivie, 1998) offers one perspective we can use to examine what happens in the dialogue between teacher and student during read-alouds. Ausubel’s (cited in Ivie, 1998) Cognitive Structure helps explain that all learning is contingent upon previously learned, organized knowledge, thereby making scaffolding an important element of teaching big ideas. When teachers scaffold, big ideas are supported by smaller ideas which form the base of a pyramid of knowledge, thus making the big ideas the more enduring concepts learned. In order for meaningful learning to occur, new information needs to be anchored and organized under concepts already existing in the student’s mind. If anchorage is not strong or not present, instruction must include connectors that can be utilized to facilitate new learning. To avoid “meaningless” learning, the teacher must ensure that new learning is anchored, organized in a hierarchical manner, and practiced utilizing higher order thinking skills activities involving logic.

Hare and Pulliam (1980) advanced Guszak’s (1967) teacher questioning study by applying Pearson and Johnson’s taxonomy (cited in Hare & Pulliam, 1980, p. 69), along with Guszak’s original categories. The researchers found that two types of questions did not fit into Guszak’s categories: one type was too general and another type was inappropriate. These two types of questions were excluded from the study in order to replicate the comparisons in the original study. The findings using Guszak’s original categories were very similar to his original findings in that literal questions outnumbered inferential and evaluation questions. Pearson and Johnson’s Taxonomy was then applied
to the whole question-response sequence which identifies three kinds of questions: textually explicit (literal), textually implicit (inferential), and scriptally implicit (inferential). The results yielded higher percentages in the inferential categories (72.7%) compared to 27.3 percent in the literal category (Hare & Pulliam, 1980, p. 71). This study also illustrated how different taxonomies can categorize inference questions and yield totally different results.

The categorizing of levels of questions and answers can not always be easily done (Langer, 1985). In an attempt to describe other aspects that come into play when students are processing text, Langer (1985) developed a construct based on the notion that “recall of text content and organization is based on both text and non-text factors” (p.588). Drawing from researchers who have extended their studies stemming from schema theory which suggest that the reader’s prior knowledge and experience play a very important role in the construction of meaning, Langer contends that a reader envisions; therefore, as the text is being processed, newer envisionments replace the previous ones and understanding is being constructed at different levels as the reader progresses through the text (p.589).

**Rationale for Selected Taxonomy**

As previously mentioned, taxonomies available to categorize efferent and aesthetic comprehension behaviors during read-alouds are very limited. Inherent in the majority of the taxonomies is the notion that comprehension appears to occur when cognitive activities involve efferent-type questions. Bloom’s and Herber’s Taxonomies appear to relate to comprehension only when the efferent stance is present. One would
have to use a taxonomy depicting the affective domain to categorize aesthetic-type questions during read-alouds, thereby making the coding process difficult to manage. Because of this dilemma, Barrett’s Taxonomy (1967) was selected as the logical choice since it appears to adequately describe in its categories (literal, inference, evaluation) the cognitive processes depicted in reading comprehension behaviors and encompass the efferent side of the reading continuum, while including appreciation which would adequately depict the aesthetic aspect of reading.

**Solicitation-Response Unit (SRU)**

In order to describe the frequency of congruency of solicitation-response units, Guszak (1966) developed the Solicitation-Response Unit (SRU) concept. This concept differs from the aforementioned recitation pattern in that it accounts for teacher solicitation (and any other response, elaboration, or clarification) during the question response unit. The unit was complete when the teacher shifted to another question, whether the student answered correctly or not. Observations revealed that teachers generally utilized two dialogue strategies which depended on their questioning purpose. The duration or length of solicitation-response units or longer solicitation-response units depended on the teacher’s intent. The most common solicitation-response unit was the single congruent response. Teachers also used longer units (strategies), labeled as Solicitation-Response Episodes, to accommodate students. An episode consisted of two or more related Solicitation-Response Units. Guszak classified these episodes as: follow-up, verification, justification, and judgmental episodes. The most frequent episode was the setting purpose follow-up, and the justification episode was the least
utilized (Guszak, 1966, pp. 232-233). The setting purpose follow-up is a teacher’s guiding question, while the justification episode involved asking students to provide a value judgment.

The Solicitation-Response Unit appears to be an appropriate conceptual scheme to employ in determining solicitation-response congruency and patterns. The initiation phase includes the actual solicitation posed by the teacher. The sustaining phase involves any further prompting or extension made by the teacher. The final phase is determined by congruence or incongruence of a response prompted by another solicitation posed by the teacher.

**Rationale for Selected Protocol**

Contemporary researchers have built on the works of pioneer researchers on reading. Studies on models of reading have been conducted to further enhance the understanding of what happens in the classroom that affects the relationship between the reader and the text. While researchers have attempted to describe the type of interaction dialogue between teachers and students, the studies appear to focus on the reader (the students) and the text (comprehension questions teachers ask) (Guszak, 1966; Lira, 1985). These studies illustrate the question and answer type of dialogue in the context of reading groups and classroom whole-group teacher-directed dialogue (Guszak, 1966; Lira, 1985; Ruddell & Ruddell, 1994).

Although teacher-student interactions can be perceived in many different ways using lenses that draw from different theoretical perspectives, one way we can describe teacher-student interactions is through the use of frequencies and percentages employing
a taxonomy that can depict behaviors along the efferent and aesthetic continuum. One can describe the nature of dialogue between teacher and students during read-alouds by employing Barrett’s Taxonomy in order to categorize teacher solicitations as either efferent or aesthetic. Even though Barrett’s Taxonomy has four categories, when applied to Rosenblatt’s reading continuum, two categories appear to emerge. The efferent side of the reading continuum can include the literal, inference, and evaluation categories. The aesthetic side of the continuum can best be described through employing the appreciation category of Barrett’s Taxonomy. This way, for the purpose of answering the questions of this study, the two distinct categories that emerge based on Barrett’s Taxonomy and Rosenblatt’s reading continuum are efferent and aesthetic. In addition, the SRU can be employed to determine congruency. Therefore, the SRU can be employed to determine teacher-solicitation student-response unit congruency.
CHAPTER III

CONCEPTUAL FRAMEWORK AND RESEARCH QUESTIONS

The primary purpose of this investigation was to provide a baseline description of the nature of reading instruction with regards to teachers’ solicitation practices and congruence of students’ responses as these interactions occurred during read-alouds with Kindergarten, first, and second grade students. To accomplish this purpose, the study focused on describing the degree to which teachers utilized the efferent stance and/or the aesthetic stance when soliciting student responses during read-alouds. In addition, relationships of congruent and incongruent teacher solicitation-student response units across grades were examined.

A review of the literature indicated that there appeared to be a limited number of taxonomies that would assist in determining the extent to which teachers used an efferent and/or aesthetic stance during read-alouds with K-2nd graders. Barrett’s Taxonomy (1967; cited in Pearson & Johnson, 1978; Norton, 1997) was selected to depict efferent and aesthetic (Rosenblatt, 1965) solicitations in order to describe stance patterns and trends across grades. The efferent category encompasses literal, inference, and evaluation solicitations, while the aesthetic stance is addressed by the appreciation component.
Teacher Solicitation Behavior Questions

The following questions were posed to address one facet associated with this study:

1. What are the frequencies and percentages of efferent and of aesthetic solicitations provided by all (K-2) participating teachers during read-alouds?
2. What are the frequencies and percentages of efferent solicitations provided by Kindergarten, first grade, and second grade teachers during read-alouds?
3. What are the frequencies and percentages of aesthetic solicitations provided by Kindergarten, first grade, and second grade teachers during read-alouds?

Solicitation-Response Unit About Reading Content

A modified version of Guszak’s (1966) Solicitation-Response Unit About Reading Content scheme was utilized to analyze interaction patterns between Kindergarten, first and second grade teachers and students during read-alouds when efferent solicitations and appreciation solicitations were provided. Although Guszak’s scheme describes three categories of teacher-student interaction with subcategories under each, the present study incorporates a modified version of the scheme. Instead of categorizing whether the teacher initiated, extended, or cued the student(s) to respond as described by Guszak, the researcher utilized a modified approach to describe the solicitation-response act. In addition, since the scheme was originally intended to depict teacher-student solicitation behaviors during reading comprehension circles in the classroom, the researcher utilized the Solicitation-Response Unit About Reading Content in the context of read-alouds. Thus, for read-alouds the Solicitation-Response Unit
(SRU) was used to describe the interaction episode between teacher and student(s) with the teacher solicitation initiating the interaction episode and the student(s) response(s) marking the end of the interaction episode. Guszak’s (1966) modified solicitation response unit (SRU) was employed to determine teacher-solicitation/student-response units to identify the unit of study (Gay & Airasian, 2003).

Furthermore, each SRU was identified as congruent or incongruent by utilizing the conceptual framework described in Guszak (1966) and Lira (1985):

…reciprocity between the substantive content sought by a teacher and the subsequent substantive content offered by the student as a response to the initiating solicitation. In other words, a teacher’s solicitation indicates to students that a certain type of response is desired. The student then attempts to supply the substantive material that was called for. (Guszak, 1966, p. 50).

Congruence was “…perceived if the intent of the teacher solicitation was matched by an acceptable student response” (Lira, 1985, p. 76). Substantive congruence was determined by the researcher by judging whether the student(s)-generated response solicited by the teacher was provided within the context of the read-aloud.

**Student Response Questions**

The following questions were posed to focus on the second facet of the purpose of this study which deals with student responses to teacher solicitations:

4. What are the frequencies and percentages of congruence and incongruence associated with efferent and with aesthetic solicitations?
5. What are the frequencies and percentages of congruence and incongruence associated with efferent solicitations provided by Kindergarten, first grade, and second grade teachers?

6. What are the frequencies and percentages of congruence and incongruence associated with aesthetic solicitations provided by Kindergarten, first grade, and second grade teachers during read-alouds which involve aesthetic solicitations?

**Possible Relationships in Patterns and Trends**

Finally, categories were paired to determine possible relationships in patterns and trends of teacher solicitation-student responses during read-alouds with Kindergarten, first, and second graders across grades. A correlational coefficient (bivariate statistic) was used to determine if there was a relationship between each of the paired categories and to determine whether questions “…[were] evenly distributed across categories or whether a disproportionate number [were] in a few of the categories” (Gall, Gall & Borg, 1999, p. 155).

**Interaction Questions**

The following questions were posed to focus on the third and final facet of the purpose of this study which deals with interactions between teacher solicitations and student responses:
7. What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve efferent solicitations?

8. What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve aesthetic solicitations?

**Synthesis**

The preceding information describes the conceptual framework which supports the protocol employed to answer the questions posed in this study. Barrett’s Taxonomy (1967; cited in Pearson & Johnson, 1978) and Rosenblatt’s (1965) transactional theory (efferent stance or aesthetic stance) were employed to determine teacher solicitation behaviors during read-alouds to Kindergarten, first, and second graders. In addition, Guszak’s (1966) Solicitation-Response Unit About Reading Content scheme was modified to isolate Solicitation-Response Units (SRU’s). Finally, Lira’s (1985) definition of congruence was utilized to assist in determining whether SRU’s were congruent or incongruent. The conceptual frameworks discussed in this chapter assisted in determining possible patterns, trends, and/or relationships of teacher solicitation-student response behaviors across grade levels.
CHAPTER IV
PROCEDURES

Gall, Gall, and Borg (1999) claim that “[d]escriptive research involves the collection and analysis of quantitative data in order to develop a precise description of a sample’s behavior or personal characteristics” (p.173). This chapter reviews the procedures followed to conduct this descriptive study. The chapter is organized into four sections. The first section shares the logic and application of the coding strategy. The second section describes the essential features of the sampling design. The third section elaborates the data collection procedures. The fourth section presents the data analysis procedures to be implemented on the next chapter.

Coding Strategy

As referenced in the previous chapter, Barrett’s Taxonomy (1967; cited in Pearson & Johnson, 1978) was selected to help establish the degree to which teacher questioning behavior indicated the use of the efferent and aesthetic stances. Each of the questions qualifying for categorizing was coded with L for literal, I for inference, E for evaluation, and A for appreciation. Conversely, questions not considered for coding were questions which did not match any of the four of Barrett’s Taxonomy categories and were therefore coded as O for other. In addition, all literal, inference and evaluation questions were then coded as E for efferent and all appreciation questions were coded as A for aesthetic. A modified version of Guszak’s (1966) Solicitation-Response Unit About Reading Content scheme was used to determine the unit of study (Gay &
Airasian, 2003). The Solicitation Response Unit (SRU) was deemed appropriate to indicate a complete unit of solicitation-response interaction behavior between teacher and student(s).

**Qualifying Examples of Barrett’s Taxonomy Categories**

Each question coded as literal, inference, or evaluation was categorized as being efferent. Each question labeled as appreciation was considered as being in the aesthetic category. Appreciation queries required for the student(s) to attach emotion and aesthetic sensitivity to the selection (Barrett, 1967; cited in Pearson & Johnson, 1978; Norton 1997).

**Literal.** The literal comprehension category depicted a response to questions that were explicitly stated in the selection (Barrett, 1967; cited in Pearson & Johnson, 1978). For example,

T: *Where was Tomás from?* (The response is stated in the text.)

**Inference.** Inferencing was solicited when a question required the student(s) to use explicit text, prior knowledge and experiences in order to hypothesize and/or predict (Barrett, 1967; cited in Pearson & Johnson, 1978). For example,

T: *What do you think the author meant when he said that Tomás’ mouth was “full of cotton”?* (The students need to interpret the phrase.)

