MIDDLE SCHOOL ELL AND LD TEACHERS' PERCEPTIONS OF THE IMPORTANCE OF READING METHODS

by

PEI-YI LEE

B.A., I-Shou University, 1997
MED, Arkansas Tech University, 2004

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Secondary Education
College of Education

KANSAS STATE UNIVERSITY
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2007

Abstract

This study is a follow-up to Al-Fadda's (2004) investigation of middle school teacher's perceptions of the importance of reading methods. The primary research question to be addressed in this study was: What are ELL and LD teachers' perceptions of the importance of specific reading strategies for their respective types of students? To address this question the researcher developed a survey with five demographic questions and 44 reading methods based on the framework of the COBRA model developed by Heerman (2002). The researcher administered the survey to public middle and junior high school ELL and LD teachers from Kansas, New Mexico, Oklahoma, and Texas and compared the two groups' perceptions of the importance of several reading strategies. Analysis of the results showed that there was a 60% agreement rate between the two teacher groups (no significant differences) for three of the COBRA goals (background knowledge, comprehension, and study and application) and a 40% difference rate between the two teacher groups (significant differences) for two of the COBRA goals (experiential learning and vocabulary). For the 44 survey items, there was an agreement rate of 82.82%, and a difference rate of 17.18%. The researcher concludes that there were more similarities than differences between ELL teachers' and LD teachers' perceptions of the importance of the surveyed reading methods, however, there were also real differences. The researcher found justification for the belief that ELL and LD teachers should be considered specialist teachers when it comes to rating the relative importance of reading methods. ELL teachers appear to be inclined to use reading methods related to language, experience, and vocabulary methods. The results also reveal that LD teachers appear to be inclined to use reading methods related to intervention strategies with conferencing, coaching, compensatory methods, specific skills development and memory processes. In addition, the researcher noted a large number of methods with small mean differences, showing the certain levels of agreement between the two teacher groups. In terms of the five teacher variables, percentage of ELL students, percentage of low-income students and school enrollment proved to be the least active variables but the

teacher variables of teachers' education levels and teachers' experience levels were more active.

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Dedication

I dedicate this dissertation to my grandmother and Ann. My grandmother raised me for 16 years and has inspired me very profoundly. She passed away ten years ago but her spirit is still in my heart. I was deeply changed by her justice, brevity, wisdom, persistence, and caring. I was determined to become a good person when I was a young girl. Ann was the first one who suggested to me that I continue my education after finishing my master's degree. She constantly gave me her full support while I was working on my doctorate program. I appreciate my grandmother's amazing influence on my life. In addition, I appreciate Ann's constant encouragement and support.

CHAPTER 1 - Introduction

This was a survey study of the reading methods rated according to relative importance by middle school ELL teachers who teach English language learners (ELL) and LD teachers who teach students with learning disabilities (LD). The teachers worked in middle schools or junior high schools in Kansas, New Mexico, Oklahoma, and Texas. The primary goal of the study was to determine if teachers of ELL students have similar or different importance ratings for reading methods than do teachers of LD students. The schools in this study were selected because they had ELL enrollments at or above the ELL mean enrollment for the state in which they were located, thus, the researcher was able to get survey results in which the mean ELL student population far exceeded the mean LD student population.

Statement of the Problem

The researcher sought to determine if middle school teachers of English language learners differ from middle school teachers of learners with learning disabilities in their ratings of the relative importance of a common set of reading methods. The immediate problem to be studied stemmed from the findings in a study conducted by Al-Fadda (2004). Al-Fadda conducted a survey study of Kansas middle school teachers. Her survey included 44 reading methods placed in seven categories of instructional goals. Teachers were asked to rate the importance of each reading method using a five-point scale with 1 indicating not important, and 5 very important. Survey item number 39 focused on English language learners and was worded as follows: "39. Adaptive reading instruction. Provided for ELL students (English language learner students)." This survey item was given a mean score of 3.11 (s.d. =1.45) on the five-point scale by the Kansas middle school teachers. This result indicated that adaptive reading instruction for ELL students in Kansas was viewed to be of average importance by middle school teachers. However, scores for the single survey item did not tell us about the nature of the reading instruction these teachers provided for ELL learners. Further, Al-Fadda drew her sample from all middle schools in Kansas, many of which have low ELL student enrollments. Finally, Al-

Fadda did not address reading instruction for LD (learning disabled) students in her survey.

From the single ELL finding from Al-Fadda's (2004) study, the researcher estimated that a modified replication of Al-Fadda's study should include a revised survey intended for ELL and LD teachers. A second aspect of the problem was that these two teacher groups should be viewed as specialist rather than regular classroom teachers. A third dimension of the problem was the percentage of ELL and LD students enrolled in the participating middle and junior high schools. LD student enrollments generally are limited to about 10% of the student population. ELL enrollment numbers are not limited by program rules and are byproducts of the student population. There is a potential for 100% student ELL enrollment at some middle schools. Here the researcher sought participating middle schools with larger ELL enrollments. Kansas has some larger ELL enrollment middle schools, however, not enough to provide an adequate population for a survey study. To overcome this limitation, the researcher sampled middle and junior high schools in Kansas, New Mexico, Oklahoma and Texas with larger ELL enrollments.

The researcher also defined the research problem in broader contexts. Both middle school English language learners (ELL) and students identified with learning disabilities (LD) are required to take state reading assessments according to the No Child Left Behind mandate. Although the research literature describes reading methods used by teachers of ELL students and teachers of LD students, not much is presented about the similarities and differences in these two teacher groups' views of reading instructional methods. Miller (2001) reinforced this view of the problem when he wrote that "much research has been [performed] in the area of instructional strategies for students who are learning a new language and for students who have been diagnosed with specific learning disabilities. The problem remains that the research in these two areas has been done separately…" (p.1).

Garcia and Beltran (2003) pointed out that a lack of English language proficiency can be mistaken for a learning disability and can result in an incorrect placement in special education or a remedial content classroom. Chang (2003), a university special educator, explained that learning disabilities placements for ELL students may be made by mistake and frequently do not meet the language development needs of ELL students.

From these viewpoints, the researcher recognized that ELL programming and LD programming may be in conflict with one another in the setting of middle schools. As a result, the researcher sought to frame the problem in a clearer fashion. In order to do this, the researcher constructed a survey of commonly used reading methods found in the literature on ELL reading instruction and in the literature of LD reading instruction. The question from this study then was whether these two teacher groups would rate the methods differently. In viewing the problem in this way, the researcher could more objectively study the problem without engaging the arguments about LD placements possibly being harmful to ELL students.

Research Overview and Questions

This body of work was aimed at assessing the extent to which five groups of reading instructional methods were perceived as important by middle school ELL and LD teachers in the states of Kansas, New Mexico, Oklahoma, and Texas. The researcher constructed a middle school reading survey appropriate for ELL and LD teachers as teacher specialists. The 44-item survey was administered to ELL and LD teachers in the four states listed above. The researcher compared the method item ratings from ELL teachers to those from LD teachers to determine if there were significant differences in the perceptions of the importance of the specific reading methods between these two groups of teachers. Research suggested that there may be, or should be, similarities in the reading methods employed by teachers of LD students and those of ELL students. Research reveals that both sets of teachers care about teaching pace, and the consistency of organization of textbook chapters, and consider tutoring to be an effective way to help students. However, not much else is directly known about the similarity or differences in their views of reading instruction methods, particularly in the context of the NCLB reading test mandate that requires both ELL and LD students to achieve degrees of reading proficiency. The primary research question to be addressed in this study is: What are ELL and LD teachers' perceptions of the importance of specific reading strategies for their respective types of students? To elaborate this primary research question, additional sub-questions have been formulated and are explained as follows:

Research Question1. What was the total distribution of responses (ELL and LD teachers) to each of the reading methods survey items? The researcher displayed the mean and standard deviation (s.d.) scores for ELL and LD teachers as a combined group to reveal the most important methods as reported by these two groups of teachers.

Research Question 2. What was the distribution of responses to each of the reading methods survey items as reported separately for ELL and LD teachers? The researcher displayed the mean and standard deviation (s.d.) scores for the two groups (ELL and LD) of teachers separately to provide an observational basis for differences between the two groups' ratings of the reading methods survey items.

Research Question 3. What significant differences existed between the ratings of ELL and LD teachers for each of the reading methods survey items? Here the researcher used the ANOVA method for making direct comparisons of group responses to each of the reading methods survey items in order to determine if the two groups of teachers had significantly different perceptions of each reading survey method.

Research Question 4. What significant differences existed between the ratings of ELL teachers and LD teachers for the group of reading methods survey items that reflected each of the respective instructional goals? Here the researcher summed mean scores for the methods ratings for each of the instructional goals and made ANOVA comparisons by teacher group in order to determine if these two groups of teachers had significantly different perceptions of the reading instructional goals.

The researcher used a coding system for the surveys which allowed identification and sorting of schools' responses by: 1) percentage of ELL enrollments for each school (higher versus lower), 2) percentage of low-income enrollments (higher versus lower), and, 3) school size (larger versus smaller). The survey also included requested teacher information on: 4) teacher education level (top 50% versus bottom 50%), and, 5) teacher experience level (top 50% versus bottom 50%). The researcher received an adequate number of responses in order to provide some follow-up insight into the relationship between teacher variables and perceived importance of the five COBRA goals. These teacher variables included ELL enrollment, low-income enrollment, school size, level of education, and years of experience. These are the five variables explained above. This follow-up analysis produced five additional research questions explained below.

Research Question 5. What significant differences exist between the ratings of ELL teachers from schools with a higher percentage of ELL students and from schools with a lower percentage of ELL students and LD teachers from schools with a higher percentage of ELL students and from schools with a lower percentage of ELL students for the group of reading methods survey items that reflect each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals.

Research Question 6. What significant differences exist between the ratings of ELL teachers from schools with a higher percentage of low-income students and from schools with a lower percentage of low-income students and LD teachers from schools with a higher percentage of low-income students and from schools with a lower percentage of low-income students for the group of reading methods survey items that reflect each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals

Research Question 7. What significant differences exist between the ratings of ELL teachers from schools with larger enrollments and from schools with lower enrollments and LD teachers from schools with larger enrollments and from schools with smaller enrollments that reflect each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals

Research Question 8. What significant differences existed between the ratings of ELL teachers from the top 50% of the ELL teachers based on educational attainment and from the bottom 50% of the ELL teachers based on educational attainment and LD teachers from the top 50% of the LD teachers based on educational attainment and from the bottom 50% of the LD teachers based on educational attainment for the group of

reading methods survey items that reflected each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals.

Research Question 9. What significant differences existed between the ratings of ELL teachers from the top 50% of the ELL teachers based on years of experience and from the bottom 50% of the ELL teachers based on years of experience and LD teachers from the top 50% of the LD teachers based on years of experience and from the bottom 50% of the LD teachers based on years of experience for the group of reading methods survey items that reflected each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals.

Definitions of the Terms

The following terms are defined operationally for this study. Additional explanations follow the operational definitions where they are needed to provide a general understanding of the operational terms.

Adequate Yearly Progress (AYP). This is the process for making judgments as to whether or not all public elementary and secondary schools, districts, and states are reaching the annual targets to ensure that all students achieve the state's definition of proficiency" (Kansas Adequate Yearly Progress (AYP) Revised Guidance, 2005, p. 2). These assessment judgments are basic to the No Child Left Behind mandate that requires ELL and LD students to be included in the testing group for determining adequate yearly progress.

