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Effects of Culturally-Responsive Teaching Practices on First Grade Students' Reading Comprehension and Vocabulary Gains

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EFFECTS OF CULTURALLY-RESPONSIVE TEACHING PRACTICES ON FIRST GRADE STUDENTS’ READING COMPREHENSION AND VOCABULARY GAINS

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For Rus, Victoria, and Kati

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ABSTRACT

Accumulating research reveals that children’s reading comprehension is influenced by a reader’s experiences, knowledge, language structure, and vocabulary. Thus, this researcher investigated the construct, culturally-responsive practice, as a way to provide effective learning opportunities for children from non-mainstream cultures, including children living in poverty. Evidence from this study suggests that the most critical component of culturally-responsive practice on students’ reading comprehension is the development and implementation of reading comprehension strategies. While this is an important finding, a notable word of caution is that the practices considered to be important for honoring students’ cultural backgrounds are also considered to be effective reading comprehension strategies in general.

Study results reflect the successful development and implementation of a first grade vocabulary intervention that supported students’ reading skill growth. This was the case even though one of the participating schools served many children living in poverty. While the intervention offers a promising approach to support children’s vocabulary and reading comprehension more generally, additional research is essential. Exploration of students’ language use during language arts instruction in general, and vocabulary instruction in particular may provide answers. At the same time, it should be recognized that as a self-standing construct, culturally-responsive practice may be too limited. Thus, absent effective teaching overall, these results suggest that focus solely on instilling culturally-responsive practices in the classroom will likely fail to lead to stronger student achievement.

Many questions remain unanswered, supporting the need for well designed randomized control field trials that incorporate complementary methods – both experimental and observational, examining teachers’ culturally-responsive practices (or lack thereof) in the classroom, evidence-based reading comprehension instruction, students’ reaction to this practice, and how these practices relate to students’ reading skill growth. It may be that culturally-responsive practices enhance other student outcomes, such as social skills and behavior, which were beyond the scope of this study. Implications also exist for pre-service teacher education programs and teacher professional development efforts as well. While training in culturally-responsive practices has a long history, classroom-based research to support these practices has been limited.
CHAPTER ONE
INTRODUCTION

Effects of Culturally-Responsive Teaching Practices on First Grade Students’
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Understanding the role of culture in the teaching and learning processes may, potentially, serve as the foundation of culturally-responsive teaching practices (Adams, Bondy, & Kuhel, 2005). Culturally-responsive education may promote academic achievement by encouraging the development of personal relationships between teachers and students, supporting the maintenance of students’ familiar language structures, requiring the establishment and enforcement of clear behavioral expectations, tapping students’ rich cultural background knowledge, and modifying instructional strategies for students from diverse cultures, allowing students’ personal culture, experiences, and prior knowledge to inform instruction.

Culturally-responsive teaching practices are defined as those teaching practices that are “…grounded in an understanding of the role of culture in the teaching and learning process” (Adams, Bondy, & Kuhel, 2005, p. 50). According to the National Association for the Education of Young Children (1996), “Knowledge of the social and cultural contexts in which children live…” is an important kind of information, which may help ensure that children and their families encounter significant and respectful learning experiences. In turn, it is conjectured that these kinds of learning experiences will improve children’s achievement and, specifically for the proposed study, their reading comprehension skills. Thus, this study was designed to explore the impact of culturally-responsive practices in the classroom and during a vocabulary intervention on students’ literacy gains.
The achievement gap between children living in poverty and certain ethnic minorities and their more affluent majority peers remains a persistent and perplexing problem (Jencks & Phillips, 1998; NAEP, 2005; Snow, Burns, & Griffin, 1998). The improvement in the most recent NAEP reports, while encouraging, is insufficient to ensure that a majority of children living in poverty, who frequently come from cultures and backgrounds that are distinct from many of their teachers, will achieve proficient literacy skills by the time they reach fourth grade. For example, 55% of Black and 39% of Hispanic fourth-graders achieved FCAT scores of 207 or less, which means that they cannot read proficiently enough to understand what they are reading or to learn from textbooks and other written material. This is in comparison to their White peers of whom only 25% achieved scores below 207 or their Asian/Pacific Island peers of whom 24% achieved scores below 207.

Moving beyond Florida to consider the nation as a whole, on average, fourth-graders scored an average of one point higher in 2005 in Reading than fourth-graders in 2003, and an average of two points higher in 2005 than fourth-graders in 1992. Black and Hispanic fourth-graders scored higher, on average, in 2005 in Reading than in 2003. While Asian/Pacific Islander, Black, Hispanic, and White fourth-graders scored, on average, higher in 2005 in Reading than in 1992; still, White students scored, on average, higher than their Black and Hispanic peers.

Even on the local level, which is the setting for this study, the 2008 third-grade FCAT Reading scores for elementary schools in the study county reflect that 10% of students scored at Level 1, the lowest of five levels. Students scoring at Level 1 have “…little success with the challenging content of the Sunshine State Standards” (Florida Department of Education, 2005, Achievement Levels Definitions Table, the Sunshine State Standards identify content students are expected to know and be able to do). Additionally, 11% of students scored at Level 2; therefore a total of 21% of our local students are scoring below level 3, the level of proficiency. Most of the children failing to achieve above basic levels are also living in poverty and come from non-mainstream cultures. Indeed, according to the National Center for Educational Statistics (2005), 17.5% of Florida’s students in 2001 were considered to be living in households at poverty
Similarly, the U.S. Census Bureau 2005 American Community Survey reported that approximately 19% of children under the age of 18 residing in the study county live in poverty. According to the U.S. Census Bureau (2005), “If a family’s total income is less than the family’s threshold, then that family, and every individual in it, is considered poor”.

A sister to culturally-responsive practice is “Critical pedagogy”, which is founded on the principle that issues can be viewed from many perspectives, that there is no one right answer to most problems, and that critical thinking, reflection, and action are promoted when students approach issues from multiple perspectives, and analyze and question what they are learning. Empowerment is the purpose and outcome of critical pedagogy. In order for students to be empowered, the relationship between teachers, students, parents and administrators needs to be redefined. Progressive educators seek instructional strategies that empower their students (Nieto, 1999). Using critical pedagogy in combination with the ecological and psychological reading theories offers a potentially powerful perspective to understand why culturally-responsive practices might enhance students’ reading comprehension skills.

Instructional practices of teachers appear to be influential forces in the development of a child (Morrison, Bachman, & Connor, 2005). For example, first graders who spent more time in academically focused instruction made greater gains in word reading skills, controlling for initial status (Connor, Son, Hindman, & Morrison, 2005; NICHD-ECCRN, 2002). Thus, for children from non-mainstream cultures, researchers have proposed that “[c]ulturally responsive teaching promotes the celebration of diversity and allows the students to make personal connections to new concepts” (Conrad et al., 2004, p. 191). By modifying instructional strategies based on the customs of ethnically diverse student populations, learning can be enhanced (Gay, 2002). Hefflin (2002) describes culturally-relevant pedagogy that creates educational settings, which include diverse cultures and customs, the use of meaningful and significant resources, as well as lessons designed to assist students in bridging their life and school-related experiences.
Children who lack basic proficient reading skills are more likely to be referred to special education, drop out of high school, and to enter the juvenile criminal system (Reynolds, Temple, Robertson, & Mann, 2003). Thus, ensuring that all children, including those living in poverty and from minority cultures, learn to read proficiently by the end of third grade would do much to close the achievement gap. However, the well supported ecological theory first proposed by Bronfenbrenner (1986) and supported by accumulating research (Morrison et al., 2005) indicates that a complexity of factors are associated with proficient reading. Indeed, the research is compelling that reading comprehension is influenced by a variety of interacting factors including personal experiences, background knowledge, language structure and vocabulary and engagement and motivation (Guthrie, Wigfield, Barbosa, Perencevich, Taboada, Davis, Scarfiddi, & Tonks, 2004; Snow, 2001).

The National Reading Panel report (2000) identified three themes as a result of their research pertaining to the development of comprehension skills: First, reading comprehension is a complex cognitive process that cannot be understood without a clear description of the role that vocabulary development and vocabulary instruction play in the understanding of what has been read. Second, comprehension is an active process that requires an intentional and thoughtful interaction between the reader and the text. Third, the preparation of teachers to better equip students to develop and apply reading comprehension strategies to enhance understanding is intimately linked to students’ achievement in this area (Findings and Determinations of the National Reading Panel by Topic Areas, Comprehension, p. 4-1).

The link between vocabulary and reading comprehension has been documented for over two decades (Anderson & Freebody, 1981; Duke, 2008). The findings of The National Reading Panel (NRP, 2000), a meta-analysis of over 50 studies relating to best practices for the teaching of vocabulary instruction and its relation to reading comprehension, suggested that when instruction focused on building vocabulary, children’s reading skills improved. They stated that “[r]ead ing vocabulary is crucial to the comprehension processes of a skilled reader” (NRP, 2000, Vocabulary Instruction, p. 4-3). The links between background knowledge, vocabulary, and reading comprehension
have been well established (NRP, 2000; Snow, 2001). Evidence has repeatedly shown that children will better understand what they read when they are familiar with the topic of the text.

Therefore, the purpose of the study was to examine whether certain instructional practices, frequently characterized as “culturally-responsive practices” (Adams, Bondy, & Kuhel, 2005, p. 50), are positively related to students’ reading achievement gains, and to examine in particular, if teachers who can build upon children’s skills and knowledge by using culturally-responsive practices, are more likely to be effective than teachers who do not employ such practices. In light of the disappointing results in students’ reading achievement, nationally and in Florida, the potentially positive impact of culturally-responsive teaching practices as they inform evidence-based reading instruction on students’ reading comprehension scores provides justification for this line of research.

While there is an abundance of literature related to both culturally-responsive teaching practices (Ball, 1994; Brown, 1994; Delpit, 1995; Powers, 2002) and reading comprehension (Duke, 2008; Snow, 2001; Torgesen, 2002) as independent areas of study, there is a paucity of research relating students’ reading comprehension outcomes to culturally-responsive teaching practices. The literature on culturally-responsive teaching is almost exclusively descriptive in nature rather than experimental or quasi-experimental and is largely what might be considered proof by assertion. This means that there is virtually no empirical evidence as to whether or not culturally-responsive teaching strategies will promote students’ academic outcomes, particularly reading comprehension. In contrast, there is emerging empirical evidence that comprehension skills can be taught effectively and that better classroom management is associated with stronger student outcomes (NRP, 2000).
CHAPTER TWO

REVIEW OF LITERATURE

The study model assumes that students’ background knowledge and vocabulary skills influence their reading comprehension, and that teachers who build upon this knowledge by using culturally-responsive practices are generally likely to be the most effective teachers, and specifically for the purpose of this study, in the area of reading instruction. As support for the proposed model, a thorough review of the literature was conducted in the areas of reading comprehension strategies, background knowledge, vocabulary, culturally-responsive teaching practices, and classroom management.

Thus, the model informing this study synthesizes a socio-cultural perspective with cognitive theory describing the influence of students’ background knowledge and vocabulary skills on reading comprehension (see Figure 1). Reading comprehension relies on a specific set of skills (e.g., decoding, vocabulary, background knowledge) and these skills appear to be largely influenced by children’s early life experiences (NICHD-ECCRN, 2004). These early experiences are influenced by the family culture and affluence (Gee, 2000; Jencks & Phillips, 1998; McLoyd, 1990, 1998). While semantic memory pertains to all stored information that can be retrieved independently of the learning context (Driscoll, 2000) and is a critical component of the comprehension process, it is episodic memory that pertains to memory of a specific event (Driscoll, 2000) and is considered to play a key role in the retrieval of recently obtained understanding (Rickard & Bajic, 2006). Therefore, these experiences, influenced by culture, serve as the foundation upon which episodic events are constructed, and may be the gateway to stronger student vocabulary skills and reading comprehension.
Figure 1. Study model for a culturally-responsive vocabulary intervention.

Development and Application of Reading Comprehension Strategies
Reading comprehension is the active extraction and construction of meaning from text (Honig, Diamond, & Gutlohn, 2000; NRP, 2000; Snow, 2001). The goal of reading instruction is to help students acquire the skills “…that enable learning from, understanding, and enjoyment of written language” (Torgesen, 2002, p. 9). Research asserts that reading comprehension is influenced by a variety of interacting factors including personal experiences, background knowledge, language structure and vocabulary and engagement and motivation (Guthrie, et al., 2004; Snow, 2001).

According to the SIMPLE view of reading (Adams, 2001; Hoover & Gough, 1990), in order to construct meaning from text, language comprehension skills, as well as accurate and fluent identification of individual printed words, are needed. Additionally, reading comprehension is influenced by readers’ experiences, knowledge of their world, vocabulary, and language structure, as well as the strategies they bring to the reading experience (U.S. Department of Education, 2001).

Children’s ability to concisely use strategies to improve their understanding is related to improved reading comprehension (NRP, 2000; Snow, 2001). Evidence suggests that student monitoring of their own comprehension appears to provide them with the awareness of what they do understand, identify what they do not understand, and to implement strategies to resolve gaps in comprehension. Effective self-monitoring comprehension strategies include the identification of the passage of difficulty, identification of the type of difficulty, restatement of the difficult passage in the student’s own words, going back through the text to locate information that is pertinent to the difficult passage, and looking ahead through the text for information that may resolve the difficulty (U.S. Department of Education, 2001). Hypothetically, children from non-mainstream cultures may be less familiar with these kinds of strategies, especially if books are not a large part of their home and community environment (Teale, 1986).

Comprehension strategies consist of actions taken by good readers to gain meaning from text (U.S. Department of Education, 2001). “…teachers must themselves have a firm grasp not only of the strategies that they are teaching the children but also of the instructional strategies that they can employ to achieve their goal.” (NRP, 2000, Teacher Preparation and Comprehension Strategies Instruction, p. 4-7). In addition to
knowledge of the strategies themselves and the most effective ways to teach as well as model these strategies, teachers need to know which strategies are most effective for their diverse student population and varied content (NRP, 2000, p. 4-7).

Research demonstrates that comprehension strategy instruction is predominantly effective through explicit teaching that includes a direct explanation of why a particular strategy is helpful and when the strategy should be used, modeling of the strategy application, teacher guidance with identifying how and when the strategy should be applied, and assistance as the student moves to independent application of the strategy. Students can work in pairs or small groups as they learn and apply comprehension strategies. The use of prior knowledge and mental imagery are two strategies with research support (U.S. Department of Education, 2001).

Comprehension monitoring, using graphic and semantic organizers, answering questions, generating questions, recognizing story structure, and summarizing are six strategies with strong, scientific evidence for improving comprehension of text (U.S. Department of Education, 2001). While explicit comprehension strategy instruction has proven to be beneficial, Al Otaiba, Kosanovich-Grek, Torgesen, Hassler, and Wahl, (2005) cautioned that reading programs not aligned with Scientifically-Based Reading Research (SBRR) frequently introduced too many strategies within a sole lesson, thus failing to provide sufficient time for students to practice and internalize the comprehension strategies.

Assessment of comprehension in the early grades is accomplished through a variety of strategies, including the “listening and retelling experiences” strategy recommended by Honig, Diamond, and Gutlohn (2000). After the teacher reads aloud a story, this strategy encourages students to verbally share their understanding of a story’s characters, settings, and events, thus providing the teacher with a means for assessing listening comprehension. The authors suggest that students displaying weakness in this area would benefit from intervention targeted specifically at listening comprehension.

A strategy for facilitating both listening and reading comprehension is the “read-aloud plus” strategy recommended by Herrell and Jordan (2004, p. 199). In addition to reading aloud as recommended by Honig et al. (2000), this particular strategy calls for
the teacher to model fluent, expressive reading while tapping into background knowledge needed to facilitate the connection between the text and student experiences, explaining vocabulary, and checking for understanding. The teacher’s observations and anecdotal notes serve as either evidence of students’ demonstration of understanding or documentation of the need for intervention in the identified area(s).

Text talk, an instructional strategy focusing on the development of oral language and comprehension, has the potential to enhance student learning when combined with culturally-responsive teaching practices (Conrad et al., 2004). Text Talk, developed by Isabel Beck and Margaret McKeown (2001), is an instructional strategy facilitating the construction of meaning. Through teacher initiated questions, students consider ideas presented in selected texts and then connect the ideas as they move along through the story.

Culturally-Responsive Teaching Strategies

Culturally-responsive teaching practices vary from good educational practice in that “Educational solutions developed in one place and for one population of students are not necessarily the best solutions for another population so children in another place.” (Jordan, 1995). Jordan asserts that while there may be teaching principles applicable for all students, effective practices may vary from group to group. Reading and writing “…are social practices that vary both across and within cultures, are shaped by the cultures that give rise to them, and shape individuals’ ways of participating in literacy events…” (Foster, 2000). Motivating students and adapting teaching strategies to fit various student cultures and individual differences are considered to be essential components of successful learning. Schulz and Bravi (1986) suggest that teachers be willing to make needed adjustments in order to meet the needs of all students, and use a variety of instructional methods and tools in a flexible learning structure.

Glasgow, McNary, and Hicks (2006) have identified certain comprehension strategies as being characteristic of culturally-responsive instruction. These strategies include comprehension modeling, graphic organizers, semantic organizers, mental imagery, generating questions, answering questions, recognizing story structure, and
summarizing. Also suggested by Glasgow et al. (2006) is that the teacher should provide an explanation of when a strategy should be used and why the strategy is helpful, followed by teacher modeling of the strategy, student practice, and finally assistance with strategy application as students move to independence. Allowing students to work in small groups or pairs as they are learning and applying strategies helps facilitate student comprehension.

Powers (2002) asserts that confirmation of language structures familiar to students should lead to an increase in student appeal and accomplishment. Research examining student-teacher discourse disclosed that differences between students’ subcultures - their traditions, gestures, and native tongue - and the conventional culture led to instances of discrimination. In a study analyzing teacher-student discourse in writing conferences, with the student’s view of the teacher’s discourse serving as the principal focal point, it was revealed that even though the student participant was encouraged to be actively engaged in discussion during writing conferences, the teacher participant failed to provide writing assignments that would capitalize on the student participant’s native storytelling language. The fourth-grade student selected to be the participant of the study was a native Appalachian and had been identified as struggling in the areas of both reading and writing. Data were gathered via qualitative means including interviews, observations, and assessment of student writing samples, over a period of 60 days, with observations occurring four to five days each week.

Even though the teacher participant valued the student participant’s thinking and interests, and continued to provide support and structure, the student participant refused to dispose of his home language in favor of one that was representative of the dominant culture. Since spoken language is the venue through which most teaching and demonstration of learning occur one might expect for students’ literacy encounters to be aligned with their own cultural identity (Powers, 2002). The student participant, like many Appalachians, both rural and urban, had most likely encountered instances of discrimination due to the differences between his own mountain subculture and the conventional culture in reference to his traditions, gestures, and native tongue. While this study provided an in-depth analysis of the teacher-student discourse, without an
investigation of the impact on the student’s learning, there is very little evidence to support the claim that the teacher’s practices were ineffective.

One of the most important studies demonstrating the potential of culturally-responsive practices (CRP) to enhance student reading comprehension is the Kamehameha Elementary Education Program (KEEP), an educational research and development program tasked with changing educational practices to increase achievement of Native Hawaiian children. The product was a language arts program for children in grades K through 3 associated with gains in reading achievement for Hawaiian children identified as educationally at-risk for underachievement (Jordan, 1995). Hawaiian students identified as academically at-risk worked diligently at school tasks with teachers who provided an efficient and timely systematic delivery of a phonics-based reading program. Although the amount of content students covered increased as did their motivation and time on task, there was no significant improvement in student performance on standardized tests. As a result, changes were made in the curriculum to reflect an emphasis on comprehension with students being encouraged to relate information about their Hawaiian culture, personal experiences, and background knowledge to their stories in the classroom. Coinciding with the implementation of these procedures, students’ reading skills improved.