**Evaluation.** Evaluation was solicited when a query required that the student(s) make a judgment by using outside information and/or criteria available in the text to judge the selection’s accuracy, quality, importance, and/or value (Barrett, 1967; cited in Pearson & Johnson, 1978). For example:
T: *Do you think Tomás was riding a dinosaur?* In order to answer this question, the student(s) need to evaluate the accuracy of the text and make the judgment that the boy in the story is using his imagination while reading a book in the library.

Each question coded literal, interpretation or evaluation was labeled as being efferent.

**Appreciation.** Appreciation queries required for the student(s) to attach emotion and aesthetic sensitivity to the selection (Barrett, 1967; cited in Pearson & Johnson, 1978; Norton, 1997). Questions labeled as appreciation were considered as being in the aesthetic category. For example:

T: *What do you think about the librarian in the story?* (Based on what the student(s) know about the librarian, the determination was made whether the librarian was a likable or nice person.)

**Non Qualifying Examples of Teacher Solicitations**

Examples of teacher solicitations that were coded as O for other and therefore not counted were:

T: *What do you like to read about?* (The response is not directly related to the text.)

T: *What is your favorite animal?* (Although there are animals in the text, the questions that came after the read-aloud asking about children’s favorite animals were not counted.)
T: *What is this?* (Based on the student responses, the teacher is referring to parts of the book. Some of the student responses were: *spine, title, the name of the author, illustrator, etc.*)

T: *Did you like the story?* (This question was regarded as a rhetorical question, since students answered *Yes* in unison.)

As the questions were coded by the researcher, each SRU was identified and judged congruent or incongruent by utilizing the conceptual framework described in Guszak (1966) and Lira (1985). The researcher determined congruency if the response matched the solicitation expectations of the teacher. Conversely, if the solicitation-response unit did not address the question satisfactorily, then the unit was deemed incongruent.

In addition, teacher verbal solicitations/student verbal response units were coded as: literal-congruent, literal-incongruent, inference-congruent, inference-incongruent, evaluation-congruent, evaluation-incongruent, appreciation-congruent, and appreciation-incongruent.

**Examples of SRU Coding**

**Congruent. E-L-C**  
T: *Where was Tomás from?*

S: *Texas*

The E stands for efferent. The L stands for literal, and the C stands for congruent, since the answer was directly stated in the text. The T refers to the teacher, whereas the S or Ss indicates the student(s). This is an SRU because the teacher
solicitation-student response unit is comprised of a teacher solicitation with a matching student response.

**Incongruent. E-I-I**

T: *What would he do if he had a big glass of water?*

S: *He’ll get...his stomach will hurt.*

The E is for efferent, the I is for inference, and the I is for incongruent. Although the answer needs to be inferred, text evidence indicates that the boy in the story is very thirsty and would simply want to drink the water.

**Interrater Reliability**

The data from Table 4.1 indicate frequencies and percentages of each SRU category rated. The expertise of a reading professor at a local university was solicited to rate the randomly selected questions. Twenty percent (173 out of 866) of the SRU’s were randomly selected through the use of a research randomizer (Urbaniak & Plous, 2005) from the internet. The data in Table 4.1 indicate that an interrater reliability of 90 percent was achieved. Only 17 out of the 173 questions rated by the researcher and the university professor were not in agreement.

**Sampling Plan**

Participant selection for this descriptive study was through convenience sampling. All Kindergarten to second grade certified English reading teachers (English language arts) of a South Texas school district were invited to participate. Two teachers did not participate due to lack of certification. Table 4.2 illustrates the number of teacher
Table 4.1

Frequencies and Percentages of Agreements and Disagreements of Two Judges in Classifying 173 Out of 866 Solicitation Response Units

<table>
<thead>
<tr>
<th>Category</th>
<th>Agree (f)</th>
<th>Agree (%)</th>
<th>Disagree (f)</th>
<th>Disagree (%)</th>
<th>Total (f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literal-C</td>
<td>71</td>
<td>97.0</td>
<td>2</td>
<td>3.0</td>
<td>73</td>
</tr>
<tr>
<td>Literal-I</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>100.0</td>
<td>2</td>
</tr>
<tr>
<td>Inference-C</td>
<td>79</td>
<td>95.1</td>
<td>4</td>
<td>4.9</td>
<td>83</td>
</tr>
<tr>
<td>Inference-I</td>
<td>1</td>
<td>15.8</td>
<td>5</td>
<td>83.2</td>
<td>6</td>
</tr>
<tr>
<td>Evaluation-C</td>
<td>1</td>
<td>20.0</td>
<td>4</td>
<td>80.0</td>
<td>5</td>
</tr>
<tr>
<td>Evaluation-I</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appreciation-C</td>
<td>4</td>
<td>100.0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Appreciation-I</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>156</td>
<td>90.0</td>
<td>17</td>
<td>10.0</td>
<td>173</td>
</tr>
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</table>
Table 4.2
Characteristics of the Sample

<table>
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<tr>
<th>Code No.</th>
<th>Grade</th>
<th>Gender</th>
<th>Age</th>
<th>Degree</th>
<th>Tchg. Exp. (years)</th>
<th>Class Size</th>
<th># of Students Participating</th>
</tr>
</thead>
<tbody>
<tr>
<td>KA1</td>
<td>K</td>
<td>F</td>
<td>48</td>
<td>M.S.</td>
<td>23</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>KB2</td>
<td>K</td>
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<td>B.S.</td>
<td>0</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>KC3</td>
<td>K</td>
<td>F</td>
<td>30</td>
<td>B.S.</td>
<td>4</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>KD4</td>
<td>K</td>
<td>F</td>
<td>45</td>
<td>B.S.</td>
<td>0</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>KE5</td>
<td>K</td>
<td>F</td>
<td>37</td>
<td>B.S.</td>
<td>10</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>KF6</td>
<td>K</td>
<td>F</td>
<td>38</td>
<td>M.S.</td>
<td>13</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>KG7</td>
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<td>F</td>
<td>56</td>
<td>M.S.</td>
<td>0</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>KH8</td>
<td>K</td>
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<td>39</td>
<td>B.S.</td>
<td>15</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>1K9</td>
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<td>B.S.</td>
<td>3</td>
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<td>12</td>
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<td>1L10</td>
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<td>F</td>
<td>34</td>
<td>B.S.</td>
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<td>7</td>
</tr>
<tr>
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<td>F</td>
<td>36</td>
<td>M.S.</td>
<td>12</td>
<td>19</td>
<td>15</td>
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<tr>
<td>1N12</td>
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<td>F</td>
<td>39</td>
<td>B.S.</td>
<td>9</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>1O13</td>
<td>1</td>
<td>F</td>
<td>39</td>
<td>M.S.</td>
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<td>22</td>
<td>16</td>
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<td>38</td>
<td>B.S.</td>
<td>10</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>1Q15</td>
<td>1</td>
<td>F</td>
<td>40</td>
<td>B.S.</td>
<td>3</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>1R16</td>
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<td>F</td>
<td>47</td>
<td>B.S.</td>
<td>23</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>1S17</td>
<td>1</td>
<td>F</td>
<td>38</td>
<td>B.S.</td>
<td>7</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>2T18</td>
<td>2</td>
<td>F</td>
<td>32</td>
<td>B.S.</td>
<td>5</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>2U19</td>
<td>2</td>
<td>F</td>
<td>48</td>
<td>M.S.</td>
<td>21</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>2V20</td>
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<td>F</td>
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<td>B.S.</td>
<td>0</td>
<td>17</td>
<td>7</td>
</tr>
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<td>B.S.</td>
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<td>2X22</td>
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<td>F</td>
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<td>B.S.</td>
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<td>2Y23</td>
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<td>F</td>
<td>37</td>
<td>B.S.</td>
<td>7</td>
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<td>11</td>
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<td>F</td>
<td>27</td>
<td>B.S.</td>
<td>0</td>
<td>19</td>
<td>6</td>
</tr>
</tbody>
</table>

Mean | 37 | 7.5 | 16.8 |

Total | 24 | 236 |
participants, sex, age, college degree, years of teaching experience, class size, and number of student participants per class.

Data from Table 4.2 indicate that participating teachers’ age ranged from ages 24-56 with a mean of 37 years old. In addition 6 out of 24 (25%) had a Masters degree and the remaining 18 out of 24 (75%) had a Bachelors’ degree. Teaching experience ranged from first year teachers to 23 years with a mean of 7.5 years. In addition, 7 (29%) teachers were first year teachers and 3 (12.5%) teachers had more than 20 years experience. Class sizes of potential participants ranged from 8 to 22 and out of 404 students eligible to participate, 236 (58%) participated. Read-aloud groups ranged from 3 to as large as 18. Teacher participants (n=24) were comprised of 100 percent females, 96 percent were Hispanic and 4 percent were Anglo (TEA, 2003). The student participants attended a school district with the following student demographics: approximately 79 percent were Economically Disadvantaged, about 55 percent were Limited English Proficient, and approximately 61 percent were At Risk of Dropping out of School (Magallanes & Matysek, 2003). The study took place in a South Texas rural community the second and third weeks in May of 2003.
Data Collection Procedures

In this descriptive study each volunteer teacher participant signed a participant form, received a copy of *Tomás and the Library Lady* (Mora, 1997), one blank audio cassette, and a consent form for each student. Using the same title (a narrative selection) standardized the stimulus that all participating teachers used to elicit questions. This commonality also assisted in comparing and contrasting possible teacher solicitation-student response patterns, trends, and/or relationships that arose. The prevailing theme in the book—migrating to unknown areas of the country is a familiar theme, since the majority of the students have experienced migration, have family members living in Mexico, know someone who is a migrant, and/or are migrants. The common theme of making friends in an unfamiliar place assisted teachers in eliciting questions students could relate to. In the selection, the librarian is a friend who cares for the boy in the story. In all four participating schools, librarians play a crucial role in the reading program of their schools.

Participating teachers were instructed by the researcher to conduct the read-aloud (only with students with signed consent forms) as they typically would on any given day. They were asked to submit the recording, parent/student consent forms, and participant forms to the researcher.

Barrett’s Taxonomy (1967; cited in Pearson & Johnson, 1978) was used to categorize each teacher-solicitation student-response unit (SRU). Each SRU was coded as: L for literal, I for inference, E for evaluation and A for appreciation. In addition, each SRU was coded as E for efferent (literal, inference, and evaluation) or A
(appreciation) for aesthetic. If the SRU was congruent, it was coded with a C, and conversely if the SRU was incongruent, it was coded with an I. SRU’s were coded and inter-rater reliability was established.

**Data Analysis Procedures**

Two major data analysis concerns are addressed here. First, a rationale is given for why descriptive rather than inferential statistical methods are used in this study. Second, an overview is offered for each of the three sequential phases used in data analysis.

**Data Analysis Rationale**

Four major reasons guided the selection of the data analysis strategy. First, as indicated in the initial paragraph of this chapter, this study was declared to be a descriptive study. Accordingly, eight research questions requiring only descriptive statistical responses rather than an inventory formal research hypothesis to be evaluated using inferential test statistics were specified to guide this inquiry.

Second, established procedures put forth in statistical theory declare that inferential statistical methods should be used only when the data to be analyzed come from a true random sampling design. In this study, a volunteer rather than a random sampling design was used to gather all classroom observations. Thus, inferential statistical methods are not appropriate.

Third, even if a random sampling strategy were used, a random sample of just 24 classrooms would not yield a statistical power probability value above 0.50 to test either
a mean difference or a correlation hypothesis. This fact about statistical power would imply that the corresponding probability value for a type two error would be better than 0.50.

Finally, parametric inferential statistical methods require not only random sample sizes sufficient to detect a true difference, but also should be used only when empirical data conform to the statistical test model assumptions. For example, testing for a grade level difference in efferent solicitation counts using a t test for two independent samples would require that both normality and homogeneity of variance assumptions be met. Descriptive data analysis to be presented in the next chapter will clearly indicate that these assumptions do not hold for this study sample.

Three Phases of Data Analysis

The data analysis strategy to be implemented in this study has three sequential phases. Taken collectively, the three phases yield data-based responses for all eight research questions specified in Chapter I. A brief overview of each phase is offered below.

The first phase of the data analysis is intended to describe teacher solicitation behaviors depicting the extent to which efferent and aesthetic solicitations were used by Kindergarten through second grade teachers during read-alouds. The descriptive statistic functions of SPSS® (2003) are used to determine frequencies and percentages of efferent and aesthetic solicitations used by all Kindergarten to second grade teachers and by each grade level. The frequency is the total number of solicitations by occurrences that fit in a particular question category (Gall, Gall & Borg, 1999, p. 151). “The
percentage is the frequency [of solicitations] in a [question] category divided by the total number [of solicitations] in the sample” (Gall, Ball & Borg, 1999, pp.151-152). Frequencies and percentages can be used “to determine whether counts are evenly distributed across categories or whether a disproportionate number are in a few of the categories” (Gall, Gall & Borg, 1999, pp. 154-155).

Descriptive statistics (frequencies and percentages) are utilized to determine the distributions of teacher solicitation overall counts and within grade levels. In addition, variability of distribution of solicitation counts are described using range calculations while medians helped determine typical counts. Mean scores are not appropriate to use since the counts distributions are “markedly asymmetrical” (Gall, Gall, & Borg, 1999, p. 150). These descriptive statistics assisted in deriving the trends that arose from teacher solicitation behaviors.