COBRA. The acronym COBRA refers to content-based reading approaches (Heerman, 2007). In this study, COBRA was a defined structure of five instructional goals which were stated in the context of what the learner-reader is asked to accomplish. The five goals focus on background knowledge, experiential learning, vocabulary,

reading comprehension, and, study and application. Al-Fadda (2004) defined COBRA as "using general reading methods to teach subject matter" (p. 7) and she used seven COBRA goals in her study. The researcher patterned her survey on Al-Fadda's COBRA model, but combined these seven goals into five.

COBRA goal 1: Background knowledge. This refers to the seven methods included on the survey to reflect this goal: conversation, concise explanations, word association brainstorming, use of multi-media, think-pair-share, pre-reading questioning, and structured overview. "Background knowledge is the sum of what one knows" (Heerman, 2007, p. 3). Heerman (2005) explained that research tells us that background knowledge is a powerful "variable" in determining what one learns. He emphasized that it is important for the teacher to review the previous lesson, pre-teach background vocabulary, or engage students in the process of activating their schemata [background knowledge] through brainstorming what they already know. In conclusion, he stated that a schema or background knowledge is a critical contextual factor in reading, learning, and studying. "In considering how much they already know and what it is worth, students begin to build a framework of knowledge" (Heerman, 2007, p. 5). It is the framework that allows students to retrieve information and make use of it.

COBRA goal 2: Experiential learning. This refers to six methods included on the survey to reflect this goal: visualization, building experience and language, concept of definition, experiential writing, experiential engagement and reporting, and multi-sensory approaches. In his experiential learning model, Kolb (1984) described the learning process as a four-stage cycle that students move through on a continuing basis: 1) concrete experience followed by; 2) observation and reflection, which lead to; 3) the formation of abstract concepts and generalizations, which lead to; 4) hypotheses to be tested in future action, which in turn lead to concrete experience.

COBRA goal 3: Vocabulary. This refers to ten methods included on the survey to reflect this goal: phonemic and phonological awareness, homophones and homographs, inference-prediction, list and define vocabulary instruction, word study, refining word associations, morphemic analysis, relational methods, vocabulary graphic organizers, and software-Internet use. "Vocabulary is stored information about the meanings and pronunciations of words necessary for communication" (International Reading

Association, 2002, p. 112). Cunningham and Stanovich (1997) stated that vocabulary knowledge at an early age is a significant predictor of reading comprehension in the middle and secondary grades. Graves (2006) stated that the teaching of vocabulary can improve reading comprehension for both native English speakers and English learners. In addition, learning English vocabulary is one of the most crucial tasks for English learners (Nation, 2001). Becker (1977) concluded that lack of vocabulary can be a crucial factor underlying the school failure of disadvantaged students.

COBRA goal 4: Reading comprehension. This refers to nine methods included on the survey to reflect this goal: oral paraphrase and summary, skills instruction, story grammar, basic reading patterns, think-alouds, material graphic organization, hierarchy pattern, reading guides, and electronic texts. "Reading comprehension is the construction of the meaning of a written text through a reciprocal interchange of ideas between the reader and the message in a particular text" (International Reading Association, 2002, p. 137). While Nichols' definition speaks of a cognitive process, for this study reading comprehension was conceptualized as both process and skill.

COBRA goal 5: Study and application. This refers to twelve methods included on the survey to reflect this goal: providing supports, reading fluency, mnemonics, paired or group practice, writing to learn, tutoring, information methods, textbook study methods, advanced reading-study patterns, conferencing and coaching, curriculum-referenced tests, and independent reading approaches. According to Al-Fadda (2004), the ultimate outcome of any COBRA model is that through reading and study processes, students will acquire, organize, and learn a critical mass of information and demonstrate how this information can be applied to a task or to solving a problem.

ELL enrollment. This was determined by state departments of education (Kansas, New Mexico, Oklahoma, and Texas) reporting as a percentage of each middle school's total enrollment.

English language learner (ELL). For students, this is defined as "a national-origin-minority student who is limited-English-proficient. This term is often preferred over limited-English-proficient (LEP) as it highlights accomplishments rather than deficits" (U.S. Department of Education, 1999). In terms of teachers, ELL refers to survey

respondents who identified themselves as teachers of ELL students according to their training and job responsibilities.

Learning disability (LD). This term is defined as "a disorder in one or more of the central nervous system processes involved in perceiving, understanding, and/or using concepts through verbal (spoken or written) language or non-verbal means. This disorder manifests itself with a deficit in one or more of the following areas: attention, reasoning, processing, memory, communication, reading, writing, spelling, calculation, coordination, social competence, and emotional maturity" (The U.S. Department of Education's Office of Special Education and Rehabilitative Services Rehabilitative Services Administration, 2006). In terms of teachers, LD refers to survey respondents who identified themselves as teachers of LD students according to their training and job responsibilities.

Low-income enrollment. This was determined by state departments of education (Kansas, New Mexico, Oklahoma, and Texas) and reported as a percentage of each middle school's total enrollment. It was based on the number of students who qualify for free or reduced-priced lunches.

Middle schools. For this study, middle schools were defined as a separate school building with the designation of middle school or junior high school and included grade levels within the range of 6-9.

School size. This was determined by state departments of education (Kansas, New Mexico, Oklahoma, and Texas) and reported as the total enrollment for each middle school. It was also self-reported by the survey respondents.

Teacher's level of education. This was self-reported by survey respondents by marking one of the following education levels: Bachelor's degree, Bachelor's + hours, Master's degree, Master's + hours, or, Doctorate degree.

Teacher's level of experience. This was represented by the number of years of teaching experience and was self-reported by survey respondents.

Significance of the Study

In the 21st century, U.S schools face the challenge of educating the world's most diverse student body. This diversity is reflected in variations in achievement, socioeconomic status, and cultural and linguistic backgrounds. With respect to

differences in linguistic background, current estimates indicate that by the year 2020 there will be 6 million students in U.S. elementary and secondary schools who come from a non-English-speaking background (Saenz, Fuchs, & Fuchs, 2005). Meltzer and Hamann (2006) pointed out that middle level and high school educators are being challenged by the fact that there are larger numbers of English language learners (ELLs) enrolling in their schools than before. They specifically mentioned that 1.3 million teachers (43% of all teachers) have at least one ELL student enrolled in their classes. The increasing number of non-English-speakers has led to increasing concerns over the identification of appropriate assessment practices and effective instructional strategies for ELL students. "This is quite problematic because federal and state governments are calling for all students to meet high standards and are adjusting national and state assessments as well as state graduation requirements to reflect these new levels of achievement" (Echevarria, Vogt and Short, 2000, p. 3).

During the 2003-2004 school year, there were 2,831,000 children between the ages of 3 and 21 served in federally supported programs for specific learning disabilities (U.S. Department of Education, National Center for Education Statistics, 2005a). Students from low-income families or under-educated families, and students with mental or physical handicaps often fall behind other students in reading achievement (Saenz, Fuchs and Fuchs, 2005). McCray, Vaughn, and Neal (2001) stated that most adolescents with learning disabilities (LD) have deficits in basic reading and comprehension skills. They explained that middle school students with learning disabilities often misuse effective reading strategies, frequently have negative attitudes toward and perceptions of reading, and typically perform limited reading in the classroom. Gunter, Reffel and Rice (2005) stated that "the inclusion of students with learning disabilities in general education classrooms, curricula, and assessment activities has come to the forefront of priorities for all schools" (p. 1).

Villa, Thousand, Nevin, and Liston (2005) reported that recent federal legislation sets the stage for increased numbers of students with disabilities to be educated in general education middle and secondary classrooms. The Individuals with Disabilities Education Improvement Act of 2004 (IDEIA) required that students with disabilities access the general education curriculum in the least restrictive environment. This combined with the

No Child Left Behind Act of 2001 (NCLB), which required that all students have access to highly qualified teachers, to create a context for general and special educators to collaborate to provide students access to core content in general education classes.

A significant aspect of the current study is that it can help school administrators in the public school setting make decisions about how to evaluate cross-curricular teaching methods related to ELL and LD reading instruction. The study provides teachers of these two types of students (ELL and LD) with more sound and effective methods for teaching reading. The results from the study should be useful to educators who are searching for sound curricula to help students with learning disabilities (LD) and English language learners (ELLs) learn to read. They should be especially useful to teachers who have both of these types of students in the same classroom. Teachers are responsible for their students' learning and academic literacy development. Many educators would like to learn more strategies to help them teach students with or without learning disabilities to read. By knowing more strategies, teachers benefit not only students, but also themselves. With more innovative reading strategies, teachers will have more approaches to meeting different needs of students and will be able to apply them in different situations. Finally, there is the challenge of state reading assessments. Both English language learners and students with learning disabilities are required to take their states' reading assessments. This suggests that there exists a common reading curriculum and that teachers of English language learners and teachers of students with learning disabilities could very well view the reading curriculum in identical ways. Teachers will find it increasingly likely that one or more LD students or one or more ELL students are in their classes. Many might find that both types of students are in the same class. A teacher faced with this situation would need to know what reading methods can be effectively employed for each type of student. This study addresses this concern.

Limitations of the Study

Sample surveys are typically conducted to estimate the distribution of characteristics in a population. No research method is without limitations. Dillman (2000) stated that surveys have four limitations that cause errors. First, sampling error is the result of attempting to survey only some but not all of the units in the survey population.

Researchers need to minimize this error in order to make precise estimates of the percentage of a population that has a particular attribute. Second, coverage error is when the sampled list from which the sample is drawn does not include all elements of the population. It is best to give all elements of the population an equal or known chance of being included in the sample survey. Third, measurement error occurs when a respondent's answer to a survey question is inaccurate, imprecise, or cannot be compared in any useful way to other respondents' answers because of poor question wording and questionnaire construction. Last, non-response error is when a significant number of people in the survey sample do not respond to the questionnaire and have different characteristics from those who do respond.

Dillman (2000) suggested that researchers should make careful decisions when constructing and conducting a survey so that the survey can yield both high quality information and high response rates. Dillman (2000) argued that a well-designed survey builds effective social exchange through knowledge of the population to be surveyed, respondent burden, and sponsorship. The goal of good survey design is to reduce overall survey errors, especially non-response error and measurement error.

The most notable limitations of this study are sample size and population (frame). While the intent of the study was to focus on middle/junior high school teachers in the states of Kansas, New Mexico, Oklahoma, and Texas, data was not gathered from the entire population of middle/junior high school teachers in these states. The researcher sent a survey to all the ELL and LD teachers in those middle/junior high schools in these four states that met the following conditions: (1) they had an enrollment of at least 200 students, (2) the building was designated as a middle school separate from an elementary or high school, (3) the percentage of ELL students in the school was equal to or greater than the mean percentage of ELL students in grades K-12 in that school's state, (4) they were from cities that did not have a centralized research center for the school district. The results of the study will only be generalizable to middle school teachers and junior high school teachers in the states of Kansas, New Mexico, Oklahoma, and Texas with a percentage of ELL students greater than the percentage of LD students.

CHAPTER 2 - Review of Literature

This chapter presents the literature that relates to this study. The following review is divided into the following sub-sections: (1) foundational literature, (2) the COBRA model and COBRA goals, (3) COBRA literature and survey items, (4) summary of the literature review.