Because of the encouraging results of the KEEP program, a collaborative project between the Educational Research Center and the Rough Rock Demonstration School located on a Navajo Reservation was implemented to determine whether or not the apparently effective program developed for the Hawaiian children would also work with children from another culture. Indeed, CRP focused on the Hawaiian culture was not associated with Navajo student gains. Rather, study personnel observed that the classroom functioned more smoothly and was conducive to further program implementation when management routines were adapted to the Navajo culture. Unfortunately, students’ reading comprehension was not assessed so it is not clear that the improved classroom management was related to stronger student outcomes.

An interesting and culturally-related finding was that Navajo student groups worked effectively if they consisted of only two to three students of the same sex. This is
in contrast to the observation that Hawaiian children worked in mixed sex groups of four to five students. Another interesting finding was that Navaho students preferred to be introduced to a “complete picture before attempting to analyze, perform, or attempt understanding…” in contrast to the KEEP students whose preference was the linear presentation of story segments with subsequent discussion and final assembly of the story segments as a conclusion. The KEEP program was considered to be educationally effective for Native Hawaiian children; however, the Hawaiian version was apparently less effective for Navajo children. Because the KEEP program was “culturally specific”, the researchers hypothesized that culturally-compatible programs provide one explanation for school success, while culturally-incompatible programs provide one potential explanation for school failure (Vogt, Jordan, & Tharp, R., 1987).

**The Influence of Background Knowledge and Vocabulary on Reading Comprehension**

A key element that cannot be disentangled from children’s reading comprehension is their background knowledge (Langer, 1984; Snow, 2001), which is directly related to their language and vocabulary skills and is influenced by their early learning opportunities at home and at preschool (NICHD-ECCRN, 2004). Accumulating evidence reveals that children use their background knowledge to formulate meaning and share this newly acquired meaning with others (NRP, 2000, Text Comprehension Instruction, p. 4-5). Developing vocabulary beginning in kindergarten is important (Duke, 2008).

One could assume that a large part of what comprises background knowledge and vocabulary is influenced by the students’ culture and their opportunities to gain local and world knowledge. For example, if a child comes from a culture that relies on oral narratives rather than books (for example, many African American families, Craig & Washington, 2005; Ball, 1994; Heath, 1983), then the child is going to have little experience with the information in mainstream books. The child may not be familiar with *The Three Little Pigs* and the vocabulary associated with the story, but he/she may be well versed in African or Appalachian folktales. Additionally, he/she may be less familiar
with the language structure and vocabulary in combination with expected dialogic interactions that surround shared book reading – for example, answering rhetorical questions (Ball, 1994) and using a dialect of English that differs from his/her home dialect (Delpit, 1995; Wolfram, Adger, & Christian, 1999). In the same way, the child’s home culture may impact his/her vocabulary development. Whereas the corpus of the child’s vocabulary may be the same as his/her mainstream culture peers, the content of this corpus may be quite different. Words that appear in standardized vocabulary tests may not be in their vocabulary.

However, there is evidence that children living in poverty may have smaller vocabularies than their more affluent peers (Connor, Morrison, Fishman, Schatschneider, & Underwood, 2007; Hart & Risley, 1995). For example, Hart and Risley (1995) examined the vocabulary development of children across three groups, professional families, working class families, and families on welfare. Children in professional families added new words to their vocabulary at four times the rate of the welfare families. Moreover, the rate at which children added words to their vocabulary was highly correlated to the amount of talking observed in the home during the child’s first two years of life. Especially in the working class families, the amount of talking may have been culturally specific. Recognizing that students with high vocabularies tend to be better comprehenders while students with low vocabularies tend to be poorer comprehenders, intervening in vocabulary can improve comprehension (Duke, 2008). Beck, McKeown, Kucan (2002) propose that in order for vocabulary instruction to be effective for reading comprehension, the instruction must fully explore information about the target vocabulary words. Background and descriptive information as well as the development of flexible uses through many, diverse experiences, help facilitate reading comprehension.

To summarize, accumulating research reveals that reading comprehension is influenced by a reader’s experiences, knowledge, language structure, and vocabulary. Good readers appear to use strategies to gain meaning from text while monitoring what they do understand as well as what they do not understand and implementing strategies to resolve identified gaps. It is highly possible that children’s cultural background
influences each of these components of proficient reading comprehension, yet there has been a lack of empirical research to support this assertion. With this in mind, this researcher investigated the construct, culturally-responsive practice, as a way to provide effective learning opportunities for children from non-mainstream cultures, including children living in poverty.

**Incorporating Home Culture in the Educational Setting through Culturally-Responsive Practices**

Culture may offer a sound influential factor on the outlook, principles, and demeanor that teachers and students carry to the education arena, and has the potential to be a critical component of underachievement resolution (Gay, 2002). "Expanding culture to include not only that of the school, but also of the children's homes and of other groups in society, helps children to develop an understanding of life as holistic-not bifurcated, splitting their school and their home lives" (Monkman, MacGillivray, & Leyva, 2003, p. 256).

Diller (1999) proposes that incorporating children’s culture into instructional practices is a feasible teaching tool, even if the culture is unfamiliar to the teacher, and that when unfamiliar cultures present themselves, the teacher should turn to students, parents, colleagues, and literature to gain an understanding of their students’ cultural backgrounds. Oral storytelling, around since the beginning of language, remains a vital component of most cultures (Geringer, 2003), may help to develop literacy skills (Palmer, Leiste, James, & Ellis, 2000), and is an excellent source of cultural information. “Thus, storytelling provides a vehicle for developing cross-cultural understanding as children from different backgrounds are encouraged to share their experiences and stories from home” (Palmer, Harshbarger, & Koch, 2001, p. 200). Stories may provide the vessels that ensure the passage of our beliefs, convictions, and experiences from one port of life to another. When we take time to tell stories, as well as listen to the stories of others, we can gain understanding of one another and our world (Geringer, 2003).
Cultural capital can be described as children’s encounters within their homes and communities that support their interactions within school, and ultimately that impact their achievement (Monkman, Robert, & Delimon, 2005). Manners, cultural preferences, and educational settings are all types of cultural capital. Research proposes that African-American children from low socio-economic environments are motivated more by the need for association than by achievement (Delpit, 1995).

Within the educational setting, creating an environment that promotes the feeling of family as well as the development of a personal relationship between the teacher and each student may act as important first steps to providing individualized instruction for students (Brown, 2004). Culturally-responsive educational settings may encourage students to develop “…a deeper appreciation and respect for others and for themselves” (Conrad, Gong, Sipp, & Wright, 2004, p. 190). Culturally-responsive classrooms provide visual examples of the multiple cultures represented by the students (Glasgow et al., 2006). Oral presentations, exploring family genealogies, and journal activities are just a few strategies to help recognize and understand students’ diverse beliefs and practices. (Glasgow et al., 2006) recommended including all cultural groups represented in the classroom and balancing the contributions of white and other ethnic cultures through instructional strategies that model shared respect.

Language, a communication medium, is representative of our cultural philosophy, outlook, and literacy customs. Language distinguishes individuals from those of different races, cultures, and social classes (Powers, 2002). Communication patterns vary among cultural groups and, many times, language differences serve as a communication barrier between groups. Differences between the backgrounds of teachers and those of their students may introduce yet another impediment to providing sufficient assistance in acclimating students to the academic environment (Wolfram, 1999). Lin, Lake, & Rice (2008) recommend that one way to bridge this background disparity is for pre-service teachers, and practicing teachers alike, to examine their own awareness of anti-bias concerns, modify curriculum to meet the needs of students, and seek input from parents regarding the issues they believe are most important to them.
When students encounter resistance to their native language practices, they may conclude that these practices are not valued within the academic environment, and students may withdraw from academic experiences altogether (Wolfram, 1999). According to Powers (2002), confirmation of language structures familiar to students, leads to an increase in student appeal and accomplishment. Richek, Caldwell, Jennings, & Lerner (2002) emphasize the importance of students communicating contributions that are representative of their own cultures.

When a discrepancy between cultures is evident in classrooms, students may be forced to make a choice between utilizing Standard English to satisfy the academic community or maintaining status within their own cultural group by using the language associated with that particular group. When students are not forced to make this choice, they may be more capable of achieving academic success while maintaining their own ethnic language and individuality (Powers, 2002).

Gay (2002) suggests that in order to incorporate the home culture in the educational setting and for schooling to appeal to an ethnically diverse student population, teachers can obtain specific factual information about a variety of ethnic groups. Student outcomes may improve when cultural differences are identified. When cultures are unfamiliar to teachers, potential resources include the students themselves, parents, colleagues, and literature. Educational environments that set high expectations for success from all students, regardless of cultural backgrounds, encourage the development of personal relationships and respect between teachers and students, and support the maintenance of students’ familiar language structures may promote academic achievement (Glasgow et al., 2006).

Culturally-Responsive Classroom Management Practices

Research reveals that not everyone learns in the same manner, or at the same speed, nor does everyone live in the same conditions (Connor, Morrison, & Katch, 2004). Research has indicated that the establishment of clear behavioral expectations and assertive enforcement of expectations comprise essential components of an educational setting that promotes culturally-responsive teaching (Brown, 2004). Gay (2002)
identified teachers’ knowledge of the cultural groups represented by their students as pertinent to successful classroom management practices.

Cultural corroboration and power may serve as the foundation for academic success in culturally-responsive education settings (Gay, 2002), while shared responsibility and opportunities for social interaction foster a caring educational community (Glasgow et al., 2006). Gay (2002) suggests that teachers identify which of the represented cultures value cooperative exploration of dilemmas, and the subsequent impact on goals, determination, and accomplishments. Schulz & Bravi (1986) encourage clear, consistent expectations and consequences as well as the immediate identification and solution of problems.

When teachers communicate to the classroom community that they are learning from ongoing discourse, then they are explicitly conveying that they consider participation in the classroom community both enjoyable and rewarding (Glasgow et al., 2006; Kovalainen et al., 2001). Gay (2002) encourages the identification of cultural variability of both gender-related socialization and appropriate teacher-student interaction expectations. Glasgow et al. (2006) suggest that the teacher should be the representative of authority while students are afforded opportunities to not only take risks, but make decisions with the knowledge that the teacher as well as fellow students will treat them with respect.

In a qualitative study, 13 urban teachers were interviewed to determine if their classroom management strategies reflect suggestions based on culturally-responsive teaching research. All teachers interviewed implemented many strategies supportive of culturally-responsive pedagogy, including non-punitive behavioral modification strategies. Brown (2004) stated that “Gaining students’ cooperation in urban classrooms involves establishing a classroom atmosphere in which teachers are aware of and address students’ cultural and ethnic needs as well as their social, emotional, and cognitive needs” (p. 267). Although this study included extensive teacher interviews, there was no investigation of the impact of teachers’ classroom management practices on student learning. Without student outcomes, there is very little evidence to support the claim that teachers’ classroom management practices were effective.
Additional culturally-responsive classroom management strategies recommended by Glasgow et al. (2006) include clearly communicated and enforced expectations for students, evident classroom routines with disruptions that are handled quickly, effectively, consistently, and fairly as well as respectful teacher redirection of off-task behavior and reinforcement of appropriate behaviors.

Summary of Culturally-Responsive Practices

Synthesizing these findings indicates that clear behavioral expectations, established and enforced by students in concert with teachers, may facilitate more effective classroom management practices. Cultural, social, and gender-related variables are potential considerations when establishing behavioral expectations. Students within a community of learners implementing effective classroom management strategies may find participation and collaboration rewarding and enjoyable. Whereas there is emerging evidence that classroom management is associated with students’ outcomes, the impact of cultural considerations is less clear and deserves further study. Children’s reading comprehension is influenced by a variety of sources including personal experiences, knowledge, language structure, and vocabulary. When students consider what they are learning to be personally meaningful and applicable, they are more likely to become engrossed, autonomous seekers of information. Students’ interest in the topic assists in the integration of text with prior knowledge, leading to deeper understanding of the topic and possibly the specific semantic knowledge (i.e., vocabulary) associated with it. Culturally-responsive education may promote academic achievement by encouraging the development of personal relationships between teachers and students, supporting the maintenance of students’ familiar language structures, requiring the establishment and enforcement of clear behavioral expectations, and modifying instructional strategies for students from diverse cultures, allowing students’ personal culture, experiences, and background knowledge to inform instruction.

These studies taken together reveal common characteristics of culturally-responsive practices that, when implemented, may enhance students’ learning opportunities. These include (1) It is most likely important to first identify the characteristics of the representative cultures before designing instruction; (2) Students’ personal culture, experiences, and
background knowledge should inform instruction; keeping in mind that what is effective with one cultural group may not be effective with another; (3) Whereas spoken language is the venue through which most teaching and demonstration of learning occurs, it is likely important for students’ literacy encounters to be in harmony with their own cultural identity; and (4) The strongest evidence is that culturally-responsive practices promote better classroom management.

There is an important caveat, however. The literature on culturally-responsive teaching is almost exclusively descriptive in nature rather than experimental or quasi-experimental and is largely what might be considered proof by assertion. This means that there is virtually no empirical evidence as to whether or not culturally-responsive teaching strategies will promote students’ academic outcomes, particularly vocabulary and reading comprehension. Indeed, there is, to my knowledge, no research that specifically links CRP to children’s gains in vocabulary and very few that link such practices to reading comprehension. Synthesizing these very different bodies of research suggests that evidence-based reading instruction, particularly reading comprehension instruction, may be more effective when integrated with CRP. For example, Williams and colleagues (2006) reported that specific instruction in how to compare and contrast science concepts led to stronger growth in content knowledge and reading comprehension more generally. However, the texts were selected to showcase the concepts of compare and contrast without regard for the students’ varying cultural backgrounds. It might be that had they selected text that was culturally-relevant as well and focused on the target strategy, student outcomes would have been even stronger. However, there was, to my knowledge, no research that investigated this hypothesis prior to this study.
CHAPTER THREE

METHODOLOGY

Purpose and Research Questions

The purpose of this study is to examine whether culturally-responsive practices are positively related to students’ vocabulary and reading achievement gains; in particular, are teachers who build upon children’s skills and knowledge by using culturally-responsive practices more likely to be effective than teachers who do not use culturally-responsive practices? Additionally, the intervention study examines the effect of culturally-responsive vocabulary instruction on students’ vocabulary and reading comprehension skill growth. Identifying the types of culturally-responsive teaching practices that promote growth in students’ vocabulary and reading skills over an academic year has educational implications, particularly for those students identified as failing to meet basic and proficient performance levels in reading. Potential implications exist not only for student achievement, but for pre-service teacher education programs and teacher professional development efforts as well.

The model synthesizes socio-cultural and cognitive influences on vocabulary and reading comprehension (see Figure 1, p. 10). This model hypothesizes that reading comprehension is highly influenced by students’ vocabulary, background knowledge in addition to their teachers’ teaching and classroom management practices. Students’ grasp of formal school language structures and their vocabulary are also related to cultural knowledge. Cultural knowledge and facility with school language forms are developed initially in the home and community environments, including preschool. Children bring these skills and knowledge to the classroom. The teacher who can build upon this knowledge by using culturally-responsive practices, particularly to build vocabulary and comprehension skills, is more likely to be effective in promoting their students’ learning than will the teacher who does not use culturally-responsive practices.

This mixed-method study, using observational, descriptive, and experimental methods, first investigates whether teachers vary in the extent to which they utilize
culturally-responsive practices and are more culturally aware and accepting of students’
diverse backgrounds, holding constant the use of evidence-based reading practices.
Based on the observational results, the study then examines whether students whose
teachers use culturally-responsive practices with greater frequency, holding constant the
use of evidence-based reading instruction, are more likely to demonstrate stronger
reading comprehension skill growth than are students whose teachers use culturally-
responsive practices less frequently. Finally, to begin to understand the underlying causal
mechanism associated with culturally-responsive practices, a randomized control field
trial was conducted where students were randomly assigned to alternate treatment
conditions. Vocabulary was selected from the schools’ core literacy curriculum (Open
Court). Students in treatment condition number one were assigned to a small group
vocabulary intervention employing culturally-responsive practices and emphasizing the
home-school connection. Students in treatment condition number two were assigned to a
small group, and followed the core curriculum protocol. These students were not
exposed to culturally-responsive practices nor was an emphasis placed on the home-
school connection.

As suggested by Ercikan and Roth (2006), an integrated approach, employing
multiple methods of inquiry, provides information that summarizes knowledge in diverse
ways. In the context of these purposes, the following research questions were posed:

1. What is the nature and variability in teachers’ use of culturally-responsive
   practices?

2. Is there a difference in reading comprehension and vocabulary scores
   between first grade students whose teachers implement culturally-responsive
   teaching practices in their classrooms and those whose teachers do not
   implement culturally-responsive teaching practices in their classrooms?

3. What is the relation between the frequency with which teachers use
   culturally-responsive practices and students comprehension and vocabulary
   growth? That is, is there a difference in reading comprehension and vocabulary
   scores between first grade students whose teachers implement culturally-

responsive teaching practices more frequently in their classrooms and those whose teachers do so less frequently?

(4) Is there a difference in reading comprehension and vocabulary scores between groups of first grade students participating in a small group culturally-responsive vocabulary intervention with an emphasis on the home-school connection and those participating in a small group culturally-responsive vocabulary intervention without an emphasis on the home-school connection?

(5) Is there a difference in reading comprehension and vocabulary scores between the students participating in this intervention study and those in a matched control group not participating in this intervention study?

**Study Design**

Relying on descriptions from the extant literature, I first identified specific teacher behaviors that can be classified as belonging to the family of culturally-responsive practices. Then, I identified these and other culturally-responsive practices that occurred in seven different classrooms located in two participating schools. According to Pianta (2003), “…observations of classrooms fill a critical niche in the development of a system capable of making measurable and observable changes in classroom experiences that produce developmental gains for children.” Therefore, observations were conducted as a participant-observer during the fall. Additionally, since repeated observations should provide a range of activities and thus a more reliable estimate of experiences than if only a snapshot were to be provided (Bogdan & Biklen, 1998), classrooms were videotaped three times – twice during the fall and once during the winter. These video-taped observations supplemented the live observation field notes, and were used to develop a coding scheme that captured the amount and types of culturally-responsive practices used in the quantitative study where a randomized control field trial was conducted in which student groups were randomly assigned, within classrooms, to alternate treatment conditions. Students were grouped for language arts center rotation instruction based on the results of the Woodcock-Johnson Letter-Word Identification subtest so that students with similar skills are grouped together.
Participants and Setting

Study participants included 83 first grade student subjects and their language arts/reading teachers (n = 7) in two northeast Florida elementary schools during the 2007/08 academic year. These teachers and students were selected for three primary reasons: (1) During the school year in my role as a research partner for the Individualizing Student Instruction (ISI) study, I worked with these teachers and their students during the designated language arts block and developed a positive relationship with these teachers; (2) The teachers indicated a willingness to participate in a culturally-responsive vocabulary intervention; and (3) The two schools selected serve students from two vastly economically different neighborhoods.

All seven participating teachers earned at least a Bachelor of Arts or Bachelor of Science degree (six in Elementary Education and/or Early Childhood, and one in Psychology and Exceptional Student Education). Three of the teachers earned a Master of Arts or Master of Science degree (two in Elementary Education and/or Early Childhood, and one in Exceptional Student Education. Teaching experience in general ranged from 15 years to 35 years, 1st grade teaching experience ranging from 7 years to 16 years. All teachers hold certifications in Elementary Education (Kindergarten to Grade 6) while three of the teachers are certified in Primary Education (Age 3 to Grade 3), and one teacher is certified in Exceptional Student Education. Three of the teachers are National Board Certified.