**The second phase of the data analysis** is intended to describe student responses to teacher solicitations. This phase involves describing relationships of efferent and aesthetic teacher solicitation-student responses for the total group and within grade levels. The SRU (Guszak, 1966) will be used as the basis for analyzing interaction patterns between Kindergarten, first and second grade teachers and students during read-alouds when efferent solicitations and appreciation solicitations were provided. The solicitation-response unit is the interaction episode between teacher and student(s) with the teacher solicitation initiating the interaction episode and the student(s) response(s) marking the end of interaction episode involved describing patterns, trends, and/or relationships of teacher verbal solicitation-student verbal responses for the total group,
within grade levels, and across grade levels through the use of frequencies and percentages generated by the bivariate statistic capability of the SPSS® (2003) software. A correlational coefficient is used to examine if there was a possible (bivariate) relationship between solicitation-response paired categories. Rank ordered count distributions of solicitations paired with the corresponding congruent proportion and rank ordered congruent proportions paired with solicitation counts assisted in determining the presence or absence of a bivariate relationship.

The third phase of data analysis is intended to determine interactions between teacher solicitations and student responses. Emerging covariance patterns will be analyzed to determine whether an interaction is present in the multivariate data set where grade level is used as a moderator variable.

Summary

This chapter has provided a description of the procedures used in this inquiry. The chapter was divided into four parts that dealt with (a) the coding strategy, (b) the sampling plan, (c) the data collection procedures, and (d) the data analysis procedures.
CHAPTER V
DATA ANALYSIS

This chapter presents the findings for the eight research questions addressed in this inquiry. The chapter is divided into four sections. The first three sections are used to share the response to the eight questions and are organized as follows: (a) Teacher Solicitation Behaviors; (b) Student Responses; and (c) Interactions Between Teacher Solicitations and Student Responses. The last section provides a summary of findings for the eight research questions.

Teacher Solicitation Behaviors

The first three research questions request information dealing with both the efferent aspects and the aesthetic aspects of Rosenblatt’s (1965) transactional theory. Accordingly, the first section of the findings dealing with teacher solicitation behaviors is organized into three parts, each part providing a response to a single research question.

Research Question One

The initial research question is as follows: What are the frequencies and percentages of efferent and aesthetic solicitations provided by all (K-2) participating teachers during read-alouds? This question is used to describe the extent to which efferent and aesthetic solicitations are used by Kindergarten through second grade teachers during read-alouds.

Data Analysis. Summary data used to prepare the response to this research question are provided in Tables 5.1 and 5.2. The first of these two tables provides a
Table 5.1
A Frequency Distribution of Efferent Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Occurrence</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>4.2</td>
<td>8.3</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>4.2</td>
<td>12.5</td>
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<tr>
<td>19</td>
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<td>8.3</td>
<td>20.8</td>
</tr>
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<td>4.2</td>
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<td>37.5</td>
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<td>24</td>
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<tr>
<td>28</td>
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<td>4.2</td>
<td>45.8</td>
</tr>
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<td>54.2</td>
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<td>58.3</td>
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</tr>
<tr>
<td>43</td>
<td>2</td>
<td>8.3</td>
<td>75.0</td>
</tr>
<tr>
<td>47</td>
<td>1</td>
<td>4.2</td>
<td>79.2</td>
</tr>
<tr>
<td>48</td>
<td>1</td>
<td>4.2</td>
<td>83.3</td>
</tr>
<tr>
<td>60</td>
<td>2</td>
<td>8.3</td>
<td>91.7</td>
</tr>
<tr>
<td>77</td>
<td>1</td>
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<td>95.8</td>
</tr>
<tr>
<td>82</td>
<td>1</td>
<td>4.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total: 24 100.0
Table 5.2

A Frequency Distribution of Aesthetic Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Occurrence</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
<td>62.5</td>
<td>62.5</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>20.8</td>
<td>83.3</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>8.3</td>
<td>91.7</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>4.2</td>
<td>95.8</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4.2</td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>
distribution of efferent occurrences, and the second table provides a distribution of aesthetic occurrences.

Inspection of the overall summary data presented in Table 5.1 indicates that efferent solicitation counts for the 24 teachers in the study are quite variable. The overall range is 78, with the lowest solicitation count of four and the highest solicitation count of 82.

The distribution of these efferent counts is nonsymmetrical. Specifically, the lower counts provided in the first panel of Table 5.1 begin at four and end at 32 which yields a range of 28. The higher solicitation counts given in the bottom panel of this table begin with 35 and end with 82 which yield a range of 47. Thus, the range of the larger counts is approximately one and two-thirds the distance of the small count range.

Aesthetic solicitation data in Table 5.2 yield the following patterns. The overall range for all 24 teacher counts in this table is six. The first panel indicates that 15 of 24 teachers (62.5 %) asked zero aesthetic questions. The second panel reveals that an additional five teachers (20.8 %) posed just one question. The remaining four teachers show a range of four. Equally important to note is the fact that better than four out of every five frequency counts (83.3%) reflect either zero or just one occurrence.

Response. Given the 24 participating Kindergarten through second grade teachers generated a total of 848 efferent solicitations and a total of 18 aesthetic solicitations, the following trends can be advanced.

First, the 24 teachers participating in the study were far more likely to use an efferent stance than an aesthetic stance when asking questions during read-alouds.
Second, the typical (median) number of efferent questions asked by individual classroom teachers was 33.5 questions. The use of efferent questions was extremely variable in these 24 classrooms. This use ranged from a minimum use of four efferent questions in one classroom to a maximum use of 82 efferent questions in another classroom.

Third, the typical (median) number of aesthetic questions asked by individual classroom teachers was zero. In fact, no aesthetic questions were noted in 15 of 24 (62.5%) read-alouds transcribed in this study. Given that the classroom with the maximum use of aesthetic questions involved using only six aesthetic questions, we can clearly infer that the use of aesthetic questions exhibited little variability across these 24 classrooms.

**Research Question Two**

The following is the second research question: *What are the frequencies and percentages of efferent solicitations provided by teachers in each grade (K-2) during read-alouds?* This question is used to investigate the possible relationship between grade level and efferent solicitations.

**Data Analysis.** Table 5.3 provides the summary data used to prepare the response to this research question. Inspection of the solicitation count in this table yields notable variability between grade levels. Specified from lowest to highest, these ranges are 50 in grade one, 63 in grade two, and 73 in Kindergarten. These three rank ordered ranges also yield the following informative comparisons as a means to further clarify the difference in occurrences across grade levels.
Table 5.3

A Frequency Distribution of Efferent Solicitations for 24 Classroom Teachers by Grade Level

<table>
<thead>
<tr>
<th>Count (#)</th>
<th>Kindergarten</th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(f) (%) (C%)</td>
<td>(f) (%) (C%)</td>
<td>(f) (%) (C%)</td>
</tr>
<tr>
<td>4</td>
<td>1 12.5 12.5</td>
<td>1 11.1 11.1</td>
<td>1 14.3 14.3</td>
</tr>
<tr>
<td>10</td>
<td>1 11.1 11.1</td>
<td>1 11.1 22.2</td>
<td>1 14.3 28.6</td>
</tr>
<tr>
<td>18</td>
<td>1 11.1 33.3</td>
<td>1 11.1 44.4</td>
<td>1 14.3 42.9</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>1 11.1 55.6</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1 12.5 25.0</td>
<td></td>
<td>1 14.3 66.7</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td>1 14.3 57.1</td>
</tr>
<tr>
<td>23</td>
<td>1 12.5 37.5</td>
<td>1 11.1 77.8</td>
<td>1 14.3 85.7</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>1 11.1 100.0</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td></td>
<td>2 22.2 100.0</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>1 11.1 66.7</td>
<td></td>
<td>1 14.3 100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8 100.0 _____</td>
<td>9 100.0 _____</td>
<td>7 100.0 _____</td>
</tr>
</tbody>
</table>

Note. In the table legend above, (#) equals number of occurrences, (f) equals frequency for the designated occurrence value, (%) reflects percent and (C %) represents the corresponding cumulative percent.
Specifically, the range for Kindergarten teachers is approximately 1.5 times the range for first grade teachers. The range for Kindergarten teachers is 1.26 times the range for second grade teachers.

The medians for the different grade levels are not as variable. The median for the Kindergarten teacher group is 35.5. The first grade teacher group has a median of 28 and the second grade teacher group has a median of 37. Thus, Kindergarten and second grade teachers have the more similar medians with one and one-half questions difference. Also, the medians range from a low of 28 in first grade to a high of 37 in second grade. The total efferent count of questions asked indicates that although the ranges among Kindergarten to second grade teachers are quite different, the medians are not that far apart. Kindergarten and second grade teachers have the more similar medians with a difference of one and one-half questions. The largest median difference is nine occurrences between first and second grade (28 and 37, respectively).

Response. Given that 24 participating Kindergarten through second grade teachers generated similar efferent solicitations medians (35.5 for Kindergarten, 28.0 for first grade and 37.0 for second grade) and similar ranges (73 for Kindergarten, 50 for first grade and 63 for second grade), a single trend emerges for this study sample. Specifically, the actual center and spread differences in the three grade level distributions are not large enough a departure from the overall median and range in the aggregate distribution for the entire sample. Thus, we are unable to advance the inference that there is a relationship between grade level and the use of efferent solicitations.
Research Question Three

The following is the third research question: *What are the frequencies and percentages of aesthetic solicitations provided by teachers in each grade (K-2) during read-alouds?* This question is used to investigate the possible relationship between grade level and aesthetic solicitations.

**Data Analysis.** The summary data provided in Table 5.4 are used to prepare the response to this research question. The overall occurrence count for the Kindergarten through second grade teachers as a single group indicates a range from zero to six aesthetic solicitations. The first grade teacher group shows the smallest range of two solicitations followed by Kindergarten teacher group with a range of three solicitations, and finally the second grade teacher group reflects a range of six questions. When these ranges are rank ordered, the analysis of these ranges indicates a very small difference across the three grade levels.

The typical occurrences of solicitations for Kindergarten through second grade teachers indicate that Kindergarten and first grade teacher groups show a median of zero. The second grade teacher group shows a median of one. Thus, the typical scores for these three teacher groups reflect very little difference.

**Response.** Given that 24 participating Kindergarten through second grade teachers generated similar aesthetic solicitations medians (zero for Kindergarten, zero for first grade and one for second grade) and low ranges (3 for Kindergarten, 2 for first grade and 6 for second grade), a single trend emerges for this study sample. Specifically, the actual center and spread differences in the three grade level
Table 5.4

A Frequency Distribution of Aesthetic Solicitations for 24 Classroom Teachers by Grade Level

<table>
<thead>
<tr>
<th>Count</th>
<th>Kindergarten</th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>(#)</td>
<td>(f) (f) (C%)</td>
<td>(f) (C%) (C%)</td>
<td>(f) (C%) (C%)</td>
</tr>
<tr>
<td>0</td>
<td>5 62.5 62.5</td>
<td>7 77.8 77.8</td>
<td>3 42.9 42.9</td>
</tr>
<tr>
<td>1</td>
<td>2 25.0 87.5</td>
<td>1 11.1 88.9</td>
<td>2 28.6 71.4</td>
</tr>
<tr>
<td>2</td>
<td>1 11.1 100.0</td>
<td>1 14.3 85.7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1 12.5 100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>1 14.3 100.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8 100.0</td>
<td>9 100.0</td>
<td>7 100.0</td>
</tr>
</tbody>
</table>

Note. In the table legend above, (#) equals number of occurrences, (f) equals frequency for the designated occurrence value, (%) reflects percent and (C %) represents the corresponding cumulative percent.
distributions are not large enough a departure from the overall median and range in the aggregate distribution for the entire sample. Thus, we are unable to advance the inference that there is a relationship between grade level and the use of aesthetic solicitations.

**Student Responses**

The fourth through sixth research questions request information dealing with student responses to teacher solicitations advanced during read-alouds. Accordingly, the second section of the findings is organized into three parts. Each part provides a response to one of these three research questions.

**Research Question Four**

The fourth research question is as follows: *What are the frequencies and percentages of congruence and incongruence associated with efferent and with aesthetic solicitations provided by all (K-2) participating teachers during read-alouds?* This question is used to investigate two possible relationships.

The first possible relationship is between the number of efferent solicitations observed during teacher read-alouds (see Table 5.1) and the corresponding proportion of these efferent responses that are congruent (a new binary measure based on the frequencies of congruence and incongruence).

The second possible relationship is between the number of aesthetic solicitations observed during teacher read-alouds (see Table 5.2) and the corresponding proportion of
these aesthetic responses that are congruent (a new binary measure based on the frequencies of congruence and incongruence).

**Data Analysis for the First Relationship.** Student responses to efferent solicitations are given in Table 5.5. Three student response variables are provided for each of the 24 classrooms in the study.

The first two student response variables in Table 5.5 (see columns two and three) present the congruent and corresponding incongruent student responses for each classroom. The 24 row entries in this table are rank ordered from lowest to highest value using the congruent student response variable. Accordingly, the first row entry in column two is the lowest student congruent response having a count value of two. The last row entry in column two is the highest student congruent response having a count value of 79.

Since each efferent solicitation has a single corresponding student response, the 24 individual student response totals for the sum of their congruent and incongruent response counts replicate the distribution of the efferent solicitation variable counts given in Table 5.1.