Foundational Literature

The researcher explained the problem statement in Chapter 1. In this section, the researcher explains the foundational elements of the study in terms of middle school reading problems, the nature of secondary reading instruction, ELL students as a group with diverse learning needs, and LD students as a group with diverse learning needs.

McCray (2001) indicated that millions of youngsters at the intermediate and middle school levels read below a fourth-grade level and experience deficiencies in basic reading skills such as word recognition, decoding, reading fluency, and reading comprehension. McCray (2001) also said that reading underachievement in the U.S. in the intermediate and middle school grades, and subsequent academic failure and dropout after eighth grade, indicates the need for immediate, explicit, and effective reading interventions for students at risk and with reading disabilities. Typically, middle school teachers expect students to be independent learners who are capable of completing reading assignments, homework, and projects, and who can demonstrate mastery of subject content on tests. Thus, the middle school represents a critical transition period for readers in which some struggle with the basics while their teachers may expect them to make applications of established reading skills to subject matter reading and learning.

According to the International Reading Association, many researchers and educators believe that students must acquire and develop reading skills as early as possible and must be taught effectively. However, little evidence is available on how these abilities are best acquired and taught during secondary school (International Reading Association, 2002).

Allington (2002) observed that students succeed in learning to read in elementary school. However, after fourth grade, they begin to struggle with reading comprehension since content area texts often contain complex and difficult vocabulary, structure, and concepts. Reading in secondary schools and content areas is vital to students' development of comprehension skills, yet, many students lack the requisite skills to understand and apply meaning from texts. This reflects the transition from learning to read in elementary school to reading to learn in middle and high school (Park, 2005). As students move from middle to high school, demands on literacy skills further increase, and students must become even more adept at meeting the challenges of sophisticated content area reading and information processing. Park (2005) emphasized that as students move from class to class, there is a shift in knowledge, thinking skills, and contexts in order to comprehend coursework. With this there is also a shift in the reading skills needed in each content area. Secondary students often fail to realize the connection between reading in the content areas and applications in their personal lives. A lack of intensive reading instruction in secondary schools contributes to the widening gap of reading abilities among students and their subsequent alienation from reading (Park, 2005). Students also disengage from reading in the content areas and from reading for pleasure. These reading and learning habits may persist beyond high school graduation into college study. The National Center for Educational Statistics (2000) pointed out that some college students just out of high school cannot understand texts, make interpretations, or relate to text concepts and that some secondary students cannot combine information from their own background knowledge or information other texts with material that they are currently reading in order to construct meaning and solve problems. Some college students cannot generate new knowledge from text and cannot construct meaning from text. Therefore, they are at risk for learning failure in college.

After elementary school reading, students do not receive enough opportunities for intensive instruction in reading comprehension in middle and secondary schools. In order to help students learn from textual information, teaching reading is thought to be every teacher's responsibility (Park, 2005). Because many content areas use texts, the responsibility for teaching reading strategies belongs to all teachers in all subjects (Florida Department of Education, 2004; Vacca, 2002). Yet, many teachers do not

employ reading strategies in their classrooms (Barry, 2002; Ivey, 2002). Teachers have three primary reasons for failing to use reading strategies: 1) teachers feel inadequate to handle reading problems in their classrooms, 2) teachers feel that reading instruction infringes on subject matter learning time, and, 3) many teachers deny the importance of reading techniques (Barry, 2002; Rhoder, 2002; Snow, 2002). Similarly, many teachers also deny responsibility for teaching students to read and write (D'Arcangelo, 2002; Forget & Bottoms, 2000; Jacobs, 2002). These reasons explain why many content area teachers do not teach or reinforce reading in their content areas.

Secondary teachers expect students to have the reading abilities necessary to read in the content areas. They perceive their primary function as preparing students in their subject areas for high school or for college (Vacca, 2002). Content area teachers can make a difference in students' education by incorporating reading strategies into mini-lessons as they teach their content area information (Vacca, 2002). Rhoder (2002) insisted that reading instruction should promote active, mindful reading and should teach students to use strategies. McKenna and Robinson (2002) insisted that teachers can help students activate their prior knowledge and define purposes for reading. Teaching students strategies for this requires explanation, modeling, practice, and application. Duke and Pearson (2002) stated that teaching collections or packages of reading comprehension strategies improves student comprehension of many kinds of texts. Research has demonstrated that when teachers infuse reading strategies into their content area lessons and develop structured reading assignments in the classroom, student performance and learning increase (McKenna & Robinson, 2002; Meltzer, 2001; Snow, 2002; Vacca 2002).

There is evidence that diversity in middle school student backgrounds may also add to the challenge facing middle school reading instruction. Many middle schools in the United States have recently experienced tremendous growth in their population of language minority students, or students who speak a language other than English at home. Concern about the appropriate education of these learners raises issues that are both complex and controversial (Sturtevant, 1998). Sturtevant (1998) noted that "language minority adolescents" are a highly diverse population with diverse needs. Like all adolescents, they are different from one another as individuals and are in a time of

personal growth and change. They are diverse in personal history; some have spent their whole lives in the United States; some arrived during childhood; others arrived or will arrive during their secondary school years. According to the U.S. Department of Education's National Center for Education Statistics (2005a), in the 2002-03 school year, English language learner (ELL) services were provided to 4 million students (8 percent of all students in grades K-12 in public schools). "The number of children ages 5-17 who spoke a language other than English at home more than doubled between 1979 and 2003" (U.S. Department of Education, National Center for Education Statistics, 2005a, p. 34). It is clear that there is an increasing need for school districts and educators to help English language learners (ELLs) succeed in the inclusive learning classroom.

In a fashion parallel to that of ELL middle school students, for students with learning disabilities (LD), the middle school environment can be confusing and threatening (Ring and Reetz, 2003). In addition, the researcher is also interested in understanding more about the field of learning disabilities (LD). "Inclusion," the practice of placing students with individual educational plans (IEPs) in regular education classes instead of limiting them to laboratory classes taught by teachers of students with special needs, has gained popularity within the past several decades in public schools, kindergarten through 12th grade. The main principle of inclusion is to provide an education for children in a way that honors and respects students and does not violate the norms of belonging (Gaona, 2004; Capper, Frattura and Keyes, 2000). During the 2003-2004 school year there were 2,831,000 children between the ages of 3 and 21 served in federally supported programs for specific learning disabilities (LD) (U.S. Department of Education, National Center for Education Statistics, 2005b). The number of students with learning disabilities (LD) is growing in the United States.

Chang (2003) is a higher education special education expert who has researched and written about English language learners and special education. The students she has focused on have generally been non-native English speakers with low-income status who scored poorly on standardized reading tests. It is possible that they were placed in special education programming in elementary schools but removed from special education in middle schools to make room for more disruptive students. If the students were placed in an LD resource room, their English language development suffered as a result since the

resource room is a placement not a service. She explained that a group of dedicated classroom teachers working as a team can make a difference in the lives of ELL students. However, she has emphasized that different programs designed to meet the needs of special students frequently conflict with one another. Furthermore, school leaders can come and go and policies may change, thus, negating the efforts of the group of dedicated classroom teachers. At the same time, she has recognized that LD teachers frequently do not grasp the significance of ELL students' weaknesses in English language facility and their lack of background concepts. She has suggested that opportunities for improving academic English language proficiency in an LD setting are limited. Sometimes referrals of ELL students to placements in an LD setting are made by mistake. She has also stated that many LD programs operate with a deficit-remedial orientation and do not embrace language development tools. Klingner, Artiles, and Barletta (2006) also claimed that ELL placement in special education is arguably a more complex issue than the placement of culturally and linguistically diverse students more generally. They argued that not much research addresses the issue of whether ELL students who struggle to develop literacy do so because they have limited proficiency in English or because they may have learning disabilities (LD). We need a better understanding of how LD teachers employ reading strategies and we need to see if their use of reading strategies differs from those of ELL teachers.

In summary, the foundations of this study are first nested in the reading and learning needs of middle school students. The middle school represents a transitional period in which the needs of middle school students are quite diverse. It has been noted that we do not have a complete picture of appropriate reading instruction for the secondary schools and this includes the middle schools. Certainly, there is strong evidence that a content reading model would contribute to student learning. Within the middle school student population we also find two categorical special needs populations: English language learners and learning disabled students. Each of these categorical populations are provided instruction by separate special teachers. One authority has suggested that English language learners are sometimes placed in LD classrooms in error. This has raised the question of whether ELL teachers and LD teachers deploy the same reading methods. In the field of ELL education, we see a structure based on the language

needs of students and the percent of ELL student enrollments varies greatly from district to district. For the field of learning disabilities, we see a structure that serves a fixed population of about ten percent of the student enrollment. Moreover, the field of learning disabilities pledges to serve students with diverse learning deficits of a highly defined nature, rather than second language development needs.

The COBRA Model and COBRA Goals

Heerman (2002) outlined a framework for a COBRA (Content-based Reading Approaches) model made up of seven instructional goals for reading-learning integrations in subject matter classrooms. The purpose of the model was to facilitate research on middle and high school reading programs with the fixed features of seven instructional goals. In a study of Kansas middle schools using the COBRA framework, A1-Fadda (2004) argued that the seven fixed goals of the COBRA research design are useful for monitoring student outcomes and for measuring balance in middle and high school reading programming. Further, according to the Kansas Department of Education (2006), Kansas adopted a quality performance accreditation approach in 1989, with the focus on standardizing a building's accreditation outcomes for building and student safety, students' interpersonal skills, students' communicative abilities and students' complex thinking and problem-solving capabilities. Content reading instruction is nested in the school accreditation processes. The seven goals of the COBRA model seek to build a common ground among reading standards, school accreditation process, and the No Child Left Behind mandates. As a result, this study extends the study of the fixed goals of the COBRA model.

Kenyon (2004) completed a master's thesis in which she reviewed literature that supported the seven COBRA goals. Al-Fadda (2004) constructed a school survey organized around the COBRA goals and administered it to Kansas middle school teachers. Linn (2005) used Al-Fadda's instrument to survey Kansas high school teachers to ascertain the relative importance of reading methods in high school settings. Linn also compared the results of his Kansas high school survey to the results of Al-Fadda's middle school survey. Martinez (2007) revised A1-Fadda's middle school survey items in order to make the survey appropriate for the New Mexico setting, which has concentrations of

middle school second language learners. While revising the survey items, Martinez retained the seven-goal structure originated by Heerman.

In the current study, the researcher extended the COBRA survey research explained above by studying the reading instruction practices of ELL and LD teachers who taught in middle and junior high schools in Kansas, New Mexico, Oklahoma and Texas. Further, the researcher compared the ELL teachers' perceptions of reading methods to those of the ELL teachers. As with the COBRA studies cited above, the researcher built a survey around the goals of the COBRA model. Through the development of the COBRA model and completion of survey research, the language of the COBRA goals has been edited. The revised seven COBRA goals are depicted in the following statements of learner outcomes:

COBRA goal 1. The student will engage and participate in reading to learn by activating and making continuous use of schematic background knowledge to improve subject matter learning.

COBRA goal 2. The student will engage and complete a cycle of experience-centered subject matter learning that includes formation of verbal concepts for the experience.

COBRA goal 3. The student will engage in word study and verbal concept formation in order to master the language of the subject area.

COBRA goal 4. The student will elaborate background knowledge, build reading comprehension skills and achieve basic understanding from reading.