The student subjects were selected from a pool of participants whose parents/guardians signed consent forms acknowledging their willingness to participate in the ISI study examining the effects of individualizing instruction on student outcomes in reading (see Appendixes A and B for participant consent forms). The goal was to recruit all of the children in the teachers’ classrooms, however 73% of parents for students in School A returned signed consent forms and 84% of parents for students in School B returned signed consent forms. As expected the students who participated represented children from both mainstream and non-mainstream cultures and thus reflected the overall nature of educational experiences anticipated of students who would potentially
benefit from the use of culturally-responsive practices. Student and teacher participation was strictly voluntary with both having the opportunity to withdraw from the study at anytime.

According to Data Book (2008), 16,094 pre-kindergarten through grade 5 students were enrolled during the school year (see Figure 2). Of these 16,094 students, 45.2 percent (7,280) were classified as White, 43.8 percent (7,054) were classified as Black, 3.4 percent (549) were classified as Hispanic, 3.1 percent (503) were classified as Asian, 0.2 percent (30) was classified as Indian, and 4.2 percent (678) were classified as Multiracial. Of the 16,094 pre-kindergarten through grade 5 students district-wide, 52.3 percent (8,421) were male and 47.7 percent (7,673) were female with 38.06 percent (5,991) participating in the free or reduced lunch program.

![Figure 2](image-url)  
*Figure 2. Data Book 2007/08 pre-k through grade 5 enrollment data percentages by race.*

The Data Book reflected that 2,724 of the 16,094 pre-kindergarten through grade 5 students were enrolled in first grade (see Figure 3). Of these 2,724 first grade students, 46.8 percent (1,274) were classified as White, 41.8 percent (1,139) were classified as
Black, 3.3 percent (89) were classified as Hispanic, 3.5 percent (94) were classified as Asian, 0.3 percent (7) was classified as Indian, and 4.4 percent (121) were classified as Multiracial. Of the 2,724 first grade student district-wide, 52.3 percent (1,424) were male and 47.7 percent (1,300) were female.

**Figure 3.** Data Book 2007/08 grade 1 enrollment data percentages by race.

Elementary School A serves a population comprised of students with a history of underachievement, but steadily improving, in reading, as measured by the Florida Comprehensive Achievement Test (FCAT). The percentage of Elementary School A students performing at level 3 and above in reading has increased from 35% measured in 2005 to 64% measured in 2008. Students scoring at level 3 and above are considered to be performing at or above a proficient level. During the 2007/08 school year, 525 students attended the school, with 84 of these students enrolled in first grade (see Figure 4). Of these 84 first grade students, 12 were classified as White, 67 were classified as Black, 3 were classified as Hispanic, and 2 were classified as Multiracial. There were no students classified as Asian or Indian. There were 47 male students and 37 female.
students. Of the 525 students attending Elementary School A, 358 participated in the free or reduced lunch program. The median household income for the surrounding area in 2000 was $14,826 (U.S. Census Bureau, 2000).

![Figure 4. Elementary School A 2007/08 grade 1 student enrollment data by race.](image)

Elementary School B, serves a population comprised of students with a history of high achievement in reading. The percentage of Elementary School B students performing at level 3 and above in reading has increased from 89% measured in 2005 to 95% measured in 2008. During the 2007/08 school year, 929 students attended the school, with 161 of these students enrolled in first grade (see Figure 5). Of these 161 first grade students, 133 were classified as White, 12 were classified as Black, 5 were classified as Hispanic, 2 were classified as Multiracial, 8 were classified as Asian, and 1 was classified as Indian. There were 86 male students and 75 female students. Of the 929 students attending Elementary School B, 28 participated in the free or reduced lunch program. The school was a recipient of the 2004 No Child Left Behind - Blue Ribbon School award, honoring public and private K-12 schools considered to be academically
superior in their states. The median household income for the surrounding area in 2000 was $73,316 (U.S. Census Bureau, 2000).

Figure 5. Elementary School B 2007/08 grade 1 student enrollment data by race.

Matched control school A-1 served a population comprised of students with a history of median achievement in reading. The percentage of students performing at level 3 and above in reading has increased from 67% measured in 2005 to 74% measured in 2008. During the 2007/08 school year, 742 students attended the school, with 133 of these students enrolled in first grade (see Figure 6). Of these 133 first grade students, 17 were classified as White, 94 were classified as Black, 4 were classified as Hispanic, 11 were classified as Multiracial, 6 were classified as Asian, and 1 was classified as Indian. There were 77 male students and 56 female students. Of the 742 students attending Matched Control School A-1, 356 participated in the free or reduced lunch program.
Matched control school B-1 served a population comprised of students with a history of high achievement in reading. The percentage of students performing at level 3 and above in reading was 90% measured in 2005 and 88% measured in 2008. During the 2007/08 school year, 833 students attended the school, with 144 of these students enrolled in first grade (see Figure 7). Of these 144 first grade students, 100 were classified as White, 15 were classified as Black, 4 were classified as Hispanic, 10 were classified as Multiracial, 14 were classified as Asian, and 1 was classified as Indian. There were 68 male students and 76 female students. Of the 833 students attending Matched Control School B-1, 62 participated in the free or reduced lunch program.
Data Collection Procedures Teacher and Classroom Level

Data collection took place during the period of October 2007 through April 2008. All data, including videos, field notes, and student assessment information, were kept in a secure location and were kept confidential to the extent provided by federal, state, and local law. For data analysis purposes, student subject names were replaced with identification numbers.

Language arts instruction in each participating teacher’s classroom was observed twice at the teachers’ convenience (once during the winter of 2008 and once during the spring of 2008) during the language arts instructional period lasting approximately 135 minutes per observation. The researcher observed teacher participant’s practices in each of the following three categories: Incorporating home culture in the educational setting (see Figure 8); Development/application of reading comprehension strategies (see Figure 9); and Classroom management (see Figure 10). The Culturally-Responsive Teaching Practices Assessment Instrument (CRTPAI) was utilized for recording culturally-responsive practices observed during the language arts block (see Appendix C).
### Incorporating Home Culture in the Educational Setting

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<th>Fidelity Rating 1 Indicators</th>
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<tbody>
<tr>
<td>Does not connect students’ personal experiences to lesson content; Does not consult students, parents, colleagues, and literature to gain understanding of students’ cultural backgrounds; Does not foster the development of a personal relationship with any students; Is not aware of their students’ ethnic and world views, nor is teacher aware of or sensitive to alternative beliefs and perspectives; Neither recognizes nor confirms students’ native language practices; Does not provide assignments that capitalize on students’ native languages.</td>
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<td>Rarely connects students’ personal experiences to lesson content; Rarely consults students, parents, colleagues, and literature to gain understanding of students’ cultural backgrounds; Fosters the development of a personal relationship with one or two students; Is not aware of or sensitive to alternative beliefs and perspectives; Is not aware of their students’ ethnic and world views, nor does teacher recognize or confirm students’ native language practices; Does not provide assignments that capitalize on students’ native languages.</td>
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<th>Fidelity Rating 3 Indicators</th>
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<td>Teacher talk inconsistently connects students’ personal experiences to lesson content; Inconsistently consults students, parents, colleagues, and literature to gain understanding of students’ cultural backgrounds; Fosters the development of a personal relationship with a few, but not all, students; Is aware of and sensitive to one or two alternative beliefs and perspectives; May or may not be aware of their students’ ethnic and world views; Recognizes but not confirm students’ native language practices; Rarely provides assignments that capitalize on students’ native languages.</td>
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<td>Occasionally connects students’ personal experiences to lesson content; Occasionally consults students, parents, colleagues, and literature to gain understanding of students’ cultural backgrounds; Addresses notes to “parent or guardian” rather than “mother or father”; Promotes the feeling of family, but not consistently; Fosters the development of a personal relationship with many, but not all, students; Is aware of and sensitive to most, but not all alternative beliefs and perspectives; May or may not be aware of their students’ ethnic and world views; Occasionally confirms students’ native language practices; Occasionally provides assignments that capitalize on students’ native languages.</td>
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<td>Frequently connects students’ personal experiences to lesson content; Frequently consults students, parents, colleagues, and literature to gain understanding of students’ cultural backgrounds; Addresses notes to “parent or guardian” rather than “mother or father”; Promotes the feeling of family; Fosters the development of a personal relationship with most, but not all, students; Is aware of most students’ ethnic and world views, and is sensitive to alternative beliefs and perspectives; Frequently confirms students’ native language practices and provides assignments that capitalize on students’ native languages.</td>
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**Incorporating Home Culture in the Educational Setting**

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<td>Consistently connects students’ personal experiences to lesson content; Consistently consults students, parents, colleagues, and literature to gain understanding of students’ cultural backgrounds; Promotes the feeling of family; Fosters the development of a personal relationship with each student and is aware of their students’ ethnic and world views; Is aware of and sensitive to alternative beliefs and perspectives; Does not resist but rather consistently confirms students’ native language practices; Consistently provides assignments that capitalize on students’ native languages.</td>
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*Figure 8. Incorporating Home Culture in the Educational Setting Live Observation Fidelity Rating Indicators*

**Development and Application of Reading Comprehension Strategies**

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<td>Does not provide a direct explanation of why a particular strategy is helpful or when the strategy should be used; Does not model strategy application; Does not provide assistance as students move to independent application of strategy; Students do not work in pairs/small groups learning/applying comprehension strategies; Only one of the following seven comprehension strategies is used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing; Inconsistently taps into students’ prior knowledge.</td>
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<td>Rarely provides a direct explanation of why a particular strategy is helpful and when the strategy should be used; Rarely models strategy application or provides assistance as students move to independent application of strategy; Students rarely work in pairs/small groups as they learn/apply comprehension strategies; Three or four of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing; Inconsistently taps into students’ prior knowledge.</td>
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<td>Inconsistently provides a direct explanation of why a particular strategy is helpful and when the strategy should be used; Inconsistently models strategy application; Inconsistently provides assistance as students move to independent application of strategy; Students inconsistently work in pairs/small groups as they learn/apply comprehension strategies; Four or five of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing; Inconsistently taps into students’ prior knowledge.</td>
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<td>Occasionally provides a direct explanation of why a particular strategy is helpful and when the strategy should be used; Occasionally models strategy application; Occasionally provides assistance as students move to independent application of strategy; Students...</td>
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Development and Application of Reading Comprehension Strategies

occasionally work in pairs/small groups as they learn/apply comprehension strategies; Five or six of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing; Occasionally taps into students’ prior knowledge.

Fidelity Rating 5 Indicators

Frequently provides a direct explanation of why a particular strategy is helpful and when the strategy should be used, models strategy application, and provides assistance as students move to independent application of strategy; Students frequently work in pairs/small groups as they learn/apply comprehension strategies; Six or seven of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing; Frequently taps into students’ prior knowledge.

Fidelity Rating 6 Indicators

Consistently provides a direct explanation of why a particular strategy is helpful, when the strategy should be used, models strategy application, and provides assistance as students move to independent application of strategy; Students frequently work in pairs/small groups as they learn/apply comprehension strategies; All seven of the following comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing; Consistently taps into students’ prior knowledge.

Figure 9. Development/application of Reading Comprehension Strategies Live observation Fidelity Rating Indicators

Classroom Management

Fidelity Rating 1 Indicators

There is no evidence that the teacher redirects in respectful ways nor is there evidence that the teacher emphasizes student change in behavior through praise; There is no evidence of the teacher communicating what students did correctly or how they can improve. There is no evidence of students treating each other with respect; Whenever discipline is imposed, it is ineffective.

Fidelity Rating 2 Indicators

Frequently redirects in disrespectful ways; Teacher talk is neither encouraging nor respectful; Use of directive rather than open-ended behavior management (e.g., sit down rather than everybody please go to their reading corner).

Fidelity Rating 3 Indicators

Inconsistently redirects in respectful ways and inconsistently emphasizes student change in behavior through praise; Teacher talk is inconsistently encouraging and respectful; Inconsistently communicates clearly what students did correctly or how they can improve. Students inconsistently treat each other with respect.

Fidelity Rating 4 Indicators
### Classroom Management

Occasionally redirects in respectful ways and emphasizes student change in behavior through praise; Teacher talk is fairly encouraging and respectful; Usually communicates clearly what students did correctly or how they can improve; Students occasionally treat each other with respect; There is a behavior management system in place that is used fairly consistently and effectively.

<table>
<thead>
<tr>
<th>Fidelity Rating 5 Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently redirects in respectful ways; Frequently emphasizes student change in behavior through praise; Teacher talk is frequently encouraging and respectful; Frequently communicates clearly what students did correctly or how they can improve; Frequently calls on a range of students; Students frequently treat each other with respect; Behavior management system used consistently and effectively.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fidelity Rating 6 Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistently redirects in respectful ways; Consistently uses friendly or unobtrusive, respectful gestures to redirect behavior; Consistently emphasizes student change in behavior through praise; Teacher talk is consistently encouraging and respectful; Consistently communicates clearly what students did correctly or how they can improve; Consistently elicits responses from all students, including students having difficulty with task at hand; Students consistently treat each other with respect; Teacher frequently encourages peer support in the learning process; The behavior management system is used consistently and effectively.</td>
</tr>
</tbody>
</table>

### Figure 10. Classroom Management Practices Live Observation Fidelity Rating Indicators

Additionally, the classrooms were videotaped three times at the teachers’ convenience - twice during the fall of 2007 and once during the winter of 2008 - to supplement the live classroom observations. The researcher observed teachers’ classroom practices for videotaped observations, examining teacher participant’s practices in each of the following three categories: Incorporating home culture in the educational setting (see Figure 11 ); Development/application of reading comprehension strategies (see Figure 12); and Classroom management (see Figure 13). The Culturally-Responsive Teaching Practices Checklist (CRTPC) was utilized for recording culturally-responsive teaching practices observed in the videos (see Appendix D).

### Incorporating Home Culture

**Curriculum and Instructional Selections**

- Examples of diversity are represented; Visual examples of multiple cultures.
Incorporating Home Culture

- Holidays represented in literature are of those in multiple religions.
- Representational inclusion (inclusion of sources or information closely match or represent the diversity within a particular classroom).
- Student-centered inclusion (inclusion of the voices and perspectives of the students themselves in the educational experience).
- Use a variety of print materials to inspire student reading and writing.
- Self-regulation and attention-sustaining skills are taught to help improve performance.

Including Students with Special Needs

- Acknowledge the more obvious diversity issue such as physical disability.
- Recognize that different cultures view disabilities differently and teach all students about disabilities to facilitate social acceptance of students with special needs.
- Spend more time teaching a few key concepts rather than trying to cover it all.
- Spend the time to develop and use a variety of assessment strategies.
- Focus on classroom process before course content to increase time on task.
- Create scaffolds to help students learn complex skills and procedures.
- Ensure students receive appropriate instructional/assessment accommodations.
- Offer positive and constructive feedback rather than criticism and encourage positive interpretations of academic performance for students with disabilities.

Take the time to know students in specific localized cultural contexts

- Acknowledge the more obvious diversity issue such as color.
- Be aware of the cultural diversity of students and families; Class background, sexual orientation, and racial and ethnic affiliations must be understood.
- Sharing activities, journaling, or oral presentations.
- Better to describe rather than categorize a student’s or group’s identity or behavior.
- Be aware of and sensitive to alternative beliefs and perspectives; Solicit students for suggestions on how to address issues of multiculturalism in the classroom.
- When having a discussion of families, stresses that not all family units are alike.

Make sure white ethnic students get multicultural education too

- Desire for culturally relevant curriculum and instruction to enhance the educational opportunities for white ethnic children.
- Use “I” searches, and explore family trees and family traditions.

Cultivate multicultural connections

- Integrate content so that the history of the discipline’s content knowledge comes from many cultures and ethnicities, and reduce prejudice by balancing the contributions of whites with other ethnic backgrounds and cultures.
- Construct knowledge so students see the universal nature of the components, concepts, and processes of the discipline and how other cultures and ethnic backgrounds might view them.
- Instructional techniques motivate students/ demonstrate mutual respect for culture.
- Group together students from diverse cultures for cooperative learning activities.
- Encourage all students to participate in extracurricular activities.
- High expectations for success from all students, regardless of cultural backgrounds.
- Be broad in multicultural focus so that no particular cultural group is excluded.
Incorporating Home Culture

**Develop and promote a positive ethnic identity**

- How teachers from minority cultures identify with his or her culture or is seen culturally by the students affects the teaching and learning environment.
- Main concepts are respect, tolerance, and the elimination of social injustice.

**Figure 11.** Incorporating Home Culture Practices Videotaped Observation Checklist Indicators

### Development and Application of Comprehension Strategies

- Teacher provides a direct explanation of why a particular strategy is helpful and when it should be used.
- Teacher provides assistance as students move to independent application of the strategy.
- Teacher teaches, models, and provides opportunities for practice of scientifically based reading comprehension strategies.
- Students frequently work in pairs or small groups as they learn and apply comprehension strategies.
- Teacher consistently taps into students’ prior knowledge.
- The following comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing.

**Figure 12.** Development and Application of Comprehension Strategies Practices Videotaped Observation Checklist Indicators

### Classroom Management

**Factors that best reflect culturally-responsive teaching**

- Ability of the teacher to develop a safe classroom social and academic environment.
- Structured learning environment while managing to maintain mutually respectful relationships with students where students are free to take risks and know that teachers and other students will treat them with respect.
- Teacher maintains authority status and provides students with some decision-making power while avoiding power struggles with students.
- Students are expected to learn and not to interfere with the rights of others to learn.
- Environment features students who agree to cooperate with the teacher and fellow students in the pursuit of academic growth and success.
- Teacher teaches with assertiveness; Teacher uses proximity control.
- Classroom routines are evident, and teacher reminds students of behavioral routines.
- Materials are readily available to students; Activities run smoothly with few disruptions; Disruptions are handled quickly and effectively.
- Expectations are clearly communicated in detail and enforced with students knowing
Classroom Management

<table>
<thead>
<tr>
<th>what to do and what is expected of them behaviorally.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provides academic assistance on a task to prevent behavior problems.</td>
</tr>
<tr>
<td>• Teacher recognizes students using verbal and nonverbal praise regularly.</td>
</tr>
<tr>
<td>• Teacher reinforces and appropriate behavior (tokens, points, reward system).</td>
</tr>
<tr>
<td>• Teacher ignores inappropriate behavior (but not behavior that should be attended to).</td>
</tr>
<tr>
<td>• Teacher proactively addresses inappropriate behavior that needs attending.</td>
</tr>
<tr>
<td>• Responses to inappropriate behavior are applied consistently and fairly.</td>
</tr>
<tr>
<td>• Teacher effectively redirects behavior in respectful ways.</td>
</tr>
<tr>
<td>• Teacher uses friendly or unobtrusive, respectful gestures to redirect behavior.</td>
</tr>
<tr>
<td>• Uses antiseptic bouncing for redirection (e.g., asking the student to do a favor for them or get a drink of water, no intent to punish).</td>
</tr>
</tbody>
</table>

Warmth and Responsiveness

| Teacher personalizes relationships with students. |
| Teacher demonstrates a caring attitude. |
| Students treat each other with respect. |
| Teacher talk is encouraging and respectful. |
| Teacher encourages peer support in the learning process. |
| Communicates individually with students on academic and nonacademic matters. |
| Genuinely connects to each student’s emotional and social persona. |

Building Caring Learning Communities

| Emphasize cooperation, mutual goal setting, decision making, shared responsibility. |
| Opportunities for student socialization as a part of instructional interaction. |
| Opportunities for student verbal interaction during class time. |
| Appropriate discourse and listening skills are taught. |

Figure 13. Classroom Management Practices Videotaped Observation Checklist Indicators

In addition to the live and videotaped classroom observations, as part of the Individualizing Student Instruction umbrella study, participating teachers answered questions pertaining to their level of education, teaching experiences, and instructional planning practices.

Data Collection Procedures Student Level

As part of the Individualizing Student Instruction study protocol, the Woodcock Johnson (WJ) Letter-Word Identification, Picture Vocabulary, and Passage Comprehension subtests, all with alternate assessment forms, were administered in August 2007 as a pre-test measure and then again in January 2008 as a mid-year measure,
and finally in May 2008 as a post-test measure to participating student subjects. The Letter-Word Identification test requires the student to recognize and name letters, then simple words. The Picture Vocabulary test requires the student to name pictures of objects that become increasingly unfamiliar as the student progresses through the assessment. The Passage Comprehension test is a cloze task that requires students to read sentences as well as passages that increase in complexity. Students are asked to provide a missing word.