This replication feature of Table 5.5 can be easily verified. For example, the first row entries in columns two and three of Table 5.5 yield a total of four student responses. This total corresponds to the first row entry of four efferent solicitations given in Table 5.1. Similarly, the last row entries in Table 5.5 yield a total of 82 student responses. This total corresponds to the last row entry of Table 5.1 which has a total of 82 efferent solicitations.
Table 5.5

Paired Congruent and Incongruent Student Responses to Efferent Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Paired Response</th>
<th>Congruent Count</th>
<th>Incongruent Count</th>
<th>Congruent Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0.50</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>2</td>
<td>0.80</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>1</td>
<td>0.94</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>5</td>
<td>0.77</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>2</td>
<td>0.90</td>
</tr>
<tr>
<td>6</td>
<td>19</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>7</td>
<td>19</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
<td>3</td>
<td>0.87</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>4</td>
<td>0.83</td>
</tr>
<tr>
<td>10</td>
<td>23</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>4</td>
<td>0.86</td>
</tr>
<tr>
<td>12</td>
<td>30</td>
<td>5</td>
<td>0.86</td>
</tr>
<tr>
<td>13</td>
<td>31</td>
<td>1</td>
<td>0.97</td>
</tr>
<tr>
<td>14</td>
<td>32</td>
<td>4</td>
<td>0.89</td>
</tr>
<tr>
<td>15</td>
<td>33</td>
<td>5</td>
<td>0.87</td>
</tr>
<tr>
<td>16</td>
<td>35</td>
<td>0</td>
<td>0.95</td>
</tr>
<tr>
<td>17</td>
<td>38</td>
<td>5</td>
<td>0.90</td>
</tr>
<tr>
<td>18</td>
<td>43</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>19</td>
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</tr>
<tr>
<td>20</td>
<td>47</td>
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<tr>
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<td>49</td>
<td>11</td>
<td>0.82</td>
</tr>
<tr>
<td>22</td>
<td>54</td>
<td>6</td>
<td>0.90</td>
</tr>
<tr>
<td>23</td>
<td>71</td>
<td>6</td>
<td>0.92</td>
</tr>
<tr>
<td>24</td>
<td>79</td>
<td>3</td>
<td>0.96</td>
</tr>
</tbody>
</table>
The third student response variable in Table 5.5 (see column four) is calculated to reflect the proportion of student responses in each classroom that are congruent responses. For example, using the first row entries for congruent and incongruent student responses, two of these four responses are congruent. Thus, the congruent proportion is 0.50. Similarly, for the second row, eight of the ten student responses in this classroom are congruent. Accordingly, the congruent proportion is 0.80. All other congruent proportions are determined using this calculation method.

Since the first relationship of interest for research question four involves the correlation between the number of efferent solicitations per classroom teacher and the corresponding proportion of congruent student responses, it is helpful to examine the univariate distribution of congruent proportions prior to investigating this bivariate relationship. This can be done using the univariate distribution of congruent proportions provided in Table 5.6.

Inspection of the 24 proportions in Table 5.6 indicates that the typical congruent proportion is very high and that these proportions vary from a low of 0.50 to a high of 1.00. In more precise terms, the median congruent proportion is 0.90 and range of these proportions is 0.50. Also noteworthy, the descriptor “very high” is used here because the Table 5.6 distribution indicates that 22 of the 24 congruent proportions are 0.80 or larger.

**First Correlation.** Given that the univariate distributions for both the efferent solicitation variable and the corresponding congruent proportion variable are in place, data analysis can now focus on the correlation between these two classroom behavior
Table 5.6

The Proportion of Congruent Student Responses to Efferent Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Proportion</th>
<th>Frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>0.77</td>
<td>1</td>
<td>8.3</td>
</tr>
<tr>
<td>0.80</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>0.82</td>
<td>1</td>
<td>16.7</td>
</tr>
<tr>
<td>0.83</td>
<td>1</td>
<td>20.8</td>
</tr>
<tr>
<td>0.86</td>
<td>2</td>
<td>29.2</td>
</tr>
<tr>
<td>0.87</td>
<td>2</td>
<td>37.6</td>
</tr>
<tr>
<td>0.89</td>
<td>1</td>
<td>41.7</td>
</tr>
<tr>
<td>0.90</td>
<td>3</td>
<td>54.2</td>
</tr>
<tr>
<td>0.92</td>
<td>1</td>
<td>58.3</td>
</tr>
<tr>
<td>0.94</td>
<td>1</td>
<td>62.5</td>
</tr>
<tr>
<td>0.95</td>
<td>1</td>
<td>66.7</td>
</tr>
<tr>
<td>0.96</td>
<td>2</td>
<td>75.0</td>
</tr>
<tr>
<td>0.97</td>
<td>1</td>
<td>79.2</td>
</tr>
<tr>
<td>0.98</td>
<td>1</td>
<td>83.3</td>
</tr>
<tr>
<td>1.00</td>
<td>4</td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Total   24
variables. The bivariate distribution needed to investigate this possibility is presented in Tables 5.7 and 5.8.

The first column of Table 5.7 provides a rank ordered distribution of efferent solicitations ranging from a low of 4 to a high of 82. If a correlation exists between these solicitation counts and the corresponding proportions in the second column, the distribution of these proportion entries must consistently move in a single direction. Specifically, if the proportion entries systematically increase, there would be a positive bivariate relationship (or positive correlation). On the other hand, if the proportion entries systematically decrease, there would be a negative bivariate relationship (or negative correlation).

In Table 5.7, neither systematic movement emerges for the distribution of proportions. This can be verified by observing that a nearly identical range of proportions exists for each of the three rank ordered data panels linked to the teacher solicitation distribution. Hence, the absence of a systematic movement of proportions in one direction (either consistently positive or consistently negative) implies that no correlation (or bivariate relationship) exists for these sample data.

Since a zero order correlation is a symmetrical bivariate descriptive statistic, the absence of a relationship between efferent solicitation counts and the corresponding congruent student proportions can also be identified (or initially uncovered) by comparing the ranked ordered distribution of proportions (lowest to highest) to the corresponding distribution of solicitation counts. Table 5.8 arrays the sample data for this comparison.
Table 5.7
The Bivariate Distribution of Efferent Solicitations and Efferent Congruent Proportions for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Solicitation</th>
<th>Proportion</th>
<th>Range of Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td><strong>0.50</strong></td>
<td>0.50</td>
</tr>
<tr>
<td>10</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td><strong>1.00</strong></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td><strong>0.83</strong></td>
<td>0.17</td>
</tr>
<tr>
<td>28</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td><strong>1.00</strong></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>0.96</td>
<td>0.16</td>
</tr>
<tr>
<td>48</td>
<td><strong>0.98</strong></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td><strong>0.82</strong></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>0.96</td>
<td></td>
</tr>
</tbody>
</table>

Note. Bolded entries in column two are the values used to calculate range entries in column three.
### Table 5.8

The Bivariate Distribution of Efferent Congruent Proportions and Efferent Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Proportion</th>
<th>Solicitation</th>
<th>Range of Solicitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>4</td>
<td>56</td>
</tr>
<tr>
<td>0.77</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>0.80</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>0.82</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>0.83</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>0.86</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>0.86</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>0.87</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>0.87</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>0.89</td>
<td>36</td>
<td>59</td>
</tr>
<tr>
<td>0.90</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>0.90</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>0.90</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>0.92</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>0.94</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>0.95</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>0.96</td>
<td>47</td>
<td>63</td>
</tr>
<tr>
<td>0.96</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>0.97</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>0.98</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Bolded entries in column two are the values used to calculate range entries in column three.
An examination of Table 5.8 indicates that the solicitation distribution (see column two) fails to move systematically in a single direction. Thus, this elaboration of the two variables of interest also provides evidence to support the previously advanced conclusion that no correlation (bivariate relationship) exists for these sample data.

**Response for the First Relationship.** Given that the 24 participating Kindergarten through second grade teacher efforts in this study generated (a) a total of 848 efferent solicitations, (b) a total of 848 corresponding student responses that are classified as either congruent (776 student responses) or incongruent (72 student responses), and (c) a distribution of 24 congruent student proportions (one proportion per classroom), two specific trends can be advanced.

First, since the proportion of congruent student responses to efferent solicitations in 22 of the 24 sample classrooms was at least 0.80, and given that the median proportion for all 24 sample classrooms in the study had a value of 0.90, a single aggregate trend emerges; namely, a large majority of student responses to efferent solicitations advanced during read-aloud activities in these 24 sample classrooms were congruent rather than incongruent responses.

Second, the covariance patterns uncovered in the aggregate data analysis of all 24 sample classrooms analyzed in a single bivariate distribution suggest that the proportion of congruent student responses is independent of the actual number of efferent solicitations used by teachers in individual read-aloud classroom sessions. Thus, we are unable to advance the inference that there is a relationship between the number of
efferent solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.

**Data Analysis for the Second Relationship.** The data analysis strategy for the second relationship dealing with aesthetic solicitations and the corresponding student responses is identical to the data analysis strategy used for examining the first relationship dealing with efferent solicitations and the corresponding student responses. Accordingly, it begins by introducing student responses to aesthetic solicitations in Table 5.9. Three specific student response variable distributions are provided. Each distribution has 24 entries, one entry for each of the 24 classrooms in the study.

The first two student response variables in Table 5.9 (see columns two and three) present the congruent and corresponding incongruent student responses for each classroom. The 24 row entries in this table are rank ordered from lowest to highest value using the congruent student response variable.

The third student response variable (see column four) is calculated to reflect the proportion of student responses in each classroom that are congruent responses.

Since the second relationship of interest for research question four involves the correlation between the number of aesthetic solicitations per classroom and the corresponding proportion of congruent student responses, it is helpful to examine more closely the univariate distribution of congruent proportions prior to investigating this bivariate relationship. This examination can be done using the univariate distribution of congruent proportions provided in Table 5.10.
Table 5.9
Paired Congruent and Incongruent Student Responses to Aesthetic Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Paired Response</th>
<th>Congruent Count</th>
<th>Incongruent Count</th>
<th>Congruent Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>16</td>
<td>0</td>
<td>1</td>
<td>0.0</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>19</td>
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<td>21</td>
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<tr>
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<td>2</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>23</td>
<td>3</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>24</td>
<td>6</td>
<td>0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Note. NA is not applicable because these teachers did not use any aesthetic solicitations.
Table 5.10

The Proportion of Congruent Student Responses to Aesthetic Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Proportion</th>
<th>Frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>15</td>
<td>62.5</td>
</tr>
<tr>
<td>0.00</td>
<td>1</td>
<td>67.7</td>
</tr>
<tr>
<td>0.50</td>
<td>1</td>
<td>89.9</td>
</tr>
<tr>
<td>1.00</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Total** 24

*Note.* NA is not applicable because these 15 teachers did not use any aesthetic solicitations.
Inspection of the first column in Table 5.10 indicates that the first 15 of the 24 entries in this column carry the response “NA” because no aesthetic solicitations were advanced in these 15 classrooms. The remaining nine entries vary from a low of zero to a high of 1.0. Also noteworthy in this table is the fact that seven of these nine proportions in column one are 1.0, indicating that in the few cases where teachers used aesthetic solicitations, the corresponding student responses was almost always congruent.

Second Correlation. Given the univariate distributions for both the aesthetic solicitations variable and the corresponding congruent proportion variable are in place, data analysis can now focus in the correlation between these two classroom behavior variables. The bivariate distribution needed to study this possibility is presented in Tables 5.11 and 5.12.

The first column of Table 5.11 provides a rank ordered distribution of aesthetic solicitations ranging from zero to six. Given the first panel in this table reveals that 15 classrooms are unable to provide a proportion entry, only the paired data in the second and third panels can be used in the search for possible relationship.

For the five paired observations in the second panel of Table 5.11, the span of proportions is from zero to 1.0. Thus, in these five classrooms all having a common aesthetic solicitation value, there is not always a common corresponding proportion.

For the four paired observations in the third panel of Table 5.11, the span of proportions is from 0.50 to 1.0. A closer look at the last three entries in this panel indicate that the movement from two to six solicitations fails to yield any change in the
Table 5.11

The Covariance of Aesthetic Solicitations and Aesthetic Proportions for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Solicitation</th>
<th>Proportion</th>
<th>Range of Proportions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>NA</td>
<td>Zero</td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>NA</td>
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</tr>
<tr>
<td>0</td>
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</tr>
<tr>
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<td>NA</td>
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<td></td>
</tr>
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<td>1.00</td>
</tr>
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<td>1</td>
<td>1.00</td>
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</tr>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>1.00</td>
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<td><strong>1.00</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>0.50</strong></td>
<td>0.50</td>
</tr>
<tr>
<td>2</td>
<td><strong>1.00</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* NA is not applicable because these 15 teachers did not use any aesthetic solicitations. Bolded entries in column two are the values used to calculate range entries in column three.
### Table 5.12

The Covariance of Aesthetic Proportions and Aesthetic Solicitations for 24 Classroom Teachers

<table>
<thead>
<tr>
<th>Proportion</th>
<th>Solicitation</th>
<th>Range of Solicitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>0</td>
<td>Zero</td>
</tr>
<tr>
<td>NA</td>
<td>0</td>
<td></td>
</tr>
<tr>
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<tr>
<td>NA</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>0</td>
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<tr>
<td>NA</td>
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<tr>
<td>NA</td>
<td>0</td>
<td></td>
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<td>NA</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

| 0.00       | 1            | 5.0                    |
| 0.50       | 2            |                        |
| 1.00       | 1            |                        |
| 1.00       | 1            |                        |
| 1.00       | 1            |                        |
| 1.00       | 1            |                        |
| 1.00       | 2            |                        |
| 1.00       | 3            |                        |
| 1.00       | 6            |                        |

*Note.* NA is not applicable because these 15 teachers did not use any aesthetic solicitations. Bolded entries in column two are the values used to calculate range entries in column three.
three corresponding proportions. These three entries are always 1.0. Also, the first two entries in the third panel both reflect an identical solicitation value of two; however, there is not a common corresponding proportion.