COBRA goal 5. The student will find success in subject matter learning by engaging in information processing, text study and study skills practice with different peers and significant adults.

COBRA goal 6. The student will make active applications of subject matter information to achieve subject and reading standards' outcomes.

COBRA goal 7. The student will engage and participate in school-wide reading and study interventions to achieve success in learning and to achieve proficiency in standard assessments.

The researcher utilized the following five COBRA goals for organizing the survey methods items:

1. Background knowledge
2. Experiential learning
3. Word study and verbal concept formation
4. Reading comprehension
5. Study and application

The researcher combined three of the seven goals into a single concept: goal 5, study and practice; goal 6, application of subject matter information; and goal 7, school wide reading and studying interventions. From the start, the researcher supposed that ELL teachers and LD teachers would use reading methods unique to their respective learners. This presented the challenge of identifying a critical mass of reading methods for which comparisons could be made. Thus, consolidation of goals five, six and seven into a single concept allowed the researcher to develop more survey methods items for the five goals while avoiding making the survey too long. The researcher believed that ELL teachers and LD teachers would focus their efforts on the immediate reading success of students in the five goals and that subject matter teachers would extend this immediate success to additional applications of subject matter reading instruction. The researcher also believed that ELL and LD teachers would embrace a school wide concept of reading instruction, but would restrict their methodologies to the unique needs of their learners.

COBRA Literature and Survey Items

What follows is a summary of the literature supporting the five COBRA goal areas. These introductory sections for each of the five goals are written broadly. Following the goal introductory sections, the researcher then specifies the survey items for the goal areas. For each survey item, literature is provided which justifies and supports the method in the survey item.

Background Knowledge

Student background knowledge is said to be a critical factor in determining the quality of student reading achievement. Holmes (1983) stated that the role of prior knowledge and learning play a major role in differentiating good readers from poor readers. Kucer (1985, 2005) described two of the main theories of the cognitive dimension of literacy: dense processing theory and selective sampling theory. The theory

of dense processing claims that good readers recognize words instantly and understand them directly without the need for much cognitive attention and resources. Poor readers, in contrast, rely on context because they lack word recognition skills. The theory of selective sampling emphasizes the importance of long-term memory and background knowledge in the creation of meaning. According to the theory, print is selectively sampled and the brain utilizes strategies to limit the amount of perceptual information it uses to just that which is necessary. From the information they extract from the text, students will add background information to form a guess about what is happening. As the reader reads on, this hypothesis constantly changes until a stable meaning is reached. How much a reader gets out of a text really depends upon how closely and for what purpose a person is reading, what background the reader can draw upon to form conclusions, and the content of the text (Kucer, 2005).

Anders and Lloyd (1989 and 1996) described background knowledge as a set of schemata, which enables a reader to refer to their mental map of the text of ideas. The schemata are for organizing, studying, and applying the content knowledge. They point out that there are four requirements to make schema-based study effective. Two of the four are relevant to activation of background knowledge. The first of these is activating a schema. Each student has a different background, and hence, different schema. Whatever types of schemata students have, their schemata remain dormant unless the teacher provides specific stimuli to activate them. The second of the requirements for making schema-based study effective is helping and leading students to select appropriate schemata according to their experiences and their background. The point to emphasize here is that background knowledge is a critical contextual factor in reading. In considering how much they already know and what it is worth, students begin to build a framework of knowledge. It is this framework that allows students to retrieve information and make use of it.

Activating students' background knowledge is the fundamental process of their learning to read. Furthermore, "background knowledge also reflects the beliefs, ideologies, and experiences of the groups of which the individual is a member" (Kucer, 2005, p. 225). For example, "gender, ethnicity, and socioeconomic status all influence the reader's interpretation of any piece of written discourse" (Kucer, 2005, p. 255-256).

When explaining skilled reading, Pressley (1995) emphasized that good readers activate their prior knowledge extensively during problem solving, recognizing large patterns of strong connections from previous experience in order to facilitate comprehension of the text. Zakaluk, Samuels and Taylor (1986) stated that middle school students and college students who read about a familiar topic have better comprehension and recall more information than students who are reading about an unfamiliar topic.

Several researchers have conducted investigations showing that activation of background knowledge is a key strategy for helping ELL and LD students read more effectively. With regard to ELL students, Short and Echevarria (2005) stated that "content-area teachers can provide rich, meaningful lessons that strengthen background information and promote the literacy of students learning English" (p. 1). They argue that like native English speakers, English language learners (ELLs) have differing levels of cognitive ability. "When ELLs struggle with schoolwork … teachers should be aware that the problem may be related to background knowledge rather than to intellectual ability" (Short and Echevarria, 2005, p. 10).

According to Peregoy and Boyle (2000), good readers set a purpose for reading and bring several knowledge resources to bear upon the comprehension process, among them: decoding ability, language knowledge, background knowledge, written genre knowledge, familiarity with text structures, and comprehension-monitoring abilities. Peregoy and Boyle had students of various cultures read passages that either reflected their own cultural tradition or another cultural tradition. They discovered that students had much higher comprehension for passages related to their own cultural tradition. Their study illustrates that background knowledge is a powerful variable for both native and non-native English readers.

It is also helpful to activate LD (learning disabilities) students' background knowledge prior to teaching them a text. Carr and Thompson (1996) asserted that an individual's knowledge base will significantly affect his or her reading performance. Swanson (1987) stated that "A child's knowledge base places formal restrictions on the class of logically possible strategies that can be used within a given academic domain" (pp. 156-157).

Reading Methods Used in the Survey

In this subsection, the researcher has listed the survey items chosen for the final version of the survey for the COBRA goal on background knowledge. Following the statement of each survey item, the researcher continued to review literature which supports the use of the survey item. For background knowledge the researcher included seven survey items. The researcher did employ a process for developing the survey and this is explained in chapter 3. The purpose for stating the final items in this chapter is to demonstrate their relationship to the literature review.

Conversation. Establishing a conversational setting and coaching students to discuss personal experiences or opinions that relate to the topic of an upcoming reading assignment. "Conversation is a basis for critical thinking. It is the thread that ties together cognitive strategies and provides students with the practice that becomes the foundation for reading, writing, and thinking" (Ketch, 2005, p. 8). Pierce and Gilles (1993) argued that it is valuable to use conversation as a strategy for activating background knowledge. Ketch (2005) stated that "creating classroom conversations, where students are authentically learning, accessing information, and reflecting on and trying out their theories about the world will create students who comprehend and think for themselves" (p. 10). She suggested using several conversation-comprehension strategies including literature circles, cross-age conversations, think-pair-share, small-group discussion, and individual conferences.

Concise explanation. Identifying core concepts and presenting them to students in brief but concise explanations in order to establish a base of student background knowledge. Callahan, Clark, and Kellough (1998) argued that teachers need to talk or lecture more purposefully to identify the core concepts about what they want students to learn. They suggested that teachers use a brief and highly concise lecture to present the core concepts and the essential descriptions of the meanings and significance to instantly add to students' background knowledge and use of it.

Word association brainstorming. Prior to assigning a reading, asking students about its main topic by providing a stimulus word such as "China," then asking them to list vocabulary that they associate with the word. Nobel (1952) first used word association to measure the meaningfulness of a word. Since it is very important to help

poor readers activate background knowledge before reading, teachers should help them understand what they already know and what they need to know. Teachers should encourage students to adopt the word association strategy when they read or study on their own to help them enhance comprehension and memory and develop metacognitive control (Zakaluk, Samuels and Taylor, 1986; Nobel, 1952). Gersten (1999) emphasized focusing on several core vocabulary words in each lesson. These words should be carefully chosen and aimed towards promoting understanding and they should be shown in print as well as visually like concept maps. Heffernan (2003) suggested that teachers "conduct brainstorming activities before reading a text to supply students with the appropriate words and knowledge." (p. 64). Anders and Lloyd (1989 and 1996) suggested that teachers review the previous lesson, pre-teach background vocabulary, or engage students in the process of activating their schemata through brainstorming what they already know.

Use of multi-media. Providing students with multimedia on the topic, including video, so that they will have a meaningful context for reading and learning. "In today's information age, it is more important than ever that teachers increase their 'tech savviness' and add meaningful, engaging technology infused activities to their curriculum" (Calo, 2006. p. 454). Mechling and Gast (2003) pointed out that the use of "multi-media, computer-based, and video-based instruction is becoming more widely recognized as a means for authentically simulating environments" (p. 63). Contextual enrichment was used by Gildea, Miller and Wrutenberg (1990) in promoting word knowledge through interactive videodiscs and enhancing reading comprehension by harnessing the text-to-speech (DECtalk) computer system.

Bruce (1991) claimed that the wide-ranging application of technology will help students learn better. Bruce (1991) also pointed out that for educational use, the computer can have several functions to help students learn well. These functions include: tutor, tool, way to explore language, medium, and environment for communication.

Think-pair-share. Asking students to list what they know about a topic before they read and then having them work with another to share and consolidate this background information. Think-pair-share, developed by Lyman (1981), has been supported by many researchers. Lyman (1981) suggested teachers use the think-pair-share strategy to give

students opportunities to discuss their ideas. The strategy helps students start to construct their knowledge and helps them understand what they do and do not know about a topic. Santa (2006) asserted that think-pair-share is a very good strategy for activating students' background knowledge. Haager and Klingner (2005) noted that think-pair-share is a useful strategy for increasing student involvement and peer interaction, and for enhancing critical thinking.

Pre-reading questioning. Asking students to formulate questions about their reading, including listing what they know about the topic and what they don't know or need to learn. Wade and Trathen (1989) found that pre-reading questions help students focus on important information in a passage and retrieve background knowledge relevant to that information. Herber (1978) designed a previewing guide to encourage students to predict the information they are expected to encounter in the text. He found that the real impact occurs with student discussion, both prior to reading the text as well as after. Kozen, Murray, and Windell (2006) recommended that teachers develop anticipation guides, which they describe as a "prereading strategy that combines literacy instruction and content-area learning" (p. 196).

Structured overview. When introducing a reading or story, presenting a vocabulary web to familiarize students with its keywords and main points. Slater, Graves and Piche (1985) stated that teachers need to focus students' attention on the ways a text is organized. They argued that prior to reading a text, teachers should give students the basic framework by identifying cause-effect relationships, problem solution pairs, main ideas, keywords, and by providing a vocabulary web.

Experiential Learning

Research shows that experiential learning will help students integrate academic study and real-world work experience. Experiential learning empowers students to take responsibility for their own learning. As students gain more life experience they become more likely to consider learning as an internal and experience-based process (Saljo, 1979). Lewin (1942) was the first person to advocate an experiential learning model. Kolb (1975) explained that the underlying insight of experiential learning is conceived as a four-stage cycle and is best facilitated by an integrated process that begins with "(1) here-

and-now experience followed by (2) collection of data and observations about that experience. The data are then (3) analyzed and the conclusions of this analysis are fedback to the actors in the experience for their use in the (4) modification of their behaviour and choice of new experiences" (p. 33). Kolb (2001) further explained that "Experiential learning theory (ELT) provides a holistic model of the learning process and a multi-linear model of adult development, both of which are consistent with what we know about how people learn, grow, and develop" (p. 227). DeRolf (1995) argued that "without practical learning both in and out of the classroom, learning how to live and communicate in given language will never take place" (para. 4). Stauffer (1980) believed that experience is important because "experience encompasses an individual's perceptual and conceptual world, his interests and curiosities, his creativity, his culture, his capacity to adjust, to learn, to use, and above all his extraordinary flexibility" (p. 60).