In addition to the WJ assessments, during the fall of 2007, prior to and following the small group vocabulary intervention, a researcher-developed vocabulary instrument was administered. The researcher-developed Vocabulary Word Inventory (see Appendix E) was designed to measure vocabulary knowledge on 15 words selected from the Open Court series. These words were taught as part of the eight-week vocabulary intervention.

The Intervention

Research suggests that interventions designed to improve students’ vocabulary will result in gains in both vocabulary and reading comprehension, and that the most effective teachers emphasize vocabulary instruction. Additionally, the provision of direct instruction in vocabulary is the most effective means of improving comprehension. Using categorization of words and having students relate new words to the words they already know are important instructional strategies (Duke, 2008).

Therefore, using the Woodcock Johnson Letter-Word Identification, Picture Vocabulary, and Passage Comprehension fall 2007 scores, groups of student subjects within each classroom were randomly assigned to one of two treatment conditions - either the small-group culturally-responsive condition or the small-group, curriculum directed condition. Student groups in both treatment conditions received small-group direct instruction using evidence-based teaching practices to provide students with opportunities to compare and contrast word features, categorize words, and relate the introduced vocabulary words to words they already knew. Instruction was provided by researchers to small groups of students, two days weekly, for approximately 15 minutes per session, during the language arts instructional block. The intervention lasted for an
eight-week period beginning in October 2007 and ending in December 2007. Vocabulary words and instructional activities were selected and adapted from the *Open Court* series (see Appendix J).

Student groups assigned to the culturally-responsive treatment condition received small group vocabulary instruction that integrated culturally-responsive practices in addition to the evidence-based teaching practices. In addition, to explore the home-school connection, students assigned to this condition were instructed to use the selected vocabulary words at home with family members.

Student groups assigned to the curriculum directed treatment condition also received small group vocabulary instruction employing evidence-based teaching practices. However, researchers did not pay specific attention to students’ culture or relate words to students’ experiences, nor were students instructed to use the target vocabulary words at home with family members.

**Data Analysis**

*Teacher Practices*

Teachers’ practices in the classroom were evaluated using the Culturally-Responsive Teaching Practices Assessment Instrument (see Appendix C) for live observations. Practices were organized into the following three categories:

1) Incorporating home culture in the educational setting;
2) Development and application of reading comprehension strategies; and
3) Classroom management.

Ratings ranging from 1 (low fidelity in category) to 6 (high fidelity in category) were assigned for each category.

Teachers’ practices in the classroom were evaluated using the Culturally-Responsive Teaching Practices Checklist (see Appendix D) for videotaped observations. Practices were organized into the following three categories:

1) Incorporating home culture that included curriculum and instructional selections, inclusion of students with special needs, getting to know students in specific localized cultural contexts, ensuring that white ethnic students
receive multicultural education, cultivating multicultural connections, and the
development and promotion of positive ethnic identity;
2) Development and application of comprehension strategies.
3) Classroom management that included factors that best reflect culturally-
responsive teaching, warmth and responsiveness, and building caring learning
communities; and

Specific practices outlined within the above three categories on the checklist were noted as being observed, not observed, or not applicable. The totals from the checklists were then transferred to the Culturally-Responsive Teaching Practices Assessment Instrument (see Appendix C) for an overall rating in each of the three categories. Ratings ranging from 1 (low fidelity in category) to 6 (high fidelity in category) were assigned for each category.

Ratings obtained from live classroom observations and videotaped classroom observations were entered into the Excel teacher level database. With only seven teacher participants, mixed ANOVA and descriptive statistics were used to analyze teacher level data. This method of analysis allowed for investigation of whether the use of culturally-responsive vocabulary practices systematically related to students’ reading comprehension outcome growth while taking into account other sources that may have influenced students’ reading achievement.

Student Performance

Each participating student’s Woodcock Johnson Letter-Word Identification, Picture Vocabulary, and Passage Comprehension subtest scores for all three assessment windows (August 2007, January 2008, and May 2008) were entered into the Excel student level database.

Student responses for each word on the Vocabulary Word Inventory (see Appendix E) were evaluated using the researcher-developed Vocabulary Word Inventory Rubric (see Appendix F). Ratings ranging from 1 (no knowledge of word or incorrect definition) to 5 (clear, detailed definition with multiple descriptors and may have included examples or connections to experience) were assigned for each word response. The maximum total score possible was 75. The researcher trained three research
assistants, all with experience teaching reading, how to score student responses. The researcher and the three research assistants began by scoring student responses for one classroom. The inter-rater agreement between three raters was .20. Student responses for a second classroom were scored with the inter-rater agreement between the raters being .57. Student responses for a third classroom were scored with inter-rater agreement between the raters being .93. Student responses for the final four classrooms were scored by the researcher. Total scores for each student were then entered into the Excel student level database.

To control for potential classroom effects and the nested nature of this data Hierarchical Linear Models (HLM) statistical software (Raudenbush & Bryk, 2002) was used to analyze data, with students modeled at level 1 and classrooms/teachers modeled at level 2. A dummy coded treatment variable (treatment = 1 and control = 0) was entered at the student level. This method of multi-level analysis allowed for investigation of whether the vocabulary intervention related to students’ reading outcome growth (i.e., residualized change) while taking into account other sources that may have influenced students’ reading achievement.
CHAPTER FOUR

RESULTS

The purpose of the study was to examine, first, whether culturally-responsive teaching practices are positively related to students’ reading achievement and vocabulary gains, and to examine in particular, if teachers who can build upon children’s skills and knowledge by using culturally-responsive practices, were more likely to be effective than teachers who did not employ such practices. Secondly, this study investigated the effect of explicit vocabulary instruction that incorporated culturally-responsive practices and whether the intervention was more effective that explicit vocabulary instruction that followed the curriculum protocol. Finally, the vocabulary and reading skill growth for children who received either intervention was compared to skill growth of a matched control group of children who did not receive a vocabulary intervention. The specific behaviors defined as culturally-responsive practices for this study include identification of the cultures represented by students in the classroom, incorporation of students’ personal culture, experiences, and background knowledge into instruction, and the recognition of students’ home language as a contribution, not deterrent, to his/her educational progress.

This mixed-method study, using observational and quantitative methods, first investigated whether teachers varied in the extent to which they utilize culturally-responsive practices and were more culturally aware and accepting of students’ diverse backgrounds, holding constant the use of evidence-based reading practices. Based on the observational results, the study then examined whether students whose teachers used culturally-responsive practices with greater frequency, holding constant the use of evidence-based reading instruction, were more likely to demonstrate stronger reading comprehension skill growth than were students whose teachers used culturally-responsive practices less frequently. Thirdly, to begin to understand the underlying causal mechanism associated with culturally-responsive practices, a randomized control field trial was conducted where students were randomly assigned to alternate treatment
conditions where one treatment explicitly incorporated culturally-responsive practices as part of a vocabulary intervention and the control group received explicit vocabulary instruction that followed the published core curriculum protocol. Additionally, using a quasi-experimental design, children in either condition were matched with peers who attended similar schools to examine whether receiving either vocabulary intervention was associated with stronger literacy skill growth.

Based on the extant literature and the integration of cognitive and socio-cultural influences on reading comprehension, the researcher hypothesized that the seven teacher participants would vary in their use of culturally-responsive practices. Moreover, the researcher anticipated that results would reveal significant differences in first grade students’ word identification, vocabulary, and reading comprehension outcomes between students whose teachers employed culturally-responsive teaching practices earlier in the year and with greater frequency from those whose teachers did not employ such practices with frequency. In addition, the researcher anticipated significant differences in first grade students’ word identification and vocabulary outcomes between groups of students participating in a small group vocabulary intervention employing culturally-responsive practices and emphasizing the home-school connection, and those participating in a small group, curriculum directed vocabulary intervention with neither culturally-responsive practices nor an emphasis on the home-school connection. Finally, the researcher expected results to reveal significant differences in vocabulary and reading comprehension outcomes between students participating in either small group vocabulary intervention and those students in a matched control group not participating in either small group vocabulary intervention.

Research Question 1: What is the nature and variability in teachers’ use of culturally-responsive teaching practices?

Multiple analyses of the live classroom observation data and the videotaped observations revealed that all seven participating teachers demonstrated the use of culturally-responsive practices in their classrooms at some time during the study but to a varying extent (see Figure 14). Based on classroom observations and the fidelity rubric
described in the methods, the researcher rated teachers’ practices in the classroom during live observations. Ratings ranging from 1 (low fidelity) to 6 (high fidelity) were assigned for each of the following three categories: Incorporating home culture in the educational setting (see Figure 8); Development/application of reading comprehension strategies (see Figure 9); and Classroom management (see Figure 10). The researcher also observed teachers’ classroom practices for videotaped observations in each of the following three categories: Incorporating home culture in the educational setting (see Figure 11); Development/application of reading comprehension strategies (see Figure 12); and Classroom management (see Figure 13). The scales are provided below for the readers’ convenience. For each scale teachers were rated from 1 (low) to 6 (high) for a total of 18 points possible.

Figure 14. Teacher Fidelity Composite Rating

Results of the observation for each teacher for each scale are provided in Figure 15. As noted previously, all teachers used culturally-responsive practices to some extent but this varied widely with a total low score of 8 (Teacher B) and a nearly perfect score
of 16 (Teacher F). Generally teachers received lower scores for Home Culture (mean = 3.7 out of a possible 6) and higher scores for Reading Comprehension and Classroom Management (mean = 4.3). Overall, teachers who were rated higher on the Reading Comprehension scale also tended to be rated higher on the Classroom management scale. Ratings on the Home Culture scale were not systematically associated with ratings on the other two scales but trends were in the positive direction. Correlations among scales are provided in Table 1.

![Bar chart showing Teacher Fidelity Ratings by Category](image)

*Figure 15. Teacher Fidelity Ratings by Category*
When CRP ratings for teachers from the low and high SES schools were compared using independent sample two-tailed t-tests with a Bonferroni correction to account for multiple t-tests (p < .012), on average, there were no significant differences on any of the subtests or the total, although there were trends that teachers in the higher SES schools generally demonstrated stronger Reading Comprehension CRP ratings than did teachers at lower SES schools (p = .015). Notably, teachers in the lower SES school tended to have higher standard deviations, suggesting greater within group variability (see Table 2).
Table 2

*Culturally-Responsive Practices Ratings Descriptive Statistics by School SES*

<table>
<thead>
<tr>
<th></th>
<th>School SES</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Home Culture</strong></td>
<td>Low</td>
<td>3.2500</td>
<td>1.25831</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4.3333</td>
<td>.57735</td>
</tr>
<tr>
<td><strong>Reading Comprehension</strong></td>
<td>Low</td>
<td>3.7500</td>
<td>.50000</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>5.0000</td>
<td>.00000</td>
</tr>
<tr>
<td><strong>Classroom Management</strong></td>
<td>Low</td>
<td>3.2500</td>
<td>1.50000</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>5.6667</td>
<td>.57735</td>
</tr>
<tr>
<td><strong>Total CRP</strong></td>
<td>Low</td>
<td>10.2500</td>
<td>2.62996</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>15.0000</td>
<td>1.00000</td>
</tr>
</tbody>
</table>

Research Question 2: Is there a difference in reading comprehension and vocabulary score growth between first grade children whose teachers implement culturally-responsive teaching practices in their classroom and those who did not?

Notably, all of the teachers in the sample used culturally-responsive practices to some extent and thus this question, as posed, could not be answered.

Research Question 3: What is the relation between the frequency with which teachers use culturally-responsive practices and students’ vocabulary and comprehension skill growth?

The researcher first used visual inspection of the data to investigate student growth on the close transfer vocabulary assessment. Results revealed that students in classrooms where teachers with above average (>12) culturally-responsive fidelity composite ratings generally demonstrated more growth on the close transfer vocabulary assessment than students in classrooms where teachers with below average (<12) composite ratings (see Figure 16), with the exception of Classroom A where students demonstrated the least growth in vocabulary.
Further analysis to explore student vocabulary growth in each of the three fidelity rating areas revealed that student vocabulary growth appeared to be associated with above average (>4.29) teacher fidelity ratings in the rating areas of incorporating the home culture and the development and application of comprehension strategies (see Figure 17).

Figure 16. Classroom Average Student Vocabulary Growth by Teacher Fidelity Composite Rating
To examine whether the observed associations were statistically significant, the researcher used HLM statistical software (Raudenbush & Bryk, 2002). Student characteristics (e.g., fall scores) were modeled at level 1 and classrooms/teachers variables were modeled at level 2. In general, the extent to which teachers were rated highly on the Home Culture and Classroom Management Scales of Culturally-responsive Practices was not associated with stronger student growth in either vocabulary or comprehension. However, children in classrooms where teachers were rated more highly on the Reading Comprehension CRP scale tended to demonstrate stronger reading comprehension skill (but not vocabulary) growth than their peers in classrooms where teachers received lower ratings. Results are provided in Figure 18 for the HLM model/output and Figure 19 for the graph. The difference in score for a student whose teacher was rated 2 (the lowest score) compared to a teacher rated 6 (the highest) was 4 times the G10 coefficient of 5.30 or 27.35 points higher, which is an effect size of 1.8 (27.35/15, where 15 is the standard deviation of the W score), which is large.
Level-1 Model
\[ Y = B_0 + B_1 \times (\text{fall RC}) + R \]

Level-2 Model
\[ B_0 = G_{00} + G_{01} \times (\text{RC CRP}) + U_0 \]
\[ B_1 = G_{10} \]

The outcome variable is Spring Reading Comprehension W score

Final estimation of fixed effects:

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>Error</th>
<th>T-ratio</th>
<th>d.f.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept, G_{00}</td>
<td>450.514920</td>
<td>8.668090</td>
<td>51.974</td>
<td>5</td>
<td>0.000</td>
</tr>
<tr>
<td>RC CRP, G_{01}</td>
<td>5.304306</td>
<td>1.958079</td>
<td>2.709</td>
<td>5</td>
<td>0.042</td>
</tr>
</tbody>
</table>

For Fall Reading Comprehension (fall RC) slope, B1
| INTRCPT2, G_{10}    | 0.289330    | 0.081296| 3.559   | 66   | 0.001   |

Final estimation of variance components:

<table>
<thead>
<tr>
<th>Random Effect</th>
<th>Standard Deviation</th>
<th>Variance</th>
<th>df</th>
<th>Chi-square</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRCPT1, U_0</td>
<td>0.21185</td>
<td>0.04488</td>
<td>5</td>
<td>3.08701</td>
<td>&gt;.500</td>
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<tr>
<td>level-1, R</td>
<td>10.28496</td>
<td>105.78039</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Figure 18.* HLM Output for Spring Reading Comprehension for Teachers Use of Culturally-Responsive Reading Comprehension Strategies (RC CPR) Controlling for Fall Reading Comprehension scores
Research Question 4: Is there a difference in reading comprehension and vocabulary scores between groups of first grade students participating in a small group culturally-responsive vocabulary intervention with an emphasis on the home-school connection and those participating in a small group, curriculum-directed vocabulary intervention without an emphasis on the home-school connection?

To answer this question, the researcher used HLM statistical software (Raudenbush & Bryk, 2002) to analyze data, with students modeled at level 1 and classrooms/teachers modeled at level 2. A dummy coded treatment variable (treatment = 1 and control = 0) was entered at the student level. Outcome variables were: (1) close transfer vocabulary; and (2) far transfer vocabulary and reading comprehension.

**Close Transfer Vocabulary:** Results revealed that, on average, first grade students’ close transfer vocabulary assessment post-test scores for those participating in a
small-group vocabulary intervention with culturally-responsive practices and an emphasis on the home-school connection were 2.7 points (G20) higher than were post-test scores for first grade students participating in a small-group curriculum-directed vocabulary intervention with neither culturally-responsive practices nor an emphasis on the home-school connection, controlling for pre-test scores. This difference was statistically significant (see Figure 20 for the HLM model/output and Figure 21 for the graph). There were no significant differences between groups on the pre-test scores but these scores were included to increase power (Raudenbush & Willms, 1995).

---

**Level-1 Model**

\[ Y = B_0 + B_1 \text{(Pretest Vocabulary Score)} + B_2 \text{(TREATMENT)} + R \]

**Level-2 Model**

\[ B_0 = G_{00} + U_0 \]

\[ B_1 = G_{10} \]

\[ B_2 = G_{20} \]

The outcome variable is Close Transfer Vocabulary Post Assessment score

**Final estimation of fixed effects:**

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>Error</th>
<th>T-ratio</th>
<th>d.f.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For INTRCPT1, B0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, G00</td>
<td>-1.558931</td>
<td>3.881659</td>
<td>-0.402</td>
<td>6</td>
<td>0.701</td>
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<tr>
<td>For Pretest Vocabulary Score slope, B1</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, G10</td>
<td>1.455214</td>
<td>0.174656</td>
<td>8.332</td>
<td>78</td>
<td>0.000</td>
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<tr>
<td>For TREATMENT slope, B2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>INTRCPT2, G20</td>
<td>2.700835</td>
<td>1.281390</td>
<td>2.108</td>
<td>78</td>
<td>0.038</td>
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</table>

**Final estimation of variance components:**

<table>
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<tr>
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<th>Variance</th>
<th>df</th>
<th>Chi-square</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRCPT1, U0</td>
<td>2.81527</td>
<td>6</td>
<td>24.96536</td>
<td>0.001</td>
</tr>
<tr>
<td>level-1, R</td>
<td>5.46091</td>
<td>29.82152</td>
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</tr>
</tbody>
</table>

*Figure 20.* HLM Output for Close Transfer Vocabulary Post Assessment by Treatment Condition
Far Transfer Vocabulary and Reading Comprehension: In general, there were no differences between groups in far transfer spring vocabulary scores, controlling for fall vocabulary (coefficient = -2.36, p = .144). Nor were there significant group differences in reading comprehension score growth (coefficient = -.53, p = .835).

Research Question 5: Is there a difference in reading comprehension and vocabulary skill growth between students participating in the intervention study (both groups) and a match control group of children?

To answer the final question, the researcher used HLM statistical software (Raudenbush & Bryk, 2002) to analyze data. Students were modeled at level 1 and classrooms/teachers were modeled at level 2. A dummy coded treatment variable (treatment = 1 and control = 0) was entered at the student level. Results revealed that the hypothesis was partially supported in that first grade students’ reading comprehension
score growth (i.e., residualized change) for those participating in the vocabulary intervention were higher than their matched control peers (see Figure 22 for the HLM model/output and Figure 23 for the graph). Students participating in either vocabulary intervention scored, on average, 4.78 points higher than the students in the matched control group. Conversely, results revealed first grade students’ Picture Vocabulary scores for those participating in the vocabulary intervention were not significantly different than the matched control group (coefficient = -1.78, p = .297).
Level-1 Model
\[ Y = B_0 + B_1 \times \text{TR\_CONDI} + B_2 \times \text{WJ\_LW\_W} + B_3 \times \text{WJ\_VOC\_W} + B_4 \times \text{WJ\_PC\_W} + R \]

Level-2 Model
\[ B_0 = G_{00} + G_{01} \times \text{FALL\_TOT} + G_{02} \times \text{WINTERTO} + G_{03} \times \text{SPRINGTO} + U_0 \]
\[ B_1 = G_{10} \]
\[ B_2 = G_{20} \]
\[ B_3 = G_{30} \]
\[ B_4 = G_{40} \]

The outcome variable is Spring Passage Comprehension W score

Final estimation of fixed effects:

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<th>Error</th>
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<th>d.f.</th>
<th>P-value</th>
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Final estimation of variance components:

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<th>df</th>
<th>Chi-square</th>
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Figure 22. HLM Output for Spring WJ Passage Comprehension Outcome by Treatment Condition
Figure 23. Spring WJ Passage Comprehension Scores by Treatment Condition for Treatment and Matched Control Schools
CHAPTER FIVE

DISCUSSION

This mixed-method study, using observational experimental and quasi-experimental methods, first investigated whether teachers varied in the extent to which they utilized culturally-responsive practices and were more culturally aware and accepting of children’s diverse backgrounds, holding constant the use of evidence-based reading practices. The underlying assumption is that children’s background and cultural knowledge influence their reading comprehension and vocabulary development, and that teachers who build upon this knowledge by using culturally-responsive practices are likely to generally be more effective teachers, and specifically for the purpose of this study, in the area of reading instruction.