Taken collectively, the paired data entries in the second and third panel imply that no correlation (or bivariate relationship) exists for these sample data.

Table 5.12 reverses the order of the two variables presented in Table 5.11. The second panel of Table 5.12 also provides evidence to support the position that no correlation (or bivariate relationship) exists for these sample data. Specifically, for the last seven solicitation values in column two that vary from one to six solicitations, there is no change in the corresponding proportion values.

Response for the Second Relationship. Given that the 24 participating Kindergarten through second grade teacher efforts in this study generated (a) a total of 18 aesthetic solicitations, (b) a total of 18 corresponding student responses that are classified as either congruent (16 student responses) or incongruent (2 student responses), and (c) a distribution of 24 student proportion indicators (15 having a value of “NA” and 9 having values from zero to one), three specific trends emerge.

First, since a large majority of the 24 classrooms in the study (15 of 24 or 62.5 percent) had no aesthetic solicitations advanced during read-aloud activities, no proportion of congruent responses can be referenced for these 15 sample classrooms.

Second, for the nine classrooms (37.5 percent) where aesthetic solicitations were advanced during read-aloud activities, seven of these nine classrooms had no incongruent student responses.
Third, the covariance patterns uncovered in the aggregate data analysis of all 24 sample classrooms suggest that the proportions of congruent student responses is independent of the actual number of aesthetic solicitations used by teachers in individual read-aloud classroom sessions. Thus, we are unable to advance the inference that there is a relationship between the number of aesthetic solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.

The third student response variable in Table 5.5 (see column four) is calculated to reflect the proportion of student responses in each classroom that are congruent responses. For example, using the first row entries for congruent and incongruent student responses, two of these four responses are congruent. Thus, the congruent proportion is 0.50. Similarly, for the second row, eight of the ten student responses in this classroom are congruent. Accordingly, the congruent proportion is 0.80. All other congruent proportions are determined using this calculation method.

Since the first relationship of interest for research question four involves the correlation between the number of efferent solicitations per classroom teacher and the corresponding proportion of congruent student responses, it is helpful to examine the univariate distribution of congruent proportions prior to investigating this bivariate relationship. This can be done using the univariate distribution of congruent proportions provided in Table 5.6.

Inspection of the 24 proportions in Table 5.6 indicates that the typical congruent proportion is very high and that these proportions vary from a low of 0.50 to a high of
1.00. In more precise terms, the median congruent proportion is 0.90 and range of these proportions is 0.50. Also noteworthy, the descriptor “very high” is used here because the Table 5.6 distribution indicates that 22 of the 24 congruent proportions are 0.80 or larger.

**First Correlation.** Given that the univariate distributions for both the efferent solicitation variable and the corresponding congruent proportion variable are in place, data analysis can now focus on the correlation between these two classroom behavior variables. The bivariate distribution needed to investigate this possibility is presented in Tables 5.7 and 5.8.

The first column of Table 5.7 provides a rank ordered distribution of efferent solicitation counts ranging from a low of 4 to a high of 82. If a correlation exists between these solicitation counts and the corresponding proportions in the second column, the distribution of these proportion entries must consistently move in a single direction. Specifically, if the proportion entries systematically increase, there would be a positive bivariate relationship (or positive correlation). On the other hand, if the proportion entries systematically decrease, there would be a negative bivariate relationship (or negative correlation).

In Table 5.7, neither systematic movement emerges for the distribution of proportions. This can be verified by observing that a nearly identical range of proportions exists for each of the three rank ordered data panels linked to the teacher solicitation distribution. Hence, the absence of a systematic movement of proportions in
one direction (either consistently positive or consistently negative) implies that no correlation (or bivariate relationship) exists for these sample data.

Since a zero order correlation is a symmetrical bivariate descriptive statistic, the absence of a relationship between efferent solicitation counts and the corresponding congruent student proportions can also be identified (or initially uncovered) by comparing the ranked ordered distribution of proportions (lowest to highest) to the corresponding distribution of solicitation counts. Table 5.8 arrays the sample data for this comparison.

An examination of Table 5.8 indicates that the solicitation distribution (see column two) fails to move systematically in a single direction. Thus, this elaboration of the two variables of interest also provides evidence to support the previously advanced conclusion that no correlation (bivariate relationship) exists for these sample data.

**Response for the First Relationship.** Given that the 24 participating Kindergarten through second grade teacher efforts in this study generated (a) a total of 848 efferent solicitations, (b) a total of 848 corresponding student responses that are classified as either congruent (776 student responses) or incongruent (72 student responses), and (c) a distribution of 24 congruent student proportions (one proportion per classroom), two specific trends can be advanced.

First, since the proportion of congruent student responses to efferent solicitations in 22 of the 24 sample classrooms was at least 0.80, and given that the median proportion for all 24 sample classrooms in the study had a value of 0.90, a single aggregate trend emerges; namely, a large majority of student responses to efferent
solicitations advanced during read-aloud activities in these 24 sample classrooms were congruent rather than incongruent responses.

Second, the covariance patterns uncovered in the aggregate data analysis of all 24 sample classrooms analyzed in a single bivariate distribution suggest that the proportion of congruent student responses is independent of the actual number of efferent solicitations used by teachers in individual read-aloud classroom sessions. Thus, we are unable to advance the inference that there is a relationship between the number of efferent solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.

**Data Analysis for the Second Relationship.** The data analysis strategy for the second relationship dealing with aesthetic solicitations and the corresponding student responses is identical to the data analysis strategy used for examining the first relationship dealing with efferent solicitations and the corresponding student responses. Accordingly, it begins by introducing student responses to aesthetic solicitations in Table 5.9. Three specific student response variable distributions are provided. Each distribution has 24 entries, one entry for each of the 24 classrooms in the study.

The first two student response variables in Table 5.9 (see columns two and three) present the congruent and corresponding incongruent student responses for each classroom. The 24 row entries in this table are rank ordered from lowest to highest value using the congruent student response variable.

The third student response variable (see column four) is calculated to reflect the proportion of student responses in each classroom that are congruent responses.
Since the second relationship of interest for research question four involves the correlation between the number of aesthetic solicitations per classroom and the corresponding proportion of congruent student responses, it is helpful to examine more closely the univariate distribution of congruent proportions prior to investigating this bivariate relationship. This examination can be done using the univariate distribution of congruent proportions provided in Table 5.10.

Inspection of the first column in Table 5.10 indicates that the first 15 of the 24 entries in this column carry the response “NA” because no aesthetic solicitations were advanced in these 15 classrooms. The remaining nine entries vary from a low of zero to a high of 1.0. Also noteworthy in this table is the fact that seven of these nine proportions in column one are 1.0, indicating that in the few cases where teachers used aesthetic solicitations, the corresponding student responses was almost always congruent.

Second Correlation. Given the univariate distributions for both the aesthetic solicitations variable and the corresponding congruent proportion variable are in place, data analysis can now focus in the correlation between these two classroom behavior variables. The bivariate distribution needed to study this possibility is presented in Tables 5.11 and 5.12.

The first column of Table 5.11 provides a rank ordered distribution of aesthetic solicitations ranging from zero to six. Given the first panel in this table reveals that 15 classrooms are unable to provide a proportion entry, only the paired data in the second and third panels can be used in the search for possible relationship.
For the five paired observations in the second panel of Table 5.11, the span of proportions is from zero to 1.0. Thus, in these five classrooms all having a common aesthetic solicitation value, there if not always a common corresponding proportion.

For the four paired observations in the third panel of Table 5.11, the span of proportions is from 0.50 to 1.0. A closer look at the last three entries in this panel indicate that the movement from two to six solicitations fails to yield any change in the three corresponding proportions. These three entries are always 1.0. Also, the first two entries in the third panel both reflect an identical solicitation value of two; however, there is not a common corresponding proportion.

Taken collectively, the paired data entries in the second and third panel imply that no correlation (or bivariate relationship) exists for these sample data.

Table 5.12 reverses the order of the two variables presented in Table 5.11. The second panel of Table 5.12 also provides evidence to support the position that no correlation (or bivariate relationship) exists for these sample data. Specifically, for the last seven solicitation values in column two that vary from one to six solicitations, there is no change in the corresponding proportion values.

**Response for the Second Relationship.** Given that the 24 participating Kindergarten through second grade teacher efforts in this study generated (a) a total of 18 aesthetic solicitations, (b) a total of 18 corresponding student responses that are classified as either congruent (16 student responses) or incongruent (2 student responses), and (c) a distribution of 24 student proportion indicators (15 having a value of “NA” and 9 having values from zero to one), three specific trends emerge.
First, since a large majority of the 24 classrooms in the study (15 of 24 or 62.5%) had no aesthetic solicitations advanced during read-aloud activities, no proportion of congruent responses can be referenced for these 15 sample classrooms.

Second, for the nine classrooms (37.5%) where aesthetic solicitations were advanced during read-aloud activities, seven of these nine classrooms had no incongruent student responses.

Third, the covariance patterns uncovered in the aggregate data analysis of all 24 sample classrooms suggest that the proportions of congruent student responses is independent of the actual number of aesthetic solicitations used by teachers in individual read-aloud classroom sessions. Thus, we are unable to advance the inference that there is a relationship between the number of aesthetic solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.

**Research Question Five**

The fifth research question is as follows: *What are the frequencies and percentages of congruence and incongruence associated with efferent solicitations provided by teachers in each grade (K-2) during read-alouds?*

This question is used to explore the possibility that the overall relationship between the number of efferent solicitations for each classroom teacher and the corresponding proportion of student efferent responses that are congruent (see Tables 5.7 and 5.8) remains constant or changes when this relationship is reexamined at each of three grade levels. Accordingly, the fifth research question involves an examination of a
multivariate relationship among these three variables: teacher efferent solicitations, proportion of efferent congruent student responses and classroom grade level.

**Data Analysis.** Summary data used to prepare the response for the fifth research question are provided in Table 5.13. This table uses the aggregate bivariate distribution given in Table 5.7 for all 24 classrooms to form separate bivariate distributions for classroom data from each grade level. The four steps taken to complete the grade level comparative analysis are elaborated below.

**Step One.** Inspection of the Kindergarten bivariate distribution for the eight sample classrooms (see the first vertical panel in Table 5.13) indicates that the increases in efferent solicitations are not linked to either a consistent increase or a consistent decrease in the proportion of efferent congruent responses offered by students.

**Step Two.** An examination of the first grade bivariate distribution for the nine sample classrooms (see second vertical panel) indicates that the increases in efferent solicitations are not linked to either a consistent increase or to a consistent decrease in the proportion of efferent congruent student responses.

**Step Three.** An examination of the second grade bivariate distribution for the seven sample classrooms (see third vertical panel) yields the same outcome; namely, there is no relationship between the number of efferent solicitations and the corresponding proportion of efferent congruent student responses.
Table 5.13

Efferent Solicitations and Corresponding Congruent Proportions for 24 Classroom Teachers by Grade Level

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Efferent Count</th>
<th>Efferent Proportion</th>
<th>Teacher Number</th>
<th>Efferent Count</th>
<th>Efferent Proportion</th>
<th>Teacher Number</th>
<th>Efferent Count</th>
<th>Efferent Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>0.50</td>
<td>2</td>
<td>20</td>
<td>0.90</td>
<td>3</td>
<td>23</td>
<td>0.87</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
<td>0.86</td>
<td>4</td>
<td>36</td>
<td>0.89</td>
<td>5</td>
<td>38</td>
<td>0.87</td>
</tr>
<tr>
<td>6</td>
<td>43</td>
<td>0.90</td>
<td>7</td>
<td>77</td>
<td>0.92</td>
<td>8</td>
<td>60</td>
<td>0.90</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>0.80</td>
<td>18</td>
<td>19</td>
<td>1.00</td>
<td>22</td>
<td>48</td>
<td>0.98</td>
</tr>
<tr>
<td>28</td>
<td>28</td>
<td>0.86</td>
<td>24</td>
<td>47</td>
<td>1.00</td>
<td>43</td>
<td>60</td>
<td>0.90</td>
</tr>
<tr>
<td>48</td>
<td>48</td>
<td>0.98</td>
<td>58</td>
<td>58</td>
<td>1.00</td>
<td>72</td>
<td>72</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Step Four. A comparison of these three grade level analyses yields a single pattern. Specifically, the outcome of no relationship established for the 24 classrooms considered as a single group also holds (remains constant) when each grade level is analyzed independently. Thus, grade level is not a significant moderator variable for the bivariate relationship studied in research question five.

Response. At each of the three grades investigated in this study (Kindergarten, first grade, second grade), there is no relationship between the number of efferent solicitations and the corresponding proportion of efferent student responses.

Research Question Six

The sixth research question is as follows: What are the frequencies and percentages of congruence and incongruence associated with aesthetic solicitations provided by teachers in each grade (K-2) during read-alouds?

This question is used to explore the possibility that the overall relationship between the number of aesthetic solicitations for each classroom teacher and the corresponding proportion of student aesthetic responses that are congruent (see Tables 5.11 and 5.12) remains constant or changes when this relationship is reexamined at each of the three grade levels. Accordingly, the sixth research question involves an examination of a multivariate relationship among these three variables: teacher aesthetic solicitations, proportion of aesthetic student responses and classroom grade level.