Anders and Lloyd (1989 and 1996) acknowledged the importance of developing language skills through experience. In their schema theory, they stated that teachers need to be concerned with the adequacy of student's background schemata. They argued that if students have inadequate amounts of schemata or background knowledge on the subject to be taught, teachers should directly build up the amount of schemata that students have on the subject or provide more experiential teaching and more vocabulary teaching. Smith (2002) recognized the value of background knowledge developed through experience and wrote "as emergent readers hear, sing, discuss, play with, and write songs, they are building important background knowledge that they will draw upon during later reading and writing experiences" (p. 190).

Several researchers have conducted investigations which show that the relationship of language and experience is a key strategy in helping ELL and LD students read more effectively. DeRolf (1995) stated that teaching reading to second language learners should usually come after some exposure to the spoken language. She further explained that second language learners need practical language, such as speaking and experiencing culture before they need theoretical language, such as reading and writing. She argued that learning language by speaking and living it are the two vital components because real learning takes place in a very natural way. DeCourcy (1998) stated that "experience-based learning begins with a personal experience, followed by reflection" (p.

141), and recommended that teachers use experience-based learning, dialogical learning, empowering learning and integrative learning. Taylor (1992) developed the language experience approach (LEA) for native-English-speaking children. Pierson and Glaeser (2003) stated that "the language experience approach (LEA) to reading is a technique that draws upon the real life experiences of students" (p. 123). LeClair (2006) stated that the approach has been found to be successful when used with second language (L2) learners of all ages. Peregoy and Boyle (2000) argued that for second language learners, "building background knowledge on a text topic through first-hand experiences such as science experiments, museum visits, and manipulatives can facilitate success in reading" (p. 5). Zhang and Schumm (2000) also conducted a study and found that "experiences and prior knowledge affected comprehension and recall, and that vocabulary knowledge, typically, may be a highly significant variable in United States ESL learners' success" (p. 205).

Haager and Klingner (2005) suggested that field trips, videos, live demonstrations, direct experiences through hands-on learning, multimedia presentations, websites, and guest speakers can provide further background knowledge to students with learning disabilities (LD). They also stated that the language experience approach (LEA) has been found to be an excellent way to get nonreaders started with beginning instruction, and help students who have experienced failure in their initial reading experiences.

Reading Methods Used in the Survey

In this subsection, the researcher has listed the survey items chosen for the final version of the survey for the COBRA goal on experiential learning. Following the statement of each survey item, the researcher continued to review literature which supports the use of the survey item. For background knowledge the researcher included six survey items. The researcher did employ a process for developing the survey and this is explained in chapter 3. The purpose for stating the final items in this chapter is to demonstrate their relationship to the literature review.

Visualization. Using visual prompts or asking students to visualize and imagine elements of the information they are reading and learning. A picture is worth a thousand words. Zimmerman and Keene (1997) emphasized that proficient readers create mental pictures or mental imagery as they read as a way of enhancing and monitoring their developing textual understandings. However, when reading content area materials, some

readers struggle to apply their visualization skills to expository text structure and information. By utilizing graphic organizers, readers are more likely to see the concepts of a text in a way that supports meaning making. Miller (2004) stated that visualizing text is very effective to improve reading comprehension.

"Visualizing is necessary for comprehending any text. This ability can be enhanced by helping readers concentrate on the pictures they create in their minds" (Manning, 2002, p. 89). Manning (2002) emphasized that prior knowledge is important because readers cannot build a mental picture of an event or situation they do not understand or with which they are unfamiliar. Burns and Martinez (2002) stated that students must be "visually literate -- able to decode, comprehend, and analyze the elements, messages, and values communicated by images, particularly in advertising" (p. 33).

Guided Imagery is one of the visualization strategies that capitalizes on students' active imaginations. Buehl (2001) stated that there are several advantages to using this strategy: "students are stimulated to generate their own images when they read; students create vivid mental images of ideas and concepts that help them remember information longer; students who are visual learners become more actively involved with their reading, which is especially true for low achieving students; students find imagery techniques motivational, and they become more personally engaged with the material" (p. 61). "As skilled readers build inferences from connections made between what is on the page and what they have already read or experienced, they often create visual images" (Geary, 2006, p. 182).

Building experience and language. Using role-playing and discussion of the experience so that students will convert their experiences into words and verbal concepts. Nichols and Rupley (2004) stated that experiential and conceptual backgrounds are crucial in vocabulary development. They argued that background experiences are what the learners rely on to develop, expand, and refine concepts represented by words encountered in speech and print. Furthermore, they stated that since individuals' background knowledge development is continuous, refinement, elaboration, and acquisition occur throughout their lives. This led them to conclude that vocabulary that reflects this background knowledge is also in an endless state of development. They

added that students must go beyond just memorizing definitions, to integrating the word meaning with their existing knowledge in order to build conceptual representations of vocabulary in multiple contextual situations. They also stated that as students expand their experiential and conceptual backgrounds, they expand and refine their knowledge of words.

Many researchers suggest that the language experience approach (LEA) helps students connect what they learned and what they will read. In addition, LEA can be used when teachers want to teach students reading knowledge in the content area subjects (Sharp, 1989). Hickman, Pollard-Durodola and Vaughn (2004) recommended "using culturally relevant texts as well as those that incorporate aspects of students' life experiences to draw upon prior knowledge to promote comprehension and retention of text concepts and new vocabulary" (p. 1). Pierson and Glaeser (2003) noted that one example of LEA involves having students dictate a story about an actual experience to a teacher, or partner. Next, they copy the story, illustrate it, and read it over and over. In this way, students' actual language becomes their reading material. Barnitz (1998) reminded us that "comprehension instruction for all developing readers must be sensitive to the total orchestration of cognitive, linguistic, and cultural variables in order for the literacy learners to construct meaning for the texts they are reading" (p. 92).

Referring to English language learners (ELLs), Wiesen (2001) suggested that "authentic texts are basic to communicative and proficiency-oriented foreign language teaching, because they contribute to authentic linguistic and strategic skills and are more interesting than edited texts" (p. 2). In addition, educators need to develop content-based ESL curricula and use communicative approach to help better prepare the students for their transition to mainstream classes (Echevarria, Vogt and Short, 2000).

Concept of definition. Asking students to make multiple associations when studying subject matter words by responding to prompts such as: How is the word pronounced? What is it? What does it look like? Can you give an example of it? What would you compare this to? "Concept of definition instruction teaches students to organize conceptual information, through the use of self-questioning prompts, into categories (What is it?), properties (What is it like?), illustrations (What are some examples?), and comparisons (What other concept fits under this category?)" (Anthony

and Raphael, 1996, p. 313). Schwartz and Raphael's (1985) Concept of Definition not only provides a guide for teachers for planning how to teach a specific concept or thing, but it also provides a cognitive organizer for students to know the features of a concept to which they must attend as they are trying to understand that concept.

Experiential writing. Having students write brief explanations, captions, or labels for cartoons, pictures, maps, charts, graphs, drawings, etc. Borzak (1981) stated that experiential learning is a direct encounter with the phenomena being studied rather than merely thinking about the encounter, or only considering the possibility of doing something about it. Graves (1983) stated that students will develop control over written language if they are encouraged to write frequently about real events in their own lives and read their work to peers in a workshop atmosphere. Wiesen (2001) stated that authentic texts bring learners closer to target language culture, which can be highly enjoyable and motivating. In addition, authentic texts are basic to the type of "communicative approach" advocated by Charles Heerman (2004) and proponents of proficiency-oriented foreign language teaching, because they contribute to authentic linguistic and strategic skills.

Experiential engagement and report. Teaching students to engage in an experience through watching and listening, and then report the experience through telling or writing. Blachowicz and Obrochta (2005) stated that "students' engagement and active participation in storybook reading was more productive for vocabulary learning in storybook read-alouds than passive listening, even to the most dramatic 'performance' of book reading" (p. 365). They recommended scaffolding young students' learning by "focusing their attention on target words and engaging them in interactive discussion about books using specific vocabulary before, during, and after reading" (p. 365). They supported visualization that is an important activity for engagement and for focusing attention in learning. They also recommended field trips as very effective and practical ways to help students learn content vocabulary and text. Fitzgerald and Graves (2005) sought to persuade teachers that they should use scaffolding reading experiences (SREs) to help educate English language learners. The SRE framework consists of a set of pre-reading, during-reading, and post-reading activities to use with any genre of text, including fiction and nonfiction. They noted that these pre-reading, during-reading, and

post-reading activities will break down a complex reading task into smaller chunks to help tailor lessons to English language learners' abilities and needs. They pointed out that SREs provide a practical research-based framework for helping English language learners in all grade levels, in regular classrooms, pullout English as a second language classrooms (ESL), bilingual education classrooms, foreign language classrooms, and special education classrooms to master both reading and content.

Multi-sensory approaches. Using tracing, hearing, writing, and seeing as a means of integrating basic experiences with language development. "Multi-Sensory Reading Instruction refers to a set of instructional strategies focusing on essential components identified by current research to be most effective in teaching reading" (Colorado Department of Education Special Services Unit, 2000, p. 1). The instructional strategies include "simultaneous use of learning pathways, systematic and cumulative sequence, direct teaching of concepts, and both synthetic and analytic instruction" (Colorado Department of Education Special Services Unit, 2000, p. 1). Smith (2005) stated that "as emergent readers hear, sing, discuss, play with, and write songs, they are building important background knowledge that they will draw upon during later reading and writing experiences" (p. 190).

Vocabulary

Vocabulary learning plays a very important role in students' ability to comprehend. "Children's word recognition capability, vocabulary growth, and comprehension development are essential components of a balanced reading program" (Rupley, Logan, and Nichols, 2002, p. 114). Nagy (1988) cogently stated that word knowledge and reading comprehension are related by arguing that one cannot understand oral and written language without knowing what most words mean. Vocabulary instruction effectively helps children discuss, elaborate, and demonstrate meanings of new words and provides varied opportunities to use new words outside of their classroom (Rupley, Logan, and Nichols, 2002). With a larger vocabulary, students can read better because "vocabulary is stored information about the meanings and pronunciations of words necessary for communication" (Evidence-based Reading Instruction, 2002, p.112). In their schema theory, Anders and Lloyd (1989 and 1996) also stressed the importance

of vocabulary to reading. They emphasized the importance of ensuring that students activate proper background knowledge schemata and state that teachers may need to teach them vocabulary with precision in word meaning. Neuman (2006) stated that students who acquire a large vocabulary are able to "think more deeply, express themselves better, and actually learn new things more quickly. The larger a child's vocabulary, the better a reader he [or she] will be" (p. 9). In addition, Bromley (2007) stated that "students with large vocabularies tend to be articulate and posses the confidence that is sometimes not exhibited by students who lack vocabulary and conceptual knowledge" (p. 529).

Several researchers have conducted investigations which show that language and vocabulary is a key strategy in helping ELL and LD students read more effectively. Having a rich and varied vocabulary is a critically important aspect of language proficiency and is essential to academic success (Dutro and Moran, 2003). Dutro and Moran (2003) claimed that the vocabulary knowledge and reading comprehension gap between second language learners and English-speaking learners can be significantly reduced through enriched vocabulary instruction. Freeman and Freeman (2003) pointed out that English language learners might perform well on a word-spelling test but misspell the same words in an essay. This suggested that English language learners need effective vocabulary strategies to help them effectively read and write. In addition, vocabulary development is critical for English language learners because there is "a strong relationship between vocabulary knowledge in English development and academic achievement" (Echevarria, Vogt and Short, 2000, p. 49).