Using observational methods, the study then examined whether children whose teachers used culturally-responsive practices with greater frequency, holding constant the use of evidence-based reading instruction, were more likely to demonstrate stronger reading comprehension skill growth than were children whose teachers used culturally-responsive practices less frequently. In particular, the researcher observed teacher practices relating to incorporating children’s home culture in the educational setting, development and application of reading comprehension strategies, and classroom management.

To better understand the underlying causal mechanisms of CRP on vocabulary gains, a randomized control field trial was conducted where student groups were randomly assigned, within classrooms, to alternate treatment conditions. Children with similar skills were grouped for language arts center rotation instruction. Instruction was provided by researchers two days weekly, for approximately 15 minutes per session, during an eight-week period. The intervention included teaching vocabulary words in the core curriculum using evidence-based practices. The manipulation was the use of CRPs. Children from both mainstream and non-mainstream cultures were represented, and thus reflected the overall nature of educational experiences anticipated of children who would
potentially benefit from the use of culturally-responsive practices. Finally a quasi-experimental study was conducted to examine the effect of the vocabulary intervention compared to a matched business as usual control group of children.

**Summary of Findings**

*Randomized control field trial comparing two vocabulary interventions – one incorporating culturally-responsive practices.* Results revealed that, on average, first grade students’ close transfer vocabulary assessment post-test scores for those participating in a small-group vocabulary intervention with culturally-responsive practices and an emphasis on the home-school connection were higher than were post-test scores for first grade students participating in a small-group, curriculum-directed vocabulary intervention with neither culturally-responsive practices nor an emphasis on the home-school connection, controlling for pre-test scores. That is, there was a value-added for incorporating culturally-responsive practices into explicit vocabulary instruction for teaching specific words, keeping in mind that the groups were explicitly taught the same words.

A primary assumption of the intervention was that the use of selected vocabulary words at home with family members would help children bring their home cultural knowledge into the learning task, and would lead to stronger student vocabulary skills and reading comprehension. These results begin to confirm the importance of home-school connections when children from different backgrounds are learning new vocabulary. However, in general, there were no differences in spring far transfer vocabulary scores between children in the culturally-responsive treatment group and children in the curriculum-directed group and, nor were there significant group differences in reading comprehension score growth.

Thus, overall the results are mixed. Culturally-responsive practices supported learning of the specific vocabulary taught but not vocabulary and reading comprehension more generally. According to advocates of culturally-responsive practices, greater generalization might have been expected. One point of conjecture is that culturally-responsive practices may be more important for language related skills than more code-
focused skills. The nature of the small-group intervention employed practices that gave each student the opportunity to contribute responses, not just the students who volunteered responses as is seen in a typical whole-class setting.

*Quasi-experiment – comparing the effect of explicit vocabulary intervention with a business as usual matched control.* Results revealed that first grade students’ reading comprehension score growth for those participating in the vocabulary interventions were greater than their matched control peers. This finding confirms and extends previous research findings that interventions designed to improve students’ vocabulary, particularly those providing explicit instruction, yield gains in comprehension (Duke, 2008). Also, according to Duke (2008), students with stronger vocabularies tend to be better comprehenders, while students with low vocabularies tend to be weaker comprehenders; thus, intervening in vocabulary can improve comprehension. Beck et al. (2002) suggest that vocabulary instruction that is also effective for reading comprehension fully explores information about the target vocabulary words, and that background and descriptive information in addition to the development of flexible uses through many, diverse experiences, help facilitate reading comprehension.

With a well-documented link between vocabulary and reading comprehension (Anderson & Freebody, 1981; Duke, 2008), the assumption was that students’ Picture Vocabulary score growth for those participating in the vocabulary intervention would be higher than their matched control peers. However, results revealed that students’ Picture Vocabulary scores for those participating in the vocabulary intervention were not significantly different from the matched control group. Is it perhaps more a function of the nature of the standardized measure utilized to measure vocabulary growth? Could it be that standardized measures, though most often normed across a variety of populations, are not culturally sensitive? Perhaps a new standardized measure of vocabulary is needed to sufficiently measure true vocabulary growth.

*Culturally-responsive Practices in the Classroom.* All seven participating teachers demonstrated the use of culturally-responsive practices in their classrooms at some time during the study but to a varying extent. Generally teachers received lower scores for Home Culture and higher scores for Reading Comprehension and Classroom
Management. Overall, teachers who were rated higher on the Reading Comprehension scale also tended to be rated higher on the Classroom Management scale. Ratings on the Home Culture scale were not systematically associated with ratings on the other two scales but trends were in the positive direction.

Results also revealed that students in classrooms where teachers with above average culturally-responsive fidelity composite ratings generally demonstrated more growth on the close transfer vocabulary assessment than did students in classrooms where teachers received below average composite ratings. Student vocabulary growth appeared to be associated with above average teacher fidelity ratings in the areas of incorporating the home culture and the development and application of comprehension strategies.

There were no significant differences between low and high SES schools on any of the subtests or the total, when culturally-responsive teaching practices ratings were compared, although there were trends that teachers in the higher SES school generally demonstrated stronger ratings for the Reading Comprehension scale than did teachers at lower SES school. Could this be perhaps be a function of the way the reading curriculum was implemented? Though both schools used the same reading curriculum, interpretation and implementation of the curriculum varied between schools. That is, teachers at the lower SES school focused heavily on the phonics and specific vocabulary components of the curriculum, supplementing phonics instruction with other curricula in small-group settings. Teachers at the higher SES school had a more even distribution of the components of the curriculum and focusing on more general comprehension skills in small-group settings. This would be an important potential difference to explore further.

Culturally-responsive reading comprehension strategies. In general, the extent to which teachers were rated highly on the Home Culture and Classroom Management Scales of Culturally-Responsive Practices was not associated with stronger student growth in either vocabulary or comprehension. However, children in classrooms where teachers were rated more highly on the Reading Comprehension scale tended to demonstrate stronger reading comprehension skill (but not vocabulary) growth than their peers in classrooms where teachers received lower ratings. These findings, taken in conjunction with the close transfer vocabulary findings, support the idea that culturally-
responsive-practices may be particularly important for supporting students’ acquisition of skills that are more meaning-focused or language-based, in comparison to skills that are more code-based (such as letter-word reading), but see below. Again, exploring the differences between implementation of curriculum components might provide more insight.

Null findings for the association among teachers’ use of vocabulary and classroom management culturally-responsive practices and students’ outcomes overall give room for pause. Overall, of the four outcomes of interest, only close transfer vocabulary (in the RCT) and passage comprehension were positively associated with use of culturally-responsive practices whereas general vocabulary was not. Could it be that culturally-responsive practices are not necessarily tied to culture but are, in fact, a class of effective practices that rise above the level of culture? The results of the randomized control field trial and the quasi-experiment could be a function of systematic and explicit instruction rather than the implementation of culturally-responsive practices. The literature on culturally-responsive teaching is almost exclusively descriptive in nature rather than experimental or quasi-experimental and is largely what might be considered proof by assertion. Although there is enthusiastic support for culturally-responsive practices as a unique and important construct, there has, to date, been only limited empirical evidence that such practices actually lead to stronger student outcomes. Prior to this study, there was virtually no empirical evidence as to whether or not culturally-responsive teaching strategies might promote students’ academic outcomes, particularly reading comprehension. The rigorous test of culturally-responsive practices using an RCT suggests that there may be little substantial difference between practices that are generally effective in promoting students’ learning and those that are specifically culturally-responsive.

Limitations

With only seven teachers and 83 students in two schools, quantitative analyses were somewhat underpowered. Some power was regained by randomly assigning groups, rather than classrooms or schools, to the intervention and control groups and by
controlling for other variables, such as child SES and initial status (Raudenbush & Lui, 2003). The researcher recognizes the need to replicate the study with a larger population of teachers and students.

Due to the paucity of research in this area, the researcher was required to develop culturally-responsive teacher fidelity instruments and student vocabulary rubrics modified from instruments utilized in similar areas of study. Although reliability was established between research assistants identified to administer student measures and evaluate teacher practices, reliability with new research assistants will need to be established before replication can occur.

Conclusion

Accumulating research reveals that children’s reading comprehension is influenced by a reader’s experiences, knowledge, language structure, and vocabulary. Thus, this researcher investigated the construct, culturally-responsive practice, as a way to provide effective learning opportunities for children from non-mainstream cultures, including children living in poverty. Evidence from this study suggests that the most critical component of culturally-responsive practice on students’ reading comprehension is the development and implementation of reading comprehension strategies. While this is an important finding, a notable word of caution is that the practices considered to be important for honoring students’ cultural backgrounds are also considered to be effective reading comprehension strategies in general.

Study results reflect the successful development and implementation of a first grade vocabulary intervention that supported students’ reading skill growth. This was the case even though one of the participating schools served many children living in poverty. While the intervention offers a promising approach to support children’s vocabulary and reading comprehension more generally, additional research is essential. Exploration of students’ language use during language arts instruction in general, and vocabulary instruction in particular may provide answers.

At the same time, it should be recognized that as a self-standing construct, culturally-responsive practice may be too limited. As seen with Teacher A, although his/her ratings for
culturally-responsive practices were high, overall, his/her students’ outcome gains were weaker when compared to student gains for teachers with lower culturally-responsive practice ratings. Thus, absent effective teaching overall, these results suggest that focus solely on instilling culturally-responsive practices in the classroom will likely fail to lead to stronger student achievement.

Many questions remain unanswered, supporting the need for well designed randomized control field trials that incorporate complementary methods – both experimental and observational, examining teachers’ culturally-responsive practices (or lack thereof) in the classroom, evidence-based reading comprehension instruction, students’ reaction to this practice, and how these practices relate to students’ reading skill growth. It may be that culturally-responsive practices enhance other student outcomes, such as social skills and behavior, which were beyond the scope of this study. Is it possible that teachers’ attitudes towards, and implementation of, individual components of the adopted reading curriculum, specifically as they relate to reading comprehension, play a significant role in the development of students’ comprehension skills? Is it also possible that even though all seven participating teachers earned post-secondary degrees in education related fields, and had teaching experience ranging from 15 to 35 years, teachers’ educational training and years of teaching experience perhaps influence the types of teaching practices in general and culturally-responsive practices in particular? While these questions were all beyond the scope of the study, they are all considerations worthy of further exploration.

Implications also exist for pre-service teacher education programs and teacher professional development efforts as well. While training in culturally-responsive practices has a long history, classroom-based research to support these practices has been limited. Adequate funding is needed to support better classroom-based research, a more efficient system for disseminating research findings, and implementation of research-based recommendations in classrooms across the U.S.
APPENDIX A

TEACHER PARTICIPANT CONSENT FORM
Phyllis Underwood

From: Human Subjects [humansubjects@magnet.fsu.edu]
Sent: Tuesday, October 16, 2007 3:56 PM
To: Phyllis Underwood
Cc: palmerb@lsi.fsu.edu
Subject: Use of Human Subjects in Research - Approval Memorandum


Office of the Vice President For Research Human Subjects Committee Tallahassee, Florida 32306-2742
(850) 644-8673 . FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 10/16/2007

To: Phyllis Underwood

Address: 8342 Hinsdale Way, Tallahassee, Florida 32312
Dept.: EDUCATIONAL THEORY AND PRACTICE

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
An Individualized Culturally Responsive Vocabulary Intervention

The application that you submitted to this office in regard to the use of human subjects in the research proposal referenced above has been reviewed by the Human Subjects Committee at its meeting on 9/12/2007 2:00:00 PM. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 9/10/2008 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.
This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Barbara Palmer, Advisor
HSC No. 2007.601
Dear Teachers,

How can we be more effective teaching our first grade students how to read?

For the past several years, this question has been at the center of our research. We are writing to invite you to participate in the Individualizing Student Instruction project, which is designed to find out whether providing optimal child-specific amounts and types of language arts instruction to all first grade students, not just struggling readers, based on students’ vocabulary and reading skills, will ensure that all students in the classroom are reading at or above grade level by the end of first grade, according to Florida’s state standards.

This is a two year study. Participating teachers will receive training on how to provide individualized reading instruction and how to use Assessment-to-Instruction (A2I) software designed to help teachers plan and provide amounts and types of instruction for each student based on his or her entering reading and vocabulary skills. Funds from the grant have been awarded to Leon County for the purchase of needed technology, including computers so you will have access to a computer throughout the study and afterwards as long as you teach in Leon County Public Schools. Unfortunately, not all teachers can receive the training and technology at the same time, so half of the participating schools and their teachers will be selected by lottery to receive the technology and training during the first year of the study. The remaining schools and teachers will receive technology and training the second year. Participating teachers, from the treatment and control groups will receive $300 compensation per year. There will be a $50 bonus if all of the students in your classroom return a signed student consent form prior to November 1, 2007. Not all of the parents must agree to participate but they must return the form for you to receive this bonus. You are agreeing to participate in both years of the study.

You can expect the following during both years of the study:

- Videotaping your classroom at least three times per year: during language arts instruction in the fall and spring, and all-day in the winter. The purpose of the all-day videotaping is to capture all of the other opportunities throughout the school day where language arts instruction occurs. Portions of this tape will be used for teaching purposes. This is a very important part of the study.

- Assessing your students’ reading and vocabulary skills three times during the school year. This information will be used to design individualized reading instruction, follow students’ progress, and to improve the A2I software.

- Asking you to complete several questionnaires.

- During the training/technology phase of the project, you will receive training and mentoring, including classroom support, about once every other week. You will also have an opportunity to interact with other teachers receiving the training in small and large groups throughout the school year.

- During the treatment phases of the study, we ask you to use the software at least every other week for about 20 minutes to plan your instruction. Our research suggests that this is the minimum amount needed to help your students achieve educationally important gains in reading.

Your participation is voluntary and you are free to withdraw your consent at any time without penalty or prejudice. You will be able to skip any questions on the questionnaires that you do not want to answer. Any new information that might develop during this project will be provided to you if it might affect your willingness to participate in the project. You will not be identified in any reports on this study. Records will be kept confidential to the extent provided by federal, state and local law. The sponsor of the project, the US Department of Education, or other official agencies responsible for monitoring this study may inspect these records.

If you have any questions now or in the future, please contact me at the Florida Center for Reading Research, (850) 921-0703 or by email, cconnor@fcrr.org. Should you have questions regarding your rights as a participant in research, please contact the Behavioral Sciences Institutional Review Board, (850) 644-8633.

We hope you will become involved. This study will help us develop better ways to teach reading, help children learn, and find out what we can do to make sure all children succeed.

If you are willing to participate in this study, please sign below. A copy of this letter is provided for your records. Thank you so much.

Sincerely,

Carol McDonald Connor, Ph.D.
Assistant Professor, FSU College of Education and Florida Center for Reading Research

I am willing to participate in the study entitled: *Child-Instruction Interactions in Early Reading: Examining Causal Effects of Individualized Instruction*. I understand that participation is voluntary and that I can withdraw from the study at any time. I understand that activities in my classroom will be videotaped during both years of the study, that I will participate in professional development activities, and that I will do my best to implement instruction based on the recommendations of the A2I software. I also understand that I will receive $300 compensation, and will have access to a computer and the A2I software as long as I am involved in teaching at a Leon County district school.

**Signature:**

**Printed Name:**

**Date:**
APPENDIX B

STUDENT SUBJECT CONSENT FORM
Dear Parents,

How can we be more effective teaching our first grade students how to read?

For the past several years, this question has been at the center of our research. I am writing to invite you and your child to participate in our study of how to teach students to become strong readers. Your child’s teacher is participating in a research project designed to help teachers provide more effective reading instruction. We are asking all of the students in your child’s class to participate. Understanding children’s reading and language skills as they develop during first grade is a very important part of providing effective instruction. During the school year we will be assessing your child’s vocabulary and reading skills, following their progress learning to read, and video-taping during language arts instruction. Here is what we will be doing and when:

- We will be videotaping your child’s classroom at least 3 times per year. These tapes will be used for education and research purposes.
- We will assess your child in the fall, winter and spring for about 30 minutes per visit. During these visits, we will ask all the students in your child’s class to participate in a variety of language, reading, and thinking assessments. The results of these assessments will be shared with the teachers as part of the study. Reading and vocabulary results will be provided to you as well.
- You will be asked to complete questionnaires seeking information about your child and family.
- We will use assessment information about your child that is collected by school district teachers and staff and is accessed through the Progress Monitoring Reporting Network (PMRN) using your child’s identification numbers and we will continue to monitor your child’s progress on these measures.

All of this information will be kept in secure locations for at least seven years, as required by the grant. Only project researchers will have access to the files. All identities will be kept confidential. The information will be destroyed when it is no longer needed.

As compensation for your time and effort, you will receive a $20 gift card at the end of the school year. This study has the approval of the Leon County school district and will last for the entire school year, August through May. Your participation is voluntary and you are free to withdraw your consent at any time without penalty or prejudice. Any new information that might develop during this project will be provided to you if it might affect your willingness to participate in the project.

If you have any questions now or in the future, please contact me at Florida State University at 850-921-0703 or by email, cconnor@fcrr.org, or call the project director, Phyllis Underwood at 850-645-2980. Should you have questions regarding your rights as a participant in research, please contact the Behavioral Sciences Institutional Review Board, (850) 644-8633.

We hope you will become involved. This study will help us develop better ways to teach reading, how to help children learn, and discover what we can do to make sure all children succeed. Please complete the enclosed form and return it using the postage paid envelope provided. The copy marked “For Your Records” is for you to keep.

FSU IRB#2006.462

Sincerely,

Carol McDonald Connor, Ph.D.
Assistant Professor
FSU College of Education and Florida Center for Reading Research
FSU Florida Center for Reading Research
Individualizing Student Instruction Project

Child’s name: ___________________________ Parent/Guardian’s Name: ___________________________

Child’s Date of Birth: _______________ Relation to Child: ___________________________

Child’s Gender (Circle One): Male Female Address: ____________________________________________

Child’s Teacher: ___________________________ Street ___________________________

Child’s School: ___________________________ Apartment Number

City ___________________________ State ___________________________ Zip

Daytime phone number: ___________________________ Evening phone number: ___________________________

Please read the following statement and sign below if you are willing for your child to participate in the study.

I give my permission for my child to participate in this study. I understand that our participation is voluntary and that we can withdraw from the study at any time and that I may skip any survey question that I do not wish to answer. I understand that as part of this study, part of the school classroom visits will be videotaped and is a requirement of the study... I understand that neither my child nor I will be identified in any published reports on this study. Records will be kept confidential to the extent provided by federal, state and local law. I will receive a $20 gift card at the end of the school year as compensation for our family’s participation. The sponsors of the project, the US Department of Education and NICHD, or other official agencies responsible for monitoring this study may inspect these records.

☐ I give permission for my child to participate

Signed: ___________________________ Date: ___________________________

☐ I give permission for my child to participate, and I have questions. Please call me.

Signed: ___________________________ Date: ___________________________

☐ I am not interested in participating at this time.