Data Analysis. Summary data used to prepare the response for the sixth research question are provided in Table 5.14. This table uses the aggregate bivariate distribution given in Table 5.11 for all 24 classrooms to form separate bivariate
Table 5.14
Aesthetic Solicitations and Corresponding Congruent Proportions for 24 Classroom Teachers by Grade Level

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Aesthetic Count</th>
<th>Aesthetic Proportion</th>
<th>Teacher Number</th>
<th>Aesthetic Count</th>
<th>Aesthetic Proportion</th>
<th>Teacher Number</th>
<th>Aesthetic Count</th>
<th>Aesthetic Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>NA</td>
<td>1</td>
<td>0</td>
<td>NA</td>
<td>1</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>NA</td>
<td>2</td>
<td>0</td>
<td>NA</td>
<td>2</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>NA</td>
<td>3</td>
<td>0</td>
<td>NA</td>
<td>3</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>NA</td>
<td>4</td>
<td>0</td>
<td>NA</td>
<td>4</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>NA</td>
<td>5</td>
<td>0</td>
<td>NA</td>
<td>5</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0.00</td>
<td>6</td>
<td>1</td>
<td>1.00</td>
<td>6</td>
<td>2</td>
<td>1.00</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1.00</td>
<td>7</td>
<td>2</td>
<td>0.50</td>
<td>7</td>
<td>3</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. NA is used to reflect cases where teachers did not use any aesthetic solicitations and, therefore, no proportions (ratios) can be calculated.
distributions for classroom data from each grade level. The four steps taken to complete the grade level comparative analysis are elaborated below.

**Step One.** An examination of the Kindergarten bivariate distribution for the eight sample classrooms (see the first vertical panel in Table 5.13) indicates that five of the eight sample classrooms can not be used to establish a possible relationship between aesthetic solicitations and the corresponding proportions of aesthetic congruent responses. Paired data for the other three sample classrooms suggest that there is no relationship between the two variables of interest. This follows primarily because the increase in aesthetic solicitations from one solicitation (Kindergarten teacher seven) to three solicitations (Kindergarten teacher eight) has no corresponding increase or decrease for the proportion of aesthetic congruent responses.

**Step Two.** An examination of the first grade bivariate distribution for the nine sample classrooms (see second vertical panel) indicates that seven of nine classrooms can not be used to establish a possible relationship (either positive or negative) between aesthetic solicitations and the corresponding proportion of aesthetic congruent responses. Paired data for the other two sample classrooms do not provide sufficient evidence to declare either a meaningful positive or a meaningful negative relationship. Accordingly, it is best to conclude for first grade data that no relationship emerged.

**Step Three.** Inspection of the second grade bivariate distribution for the seven sample classrooms (see third vertical panel) indicates that three of the seven sample classrooms can not be used to explore a possible relationship between aesthetic solicitations and the corresponding proportion of aesthetic congruent responses. Paired
data for the other four sample classrooms clearly fail to yield either a positive or negative relationship. This is the outcome because all four aesthetic solicitation frequencies ranging from a count of one (teacher four) to a count of six (teacher seven) have a corresponding identical proportion of one.

Step Four. A comparison of these three grade level analyses yield a single pattern. Specifically, the outcome of no relationship established for the 24 classrooms considered as a single group also holds (remains constant) when each grade level is analyzed independently. Thus, grade level is not a significant moderator variable for the bivariate relationship studied in research question six.

Response. At each of the three grades investigated in this study, there is no relationship between the number of aesthetic solicitations and the corresponding proportions of aesthetic student responses.

Interaction Patterns

The last two research questions request information regarding possible interactions and other trends that can emerge when efferent and aesthetic teacher solicitations and student responses are analyzed using a moderator variable reflecting classroom grade level. Accordingly, the third section of the findings is organized into two parts. The first part provides the moderator variable analysis findings for efferent solicitations and the corresponding student responses. The second part provides the moderator variable analysis findings for the aesthetic solicitations and the corresponding student responses.
Research Question Seven

The seventh research question is as follows: What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve efferent solicitations? This research question is used to address two specific concerns.

The first specific concern focuses on possible interactions that could emerge from the multivariate analysis involving these three variables: efferent solicitations, the proportion of congruent efferent responses and the grade level where read-aloud classroom data were collected.

The second specific concern focuses on assessing the extent to which outliers (unusual or extreme observations) for efferent data compromised or significantly altered the research findings generated for the fifth research question.

Data Analysis for the First Concern. Reanalysis of the initial data and findings for the fifth research question using grade level as a moderator variable does not yield a meaningful interaction. Justification for this outcome is offered below in three sequential steps.

First, the aggregate analysis for research question four that used read-aloud observations from all sample classrooms as a single data analysis group provided this finding: there is no relationship between the number of efferent solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.
Second, the disaggregated data analysis placed the read-aloud observations into three separate (independent) groups. Each of these three independent groups contained the read-aloud observations for a single grade level.

Analysis of the bivariate relationship between efferent counts and efferent proportions for each of these three separate data sets (see Table 5.13) provided this finding: At each of the three grade levels investigated in this study (Kindergarten, first grade, second grade), there is no bivariate relationship between the number of efferent solicitations and the corresponding proportion of congruent efferent student responses.

**Response for the First Concern.** The third and final justification step serves as the response (conclusion) for this concern. Specifically, since the outcome of no bivariate relationship for the 24 classrooms analyzed as a single aggregate group (step one) also emerges when each grade level is analyzed as an independent disaggregated group (step two), there is no meaningful interaction. Put another way, since grade level used as a moderator variable does not yield different bivariate relationships for these independent read-aloud groups, there can be no interaction.

**Data Analysis for the Second Concern.** Data used to explore the influence of extreme read-aloud classroom observations are given in Table 5.15. Inspection of this table reveals a parallel format to that used to construct Table 5.13. The difference in these two tables is the fact that the smallest and largest valued sampling units in each of
Table 5.15

Efferent Solicitations and Corresponding Congruent Proportions for 17 Classroom Teachers by Grade Level

<table>
<thead>
<tr>
<th>Kindergarten</th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Number</td>
<td>Efferent Count</td>
<td>Efferent Proportion</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>0.90</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>0.87</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
<td>0.86</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>0.89</td>
</tr>
<tr>
<td>5</td>
<td>38</td>
<td>0.87</td>
</tr>
<tr>
<td>6</td>
<td>43</td>
<td>0.90</td>
</tr>
</tbody>
</table>
the three independent groups were deleted. Thus, the data set in Table 5.15 has only 17 classroom sampling units. This strategy of removing the smallest and largest classroom sample units provides a relevant data set to analyze the potential influence of outliers on research findings.

Replicating the data analysis strategy undertaken to produce research question five findings provides the answer for the second concern raised here. Put in question form, this replicated data analysis seeks an answer to this question: When the extreme value read-aloud observations are removed from the data set, does a research finding different than that provided for question five (based on all 24 sampling units) emerge?

An analysis of the truncated sample data in Table 5.15 indicates that there are no bivariate relationships between efferent counts and efferent proportions in any of the three truncated samples.

**Response for the Second Concern.** Replicating the research question five findings for this truncated (reduced) sample data set leads to this conclusion: The findings presented for research question five are not unduly influenced by the presence of actual extreme classroom observations. Accordingly, one can be more confident that there is no interaction when the variable grade level is used as a moderator and, equally important, the findings derived for the total sample of 24 read-aloud classrooms also best reflect the findings at each grade level.
Research Question Eight

The eighth research question is as follows: *What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve aesthetic solicitations?* This research question is used to address the same two specific concerns that were investigated for research question seven.

The first specific concern focuses on possible interactions that could emerge from the multivariate analysis involving these three study variables: aesthetic solicitations, the proportion of aesthetic congruent student responses and the grade level where read-aloud classroom data were collected.

The second specific concern focuses on assessing the extent to which outliers (extreme observations) compromised or significantly altered the research findings generated for the sixth research question.

**Data Analysis for the First Concern.** Reflecting again on the data analysis and findings derived for research question six that introduced the moderator variable grade level does not yield a meaningful pattern of interaction. A rationale to support this conclusion is offered below.

The major reason for advancing this no interaction inference is the fact that the outcome of no bivariate relationship between aesthetic counts and aesthetic proportions established for the 24 sample classrooms analyzed as a single group (see Tables 5.11 and 5.12) also emerges three separate times, once for each grade level classroom data set that was analyzed separately (see the three horizontal panels in Table 5.14).
An additional reason for not declaring a meaningful pattern of interaction using the moderator variable grade level is based on the unexpected number of classrooms in which teachers did not generate any aesthetic solicitations. Specifically, removing the 15 aesthetic counts in Table 5.14 reflecting a frequency of zero leaves only nine paired data points distributed over the three grade levels. Clearly, this significantly reduced data set of just nine classrooms (see the lower data entries in the three horizontal panels in Table 5.14) is too small to infer with any real confidence the presence of a relevant interaction pattern.

**Response for the First Concern.** Since the moderator variable grade level fails to alter the conclusion established for the overall single sample of 24 sampling units, the response for the first concern specified research question eight is straight-forward. Specifically, since grade level used as a moderator variable does not yield different bivariate relationships for each of the three independent read-aloud samples, there can be no meaningful interaction involving grade level.

**Data Analysis for the Second Concern.** Although the second concern to be investigated as part of the data analysis for research question eight is a noteworthy one, little needs to be done about it. This is the case because the distribution of nine nonzero aesthetic frequency counts in Table 5.14 does not contain any extreme (outlier) observations. This can be verified by observing that the nine counts in this table range from just one to six. Hence, an outlier analysis is not needed.

**Response for the Second Concern.** Since no extreme values were encountered in the distribution of aesthetic solicitation counts, there is no reason to doubt or alter the
findings for research question six that indicated no meaningful interaction involving grade level.

**Synthesis**

The data analysis findings provided in this chapter for the eight research questions specified in this inquiry were presented in three sections. Findings advanced in the first section dealt with teacher solicitation behaviors. Findings presented in the second section concentrated on the analysis of student responses and their relationship to the corresponding teacher solicitations. The third section was used to investigate and report findings regarding both possible interactions and the extent to which extreme data points might compromise the findings put forth in the second section for research questions five and six.

The final chapter that follows specifies the major conclusions for this inquiry. These conclusions revisit and then summarize the detailed findings initially presented in each of the first three sections of this chapter.
CHAPTER VI

SUMMARY AND CONCLUSIONS

This final chapter consists of three parts. The first part reviews the purpose and design of the study. The second part outlines the major conclusions. The third part discusses the recommendations for further study.

Purpose and Design

The purpose (Chapter I) was to provide a baseline description of reading instruction with regards to teachers’ solicitation practices and congruence of student responses as these interactions occur during read-alouds with Kindergarten, first, and second grade students.

The review of the literature (Chapter II) provided a thorough discussion of topics related to the purpose of this investigation. The review indicated that although emergent literacy programs and literature-based reading programs recommend the use of read-alouds to support reading development, the research indicates that the use, purpose, and strategies vary greatly among teachers. In addition, the review of the literature also suggests that there is a conflict between what is known about best practices for use in read-alouds and the benefits of read-alouds with school reform mandates. Finally, the value of dialogue and discussion before, during, and after read-alouds is also documented as critical to the facilitation of reading success and aesthetic experiences. However, the extent to which teacher solicitations are efferent or aesthetic was not evident in the research.
The design involved a specific conceptual logic (Chapters III) for the use of: (a) Barrett’s Taxonomy (Barrett, 1967; cited in Pearson & Johnson, 1978), (b) Rosenblatt’s (1965) efferent and aesthetic stances utilized within the reading continuum, (c) Guszak’s (1966) modified Solicitation-Response Unit About Reading Content, and (d) Lira’s (1985) definition of congruence. Taken collectively, these four sources helped to focus empirical efforts designed to: (a) address teacher solicitation behaviors, (b) determine the nature of congruence found in teacher-student interchanges during read-alouds, and (c) determine the interactions between teacher solicitations and student responses.

The design of the study also involved the specification of a set of research procedures (Chapter IV). Presented in four parts, this set of procedures addressed (a) the logic and application of the coding strategy used to classify teacher solicitations and the corresponding student responses, (b) the essential features of the sampling design, (c) the data collection method, and (d) the data analysis strategy used to generate responses for each of the eight research questions addressed in this study.

**Conclusions**

Chapter V presented the data analysis and detailed findings for the eight research questions. Consistent with the organization used in Chapter V, this part of the final chapter uses three sections to report the conclusions reached for these eight research questions. These sections are: (1) Teacher Solicitation Behaviors, (2) Student Responses, and (3) Interaction Patterns. These conclusions are elaborated as a set of 14 specific trends. A fourth and final section is added to the conclusion to compare these study findings to those findings reported in prior literature.
Teacher Solicitation Behaviors

Conclusions reached for teacher solicitation behaviors are given in four specific trends that have been linked with the first three research questions.

Research Question One. What are the frequencies and percentages of efferent and aesthetic solicitations provided by all (K-2) participating teachers during read-alouds? This question was used to describe the extent to which efferent and aesthetic solicitations were advanced by Kindergarten through second grade teachers during read-alouds.

Trend One. The frequency of efferent solicitations advanced by the 24 participating Kindergarten through second grade teachers during read-alouds was extremely variable. These solicitations ranged from a low of four efferent solicitations in one classroom to a high of 82 efferent solicitations in another classroom. The median number of efferent solicitations was 33.5 solicitations.

Trend Two. The 24 teachers participating in this study were far less likely to advance aesthetic solicitations during read-alouds. In fact, no aesthetic solicitations were recorded in 15 of the 24 read-aloud classroom teacher sessions transcribed in this study. For the remaining nine classroom teacher read-aloud sessions, the aesthetic solicitations ranged from one to six aesthetic solicitations with a median of just one solicitation.