Middle school students with learning disabilities suffer from general language deficits that affect their vocabulary learning (Stahl and Erickson, 1986). Simmons and Kameenui (1998) reported that these students have a less extensive vocabulary than their peers and that their understanding of concepts lacks depth. Many instructional methods are designed to improve vocabulary learning to help students with special needs. Haager and Klingner (2005) have found that middle school students with learning disabilities have less extensive vocabularies than peers of the same age without disabilities. They mentioned further that those students who struggle with numerous difficult vocabulary terms in their content area classes will benefit from two kinds of intentional learning for

vocabulary development: they need help, not only understanding word meaning for specific words, but also becoming independent in their vocabulary learning.

Reading Methods Used in the Survey

In this subsection, the researcher has listed the survey items chosen for the final version of the survey for the COBRA goal on vocabulary. Following the statement of each survey item, the researcher continued to review literature which supports the use of the survey item. For background knowledge the researcher included ten survey items. The researcher did employ a process for developing the survey and this is explained in chapter 3. The purpose for stating the final items in this chapter is to demonstrate their relationship to the literature review.

Phonemic and phonological awareness. Teaching students how to blend phonemes, decode new words, segment words into the phonemes, and to be aware of phonemes and larger spoken units such as syllables, onsets, and rhymes. "Phonemic awareness is the ability to hear, identify, and manipulate the individual sounds, or phonemes, in spoken words" (Evidence-based Reading Instruction, 2002, p. 3). Yopp and Yopp (2002) stated that phonemic awareness supports reading development, but only if it is part of a broader program. If students receive phonics training, they learn to understand that there is a "predictable relationship between phonemes, the sounds of spoken language, and graphemes, the letters and spelling that represent those sounds in written language" (Evidence-based Reading Instruction, 2002, p. 35). Adams (1990) argued that the discovery of the nature of the importance of phonemic awareness is the greatest breakthrough in reading pedagogy in this century.

Phonological awareness is sensitivity to the sound structure of language and a conscious ability to detect, combine, and manipulate different sizes of sound units (Smith, Simmons and Kameenui, 1995; Lundberg, Frost, & Petersen, 1988). Shaywitz, Pugh, Jenner, Gore and Shaywitz (1996) stated that many students with learning disabilities have problems in phonological awareness skills. Chard and Dickson (1999) believed that explicit instruction in phonological awareness is likely to improve reading for students who lack phonological awareness.

Homophones and homographs. Asking students to generate homophone pairs and homograph pairs to help them identify the differences between words with the same

pronunciation or words with the same spelling. Homophones are words that sound the same but are spelled differently, e.g., they're/there and won/one. Teachers often introduce the concept of homophones by presenting students with sentences and asking them to discuss which member of a homophone group is correct (Bear and Helman, 2004). Ming-Tzu and Nation (2004) stated that "two or more completely unrelated meanings of the same written form" (p. 295) are called homographs and the phenomenon is called homography. An example of homography is the word row in the following phrases: "row of houses," and "row a boat." In a study on second language learners, Conklin (2005) found that "words with multiple related senses were responded to more quickly than words with multiple unrelated meanings" (p. 152). In addition, Wear (2003) argued that homographs have long-term effects on semantic processing. With explicit instruction on homophones and homographs, students will become more confident when they encounter them.

Inference-prediction. Using sentences and passages with missing words to teach students to predict a word or idea based on its position in a sentence or passage. Inferencing has been defined as the connections people establish when they try to interpret texts (Nassaji, 2004). It is one of the central cognitive processes in reading comprehension (Anderson and Pearson, 1984; Wyver, Markham, and Hlavacek, 2000). Bartlett (1932) mentioned that inferencing skills help students activate different knowledge. Wyver, Markham, and Hlavacek (2000) added that these skills help students go beyond what is provided, and thus, implicitly fill in the gaps. Since there is no text that is completely explicit; students, especially students with learning disabilities (LD), must be skilled/trained at "making inferences" in order to fully comprehend what they read (Heerman, 2007). Inference training helps students activate prior knowledge and generate predictions (Hansen, 1981). Teachers need to use direct instruction to directly teach students how to use inference to strengthen comprehension (Alfassi, 2004). Alfassi (2004) stated that this direct instruction includes explanation, modeling, and scaffolding, and that it should be used until students become successful independently.

List and define vocabulary instruction. Making use of direct instruction in which the teacher: 1) says the word, 2) displays the word, 3) uses the word in a sentence, 4) asks students to write an original sentence using the word, and, 5) gives a precise

definition for the word. Stahl (1983) stated that when definitional information is combined with contextual cues, students are more likely to learn new vocabulary than when contextual analysis is used in isolation.

Word study. Teaching students to engage in word study by sounding out word parts, using context clues, and studying the dictionary for word pronunciation and word definition. Al-Hazza and Gupta (2006) stated that word study enables students to "identify words in their reading by using strategies such as phonics, context clues, sentence structure, background knowledge, and pictures" (p. 19). Massengill's (2006) study showed that word study strategies were very effective for young, poor readers. Hennings (2000) stated that "by perceiving words in terms of component elements that share a common origin, students learn clusters of words rather than memorizing individual terms of words and their definitions" (p. 278).

Refining and word association. Teaching students to recognize and use antonyms, synonyms and multiple meanings of words. Misulis (1999) mentioned that "there is a direct association between knowledge of word meanings and understanding of what is to be learned. Knowledge of word meanings is referred to as vocabulary knowledge and knowledge of the strategies for acquiring word meanings is referred to as vocabulary development" (p. 25). She pointed out that teachers need to include instruction and reinforcement of the meanings of the words that are associated with that content to enhance students' understanding of content. "Students should have a good understanding of word associations in order to use word parts to figure out the meaning of words and interpret connotative meanings" (Texas Center for Reading and Language Arts, 2000, p. 9). Students should be able to make word association by providing synonyms and antonyms for words when they are at the association and comprehension processing levels (Texas Center for Reading and Language Arts, 2000, p. 31).

Harmon, Wood and Hedrick (2006) suggested 42 vocabulary strategies that teachers in all content areas can use to help students, including English learners and struggling readers to understand new words, phrases, and concepts. Brand (2004) advocated a "word apprenticeship learning model: demonstration, think-aloud, think-along, guided thinking, and independent application" (p. 14) to help students become word savvy.

Morphemic analysis. Teaching students the meanings of common prefixes, suffixes, and root words to help them pronounce and decode unfamiliar words and to refine their meanings. "Approximately 80% of words in a dictionary contain Greek or Latin morphemes. Thus, knowledge of these combining forms (roots and affixes) is essential for analyzing unfamiliar words" (Texas Center for Reading and Language Arts, 2000, p. 25). "Morphemic analysis is a word identification strategy in which the meanings of words can be determined or inferred by examining their meaningful parts" (Baumann and Kameenui, 1991, p. 622). Morphemic analysis is also called structural analysis and typically includes four components: affixes, inflections, compound words, contractions.

Relational methods. Teaching categorization, classification, list-group-label, and word sorts as vocabulary methods aimed at getting students to form basic information concepts. Haager and Klingner (2005) mentioned that students with learning disabilities (LD students) require careful, systematic planning and instruction to help them acquire new vocabulary. They argued that when LD students lack the background knowledge and experiences necessary to understand new words, learning can be quite difficult. Then, "the focus should be on helping students make connections or associations between new words and previously learned information" (Haager and Klingner, 2005, p. 347). Minskoff and Allsopp (2003) cogently claimed that "organizing information into abstract categories is an efficient way of handling large amounts of data" (p. 287). They further emphasized that categorization is extremely important to most subject matter areas at the high school level.

Vocabulary graphic organizers. Using graphic organizers with students such as concept maps, semantic maps, spider maps, and cognitive maps in order to reinforce word relationships and establish the main idea. Nagy (1988) stated that there is a strong relationship between word knowledge and reading comprehension by arguing that one cannot understand oral and written language without knowing what most words mean. Vocabulary instruction effectively helps children discuss, elaborate, and demonstrate meanings of new words and provides varied opportunities for them to use new words outside of their classroom (Rupley, Logan, and Nichols, 2002). With a larger vocabulary, students can read better because "vocabulary is stored information about the meanings

and pronunciations of words necessary for communication" (Evidence-based Reading Instruction, 2002, p.112). Rupley, Logan, and Nichols (2002) pointed out that "children's vocabulary knowledge closely reflects their breadth of real-life and vicarious experiences" (p. 115). They added that vocabulary instructional practices immerse students in language-rich activities that teach words in meaningful reading experiences. According to Haager and Klingner (2005), the Interactive Instructional Model was developed specifically for students with learning disabilities (LD) but also benefits other students, particularly English language learners (ELLs) by helping them with text comprehension and content area learning. It relies on "semantic feature analysis using relationship maps and relationship charts and also incorporates interactive strategic dialogues" (Haager and Klingner, 2005, p. 364). Vaughn and Bryant (2002) advised educators to use content enhancements such as advance organizers, graphic organizers, and specialized materials to help students interact with text more successfully. They mentioned that "explicit vocabulary instruction and multiple opportunities for students to use word meanings [is] critical for struggling readers" (p. 5). Johnson and Pearson (1978) and Beck, McKeown, and Omanson (1987) found that vocabulary words that were taught and learned in networks were better learned than words that were taught through contextual approaches.

Haager and Klingner (2005) stated that graphic organizers provide a visual or spatial framework for organizing the important conceptual relationships among new vocabulary words and help students who have difficulty understanding a concept. Lenz, Deshler, Kissam (2003) recommended that teachers use graphic organizers to map the critical content, and organize the topics or ideas that are most essential to the class, to show the students where they are going, and where they have been in the class.

Software-Internet use. Using vocabulary software or Internet resources for vocabulary practice, possibly including the use of second language translations. Ikpeze and Boyd (2007) pointed out that "with 99% of U.S. public schools reporting Internet access … more attention is now being focused on the potential of the Internet as a learning tool" (p.645).

The Stanford Institute (2000) conducted a survey study of 4,000 randomly sampled U.S. households and found that 67% of respondents reported that they spend

time reading on the Internet. One good example of software-internet use is Technology-Enhanced Learning Environments on the Web (TELE-Web) (Englert and Zhao, 1999). The TELE-Web software was designed to have three advantages: "digitized speech dictation and feedback; the provision of word models or prompts to help students access the identities and spellings of target words; the provision of context-dependent and in-context word identification" (Englert, Zhao, Collings, and Romig, 2005, p. 359.). According to McEneaney (2000), there are several significant benefits of web technologies. First, they provide a basis for closer integration of content and process than has been possible in print media. Second, Web-based materials can guide the learning process through direct manipulation of the reading environment based either on predetermined schedules and plans or as a result of data collected while the learner is engaged with content. Third, Web content itself is subject to manipulation through the use of script-based linking and the means of delivery. Bierwisch (1983) stated that using the computer to assist reading is a very effective strategy to help students read better because reading on a computer is a real-time language activity involving all types of available linguistic information. Leong (1995) stated that an on-line approach that uses the microcomputer interfaced with the text-to-speech (DECtalk) computer system provides immediate on-line reading and high-quality synthetic speech feedback of words and discourse. Many researchers advocate explicit instruction. However, it is more difficult for students with learning disabilities to obtain direct instruction and repeated practice in a general education than in a special education classroom. Therefore, Lee and Vail (2005) stated that "computer programs can be valuable tools to teach and to provide practice of new vocabulary or concepts in a general education classroom. They could also save teachers' instructional and preparation time" (p. 6).