Signed: ___________________________ Date: ___________________________

FSU IRB#2006.462

FSU/Florida Center for Reading Research

Individualizing Student Instruction Project

Child’s name: ___________________________ Parent/Guardian’s Name: ___________________________

Child’s Date of Birth: ___________________ Relation to Child: ___________________________

Child’s Gender (Circle One): Male Female Address: _____________________________________________

Child’s Teacher: ____________________________ ___________________________ Apartment Number

Child’s School: ____________________________ City ___________________________ State Zip

Daytime phone number: ___________________________ Evening phone number: ___________________________

Please read the following statement and sign below if you are willing for your child to participate in the study.

I give my permission for my child to participate in this study. I understand that our participation is voluntary and that we can withdraw from the study at any time and that I may skip any survey question that I do not wish to answer. I understand that as part of this study, part of the school classroom visits will be videotaped and is a requirement of the study. I understand that neither my child nor I will be identified in any published reports on this study. Records will be kept confidential to the extent provided by federal, state and local law. I will receive a $20 gift card at the end of the school year as compensation for our family’s participation. The sponsors of the project, the US Department of Education and NICHD, or other official agencies responsible for monitoring this study may inspect these records.

☐ I give permission for my child to participate

Signed: ___________________________ Date: ___________________________

☐ I give permission for my child to participate, and I have questions. Please call me.

Signed: ___________________________ Date: ___________________________

☐ I am not interested in participating at this time.

Signed: ___________________________ Date: ___________________________
APPENDIX C

CULTURALLY-RESPONSIVE TEACHING PRACTICES
ASSESSMENT INSTRUMENT
## Culturally-Responsive Teaching Practices Assessment Instrument

**Teacher Name:** __________________________________________

**School Name:** ________________________________________

**Rater Name:** ________________________________________

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<th>Development and Application of Reading Comprehension Strategies</th>
<th>Classroom Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fidelity Rating 1</strong></td>
<td><strong>Fidelity Rating 1</strong></td>
<td><strong>Fidelity Rating 1</strong></td>
</tr>
<tr>
<td>Teacher does not select or incorporate students’ responses, ideas, examples, and experiences into the lesson.</td>
<td>Teacher does not provide a direct explanation of why a particular strategy is helpful or when it should be used. Teacher does not teach, model, or provide opportunities for practice of scientifically based reading comprehension strategies.</td>
<td>Teacher appears as the authority figure in the class, but always punitive.</td>
</tr>
</tbody>
</table>

**Fidelity Rating 1 Indicators**
- Does not connect students’ personal experiences to lesson content. Teacher does not consult students, parents, colleagues, and literature to gain an understanding of students’ cultural backgrounds. Teacher does not foster the development of a personal relationship with any students. Teacher is not aware of their students’ ethnic and world views. Teacher is not aware of or sensitive to alternative beliefs and perspectives. Teacher neither recognizes nor confirms students’ native language practices. Teacher does not provide assignments that capitalize on students’ native languages.

- Teacher does not provide a direct explanation of why a particular strategy is helpful or when the strategy should be used. Teacher does not model strategy application. Teacher does not provide assistance as students move to independent application of the strategy. Students do not work in pairs or small groups learning and applying comprehension strategies. Only one of the following seven comprehension strategies is used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing. Teacher inconsistently taps into students’ prior knowledge.

- There is no evidence that the teacher redirects in respectful ways nor is there evidence that the teacher emphasizes student change in behavior through praise. There is no evidence of the teacher communicating what students did correctly or how they can improve. There is no evidence of students treating each other with respect. Whenever discipline is imposed, it is ineffective.
Culturally-Responsive Teaching Practices Assessment Instrument

Teacher Name: __________________________________________
School Name:  ________________________________________
Rater Name: __________________________________________

<table>
<thead>
<tr>
<th>Fidelity Rating 2</th>
<th>Fidelity Rating 2</th>
<th>Fidelity Rating 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher rarely selects and incorporates students’ responses, ideas, examples, and experiences into the lesson.</td>
<td>Teacher rarely provides a direct explanation of why a particular strategy is helpful and when it should be used. Teacher rarely teaches, models, or provides opportunities for practice of scientifically based reading comprehension strategies.</td>
<td>Teacher appears as the authority figure in the class, but often punitive. Whenever discipline is imposed, it is inconsistent and only occasionally effective.</td>
</tr>
</tbody>
</table>

**Fidelity Rating 2 Indicators**

- Teacher rarely connects students’ personal experiences to lesson content. Teacher rarely consults students, parents, colleagues, and literature to gain an understanding of students’ cultural backgrounds. Teacher fosters the development of a personal relationship with one or two students. Teacher is not aware of or sensitive to alternative beliefs and perspectives. Teacher is not aware of their students’ ethnic and world views. Teacher neither recognizes nor confirms students’ native language practices. Teacher does not provide assignments that capitalize on students’ native languages.

- Teacher rarely provides a direct explanation of why a particular strategy is helpful and when the strategy should be used. Teacher rarely models the strategy application. Teacher rarely provides assistance as students move to independent application of the strategy. Students rarely work in pairs or small groups as they learn and apply comprehension strategies. Three or four of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing. Teacher inconsistently taps into students’ prior knowledge.

- Teacher frequently redirects in disrespectful ways. Teacher talk is neither encouraging nor respectful. Use of directive rather than open-ended behavior management (e.g., sit down rather than everybody please go to their reading corner).
Culturally-Responsive Teaching Practices Assessment Instrument

| Teacher Name:________________________________________ |
| School Name: ________________________________________ |
| Rater Name: ________________________________________ |

<table>
<thead>
<tr>
<th>Incorporating Home Culture in the Educational Setting</th>
<th>Development and Application of Reading Comprehension Strategies</th>
<th>Classroom Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fidelity Rating 3</strong></td>
<td><strong>Fidelity Rating 3</strong></td>
<td><strong>Fidelity Rating 3</strong></td>
</tr>
<tr>
<td>Teacher is minimally effective at selecting and</td>
<td>Teacher inconsistently provides a direct</td>
<td>Teacher appears as the authority figure in the class, and is</td>
</tr>
<tr>
<td>incorporating students’ responses, ideas, examples,</td>
<td>explanation of why a particular strategy is helpful</td>
<td>occasionally punitive. There is a behavior management</td>
</tr>
<tr>
<td>and experiences into the lesson.</td>
<td>and when it should be used. Teacher inconsistently</td>
<td>system in place but it is used inconsistently.</td>
</tr>
<tr>
<td></td>
<td>inconsistently teaches, models, or provides opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>for practice of scientifically based reading comprehension</td>
<td></td>
</tr>
<tr>
<td></td>
<td>strategies.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fidelity Rating 3 Indicators</th>
<th>Fidelity Rating 3 Indicators</th>
<th>Fidelity Rating 3 Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher talk inconsistently connects students’</td>
<td>Teacher inconsistently provides a direct explanation</td>
<td>Teacher inconsistently</td>
</tr>
<tr>
<td>personal experiences to lesson content. Teacher</td>
<td>of why a particular strategy is helpful and when the</td>
<td>redirects in respectful</td>
</tr>
<tr>
<td>inconsistently consults students, parents,</td>
<td>strategy should be used. Teacher inconsistently</td>
<td>ways and inconsistently</td>
</tr>
<tr>
<td>colleagues, and literature to gain an understanding</td>
<td>inconsistently models the strategy application. Teacher</td>
<td>emphasizes student change</td>
</tr>
<tr>
<td>of students’ cultural backgrounds. Teacher fosters</td>
<td>inconsistently provides assistance as students move to</td>
<td>in behavior through praise.</td>
</tr>
<tr>
<td>the development of a personal relationship with a few,</td>
<td>independent application of the strategy. Students</td>
<td>Teacher talk is inconsistently</td>
</tr>
<tr>
<td>but not all, students. Teacher is aware of and</td>
<td>inconsistently work in pairs or small groups as they</td>
<td>encouraging and respectful.</td>
</tr>
<tr>
<td>sensitive to one or two alternative beliefs and</td>
<td>learn and apply comprehension strategies. Four or five</td>
<td>Teacher inconsistently</td>
</tr>
<tr>
<td>perspectives. Teacher may or may not be aware of</td>
<td>of the following seven comprehension strategies are</td>
<td>communicates clearly</td>
</tr>
<tr>
<td>their students’ ethnic and world views. Teacher</td>
<td>used: Comprehension monitoring; Graphic and semantic</td>
<td>what students did correctly</td>
</tr>
<tr>
<td>recognizes but not confirms students’ native</td>
<td>organizers; Mental imagery; Answering questions;</td>
<td>or how they can improve.</td>
</tr>
<tr>
<td>language practices. Teacher rarely provides</td>
<td>Generating questions; Recognizing story structure; and</td>
<td>Students inconsistently</td>
</tr>
<tr>
<td>assignments that capitalize on students’ native</td>
<td>Summarizing. Teacher inconsistently taps into students’</td>
<td>treat each other with</td>
</tr>
<tr>
<td>languages.</td>
<td>prior knowledge.</td>
<td>respect.</td>
</tr>
</tbody>
</table>

Teacher inconsistently provides a direct explanation of why a particular strategy is helpful and when it should be used. Teacher inconsistently teaches, models, or provides opportunities for practice of scientifically based reading comprehension strategies.

Teacher inconsistently redirects in respectful ways and inconsistently emphasizes student change in behavior through praise. Teacher talk is inconsistently encouraging and respectful. Teacher inconsistently communicates clearly what students did correctly or how they can improve. Students inconsistently treat each other with respect.
<table>
<thead>
<tr>
<th><strong>Fidelity Rating 4</strong></th>
<th><strong>Fidelity Rating 4</strong></th>
<th><strong>Fidelity Rating 4</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher is <strong>partially effective</strong> at selecting and incorporating students’ responses, ideas, examples, and experiences into the lesson.</td>
<td>Teacher <strong>occasionally</strong> provides a direct explanation of why a particular strategy is helpful and when it should be used. Teacher occasionally, although not always effectively, teaches, models, and provides opportunities for practice of scientifically based reading comprehension strategies.</td>
<td>Teacher appears as the authority figure in the class, and is seldom punitive. There is a behavior management system in place.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Fidelity Rating 4 Indicators</strong></th>
<th><strong>Fidelity Rating 4 Indicators</strong></th>
<th><strong>Fidelity Rating 4 Indicators</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>**Occasionally connects students’ personal experiences to lesson content. Teacher occasionally consults students, parents, colleagues, and literature to gain an understanding of students’ cultural backgrounds. Teacher addresses notes to “parent or guardian” rather than “mother or father”. Teacher promotes the feeling of family, but not consistently. Teacher fosters the development of a personal relationship with many, but not all, students. Teacher is aware of and sensitive to most, but not all alternative beliefs and perspectives. Teacher may or may not be aware of their students’ ethnic and world views. Teacher occasionally confirms students’ native language practices. Teacher occasionally provides assignments that capitalize on students’ native languages.</td>
<td><strong>Teacher occasionally provides a direct explanation of why a particular strategy is helpful and when the strategy should be used. Teacher occasionally models the strategy application. Teacher occasionally provides assistance as students move to independent application of the strategy. Students occasionally work in pairs or small groups as they learn and apply comprehension strategies. Five or six of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing. Teacher occasionally taps into students’ prior knowledge.</strong></td>
<td><strong>Teacher occasionally redirects in respectful ways and emphasizes student change in behavior through praise. Teacher talk is fairly encouraging and respectful. Usually communicates clearly what students did correctly or how they can improve. Students occasionally treat each other with respect. There is a behavior management system in place that is used fairly consistently and effectively.</strong></td>
</tr>
</tbody>
</table>
### Culturally-Responsive Teaching Practices Assessment Instrument

**Teacher Name:** ____________________________

**School Name:** ____________________________

**Rater Name:** ______________________________

<table>
<thead>
<tr>
<th>Incorporating Home Culture in the Educational Setting</th>
<th>Development and Application of Reading Comprehension Strategies</th>
<th>Classroom Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fidelity Rating 5</strong></td>
<td><strong>Fidelity Rating 5</strong></td>
<td><strong>Fidelity Rating 5</strong></td>
</tr>
<tr>
<td>Teacher is usually effective at selecting and incorporating students’ responses, ideas, examples, and experiences into the lesson.</td>
<td>Teacher frequently provides a direct explanation of why a particular strategy is helpful and when it should be used. Teacher frequently, although not always effectively, teaches, models, and provides opportunities for practice of scientifically based reading comprehension strategies.</td>
<td>Teacher appears as the authority figure in the class, but not punitive. Usually effective at securing and maintaining student attention as needed. Proactively addresses behavior or effectively redirects behavior.</td>
</tr>
</tbody>
</table>

**Fidelity Rating 5 Indicators**

- Teacher frequently connects students’ personal experiences to lesson content. Teacher frequently consults students, parents, colleagues, and literature to gain an understanding of students’ cultural backgrounds. Teacher addresses notes to “parent or guardian” rather than “mother or father”. Teacher promotes the feeling of family. Teacher fosters the development of a personal relationship with most, but not all, students. Teacher is aware of most students’ ethnic and world views, and is aware of and sensitive to alternative beliefs and perspectives. Teacher frequently confirms students’ native language practices. Teacher frequently provides assignments that capitalize on students’ native languages.

- Teacher frequently provides a direct explanation of why a particular strategy is helpful and when the strategy should be used, modeling the strategy application, providing assistance as students move to independent application of the strategy. Students frequently work in pairs or small groups as they learn and apply comprehension strategies. Six or seven of the following seven comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing. Teacher frequently taps into students’ prior knowledge.

- Teacher frequently redirects in respectful ways. Frequently emphasizes student change in behavior through praise. Teacher talk is frequently encouraging and respectful. Frequently communicates clearly what students did correctly or how they can improve. Frequently calls on a range of students. Students frequently treat each other with respect. Behavior management system used consistently and effectively.
### Culturally-Responsive Teaching Practices Assessment Instrument

**Teacher Name:** ____________________________  
**School Name:** ____________________________  
**Rater Name:** ____________________________

<table>
<thead>
<tr>
<th>Incorporating Home Culture in the Educational Setting</th>
<th>Development and Application of Reading Comprehension Strategies</th>
<th>Classroom Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fidelity Rating 6</strong></td>
<td><strong>Fidelity Rating 6</strong></td>
<td><strong>Fidelity Rating 6</strong></td>
</tr>
<tr>
<td>Teacher effectively selects and incorporates students’ responses, ideas, examples, and experiences into the lesson.</td>
<td>Teacher consistently provides a direct explanation of why a particular strategy is helpful and when it should be used. Teacher consistently and effectively teaches, models, and provides opportunities for practice of scientifically based reading comprehension strategies.</td>
<td>Teacher appears as the authority figure in the class, never punitive. Classroom consistently offers a positive learning environment with clear expectations for students’ behavior as a member of the learning community.</td>
</tr>
<tr>
<td><strong>Fidelity Rating 6 Indicators</strong></td>
<td><strong>Fidelity Rating 6 Indicators</strong></td>
<td><strong>Fidelity Rating 6 Indicators</strong></td>
</tr>
<tr>
<td>Consistently connects students’ personal experiences to lesson content. Teacher consistently consults students, parents, colleagues, and literature to gain an understanding of students’ cultural backgrounds. Teacher promotes the feeling of family. Teacher fosters the development of a personal relationship with each student and is aware of their students’ ethnic and world views. Teacher is aware of and sensitive to alternative beliefs and perspectives. Teacher does not resist but rather consistently confirms students’ native language practices. Teacher consistently provides assignments that capitalize on students’ native languages.</td>
<td>Teacher consistently provides a direct explanation of why a particular strategy is helpful and when the strategy should be used, modeling the strategy application, and providing assistance as students move to independent application of the strategy. Students frequently work in pairs or small groups as they learn and apply comprehension strategies. All seven of the following comprehension strategies are used: Comprehension monitoring; Graphic and semantic organizers; Mental imagery; Answering questions; Generating questions; Recognizing story structure; and Summarizing. Teacher consistently taps into students’ prior knowledge.</td>
<td>Teacher consistently redirects in respectful ways. Consistently uses friendly or unobtrusive, respectful gestures to redirect behavior. Consistently emphasizes student change in behavior through praise. Teacher talk is consistently encouraging and respectful. Consistently communicates clearly what students did correctly or how they can improve. Consistently elicits responses from all students, including students having difficulty with task at hand. Students consistently treat each other with respect. Teacher frequently encourages peer support in the learning process. The behavior management system is used consistently and effectively.</td>
</tr>
</tbody>
</table>

**Rule of thumb:**  
For ratings of 1, the teacher is consistently weak in this area.  
For ratings of 3, the teacher shows the characteristic but is inconsistent.  
For ratings of 5, the teacher is consistently strong in this area.  
For ratings of 6, he or she is exemplary.
Culturally-Responsive Teaching Practices Checklist

Incorporating Home Culture
Curriculum and Instructional Selections
- Examples of diversity are represented.
- Visual examples of multiple cultures.
- Holidays represented in literature are of those in multiple religions.
- Representational inclusion (inclusion of sources or information closely match or represent the diversity within a particular classroom).
- Student-centered inclusion (inclusion of the voices and perspectives of the students themselves in the educational experience).
- Use a variety of print materials to inspire student reading and writing.
- Self-regulation and attention-sustaining skills are taught to help improve performance.

Including Students with Special Needs
- Acknowledge the more obvious diversity issue such as physical disability.
- Recognize that different cultures view disabilities differently.
- Teach all students about disabilities to facilitate social acceptance of students with special needs.
- Spend more time teaching a few key concepts rather than trying to cover it all.
- Spend the time to develop and use a variety of assessment strategies.
- Offer positive and constructive feedback rather than criticism.
- Ensure students receive appropriate instructional or assessment accommodations.
- Focus on classroom process before course content to increase time on task.
- Create scaffolds to help students learn complex skills and procedures.
- Encourage students with disabilities to develop positive interpretations of their academic performance.

Take the time to know students in specific localized cultural contexts
- Acknowledge the more obvious diversity issue such as color.
- Be aware of the cultural diversity of students and families.
- Class background, sexual orientation, and racial and ethnic affiliations must be understood.
- Sharing activities, journaling, or oral presentations.
- It is better to describe rather than categorize a student’s or group’s identity or behavior.
- Be aware of and sensitive to alternative beliefs and perspectives.
- Solicit students for suggestions on how to address issues of multiculturalism in the classroom.
- When having a discussion of families, teacher stresses that not all family units are alike.
**Culturally-Responsive Teaching Practices Checklist**

### Make sure white ethnic students get multicultural education too
- Desire for culturally relevant curriculum and instruction to enhance the educational opportunities for white ethnic children.
- Use “I” searches, and explore family trees and family traditions.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
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</table>

### Cultivate multicultural connections
- Integrate content so that the history of the discipline’s content knowledge comes from many cultures and ethnicities.
- Construct knowledge so students see the universal nature of the components, concepts, and processes of the discipline and how other cultures and ethnic backgrounds might view them.
- Reduce prejudice by balancing the contributions of whites with other ethnic backgrounds and cultures.
- Use instructional techniques that motivate students and demonstrate mutual respect for culture.
- Group together students from diverse cultures for cooperative learning activities.
- Encourage all students to participate in extracurricular activities.
- Have high expectations for success from all students, regardless of cultural backgrounds.
- Be broad in his or her multicultural focus so that no particular cultural group is excluded.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
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<tbody>
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</table>

### Develop and promote a positive ethnic identity
- If a teacher is from a minority culture, how he or she identifies with his or her culture or is seen culturally by the students affects the teaching and learning environment.
- The main concepts are respect, tolerance, and the elimination of social injustice.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
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</table>

### Classroom Management

**Factors that best reflect culturally responsive teaching**
- Ability of the teacher to develop a safe classroom social and academic environment.
- Structured learning environment while managing to maintain mutually respectful relationships with students.
- Teacher maintains authority status and provides students with some decision-making power while avoiding power struggles with students.
- Students are expected to learn and not to interfere with the rights of others to learn.
- Students are free to take risks and know that teachers and other students will treat them with respect.
- Environment features students who agree to cooperate with the teacher and fellow students in the pursuit of academic growth and success.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
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<tbody>
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</table>
Culturally-Responsive Teaching Practices Checklist

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
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</tbody>
</table>

- Teacher teaches with assertiveness.
- Classroom routines are evident.
- Materials are readily available to students.
- Activities run smoothly with few disruptions.
- Expectations are clearly communicated in detail and enforced.
- Students know what to do and what is expected of them behaviorally.
- Teacher reminds students of behavioral routines.
- Teacher uses proximity control.
- Provides academic assistance on a task to prevent behavior problems.
- Teacher recognizes students using verbal and nonverbal praise regularly.
- Teacher reinforces and appropriate behavior (tokens, points, reward system).
- Disruptions are handled quickly and effectively.
- Teacher ignores inappropriate behavior (but not behavior that should be attended to).
- Teacher proactively addresses inappropriate behavior that needs attending.
- Responses to inappropriate behavior are applied consistently and fairly.
- Teacher effectively redirects behavior in respectful ways.
- Teacher uses friendly or unobtrusive, respectful gestures to redirect behavior.
- Uses antiseptic bouncing for redirection (e.g., asking the student to do a favor for them or get a drink of water, no intent to punish).