Research Question Two. What are the frequencies and percentages of efferent solicitations provided by teachers in each grade (K-2) during read-alouds? This question was used to investigate the possible relationship between grade level and efferent solicitations.
**Trend Three.** The frequency of efferent solicitations generated in the Kindergarten, first and second grade classroom teacher samples are very similar to the overall distribution of efferent solicitations described in the first trend above. Thus, there appears to be no clear meaningful relationship between grade level and efferent solicitations when all 24 sample teachers are analyzed as a single group.

**Research Question Three.** *What are the frequencies and percentages of aesthetic solicitations provided by teachers in each grade (K-2) during read-alouds?* This question was used to investigate the possible relationship between grade level and aesthetic solicitations.

**Trend Four.** The frequency of aesthetic solicitations generated in the Kindergarten, first and second grade classroom teacher samples are very similar to the overall distribution of aesthetic solicitations described in the second trend above. Thus, there appears to be no obvious meaningful relationship between grade level and aesthetic solicitations when all 24 sample teachers are analyzed as a single group.

**Student Responses**

Conclusions reached for student responses to teacher solicitations are given in six specific trends that are linked with the second set of three research questions.

**Research Question Four.** *What are the frequencies and percentages of congruence and incongruence associated with efferent and with aesthetic solicitations provided by all (K-2) participating teachers during read-alouds?* This question was used to investigate two possible relationships at the aggregate level: (1) the number of efferent solicitations observed during teacher read-alouds and the corresponding proportion of
Two specific trends emerged for introducing the aggregate distributions for student congruent and incongruent responses to efferent solicitations.

**Trend Five.** The typical proportion of congruent student responses corresponding to efferent solicitations in the 24 sample classrooms in this study is very high. Specifically, the median congruent student response for classroom read-alouds is 0.90. Moreover, this distribution indicates that 22 of the 24 congruent proportions are 0.80 or larger.

**Trend Six.** For these 24 sample classrooms considered as a single aggregate group, there appears to be no empirically supported relationship between the frequency of efferent solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.

Two specific trends also emerged for introducing the aggregate distributions for student congruent and incongruent responses to aesthetic solicitations.

**Trend Seven.** Since no aesthetic teacher solicitations were advanced in 15 of the 24 sample classrooms, no congruent proportion can be established for these 15 sample classrooms. For the remaining nine sample classrooms where aesthetic solicitations were used by teachers, the typical proportion of congruent student responses was 1.0. In more specific terms, seven of the nine congruent responses were 1.0. The two remaining sample classroom congruent proportions were zero and 0.50.
**Trend Eight.** For these 24 sample classrooms considered as a single aggregate group, there is no relationship between the frequency of aesthetic solicitations observed in individual classroom read-aloud sessions and the corresponding proportion of congruent student responses.

**Research Question Five.** What are the frequencies and percentages of congruence and incongruence associated with efferent solicitations provided by teachers in each grade (K-2) during read-alouds? This question was used to explore the possibility that the overall relationship between the number of efferent solicitations for each classroom teacher and the corresponding proportion of student efferent responses that are congruent remains constant or changes when this relationship is reexamined at each of the three grade levels.

**Trend Nine.** At each of the three grade levels investigated in this study, there appears to be no clear relationship between the frequency of efferent solicitations for each classroom teacher and their corresponding proportion of congruent student responses. Thus, the bivariate finding advanced in the sixth trend also holds for each of three grade level samples considered separately.

**Research Question Six.** What are the frequencies and percentages of congruence and incongruence associated with aesthetic solicitations provided by teachers in each grade (K-2) during read-alouds? This question was used to explore the possibility that the overall relationship between the frequency of aesthetic solicitations for each classroom teacher and the corresponding proportion of student aesthetic
responses that are congruent remains constant or changes when this relationship was reexamined at each of the three grade levels.

**Trend Ten.** At each of the three grade levels investigated in this study, there is no relationship between the frequency of aesthetic solicitations for each classroom teacher and their corresponding proportion of congruent student responses. Thus, the bivariate finding established in the eighth trend also holds for each of the three grade level samples considered separately.

**Interaction Patterns**

Conclusions reached for the last two research questions are summarized below in four specific trend statements.

**Research Question Seven.** What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve efferent solicitations? This question was used to explore two concerns. The first concern explored a possible interaction resulting from the multivariate analysis involving three variables (efferent solicitations, proportion of congruent efferent responses, and grade level). The second concern investigated a possible outlier (extreme value) effect on the research conclusion offered for the first concern stated in the previous sentence.

**Trend Eleven.** Since the outcome of no bivariate relationship established for the 24 sample classrooms analyzed as a single group (see Trend Six) also holds when each grade level sample is analyzed independently (see Trend Nine), there is no meaningful interaction. Put another way, since grade level used as a moderator variable does not
yield different bivariate relationships for each of these three independent read-aloud groups, there can be no interaction.

**Trend Twelve.** Replicating the research question seven data analysis strategy after the removal of outliers (extreme values) in each of the three grade level data sets suggests that the eleventh trend elaborated above is not unduly influenced by the presence of the actual extreme classroom observations. Accordingly, one has greater confidence in the “no interaction” conclusion offered in the eleventh trend.

**Research Question Eight.** *What interaction patterns, trends, and/or relationships involving Kindergarten, first grade, and second grade students and teachers arise during read-alouds which involve aesthetic solicitations?* This question was used to explore two concerns. The first concern explored a possible interaction resulting from the multivariate analysis involving three variables (aesthetic solicitations, proportion of congruent aesthetic responses, and grade level). The second concern investigated possible outlier (extreme value) effect on the research conclusion offered for the first concern stated in the previous sentence.

**Trend Thirteen.** Since the outcome of no bivariate relationship established for the 24 sample classrooms analyzed as a single group (see Trend Eight) also holds when each grade level is analyzed independently (see Trend Ten), there is no meaningful interaction. Put another way, since grade level used as a moderator variable does not yield different bivariate relationships for each of these three independent read-aloud groups, there can be no interaction.
Trend Fourteen. Since there were no outliers (extreme values) in the distribution of aesthetic solicitation counts, there is no reason to doubt or alter the “no interaction” conclusion offered in the thirteenth trend.

Prior Research

Researchers have investigated teacher questioning behaviors in different ways. The research on teacher questioning behaviors (Guszak, 1966; Lira, 1985; Savage, 1998) indicates that teachers tend to ask mostly lower level types of questions. However, Ruddell (1995) found that teachers who are considered to be “influential” appear to ask higher order thinking questions. Moreover, prior research on teacher questioning behavior suggests that teachers tend to focus on efferent types of questions and that teachers do not appear to address the aesthetic side of Rosenblatt’s reading continuum.

Clearly, the present investigation sought to determine the degree to which teacher solicitation behaviors indicated the efferent and/or the aesthetic stance. Findings for this study indicated that the efferent rather than the aesthetic stance was by far the more common option used by teachers during read-alouds. In more specific terms, the findings of this study indicated that the aesthetic stance was minimally utilized by teachers during read-alouds. These findings are consistent with prior research.

While not explicitly investigated in this study, two possible explanations for why teachers seldom use and/or report aesthetic stances in prior interactive read-aloud research studies deserve mention here.

First, a plausible explanation for why teachers seldom use the aesthetic stance in read-alouds might be attributed to the fact that current research taxonomies often fail to
acknowledge questions that address the aesthetic stance. This failure to address the aesthetic stance was explicitly acknowledged in the review of the literature presented in Chapter II.

Second, while aesthetic solicitation and response information may have been gathered in prior interactive read-aloud studies, this information was not reported in the journal articles. This failure to report aesthetic stance information might be attributed to the fact that the ratio of efferent to aesthetic stances is extremely large favoring efferent stances. This outcome was clearly the case in this study.

Although not included here as a formal recommendation for future research, comments offered above regarding prior research suggest that those who conduct interactive read-aloud studies should consider devoting attention to studying aesthetic read-aloud concerns, including (a) the need to develop valid and reliable aesthetic category/categories within reading taxonomies, and (b) reporting all aesthetic stance information gathered in individual studies.

**Recommendations**

The final task of this descriptive study was to specify meaningful recommendations. Accordingly, three recommendations are advanced here. The first two of these recommendations deal with continuing the research agenda initiated in this dissertation. The third recommendation deals with implications for practice.

Each of the three recommendations addressed below is presented in three steps. The first step provides a rationale that documents how the recommendations emerged from experience and insights gained in conducting this descriptive study. The second
step shares a self-standing statement of the actual recommendation. The third and final step elaborates some specific comments that center on how the recommendations might be implemented and what benefits are likely to be associated with these implementation efforts.

**Improved Sampling Design**

As indicated in the Chapter IV discussion of the sampling plan, this descriptive study did not use a random (probability) sampling design. Using a nonrandom (non-probability) sampling design imposes two constraints on the use of the descriptive study findings and conclusions presented earlier in this final chapter.

First, and strictly speaking, the findings generated in this study hold only for the population of the 24 read-aloud classrooms observed in this study. On the positive side, the univariate, bivariate and multivariate descriptive statistics put forth for this population of 24 sampling units are parameters. Thus, no margin of error need be applied when inferences are restricted to just this study population.

The second constraint on the use of these study findings is the fact that a non-random sampling design can not take advantage of using inferential statistical methods that allow one to generalize sample findings to a larger (well-defined) population of schools. The first recommendation addresses this sampling constraint problem.
Recommendation One. This descriptive study should be replicated and this replicated descriptive study can improve the generalizability of the sample findings by using a random sampling design to select schools and classrooms to be studied.

If this random sampling design recommendation was implemented in a replicated study, the statistical information of this replicated study could be extended to include confidence intervals that would more accurately describe (actually estimate) mean, variance and correlation parameters for the target population from which the sample was selected.

A second benefit that follows from implementing the first recommendation is the fact that a random sampling design would allow sample selection across several schools in the target (generalizability) population of interest. Accordingly, not only one school (as was the case in this study) would be responsible for getting a total sample size needed to have a meaningful statistical power.

Improved Research Questions

The eight research questions introduced in Chapter I and clarified in Chapter III using a conceptual framework were sufficient to guide the empirical efforts undertaken in this descriptive study. However, experience gained in conducting this study as proposed in Chapter I suggested that the inventory of eight research questions can be revised to better guide the empirical efforts undertaken in a future study that preserves the intent put forth in this Chapter I statement of purpose. The second recommendation offered below addresses this concern.
Recommendation Two. The replication of this descriptive study proposed in the first recommendation should replace the inventory of eight research questions used in this study with the inventory of fourteen research questions put forth in Table 6.1.

The revised list of research questions in Table 6.1 has four major advantages over the inventory of eight research questions used to guide the empirical efforts in this descriptive study.

The first and most obvious advantage is in the division of research questions into two parts. Specifically, the left column of Table 6.1 focuses exclusively on seven efferent concerns. Similarly, the right column of this table focuses exclusively on an identical set of seven aesthetic concerns.

This division of research questions into two parts avoids the need to move back and forth in a single research question response between efferent and aesthetic concerns. This back and forward movement was the case for research questions one and four in this study.

The second advantage of the Table 6.1 revised inventory of research questions follows from the fact that the dual elaborations of seven sequential research questions with each pair of questions addressing the same generic concern provides a more effective and more efficient framework for conducting all data analysis tasks.
### Table 6.1

Revised List of Read-Aloud Research Concerns

<table>
<thead>
<tr>
<th>Efferent Concerns</th>
<th>Aesthetic Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the aggregate distribution of efferent solicitation counts provided by each teacher in the total study sample?</td>
<td>8. What is the aggregate distribution of aesthetic solicitation counts provided by each teacher in the total study sample?</td>
</tr>
<tr>
<td>2. What are the disaggregate distributions of efferent solicitation counts when the total study sample is redefined to create sub samples for depicting teacher efferent solicitation counts by grade level?</td>
<td>9. What are the disaggregate distributions of aesthetic solicitation counts when the total study sample is redefined to create sub samples for depicting teacher aesthetic solicitation counts by grade level?</td>
</tr>
<tr>
<td>3. What is the paired congruent and incongruent student response counts corresponding to the efferent solicitation count documented for each teacher in the total study sample?</td>
<td>10. What are the paired congruent and incongruent student response counts corresponding to the aesthetic solicitation count documented for each teacher in the total study sample?</td>
</tr>
<tr>
<td>4. What is the aggregate distribution of the proportion of congruent student responses corresponding to the efferent solicitation count documented for each teacher in the total study sample?</td>
<td>11. What is the aggregate distribution of the proportion of congruent student responses corresponding to the aesthetic solicitation count documented for each teacher in the total study sample?</td>
</tr>
<tr>
<td></td>
<td>Question</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>What is the aggregate distribution reflecting the bivariate relationship between the <strong>efferent</strong> teacher solicitation count and the corresponding congruent student response proportion for each teacher in the total study sample?</td>
</tr>
<tr>
<td>12</td>
<td>What is the aggregate distribution reflecting the bivariate relationship between the <strong>aesthetic</strong> teacher solicitation count and the corresponding congruent student response proportion for each teacher in the total study sample?</td>
</tr>
<tr>
<td>6</td>
<td>What are the disaggregate distributions reflecting the bivariate relationships between the <strong>efferent</strong> teacher solicitation count and the corresponding congruent student response proportion when the total study sample is redefined to create sub samples for depicting this bivariate relationship at each grade level?</td>
</tr>
<tr>
<td>13</td>
<td>What are the disaggregate distributions reflecting the bivariate relationships between <strong>aesthetic</strong> teacher solicitation count and the corresponding congruent student response proportion when the total study sample is redefined to create sub samples for depicting bivariate relationship at each grade level?</td>
</tr>
<tr>
<td>7</td>
<td>Do outliers (extreme values) in either aggregate or disaggregate <strong>efferent</strong> solicitation count distributions unduly influence the research findings for <strong>efferent</strong> concerns addressed in this study?</td>
</tr>
<tr>
<td>14</td>
<td>Do outliers (extreme values) in either aggregate or disaggregate <strong>aesthetic</strong> solicitation count distributions unduly influence the research findings for <strong>aesthetic</strong> concerns addressed in this study?</td>
</tr>
</tbody>
</table>
This improved data analysis framework can be implemented in three easy steps. Step one is a descriptive transaction addressing the seven research questions for efferent concerns. The second step is also a descriptive transaction that shifts attention toward the seven sequential aesthetic concerns. Step three is then a straightforward comparative data analysis effort that would compare and contrast the findings that emerged from completing the first two steps.