Comprehension

The ultimate goal of teaching reading is to help student accomplish reading comprehension. According to Proquest's Dissertation Abstracts database, there were 128 Ph.D. dissertations related to reading methods, reading techniques, or reading strategies in elementary schools or secondary schools published from 2000 to 2006. The researcher has grouped these dissertations into 45 categories (see Appendix A). Reading

Comprehension was the dominant research topic, containing 27% of all the dissertations. Farstrup and Samuels (2002) pointed out that reading comprehension strategy instruction has been a major research topic for more than 20 years. Also, comprehension instruction was listed as "hottest" on the International Reading Association's annual "What's Hot, What's Not" list (Cassidy & Cassidy, 2004/2005).

Good readers, strategic readers, are self-motivated and self-directed and actively construct meaning as they read (Paris, Lipson, & Wixson, 1983). Paris (1986) pointed out that competent readers use three types of knowledge about the reading process as they read: 1) declarative knowledge (the what of comprehension); 2) process dual knowledge (the how of comprehension); and 3) conditional knowledge (the when of comprehension). "There is consensus among researchers that good readers, competent comprehenders, have a plan for comprehending; they use their metacognitive knowledge to implement their plan" (Flood and Lapp, 1991, p. 732).

Comprehension is as a transaction. Rosenblatt (1978) characterized this transformation as a "new event" among the text, the author, and the reader. Meanings are carried away from a text by the author and the reader. Therefore, some of the meanings may match those of the author, some may be modifications, and others may represent entirely new ideas. Kucer (2005) also stated that "a transactional view of comprehension sees variance in readers' understanding as a natural part of the comprehending process. Different readers understand the same text in radically different ways and these ways may not always match those of the author" (p. 164-165).

Eventually, the ultimate goal for students is to become good at reading with comprehension. "Reading comprehension is the construction of meaning of a written text through a reciprocal interchange of ideas between the reader and the message in a particular text" (Nichols, 2002, p.137). Therefore, the readers should play the role not only of code breakers, meaning makers, and text users, but also the role of text critics (Mclaughlin and DeVoogd, 2004).

Several researchers have conducted investigations showing that comprehension is a key strategy in helping ELL and LD students read more effectively. "To successfully read to learn, students must be able to read with comprehension. In other words, they must get meaning from the written text" (Vaughn and Edmonds, 2006, p. 131). Therefore,

comprehension strategies are considered the most important to all students, including English language learners and students with learning disabilities. Reading to learn is a strategy for all students, especially English language learners and students with learning disabilities.

Reading Methods Used in the Survey

In this subsection, the researcher has listed the survey items chosen for the final version of the survey for the COBRA goal on comprehension. Following the statement of each survey item, the researcher continued to review literature which supports the use of the survey item. For background knowledge the researcher included nine survey items. The researcher did employ a process for developing the survey and this is explained in chapter 3. The purpose for stating the final items in this chapter is to demonstrate their relationship to the literature review.

Oral paraphrase and summary. Teaching students how to orally paraphrase or orally summarize the content of a reading passage. Kintsch and Van Dijk (1978) emphasized that summarization ability ties to reading comprehension. Honnert and Bozan (2005) stated that summarizing is considered one of the most beneficial skills students can develop to comprehend science material. In their study they found that students who were taught summarization skills showed greater improvement in test scores than did students who were not taught this strategy. Kissner (2006) argued that "a student with a poor understanding of a text can never write a good summary" (p. 2).

Skills instruction. Teaching the reading comprehension skills of retelling, inference-prediction, sequence, main idea, fact versus opinion, and drawing conclusions. Geary (2006) stated that “summaries can deepen readers’ understanding of how a text is structured and how ideas, concepts, and topics are related” (p.182). Koskinen, Gambrell, Kapinus and Heathington (1988) claimed that teachers should create oral language opportunities to encourage children to talk about what they read and to enhance their reading comprehension. Retelling is one example of an oral language strategy that less proficient readers can use to improve their reading comprehension. They advise teachers to use the strategy of retelling, which requires students to organize text information in order to provide their own personal version of what they read. Yuill and Oakhill (1987) recommended that inference training be “designed to help students make links between

the text and its meaning and to discover how meaning is derived from the surface of the text" (p. 43).

Story grammar. Asking students to fill out a worksheet that has prompts for setting, plot, character, goals, events and outcomes when they read fiction or biographies. Stein and Trabasso (1982) stated that story grammar is a pattern that helps students from different ages and cultures comprehend better when they read a story. Story grammar "involves articulation of the character's problem or conflict, a description of attempts to solve the problem, and an analysis of how characters react to the events in the story" (p. 20). Therefore, students of all ages can use the knowledge of how stories are structured to help them remember important details (Mandler and Johnson, 1977).

Basic reading patterns. Teaching comprehension patterns of definition, description, sequence, and question-answer relationships (QARs). Fordham (2006) argued that teachers need to guide students to use meta-cognitive thinking during reading in order to achieve comprehension. She stated that strategic questions and embedded questions are two types of good comprehension strategies to induce students to use meta-cognitive thinking and monitor their comprehension. Strategic questions focus on ways to "make meaning to help us while passing through unfamiliar territory by prompting us to think deliberately" (p. 393). Strategic questions not only can be asked about any topic or process, but also are especially useful in fostering reading comprehension. She claimed that strategic questions need to be applied in the context of content reading, and that they focus more on how to comprehend challenging material than on what has been comprehended. In addition, she mentioned that embedded questions offer extra support for less able readers who need practice in thinking their way through a reading task. She emphasized that embedding questions in a written text helps struggling students "internalize" the dialogue associated with monitoring their comprehension of content area texts and enables them to think about what it is they should be doing during reading and ultimately to "self-assess" whether or not they are doing it.

Questioning/Answer Relationship (QAR) studied by Raphael (1982; 1986) has been found to improve reading comprehension for students at several grade levels. Flood and Lapp (1991) suggest teachers accept "total responsibility for the five key elements of the [QAR] activity: 1) assigning the text; 2) generating the questions; 3) providing

answers; 4) identifying the QAR; 5) providing a justification for the QAR identified" (p. 738).

Haager and Klingner (2005) stated that students with learning disabilities (LD) often have problems locating specific information in text. They present a strategy called "Answering Comprehension Questions (ACQ)" for assessing students' comprehension of text. They identified the Question-Answer Relationship (QAR) strategy as one component of the ACQ strategy. They pointed out that students need to be taught to identify the different kinds of information needed to answer comprehension questions, as well as where to find the information before, during, and after reading.

Think-alouds. Demonstrating effective reading comprehension applications to students orally and probing students to respond about how they completed their reading. Think-aloud (Afflerbach and Johnson, 1984) is a good strategy for teachers to demonstrate how to think critically when they read. Kymes (2005) suggested that teachers need to use think-aloud strategies to train or teach students to become strong or skilled readers. She identifies several specific strategies that teachers should teach in this manner: 1) being aware of purpose; 2) skimming or scanning text to determine relevance to purpose; 3) reading selectively, focusing on sections relevant to purpose; 4) making associations with new ideas to prior knowledge; 5) making assumptions and hypotheses and then revising them, if necessary; 6) maintaining a dialectic between new ideas and prior knowledge and revising prior knowledge that is inaccurate based on text or rejecting new ideas from text that are inconsistent with prior knowledge; 7) discovering new meanings of words; 8) rereading or note-taking to remember key ideas; 9) questioning and interpreting or paraphrasing text to the point of having imaginary conversations with authors; 10) evaluating text structure and quality; 11) reviewing; and 12) thinking about how to use the information in the future. Abadiano and Turner (2002) claimed that reading strategies will be more effective if teachers use think-alouds to model them to students and then gradually withdraw support in order to move students toward independent application of the strategies.

Fuhler, Farris, and Nelson (2006) stated that teacher modeling is an effective way to increase students' higher-level thinking and comprehension abilities especially for reading and writing. Teachers should demonstrate the process that they model using a

"doing" rather than a "telling" strategy. They also claimed that it is useful to teach students how to summarize information from a variety of different kinds of texts. This strategy has a positive effect on their comprehension and recall of the texts. In addition, they suggest using think-alouds. In this strategy, teachers model how they think as they interact with the task at hand, making their thinking "visible" in the process. Students benefit from actually seeing "how various reading processes or strategies work" (p.649). They also stated that asking the right types of questions encourages higher-level thinking. A teacher's modeling and guidance will move students beyond the literal level of questions to questions that require "application, analysis, synthesis, and evaluation" (p. 649). They believed that "asking the right kinds of questions drives quality learning" (p. 649).

Material graphic organization. Teaching students to use charts, diagrams, or graphic organizers to help them better understand the organization of reading material. Hoffman (2003) stated that graphic organizers are used to help students construct meaning from assigned readings and to represent relationships among key concepts. Many researchers claim that the effects of spatial organizers on reading comprehension have yielded some promising results (Haager and Klingner, 2005; Garcia, 2003). Research has also been conducted on the effects of using computer-assisted instruction for facilitating reading comprehension. One example of such a program is Inspiration, a widely available software program that facilitates the creation of spatial organizers and can be used to help students comprehend information (Mastropieni, Scruggs, and Graetz, 2003).

Hierarchy pattern. Teaching students about hierarchical organization patterns through tasks of sequence, categorization, classification, and concept mapping. Berkowitz (1986) claimed that following the structure of passages is one of the mental skills that can help compression. In addition, she stated that readers who identify and use an author's structure as a framework for memory will recall more than readers who do not. Haager and Klingner (2005) stated that students with learning disabilities (LD) are poor comprehenders and "lack both the meta-cognitive skills to monitor their reading comprehension and the 'fix-up' strategies to repair understanding when it breaks down" (p. 355). They emphasized that "comprehension strategies are helpful for all students, but

are critical for students with learning disabilities (LD)" (p. 355). They advocated many useful comprehension strategies such as Text-Structure-Based Strategies, Interactive Instructional Model, K-W-L strategy, Directed Reading-Thinking Activity (DRTA), Answering Comprehension Questions (QAR), and Collaborative Strategic Reading (CSR). Text-Structure-Based Strategies refers to "the way the text is organized to guide readers in identifying key information and making connections between ideas," (Haager and Klingner, 2005, p. 363).

Reading guides. Having students respond in writing to teacher-written prompts as they read assigned text. "Reading guides identify explicit skills students need to construct meaning" (Peters, 1996, p.186). Peters (1996) mentioned several advantages of reading guides: "1) They move students to deeper levels of understanding by helping them organize the information they pull from the text. 2) They help students interpret, analyze, and manipulate information in non-routine ways. 3) They show how to use facts to make interpretations and draw conclusions. 4) They help students learn how to anticipate counter arguments, weigh alternative explanations, and understand why one interpretation may be preferable to another" (p.186-187). Peters (1996) also stated that "an anticipation guide can be effective in promoting decoding skills, enhancing word meaning, and strengthening comprehension" (p. 196) and emphasizes that anticipation guides can be used "across content areas, are liked by students, are fairly easy to implement, encompass the elements of effective instruction, and can be used in general, inclusive, and special education classrooms" (p. 196).