**Warmth and Responsiveness**

- Teacher personalizes relationships with students.
- Teacher demonstrates a caring attitude.
- Students treat each other with respect.
- Teacher talk is encouraging and respectful.
- Teacher encourages peer support in the learning process.
- Communicates individually with students on academic and nonacademic matters.
- Genuinely connects to each student’s emotional and social persona.

**Building Caring Learning Communities**

- Emphasize cooperation, mutual goal setting, decision making, and shared responsibility.
- Opportunities for student socialization as a part of instructional interaction.
- Opportunities for student verbal interaction during class time.
- Appropriate discourse is taught.
- Good listening skills are taught.
Development and Application of Comprehension Strategies

- Teacher provides a direct explanation of why a particular strategy is helpful and when it should be used.
- Teacher provides assistance as students move to independent application of the strategy.
- Teacher teaches, models, and provides opportunities for practice of scientifically based reading comprehension strategies.
- Students frequently work in pairs or small groups as they learn and apply comprehension strategies.
- Teacher consistently taps into students’ prior knowledge.
- The following comprehension strategies are used:
  - Comprehension monitoring
  - Graphic and semantic organizers
  - Mental imagery
  - Answering questions
  - Generating questions
  - Recognizing story structure
  - Summarizing.
APPENDIX E

VOCABULARY WORD INVENTORY
Vocabulary Word Inventory
Administration Instructions

Give students the following explanation prior to administering the Vocabulary Word Inventory:
“I am going to ask you to tell me about some words. You may or may not know these words. I want you to tell me everything you know about these words. You will not be graded on them. Some of the words may be easy and others may be difficult. Do the best you can.”

Call out each of the following words aloud. Repeat the word, saying the word naturally, without giving examples or clues to meaning. Write down everything the student tells you about the word.

1. hovercraft

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

2. ferry

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

3. tracks

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

4. wagon

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

5. oxen

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
6. harbor

7. row

8. taxi

9. haul

10. cement

11. salmon
APPENDIX F

VOCABULARY WORD INVENTORY RUBRIC
<table>
<thead>
<tr>
<th>Vocabulary Word</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>F</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hovercraft</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. A boat)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. A boat the in the air)</td>
<td>Defines word and provides multiple physical descriptors and may include example(s) or connections to experience (e.g. A boat that travels above the water supported by a cushion of air that it creates with fans by blowing air downward)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A boat used to transport passengers, vehicles, or goods across water, especially one operating regularly across a river or narrow channel)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferry</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. A boat)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. Boat for cars)</td>
<td>Defines word and provides multiple physical descriptors and may include example(s) or connections to experience (e.g. A boat that carries cars and people)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A rail or set of parallel rails upon which railroad cars or other vehicles run and a mark or succession of marks left by something that has passed.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tracks</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Train tracks or footprints)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. A train rides on tracks: Animals or people leave footprints or tracks)</td>
<td>Defines word and provides multiple physical descriptors (e.g. Rails that a train or vehicle rides on and the marks that something left behind)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A rail used to transport passengers, vehicles, or goods across water, especially one operating regularly across a river or narrow channel)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wagon</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. You ride in)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. You push or pull and carry stuff)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A thing you can ride or carry things in that you push or pull)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A rectangular vehicle that is used to carry heavy loads and is pulled by an animal, person or tractor)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxen</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. An animal)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. An animal like a bull or cow)</td>
<td>Defines word and provides multiple physical descriptors (e.g. More than one animal like a bull or cow)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. An adult member of the cattle family and used for pulling loads)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harbor</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Boats)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. Boats can park there)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A place where boats can anchor)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A part or body of water near a coast in which ships can anchor safely)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Row your boat)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. Use oars on a boat)</td>
<td>Defines word and provides multiple physical descriptors (e.g. Using oars to make a boat move and a sport)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. To propel a boat across water by using oars and to take part in the sport of rowing)</td>
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<tr>
<td>Taxi</td>
<td>No knowledge of word or incorrect definition (e.g. Don't know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. A car)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. A car that takes you places and 2 additional descriptors.)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A car that takes you places and 3 additional descriptors.)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A motor vehicle licensed to transport passengers in return for payment of a fare)</td>
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<td></td>
</tr>
</tbody>
</table>

91
<table>
<thead>
<tr>
<th><strong>Vocabulary Word</strong></th>
<th><strong>1</strong></th>
<th><strong>2</strong></th>
<th><strong>3</strong></th>
<th><strong>4</strong></th>
<th><strong>5</strong></th>
<th><strong>F</strong></th>
<th><strong>W</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Haul</td>
<td>To transport something that is heavy and bulky from one place to another.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Haul something)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. Trucks hauls things)</td>
<td>Defines word and provides multiple physical descriptors (e.g. You can haul something that is heavy using a truck)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. The process of transporting something that is heavy and bulky from one place to another)</td>
<td></td>
</tr>
<tr>
<td>Cement</td>
<td>A powdery building material that sets hard to form concrete, made by mixing cement with water, sand, and aggregate.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Sidewalks or Roads or Powder)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. A powder you mix for sidewalks and roads)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A powder you mix with water to make roads and sidewalks)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A powdery building material that sets hard to form concrete, made by mixing cement with water, sand, and aggregate)</td>
<td></td>
</tr>
<tr>
<td>Salmon</td>
<td>A large food fish with soft fins that spends most of its life in the ocean but migrates up freshwater rivers. Native to: Northern Atlantic, Northern Pacific.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. A fish)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. A fish you eat)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A fish that lives in the ocean that you can eat)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A large food fish with soft fins that spends most of its life in the ocean but migrates up freshwater rivers. Native to: Northern Atlantic, Northern Pacific)</td>
<td></td>
</tr>
<tr>
<td>Potter</td>
<td>A person who makes pottery.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Makes pots)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. Makes pots with clay)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A person who makes pots with clay)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A person who makes pottery using clay and may or may not use a potter’s wheel)</td>
<td></td>
</tr>
<tr>
<td>Pitcher</td>
<td>The player who delivers the ball to the batter. A container for holding and pouring liquids that usually has a lip or spout and a handle.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Baseball or bottle)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. A person who throws the ball in baseball or a bottle to pour from)</td>
<td>Defines word and provides multiple physical descriptors (e.g. A person who throws the baseball in a baseball game or a bottle that you pour water from)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. A container for holding and pouring liquids that usually has a lip or spout and a handle and the player who delivers the ball to the batter in a baseball game)</td>
<td></td>
</tr>
<tr>
<td>Mold</td>
<td>Container for making shapes; A growth of mold on the surface of something, or the discoloration caused by the growth of mold.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Grows on food or use molds to cook or bake)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. If food gets old it gets mold or you use molds to make shapes for cooking)</td>
<td>Defines word and provides multiple physical descriptors (e.g. Container for making shapes; A growth of mold on the surface of something, or the discoloration caused by the growth of mold)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. Container for making shapes; A growth of mold on the surface of something, or the discoloration caused by the growth of mold)</td>
<td></td>
</tr>
<tr>
<td>Soar</td>
<td>To increase rapidly in number, volume, size or amount; To fly or rise high in the air; and to become more intense.</td>
<td>No knowledge of word or incorrect definition (e.g. Don’t know)</td>
<td>Minimal knowledge of word, but provides at least one physical descriptor (e.g. Fly)</td>
<td>Cannot form a clear definition, but provides at least two physical descriptors (e.g. Fly like a bird or read more AR books or your mom’s voice)</td>
<td>Defines word and provides multiple physical descriptors (e.g., Fly like a bird or increase rapidly or get more intense)</td>
<td>Clear, detailed definition(s) with multiple descriptors and may include example(s) or connections to experience (e.g. To increase rapidly in number, volume, size or amount; To fly or rise high in the air; and to become more intense)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**
Vocabulary Strategy: Antonyms – Baby Animals

Vocabulary Activity Purpose: Review antonyms and review the concept of opposites. Many words that have opposites, or antonyms, are describing words. Words that name things or actions typically do not have opposites, unless they are exclusive, such as boy/girl.

Vocabulary Activity Assumption: Students can build vocabulary by learning antonyms.

Selection: “The Hermit Crab”

Vocabulary Words: hard, odd, safe, soft, stay, right, new, empty, find, clean, bigger, back, steal

Practices to be Modeled During Small Group Lesson with Treatment Groups

- Solicit responses from all students, including students having difficulty with task at hand;
- Communicate clearly what students did correctly or how they can improve, using encouraging and respectful words; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups

- Review antonyms by reminding students that they are words that are opposite, or nearly opposite, in meaning. For example, in “The Hermit Crab” the hermit crab’s claws and front part are hard, but the back part is soft. The words hard and soft are antonyms.
- Show students the word odd in the word column of the “Antonyms” sheet and ask students to suggest words that are antonyms, and write students’ responses in the antonyms column. (normal, usual)
- Show students the word safe in the word column of the “Antonyms” sheet and ask students to suggest words that are antonyms, and write students’ responses in the antonyms column. (dangerous, unsafe)
- Remind students that many words, such as safe, can be made into an antonym by adding the prefix un- to the beginning of the word, as in the word unsafe.
- Say aloud the following words from “The Hermit Crab” as you show students the words in the word column of the “Antonyms” sheet: stay, empty, clean, back.
- Ask students to suggest an antonym for each word as you write their responses in the antonyms column of the “Antonyms” sheet: (go, full, dirty, front)
- Say aloud the following words as you show students the words in the word column of the “Antonyms” sheet: right, new, find, bigger, steal.
- Ask students to suggest an antonym for each word as you write their responses in the antonyms column of the “Antonyms” sheet: (wrong, old, lose, smaller, give)
- Conclude lesson by pointing out how many pairs of antonyms students know.

Treatment Groups

Instruct students to share the words they reviewed today with their parents/guardians/siblings, and to use these words in sentences at home.
<table>
<thead>
<tr>
<th>Words</th>
<th>Antonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Vocabulary Strategy: Classification  
Vocabulary Activity Purpose: Exercise to expand students’ knowledge of vocabulary.  
Vocabulary Activity Assumption: Students can expand word knowledge by categorizing words.  
Selection: “The Hermit Crab”  
Vocabulary Words: shell, claws

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Solicit responses from all students, including students having difficulty with task at hand;
- Communicate clearly what students did correctly or how they can improve, using encouraging and respectful words; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups
- Review classification by having students name the things that are parts of a hermit crab in “The Hermit Crab” (shell, claws).
- Explain that these are animal parts that help the hermit crab survive in the water.
- Show the students the Types of Animal Covering worksheet.
- Then write hermit crab and shell under the appropriate heading. Explain what you have written.
- Have students identify different animals in the Big Book Animals for you to list under the Animal heading on the worksheet.
- Then ask the students to tell you the names of each animal’s covering as you write their answers under the Animal Covering heading. (raccoon/fur, turtle/shell, robin/feathers, alligator/scales, frog/skin, kangaroo/fur, fish/scales)
- Instruct students to draw a picture and write the name of their favorite animal listed on the paper provided.

Treatment Groups
Instruct students to share the words they reviewed today with their parents/guardians/siblings, and to use these words in sentences at home.
Different Types of Animal Covering

<table>
<thead>
<tr>
<th>Animal</th>
<th>Type of Covering</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Open Court Unit 3
Lesson 1

Vocabulary Strategy: Classification
Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.
Vocabulary Activity Assumption: The classification of vocabulary words will build upon this skill to expand students’ understanding of unfamiliar words.
Selection: On the Move
Vocabulary Words: feet, streetcar, hovercraft, rocket, bicycle, van, ferry, space shuttle, motorcycle, truck, helicopter, car, train, airplane, bus, boat, jet

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Connect students’ personal experiences to lesson content;
- Confirm students’ native language practices; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups
- Read aloud On the Move.
- Ask students what they think of when they hear the word travel.
- Explain to students that grouping words into a category, such as travel, can help them see the similarities and differences between words and understand more about the meanings of the individual words.
- Ask students to name the different ways people can travel that they recognized in On the Move. Write student responses on the “Different Ways People Can Travel” sheet provided.
- After students have provided their responses, review the words on the “Different Ways People Can Travel Key” (feet, bicycle, motorcycle, car, bus, streetcar, van, truck, train, boat, hovercraft, ferry, helicopter, airplane, jet, rocket, space shuttle). Show corresponding pictures as you present words.
- Encourage students to describe any words from the list that they may be unfamiliar with by comparing them to ones they already know.
- Ask the following questions about the words from this list and record students’ answers in the appropriate column of the “Travels On/In” chart:
  - Which of these travels on water? (boat, hovercraft, ferry)
  - Which of these travels on land? (feet, bicycle, motorcycle, bus, streetcar, van, truck, train)
  - Which of these travels in the air? (helicopter, airplane, jet, rocket, space shuttle)
- After students have provided their responses, review the words on the “Travels On/In” key.
- Conclude by emphasizing that by comparing words, students can learn more about each word.
**Treatment Groups**
Instruct students to share the words they reviewed today with their parents/guardians/siblings, and to use these words in sentences at home.
Different Ways People Can Travel
## Travels On/In…

<table>
<thead>
<tr>
<th>Travels on Water</th>
<th>Travels on Land</th>
<th>Travels in the Air</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Open Court Unit 3
Lesson 5

**Vocabulary Strategy:** Classification

**Vocabulary Activity Purpose:** Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.

**Vocabulary Activity Assumption:** Using classification can help students in other areas by enabling them to see easily the differences or similarities in objects that they are classifying.

**Selection:** Review of words introduced in *On the Move*”

**Vocabulary Words:** wings, doors, tracks, wagon, bicycle, motorcycle, car, bus, streetcar, van, truck, train, boat, hovercraft, ferry, helicopter, airplane, jet, rocket, space shuttle, wheelchair, trolley

**Practices to be Modeled During Small Group Lesson with Treatment Groups**
- Connect students’ personal experiences to lesson content;
- Confirm students’ native language practices;
- Provide a direct explanation of why a particular strategy is helpful and when the strategy should be used, modeling the strategy application; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

**Treatment and Control Groups**
- Remind students that classifying is a way of organizing something according to certain features.
- Explain to students that they are going to sort pictures to practice this.
- Review with students the different ways to travel from place to place as you write their responses on the “Different Types of Transportation” sheet provided.
- Encourage students to describe any words from the list that they may be unfamiliar with by comparing them to ones they already know.
- Conclude by counting the number of different words written and commenting on how many different travel words students know.

**Treatment Groups**
Instruct students to share the words they reviewed today with their parents/guardians/siblings, and to use these words in sentences at home.
### Different Types of Transportation

<table>
<thead>
<tr>
<th>Travels on Water</th>
<th>Travels on Land</th>
<th>Travels in the Air</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Vocabulary Strategy: Classification
Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.
Vocabulary Activity Assumption: Classification is a skill that enables students to generalize features or characteristics of words or concepts for comparison or contrast. This will help develop word meaning of unfamiliar words in other curricular areas as well by enabling them to see easily the differences or similarities in objects that they are classifying.
Selection: Things That Go
Vocabulary Words: camels, donkeys, horses, ponies, oxen, carry, wagon, harbor, tugboat, monorail

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Connect students’ personal experiences to lesson content;
  - “Tell me about a time when you’ve ridden on a horse, donkey, camel, or pony.”
  - “Tell me about a time when you’ve ridden in a wagon or monorail.”
  - “Tell me about a time you’ve seen a tugboat or wagon.”
- Confirm students’ native language practices; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups
- Review with students that today, people use different forms of transportation such as:
  - On foot;
  - On horses, donkeys, and camels;
  - In wagons pulled by ponies, oxen, or even people;
  - On a monorail that can go 150 miles per hour; and
  - On tugboats that guide ships into the harbor.
- Remind students that grouping words into a category can help them see the similarities and differences between words and understand more about the meanings of the individual words.
- Discuss with students the similarities and differences of today’s vocabulary words while showing pictures of the words: camels, donkeys, horses, ponies, oxen, carry, wagon, harbor, tugboat, and monorail.
- Guide the students as they identify the appropriate categories for today’s words (roads; harbor; tracks)
- Conclude by comparing today’s words with words previously introduced.

Treatment Groups
Instruct students to share the following words with their parents/guardians/siblings, and to use these words in sentences at home: oxen, wagon, and harbor.
**tugboat**
A small powerful boat used to tow ships and barges.

**harbor**
A part of a body of water near a coast in which ships can anchor safely.

**monorail**
A passenger railroad transport system in which the cars straddle or are suspended from a single beam.

wagon

A rectangular vehicle that is used to carry heavy loads and is pulled by an animal or tractor or is motor-powered.

horses

A large four-legged animal with a mane, tail, hooves, and a long head that can be used for riding, pulling vehicles, carrying loads.
**pony**
Any of various breeds of small gentle horses usually less than five feet high at the shoulder.

**donkey**
A small domesticated member of the horse family with a gray or brown coat, long ears, and a large head.
oxen (plural)
An adult member of the cattle family. Used for pulling loads.

camels
A cud-chewing mammal used as a draft or saddle animal in desert regions
carry
To take somebody or something that you are holding or supporting to another place.
Vocabulary Strategy: Classification

Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.

Vocabulary Activity Assumption: Young children have a natural tendency to sort and classify objects into groups, like animals or colors. The classification of vocabulary words will build upon this skill to expand students’ understanding of unfamiliar words.

Selection: Things That Go

Vocabulary Words: row, pedal, action

Practices to be Modeled During Small Group Lesson with Treatment Groups

- Connect students’ personal experiences to lesson content;
  - “Tell me about a time when you’ve ridden a bike.”
  - “Tell me about a time when you’ve ridden in a row boat or any type of boat.”
  - “Tell me about how you help your family at mealtime.”
  - “Tell me about shopping for food with your family.”
  - “Tell me about the sports you enjoy.”
- Confirm students’ native language practices; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups

- Explain to students that pedal and row can be classified as action words because both words show movement.
- Show students the “Action” sheet with pedal and row listed under the heading as you say the words aloud.
- Tell students that you are going to play an action word game.
- Say “food” and ask students to name action words associated with “food” (eat, taste, cook, smell, buy, shop). Write students’ responses as they name them.
- Say “car” and ask students to name action words associated with “car” (drive, ride, park, wash, clean). Write students’ responses as they name them.
- Say “sports” and ask students to name action words associated with “sports” (run, jump, hit, slide, spike, dribble, tumble, throw). Write students’ responses as they name them.
- Conclude by counting the number of words the students generated.