The third advantage of the revisions given in Table 6.1 is the fact that no changes are needed for the statement of purpose given in the first chapter of this study.

The fourth advantage for the revisions proposed in Table 6.1 is not so obvious. In this study the word “interaction” is used to reflect two different constructs that are essential for understanding and conducting this study. However, this distinction was implied rather than explicitly addressed in the dissertation narrative.

The first use of the term “interaction” can be encountered in the Chapter I inventory of research questions. Since these questions are specified in terms of statistical outcomes, one might elect to think of the word “interaction” in statistical terms where an interaction refers to the differential combined effects encountered when two predictor variable or treatment factors are studied jointly (i.e., yielding an interaction effect rather than main effect).

The second use of the term “interaction” can be encountered in the Chapter II review of literature (see for example pages 24-25) and in the Chapter III conceptual framework (see for example pages 85-86). Thus, in both of these two theoretical
chapters, the term “interaction” is used to refer to a joint behavioral unit that involves a teacher solicitation followed by a student response.

Uncovering this distinction led to eliminating the use of the term “interaction” altogether in specifying the inventory of 14 research questions. Moreover, from experience in this study one knows that research questions six and thirteen in Table 6.1 clearly allow future researchers working on replicated studies to describe interactions in their responses to these two questions. Thus, the term “interaction” in future studies can be used only to reflect joint behavior units reflecting a teacher solicitation and the corresponding student response.

**Implications for Practice**

Since read-alouds are a critical component of a literature-based reading program, schools and school districts who wish to evaluate these programs will need to assemble a baseline description of the nature of reading instruction with regard to teachers’ solicitation practices and the congruence of student responses as these interactions occur during read-alouds. Clearly, this evaluation requirement (assembling a baseline description for read-aloud activity) overlaps exactly the Chapter I statement of purpose used to guide this descriptive study. This common intent provides the basis for the third recommendation.
Recommendation Three. Schools and school districts who wish to evaluate their literature-based reading program are encouraged to replicate this descriptive study using the strategy advanced in the second recommendation given above.

Suggesting that a school-based evaluation effort follow the strategy put forth in the second recommendation above implies that a school-based evaluation effort can also use the inventory of fourteen research questions given in Table 6.1.

Replication in the third recommendation also implies that other research design and report preparation features used in this descriptive study can be used in a school-based evaluation effort centered on creating a baseline description of interactive read-aloud practices. Specifically, the measurement procedures detailed in Chapter IV, the data analysis strategy illustrated in Chapter V and the structure used to generate an inventory of trends presented earlier in this chapter can all be replicated.

Finally, two additional comments about this proposed evaluation effort deserve mention. First, a school-based evaluation effort does not need to use a random sampling design because it is not designed to generate results that are to be generalized to other schools or school districts. Second, it is important to recognize that creating a baseline description of current interactive read-alouds is a necessary initial step of a comprehensive evaluation of a literature-based reading program. However, far more empirical data would be needed in a comprehensive evaluation to determine the extent to which a specific school read-aloud program actually improves reading performance, increases vocabulary acquisition and helps to overcome a lack of motivation.
Reflections

I conclude this scholarly work with some final thoughts.

First of all, although I have an excellent grounding on the theory and practice of reading and a thorough understanding of the body of knowledge available in the reading research realm, the actual development of the conceptualization and design of this scholarly work could not have taken place without the dialogue that occurred with my committee during a span of approximately three years. This experience allowed me to appreciate the level of persistence, commitment, and wisdom the members of my doctoral committee displayed in order to help me take a seemingly simple idea and develop it into a scholarly piece of work.

Secondly, it was very evident in the review of the literature that taxonomies are arbitrary tools used to measure cognition. While they may assist educators in making teaching and learning decisions, reading teachers should have a better understanding of different kinds and uses of taxonomies. Conducting this study provided me an opportunity to recognize the importance of incorporating a component regarding the use of reading taxonomies into the preparation of reading educators. As a consumer of reading research, I have a much deeper understanding and therefore am more aware of the implications of findings which report on teacher solicitation behaviors.

Finally, a close study of descriptive statistics and their use in the field of education would have been very helpful to me. The statistics books available to me did not go into depth on the many practical uses of descriptive statistics and the different ways of reporting and interpreting descriptive statistics. Therefore, it was a laborious
task to figure out a more practical, yet scholarly, method of reporting the data generated in this investigation. Thus, technical writing techniques needed to report the analysis and synthesis of the data should be a critical component of graduate studies programs.
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APPENDIX A

Student Consent Form

I am being asked by my teacher and Mrs. Norma G. Garcia to participate in an audio-recording of a read aloud my teacher will conduct in my class. She will read *Tomas and the Library Lady* by Pat Mora to us, and all I have to do is participate like I usually do. I understand that I will participate only if I want to and my parent(s) will have to give me permission to participate.

I know that Mrs. Garcia will use the audio-recording to study how my teacher asks questions during read alouds and how students in my classroom answer those questions. I would be one student out of a potential 468 students and 26 potential teachers in the study. I also know that my name will not be mentioned in the study. I will not get any extra credit should I decide to participate.

Below I will mark with a check mark if I choose to participate or not.

My Name____________________________________Date____________________

_____ I want to participate in the audio recording of the read aloud.

_____ I do not want to participate in the audio recording of the read aloud.
APPENDIX B

Parent Consent for My Son or Daughter to Participate

“A Study of Teacher Solicitations and Student Responses During Read Alouds with Kindergarten, First Grade, and Second Grade Students”

This is a consent form to grant Norma G. García, Principal Investigator and doctoral student at Texas A & M University, permission to utilize my child’s participation in a research study which will examine teacher questioning behavior and student responses to their teacher’s questions during read alouds.

I am aware that students who participate will be asked to respond to their teacher the way they normally do during daily read alouds. They will be asked to be as natural and as relaxed as possible. I am aware that the data collected will be in the form of cassette recordings. The principal investigator will not be present during the audio recording. My child will be (1) one of approximately 468 potential student participants and 26 potential teachers from Zapata County Independent School District.

My child’s participation in this project is completely voluntary. There will be no penalty if I do not wish my child to participate. However, my child can not participate should I not grant permission for my child to be audio taped along with his/her peers during the daily teacher read aloud activity. My child will not receive extra credit for participating.

I understand that the data collected will be strictly confidential and will be used for educational and publication purposes; however, my child’s name will not be used in the report of the study. The audio recordings will be kept in a locked cabinet in the researcher’s home and will be destroyed in five years.

I am also aware that the Superintendent, Mr. Romeo Rodriguez, Jr., the school’s principal, my child’s teacher, and Texas A & M University approve this project. Should I have any questions about the study, I can contact the principal investigator at P. O. Box 15024, Zapata, TX, 78076; 956-765-6546 (office) and/or by e-mail at normag55@yahoo.com. I can also contact the principal investigator’s advisor Dr. Donna E. Norton, Texas A&M University, Department of Teaching, Learning, and Culture; College Station, TX 77843-4232, (979) 845-7089 (office). In addition, I am aware that this research study has been reviewed by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects’ rights, I can contact the Institutional Review Board through Dr. Michael W. Buckley, Director or Research Compliance, Office of Vice President for Research at (979) 845-8585 (mwbuckley@tamu.edu).

I have indicated below if I grant permission for my child to participate in this study.

Student’s Name___________________________________

__________ I do wish for my son/daughter to participate (be audio-taped) in this study.

__________ I do not wish my son/daughter to participate (be audio-taped) in this study.

Parent’s Signature/Date____________________________________________
APPENDIX C

Consentimiento Para Que Hijo/Hija Participe en Estudio

Titulo: “Un estudio de las solicitudes de maestros/maestros y respuestas de estudiantes durante lectura oral en kinder, primer grado, y Segundo grado”

Estimados Padres de Familia,

Me llamo Norma G. Garcia. Soy estudiante en el programa doctoral de la Universidad Texas A&M. Les pido su permiso para utilizar la participación de su niño/nina en un estudio para examinar las solicitudes de maestros/maestros y las respuestas de estudiantes durante lectura oral del maestro/la maestra en la clase de lectura a sus estudiantes.

Los estudiantes no tienen que hacer algo especial ni diferente. La lectura oral es una actividad que ya sucede todos los días en la clase de su hijo/hija. La lección será grabada en cinta cassett. Yo no voy a estar en la clase cuando esto suceda. Así es que nada cambiará y la clase se va a conducir como siempre.

La participación de su hijo/hija es estrictamente voluntaria. No hay consecuencias negativas si su hijo/hija no participa. El proyecto es aprobado por los siguientes: el superintendente de el Distrito Independiente Escolar del Condado de Zapata, el Senor Romeo Rodriguez, Jr.; el/la director(a) de la escuela de su hijo/hija; y por la Universidad Texas A&M.

La información acerca los contenidos de las síntas es anónima. No publicare los nombres de los niños en ningún reporte y todos los resultados del estudio estarán guardados dentro de un gabinete cerrado con llave en mi residencia.

Por favor indique en el lugar adecuado si acepta que su niño/nina participe en este proyecto. Le agradecería su cooperación, ya que su maestro/a va a obtener valiosa información cuando las síntas sean estudiadas. La información le ayudará a el maestro/la maestra de su hijo/hija a mejorar su manera de hacerles preguntas a los niños cuando les lee en voz alta.

Si acaso tiene una pregunta sobre este proyecto, por favor comuníquese conmigo al P. O. Box 15024, Zapata, TX; (956) 765-6546 (trabajo); o normag55@yahoo.com.

Atentamente,

Norma G. Garcia

Nombre del estudiante____________________________________________

_______Si, permito que participe mi hijo/hija.

_______No, prefiero que no participe mi hijo/hija.

Firma del padre/madre___________________________ el día de __________________

Preguntas sobre este estudio también se pueden hacer al (979) 458-4067 a Sharon Alderete, Vice Presidente de Estudios, Mesa Directiva de Estudios en la Universidad Texas A&M. Este proyecto es gobernado por requisitos institucionales del gobierno federal y serán seguidos por la investigadora principal de la Universidad Texas A&M.
APPENDIX D

Consent by Subject for Participation in a Research Project

Teacher

Title: “A Study of Teacher Solicitations and Student Responses During Read Alouds with Kindergarten, First Grade, and Second Grade Students”

Principal Investigator: Norma G. García

I am being asked to participate in the above mentioned study as a teacher during the 2002-2003 school year at Zapata County Independent School District. My participation in this study is entirely voluntary, and I may decide to withdraw with no penalty. I will read this consent form thoroughly and will be provided with a copy should I decide to participate. I was informed that the purpose of this research project is to conduct scientifically-based research to explore teacher questioning behavior and student responses during read alouds. I will be one of twenty-six (26) potential teacher participants with 468 potential student participants.

I was informed that the principal investigator will supply me with a blank audio cassette tape, a copy of Tomás and the Library Lady, parent consent forms (in English and in Spanish), and student assent forms (for 7 year olds and up). I am responsible for recording and submitting one read aloud session of Tomás and the Library Lady by Pat Mora following my usual read aloud procedures. The recording will be labeled with: teacher name, date of recording, and number of student participants. I will also submit all parent and student signed consent and assent forms. This teacher consent form will also serve as a release form to grant permission to the principal researcher to use the audio recording contents for research analysis. I was informed that the recording will be stored in a locked cabinet in the researcher’s home and will be destroyed in five years. Upon completion of this study, I will receive an analysis of my questioning behaviors during read alouds.

I have been advised that the data collected from the study will be confidential and will be used for educational and publication purposes; however, I will not be identified by name.

The principal investigator has offered to answer all my questions. If I have additional questions during the course of the study, I may contact the principal investigator at P. O. Box 15024, Zapata, TX, 78076; 956-765-6546 (office) and/or at normag55@yahoo.com. Furthermore, I may contact the principal investigator’s advisor should I have any questions. I may reach Dr. Donna E. Norton at: Texas A&M University, Department of Teaching, Learning, and Culture; College Station, TX, 77843-4232; (979)845-7089. In addition, I am aware that this research study has been reviewed by the Institutional Review Board-Human Subjects in Research, Texas A&M University. If I have questions regarding research-related problems or questions regarding subjects’ rights, I can contact the Institutional Review Board through Dr. Michael W. Buckley, Director of Research Compliance, Office of Vice President for Research at (979) 845-8585 (mbuckley@tamu.edu).

My signature below acknowledges my voluntary participation in this research project. In addition, I give permission to the principal researcher to utilize the contents of the audio recording for research analysis. I have read the information provided and had my questions answered to my satisfaction.

Signature of Research subject ______________________ Date ______________________

Signature of Principal Investigator ______________________ Date ______________________
VITA

Name: Norma Garza García

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Zapata, Texas 78076

Current Job Position: Chief Instructional Officer
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Texas A& I at Laredo, 1977

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