Treatment Groups

Instruct students to share the following word with their parents/guardians/siblings, and to use this word in sentences at home: row.
# Action

<table>
<thead>
<tr>
<th>Food</th>
<th>Car</th>
<th>Sports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

pedal row
row

➢ To propel a boat across water by using oars.
➢ To take part in the sport of rowing.

pedal

➢ Move an object like a bicycle, by working the pedals.
➢ A lever operated by the foot that powers a mechanism such as a bicycle, sewing machine, or the foot controls of a car.
Vocabulary Strategy: Classification
Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.
Vocabulary Activity Assumption: An understanding of classification as a vocabulary skill will enable students to start to see underlying similarities and differences in groups of words and their meanings. Further development of this skill will expand the speaking and, eventually, written vocabulary of students.
Selection: Things That Go
Vocabulary Words: carry, fly, takeoff, land, taxi

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Connect students’ personal experiences to lesson content;
  - “Tell me about a time when you’ve been in a taxi.”
  - “Tell me about a time when you’ve been in an airplane.”
- Confirm students’ native language practices; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups
- Explain that many words are the names of actions. For example, in “On the Go”, jet planes carry people.
- Explain to students that they can classify action words as a way of grouping them according to their relationship to other things (people sing and speak; cows moo; dogs bark).
- Show students the “Action” sheet with carry listed under the heading as you say the word aloud.
- Ask students to suggest different actions associated with a jet plane as you write the words on the “Action” sheet (fly, take off, land, taxi).
- Remind students that classifying is a way of organizing something according to certain features.
- Conclude by instructing students to draw a picture of a jet plane and write a sentence using the words jet plane.

Treatment Groups
Instruct students to share the following word with their parents/guardians/siblings, and to use this word in sentences at home: taxi.
Action

carry
Jet Plane
Vocabulary Strategy: Classification

Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.

Vocabulary Activity Assumption: Classification is a skill that enables students to generalize features or characteristics of words or concepts for comparison or contrast. This will help develop word meaning of unfamiliar words in other curricular areas as well.

Selection: “Trucks”

Vocabulary Words: haul, cement, pigs, coffee, vanilla, tow, move, clean, mix, cars, furniture, streets

Practices to be Modeled During Small Group Lesson with Treatment Groups

- Connect students’ personal experiences to lesson content;
  - “Tell me what you know about different types of trucks.”
  - “What are trucks used for?”
- Confirm students’ native language practices; and
- Redirect in respectful ways by using friendly or unobtrusive, gestures.

Treatment and Control Groups

- Explain that in this lesson students will pair things with action words. For example, in “Trucks”, people use trucks to haul, or pull, many things (pigs, coffee, and vanilla).
- Show students the “Action Words and Things” sheet with haul listed in the “Action” column and pigs, coffee, and vanilla listed in the “Things” column.
- Ask students to think about different kinds of trucks (tow truck, moving van, street cleaner, cement mixer) and their uses.
- Ask students to name examples of other types of trucks and their uses as you write their answers in the appropriate columns.
- Conclude by having students count the number of new action words identified.

Treatment Groups

Instruct students to share the following word with their family, and to use these words in sentences at home: haul, cement. Instruct the students to look for different types of trucks and talk about their uses with their family.
## Actions and Things

<table>
<thead>
<tr>
<th>Type of Truck</th>
<th>Action</th>
<th>Things</th>
</tr>
</thead>
<tbody>
<tr>
<td>pick-up truck</td>
<td>haul</td>
<td>pigs, coffee, vanilla</td>
</tr>
<tr>
<td>tow truck</td>
<td>tow</td>
<td>cars</td>
</tr>
<tr>
<td>moving vans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>street cleaners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cement mixers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Vocabulary Strategy: Classification
Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.
Vocabulary Activity Assumption: Classification is a skill that will come naturally to many students at this grade level. Young children have a natural tendency to be able to sort and classify objects into groups, like animals or colors. The classification of vocabulary words will build upon this skill to expand students’ understanding of unfamiliar words.

Selection: “Wake Up, City!”
Vocabulary Words: salmon, sparrows, ducks, tuna, crabs, lobsters, clams, oysters

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Connect students’ personal experiences to lesson content;
  - “Tell me what you know about salmon.”
  - “Tell me about the workers you see in your neighborhood.”
- Confirm students’ native language practices; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups
- Explain that many words are names of things that are part of a group. For example, in Wake Up, City! the words cat and sparrow are kinds of animals.
- Show students the words cat and sparrows on the “Animals and Neighborhood” sheet.
- Ask students to name other kinds of animals that were identified in Wake Up, City! (ducks, fish, salmon, tuna, crabs, lobsters, clams, oysters) as you write the responses on the “Animals and Neighborhood” sheet.
- Ask students to name examples of other animals they’re familiar with as you write their answers on the “Animals and Neighborhood” sheet.
- Explain that Wake Up, City! also named different people who live and work in a neighborhood, such as police officers.
- Ask students to name other Neighborhood People words they remember from Wake Up, City! (bus drivers, workers, mothers, babies, passengers, children) as you write the responses on the “Animals and Neighborhood” sheet.
- Ask students to name examples of other words they know for this category as you write their answers on the “Animals and Neighborhood” sheet.
- Conclude by instructing students to draw a picture of a worker they have seen in their neighborhood and write a sentence about it.

Treatment Groups
Instruct students to share the word salmon with their family, to use salmon in sentences at home, and to talk about different types of fish with their family.
## Workers and Tools

<table>
<thead>
<tr>
<th>Workers</th>
<th></th>
<th>Tools</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>cat</td>
<td>sparrows</td>
<td>police officers</td>
<td></td>
</tr>
</tbody>
</table>

Name other kinds of animals identified in *Wake Up, City!* (ducks, fish, salmon, tuna, crabs, lobsters, clams, oysters).

Name other *Neighborhood People* words you remember from *Wake Up, City!* (bus drivers, workers, mothers, babies, passengers, children).

Treatment Groups Only: “Tell me what you know about salmon.”

Treatment Groups Only: “Tell me about the workers you see in your neighborhood.”

Ask students to name examples of other animals they’re familiar with.

Ask students to name examples of other words they know for this category.
Neighborhood Worker
Vocabulary Strategy: Classification
Vocabulary Activity Purpose: Develop the understanding that knowing a group of words in a category develops a better understanding of the meaning of each word.

Vocabulary Activity Assumption: Although students will be practicing classification in the context of vocabulary related to the reading selection, they will be able to transfer this skill to other curricular areas, such as science and social studies. Classification is a skill that enables students to generalize features or characteristics of words or concepts for comparison or contrast. This will develop word meaning of unfamiliar words.

Selection: “Guess Who?”
Vocabulary Words: potter, pilot, airplane, bus driver, juggler, artist, baker

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Connect students’ personal experiences to lesson content;
  o “Tell me what you know about a potter.”
  o “Tell me about the workers you see in your neighborhood and the tools they use.”
- Confirm students’ native language practices; and
- Redirect in respectful ways by uses friendly or unobtrusive, gestures.

Treatment and Control Groups
- Read “Guess Who”? to students if the teacher has not read the selection already.
- Remind students that many words are names of things that are part of a group. For example, in “Guess Who?” a pilot is a worker and an airplane is the pilot’s tool (what the pilot needs to do his or her work).
- Show students the words pilot and airplane on the “Workers and Tools” sheet.
- Ask students to identify other worker words and their tools from “Guess Who?” (bus driver – bus; juggler – bags, food, balls; artist – paint, brushes; potter – bowl, jugs, clay; baker – bread, oven) as you write their responses on the “Workers and Tools” sheet.
- Discuss the characteristics of their answers. For example:
  o Which workers are making things in the illustrations (artist, potter, baker)?
  o Which workers are using machines in the illustrations (pilot, bus driver, potter)?
  o In the illustrations, which workers are men (juggler, artist, baker), and which are women (bus driver, pilot, potter)?
- Conclude by emphasizing that comparing and contrasting different words in a group helps you understand the meaning of each word.

Treatment Groups
Instruct students to share the word potter with their family, to use potter in sentences at home, and to talk about different types of workers and tools with their family.
<table>
<thead>
<tr>
<th>Workers</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot</td>
<td>airplane</td>
</tr>
</tbody>
</table>

Ask students to identify other worker words and their tools from “Guess Who?” (bus driver – bus; juggler – bagels, food, balls; artist – paint, brushes; potter – bowl, jugs, clay; baker – bread, oven).

Treatment Groups Only:  
“Tell me what you know about a potter.”

| Treatment Groups Only:  
“Tell me about the workers you see in your neighborhood and the tools they use.”
| Which workers are making things in the illustrations (artist, potter, baker)? |
| Which workers are using machines in the illustrations (pilot, bus driver, potter)? |

In the illustrations, which workers are men (juggler, artist, baker), and which are women (bus driver, pilot, potter)?

Conclude by emphasizing that comparing and contrasting different words in a group, helps you understand the meaning of each word.

Treatment Groups Only:  
Instruct students to share the word *potter* with their family, to use *potter* in sentences at home, and to talk about different types of workers and tools with their family.
Vocabulary Strategy: Rhyming Words
Vocabulary Activity Purpose: Build vocabulary from generating lists of meaningful rhyming words and investigate the meanings of any unknown words by using a dictionary.
Vocabulary Activity Assumption: This form of word play provides an enjoyable way to develop interest in vocabulary study.
Vocabulary Words: mold, sold, fold, bold, hold, told, gold, rolled

Practices to be Modeled During Small Group Lesson with Treatment Groups
- Connect students’ personal experiences to lesson content;
  - “Tell me what you know about mold.”
- Confirm students’ native language practices; and
- Redirect in respectful ways by using friendly or unobtrusive, gestures.

Treatment and Control Groups
- Explain that words that have the same ending sound are rhyming words. For example, the words mold and hold end in rhyming sounds.
- Remind students that many words rhyme, but not all rhyming words have meaning, such as the rhyming word dold.
- Explain that all meaningful English words are listed in alphabetical order in a dictionary as you pass around a dictionary for students to look through.
- Model using a dictionary by looking up the words mold and dold. Open to the beginning pages. Tell students that words starting with the letter a are listed first, then words starting with the letter b, then c, and so on.
- Explain as you look through the pages of words starting with d that dold is not listed in the dictionary, so it is not a meaningful word.
- Repeat this search process for the word mold, and read aloud its definitions (container for making shape; a growth of mold on the surface of something, or the discoloration caused by the growth of mold) as you explain that mold is a meaningful word. Also display the pictures of mold.
- Share with students the following words that rhyme: told, hold.
- Then, ask students to identify other words that rhyme with mold, told, and hold. Some possibilities are bold, gold, and rolled).
  - If the words rhyme, are familiar, and are meaningful words, write the words under the “Real Rhyming Words” heading of the “Rhyming Words” sheet.
  - If unfamiliar rhyming words are identified, help students look for the words in the dictionary. If the words are not in the dictionary, write them under the “Nonsense Rhyming Words” heading of the “Rhyming Words” sheet as a word that has no meaning.
- Conclude by emphasizing that many words rhyme, but not all rhyming words are meaningful. Remind students that they can search for a list of all meaningful English words in a dictionary.
Treatment Groups
Instruct students to share the word *mold* and its various meanings with their family and to use *mold* in sentences at home.
### Real Rhyming Words

*mold, told, hold, bold, gold, rolled*

- Explain that words that have the same ending sound are rhyming words. For example, the words *mold* and *hold* end in rhyming sounds.
- Explain that all meaningful English words are listed in alphabetical order in a dictionary as you pass around a dictionary to students.
- Model using a dictionary by looking up the words *mold* and *dold*. Open to the beginning pages. Tell students that words starting with the letter *a* are listed first, then words starting with the letter *b*, then *c*, and so on.
- Repeat this search process for the word *mold*, and read aloud its definitions (*container for making shape; a growth of mold on the surface of something, or the discoloration caused by the growth of mold*) as you explain that *mold* is a meaningful word. Also display the pictures of *mold*.

**Treatment Groups Only:**

“Tell me what you know about *mold.*”

- Share with students the following words that rhyme: *told, hold.*
- Then, ask students to identify other words that rhyme with *mold, told, and hold.* See above.
  If unfamiliar rhyming words are identified, help students look for the words in the dictionary.

### Nonsense Rhyming Words

*dold*

- Remind students that many words rhyme, but not all rhyming words have meaning, such as the rhyming word *dold*.
- Explain as you look through the pages of words starting with *d* that *dold* is not listed in the dictionary, so it is not a meaningful word.

Conclude by emphasizing that many words rhyme, but not all rhyming words are meaningful. Remind students that they can search for a list of all meaningful English words in a dictionary.
Treatment Groups Only:
Instruct students to share the word *mold* and its various meanings with their family and to use *mold* in sentences at home.
(mold on bread)

(molds for baking)
Open Court Unit 4  
Lesson 15

Vocabulary Strategy: Rhyming Words
Vocabulary Activity Purpose: Build vocabulary from generating lists of meaningful rhyming words.
Vocabulary Activity Assumption: Students should have a basic understanding of what rhyming words are. Knowledge if this concept will be helpful as students experiment with word choices in their speech and, eventually, in their written work.
Vocabulary Words: soar, tore, knee, tea, door, four, more, pour, roar, tree, bee, sea, he, me

Practices to be Modeled During Small Group Lesson with Treatment Groups

- Connect students’ personal experiences to lesson content;
  - “Tell me what you know about the word “soar”.
- Confirm students’ native language practices; and
- Redirect in respectful ways by using friendly or unobtrusive, gestures.

Treatment and Control Groups

- Remind students that words with the same ending sound are rhyming words. For example, the words he and me end in rhyming sounds.
- Remind students that many words rhyme, but not all rhyming words have meaning, such as the rhyming word dold introduced in the previous lesson.
- Introduce the word “soar” and three of its definitions to students:
  - To increase rapidly in number, volume, size, or amount;
  - To fly or rise high in the air; and
  - To become more intense.
- Share with students the following word cards: soar, tore, knee, tea, door, four, more, pour, roar, tree, bee, sea, he, and me.
- Ask students to name other words that rhyme with the words listed above. Write words on blank word cards.
- Ask students to identify word pairs that rhyme. Some possibilities are (soar/roar, pour/four, tore/more, tree/bee, he/me). Write responses on the “Rhyming Words” sheet.
- Conclude by tallying the number of meaningful word pairs students generated.

Treatment Groups

Instruct students to share the word soar and its various meanings with their family and to use soar in sentences at home.
Remind students that words with the same ending sound are rhyming words. For example, the words *he* and *me* end in rhyming sounds.

Remind students that many words rhyme, but not all rhyming words have meaning, such as the rhyming word *dold* introduced in the previous lesson.

Treatment Groups Only:
“Tell me what you know about the word “*soar*”.

Introduce the word “*soar*” and three of its definitions to students:
- To increase rapidly in number, volume, size, or amount;
- To fly or rise high in the air; and
- To become more intense.

Share with students the following word cards: *soar, tore, knee, tea, door, four, more, pour, roar, tree, bee, sea, he,* and *me*.

Ask students to name other words that rhyme with the words listed above. Write words on blank word cards.

Ask students to identify word pairs that rhyme. Some possibilities are (soar/roar, pour/four, tore/more, tree/bee, he/me).

Conclude by tallying the number of meaningful word pairs students generated.

Conclude by emphasizing that many words rhyme, but not all rhyming words are meaningful. Remind students that they can search for a list of all meaningful English words in a dictionary.

Treatment Groups Only:
Instruct students to share the word *soar* and its various meanings with their family and to use *soar* in sentences at home.
<table>
<thead>
<tr>
<th>pour</th>
<th>four</th>
</tr>
</thead>
<tbody>
<tr>
<td>tore</td>
<td>more</td>
</tr>
<tr>
<td>soar</td>
<td>roar</td>
</tr>
<tr>
<td>door</td>
<td>bee</td>
</tr>
<tr>
<td>knee</td>
<td>tree</td>
</tr>
<tr>
<td>tea</td>
<td>sea</td>
</tr>
<tr>
<td>he</td>
<td>me</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


Communities. New York: Teachers College Press.


Blocks for Teaching Children to Read, Kindergarten Through Grade 3. Jessup, MD: National Institute for Literacy at ED Pubs.


BIOGRAPHICAL SKETCH

PHYLLIS SWANN UNDERWOOD

ACADEMIC PREPARATION

Florida State University, Tallahassee, FL
2009 Ph.D., Reading and Language Arts
2003 M.S., Elementary Education
1985 B.S., Criminology

Certification: Florida Department of Education, Elementary Education K-6

RESEARCH AND TEACHING

Florida Center for Reading Research (January 2005–Present)
Assistant in Research (February 2006–Present)
Project management responsibilities for the following grants:
- Child-by-Instruction Interactions in Literacy: Examining Causal Effects of Individualized Instruction in First through Third Grade. US Department of Education, Institute for Education Sciences Grant # R305B070074.
- Child-Instruction Interactions: Causal Effects on Reading. National Institutes of Health, National Institute of Child Health and Human Development, Grant #R01 HD048539.
- Child-Instruction Interactions in Early Reading: Examining Causal Effects of Individualized Instruction, US Department of Education, Institute for Education Sciences Grant # R305H04013.

Assistant in Research (January 2005–February 2006)
Professional Development Coordinator responsible for facilitating the Individualizing Student Instruction (ISI) study professional development activities. Worked with ISI research partners who assisted teachers as they implemented recommended times and types of literacy instruction in first grade classrooms. Collaborated with project partners, teachers, school leaders, and school district administrators to facilitate efficient implementation of the ISI study.

Florida State University (August 2003–May 2009)
Adjunct Instructor-EDE 4316 (Spring 2009)
Teaching responsibilities for undergraduate course designed to provide pre-service teachers the opportunity to develop the knowledge and skills needed to meet the diverse needs of students found in today’s classrooms. As a result of current mandates, general education teachers must provide instruction for students who demonstrate accelerated progress, are
making adequate progress and for struggling, at-risk students including students with
disabilities and students with limited English.

**Adjunct Instructor-SCE 4310 (Fall 2003, Fall 2004, Fall 2005, Fall 2006)**
Teaching responsibilities for undergraduate course designed to provide pre-service
teachers with opportunities to construct a vision of teaching and learning science in the
elementary school and to assist the prospective teachers in becoming a part of that vision.
Course focused on the nature of science, issues in teaching and learning science, nature of
the early childhood/elementary school student, and role of the teacher in assisting
students as they learn science.

**Adjunct Instructor-LAE 3414 (Summer 2005)**
Teaching responsibilities for undergraduate course designed to provide pre-service
teachers opportunities to study the nature and shape of literature as a school subject at the
elementary and middle school levels. A secondary goal of the course was for students to
read and appreciate recent children's literature that may be useful to teach other school
subjects such as reading, language arts, social studies, and science. Multicultural
literature and international literature also comprised areas of concentration in this course.

**University Supervisor (Spring 2005)**
Directly responsible for supervision and evaluation of six student teachers. Conducted
multiple observations of student teachers, and provided comprehensive feedback and
specific suggestions for areas identified as needing improvement. Provided professional
support to student teachers and their supervising teachers.

**Adjunct Instructor-RED 4310 (Spring 2004, Fall 2004, Spring 2005)**
Teaching responsibilities for undergraduate course designed to develop in pre-service
teachers the knowledge and skills to teach beginning reading in a classroom setting. The
course focused on moving theory into best practice instruction that targets the individual
needs of a wide range of learners, including those of varying abilities and from diverse
cultures. The course was designed to build on a framework of the following elements for
instruction in beginning reading: phonemic awareness, phonics, fluency development,
vocabulary development, and strategy instruction for comprehension of a wide variety of
texts.

**PUBLICATIONS PUBLISHED OR IN PRESS – PEER REVIEWED JOURNALS**
Connor, C. M., Morrison, F. J., Fishman, B., Ponitz, C. C., Glasney, S., Underwood, P.,
system: Examining the literacy instruction provided to individual students.
Connor, C. M., Piasta, S. B., Glasney, S., Schatschneider, C., Fishman, B., Crowe, E.,
precisely: Effects of child X instruction interactions on first graders’ literacy
development. *Child Development*, 80(1), 77-100.
Connor, C. M., Morrison, F. J., Fishman, B. J., Schatschneider, C., & Underwood, P.

**SELECTED CONFERENCE PRESENTATIONS**