Electronic texts. Teaching students to use online text comprehension features such as interactive prompts, sound, animation, and video. Coiro (2005) stated that a new kind of literacy is growing and that students require new comprehension skills and strategies to effectively read and learn from text on the Internet. "The Internet is so omnipresent, so integrated into our lives, [and] students need to understand how they can use it well" (Burke, 2002, p. 40). McNabb (2006) proposed that "reading online can give students new opportunities to read and compare different authors' perspectives on a topic" (p. 79). She emphasized that "the rich, interactive multimedia context offered by online hypertext can enhance students' comprehension and build new knowledge that is complex or difficult to acquire from linear print alone" (p. 79). She pointed out that "the multimedia

features of online text illustrate meaning through audio, video, graphic, and kinetic text expressions as well as the printed word" (p. 79). She believed that "online readers can choose among vast resources for meaning making, which puts content control in the hands of students to a much greater degree than does a print-based curriculum" (p. 79). Without a doubt, this requires teachers' direct instruction to guide students in the use of online reading resources so that students will effectively gain the control of reading online, instead of surfing aimlessly. Benton-Borghi (2007) argued that teaching and learning have switched the traditional one-size-fits-all modality of print. She explained that "technology has enabled the universal design of instruction and assessment of student learning through the electronic modality of the 21st century" (p. 9).

In addition, using an online children's library within an online educational program is also a novel way to help students learn to read. A good example of an online children's library is the International Children's Digital Library (http://www.icdlbooks.org/). Many researchers believe that literacy is just a click away: if students know how to read the Web carefully, teachers can begin to weave their own webs, using the Internet to serve the needs of their students.

Study and Application

Helping students become life-long readers and showing them how to enjoy what they read is the essence of reading education. To achieve this goal, students must know how to apply the reading strategies they have learned. "Comprehension as a functional invariant of all reading instruction requires that, from the very beginning of instruction, the reading-to-learn phase take precedence over the learning-to-read phase" (Stauffer, 1980, p. 277). "Learning-to-learn skills are essential for effective lifelong learning to develop over the entire lifespan" (Cornford, 2002, p. 357). "To learn to read a child needs many opportunities to see the world about him (perceptual: to see, hear, feel, smell, taste), to talk about the things and events in his life (linguistic: to acquire labels and concepts), and to act on them (cognitive: to note how things are created, work, are interrelated)" (Cornford, 2002, p. 31).

Kucer (2005) stated that "teaching reading allows for the demonstration of various strategies, processes, and stances involved in reading and comprehending" (p.

306). He argued that as well as reading and demonstrating, teachers should provide time for students to critically respond to what they have heard. He added that like the stance of critique taken in thematic units, teachers should help students critically analyze what is being read, regardless of who is doing the reading. He also stated that students need occasion to explore their own interests and read for the pure pleasure of reading. Interest can motivate even struggling or reluctant readers to pursue texts that may be beyond their reading abilities (Allen, 2000). Providing students with regular and ongoing opportunities to read for pleasure and to share this pleasure with others is one avenue to address motivational issues (Gambrell, 1996). The ultimate goal is to help students become good at reading so they will derive enjoyment from the experience.

Kucer (2005) presented a model of the dimensions of literacy. He explained that literacy, or the ability to read and write, has been studied by individuals in many different fields throughout the centuries, such as linguists, cognitive psychologists, socioculturalists, and developmentalists. He emphasized the concept of the developmental dimension of literacy, which helps people to understand that literacy is more than just learning the language and how to read it: it is also being able to understand something. We learn language to communicate, to emotionally bond with others, to interact with others, and to have social connections.

In order to meet rigorous academic demands of the general education curriculum, students, especially English language learners and students with learning disabilities, must know how to learn (Minskoff and Allsopp, 2003). They argued that students must know how to use strategies to apply and master a variety of types of content subject areas independently. "Two important characteristics of any effective learning strategies are 1) students must be able to gain access to the strategy, and 2) the strategy must accurately represent the learning task or skill" (Minskoff and Allsopp, 2003, p. 33). Echevarria, Vogt and Short (2000) stated that the ultimate goal is for students to develop independence in self-monitoring and self-regulation through practice with peer-assisted and student-centered strategies. They further claimed, however, that many English language learners have difficulty initiating an active role in using these strategies. Eventually, "effective study habits provide a student the best chance to succeed with tasks in schools… [and] minimize failures in different learning situations as students

better understand how to function within different situations as well as how to best learn and demonstrate acquisition of important information" (Hoover and Patton, 1995, p.111).

Reading Methods Used in the Survey

In this subsection, the researcher has listed the survey items chosen for the final version of the survey for the COBRA goal on study and application. Following the statement of each survey item, the researcher continued to review literature which supports the use of the survey item. For background knowledge the researcher included twelve survey items. The researcher did employ a process for developing the survey and this is explained in chapter 3. The purpose for stating the final items in this chapter is to demonstrate their relationship to the literature review.

Proving supports. Taking notes for students, reading information to them, reading test items to them during an exam, or listening to their oral reading. Al-Hazza and Gupta (2006) stated that teachers should use well-trained tutors who use a reading tutor checklist to help them observe and record students' learning problems and give them a variety of reading strategies and remediation. There are some strategies to provide extra supports to students with learning disabilities: allow students to tape record the lecture; extend exam time and assignment due dates; explain the exam questions to students; and provide assistance with proofreading written work (Academic accommodations for students with learning disabilities, 2007).

Reading fluency. Having students re-read materials to develop the ability to read quickly and accurately. Kuhn, Schwanenfugel, Morris, Morrow, Woo, Meisinger, Sevcik, Bradley and Stahl (2006) indicated that "fluency-oriented approaches to literacy instruction are effective at increasing students' accurate and automatic word recognition, assisting with their comprehension, and promoting their use of prosodic features, such as stress, pitch, and suitable phrasing" (p.358).

The strategy of fluency involves "reading with speed, accuracy, and proper expression without conscious attention" (Nichols, 2002, p.83). Research suggests that fluency instruction should be used for children in grades two through high school and especially benefits struggling readers (Kuhn, 2005; Nichols, 2002; Flynn, 2005). Deshler and Schumaker (1988) recommended that when students with learning disabilities

develop fluency, they move into a maintenance stage and gradually will apply the information to real-life situations and experiences.

Mnemonics. Teaching students to use devices such as acronyms to help them remember what they have learned. Pannucci and Walmsley (2007) pointed out that "mnemonic devices were used in ancient Greece as a tool for remembering things that didn't easily follow rules, and they are still highly effective tools for learning disabled adults as well as their teachers" (p. 543). Bellezza and Buck (1987) mentioned that mnemonic cues have been labeled cognitive cueing structures (Bellezza, 1981). "The cues contain verbal representations and visual images that are components of knowledge structures" (Bellezza and Buck, 1987, p. 147). The mnemonics are schemata that help students activate their prior knowledge automatically when they perceive information in a special knowledge structure (Bellezza and Buck, 1987). Harris and Hodges (1981) mentioned that the term mnemonics refers to strategies intended to improve memory or memorizing such as the keyword method. By using mnemonics, teachers can teach students to label specific words such as definitions and synonyms (Fenaigle, 1813; Levin, McCormick, Miller, Berry, and Pressley, 1982). Minskoff and Allsopp (2003) emphasized that mnemonics provide structured ways to aid recall and retrieval of information by creating associations that do not exist naturally in the content. They further explained that "use of mnemonics requires that students organize the information in personally meaningful ways… such as using humor, senses, sounds, images, smells, tastes, touch, movements and feelings to aid memory retrieval" (p. 34).

Paired or group practice. Having students work in pairs or groups to study the spelling and meaning of words from passages they have read, and having them practice asking and answering each other's questions over these passages to reinforce comprehension. Ikpeze and Boyd (2007) suggested that teachers use collaborative and social activities because those activities provide students with opportunities to learn to cooperate, interact, work together, and challenge their ideas. Collaborative learning (Pontecorvo, 1987) includes not only peer interactions but also group discussion. Slavin (1980) stated that cooperative learning involves students working on learning activities in small groups and receiving rewards or recognition based on their group's performance. Sharan (1980) has stated that peer tutoring is characterized by dyads. Peer tutoring

focuses on transmitting very specific information, emphasizing information and skills acquisition. Harms and Lettow (1996) stated that teachers can introduce children to "different inner audiences by modeling their responses to selected works" (p.212). Students can share their personal experiences through discussions and conferences. This type of collaboration can lead to in-depth understandings of stories and poems. They suggested that "a chart or bookmark listing the audience types can help remind students of their options" (p. 212). They believed that the experience of interacting with a work is generally not complete "unless children can express different ideas generated from their reading and can receive responses from others" (p. 212).

Mastropieri, Scruggs, and Graetz (2003) described research on reading comprehension instruction with secondary students with learning disabilities (LD). They pointed out specific difficulties for the struggling reader at the secondary level. For example, they mentioned that frequently, secondary school content-area textbooks have readability levels that are even higher than the assigned grade levels. Among the many strategies they recommend are peer tutoring/peer-assisted learning strategies (PALS) that incorporate comprehension strategy instruction and tutoring interventions that appear to improve content-area learning while also improving reading comprehension strategies. Lenz, Deshler and Kissam (2004) suggested that cooperative learning, peer learning, and structured small group practice will help students with learning disabilities (LD) improve their reading abilities, interpersonal skills, and social and problem-solving skills.

Palincsar and Brown (1985) and Palincsar (1982; 1986) have developed a reciprocal teaching method to help student learn to read effectively. Reciprocal reading is another effective method to enable students with learning disabilities (LD) to activate four different comprehension strategies - predicting, questioning, clarifying, summarizing - which they apply collaboratively to help each other understand a text they are reading (Lenz, Deshler and Kissam, 2004).

Writing to learn. Having students write short answers, paragraphs, and essays to demonstrate their knowledge and application of subject matter information. Rosenblatt (1938) proposed a reader response method for teaching literature. "A reader-response based method of teaching literature is a fundamental shift from the viewpoint that literacy interpretation is a right/wrong entity to a view that perceives literacy interpretation as a

transaction between the reader and the text" (Flood and Lapp, 1991, p. 736). Abadiano and Turner (2002) emphasized that writing to read is a very good strategy to help students read better. They pointed out that through the reading-writing connection, "students use writing as a vehicle for learning about and assessing what they have read" (p. 54).

Tutoring. Having students engage in additional reading, learning and study development with the help of peer, cross-age, or paraprofessional tutors who are in the classroom. Al-Hazza and Gupta (2006) suggested training tutors to use the Reading Tutor Checklist to help empower tutors with instructional strategies to help students learn to read better and to help communication between the tutors and the classroom teachers. In addition, paraprofessionals' supplemental daily tutor scaffolding and individualized corrections may provide critical support in context reading skills (Vadasy, Sanders, and Peyton, 2005).

Calhoon (2005) stated that Peer Assisted Learning Strategies (PALS), a reading comprehension strategy program at the high school level, significantly increased the reading comprehension skills of students with reading disabilities. Peer tutoring has gained popularity over the years and is backed by some very impressive research evidence to support its use for improving academic performance. Many existing studies offer some interesting findings for potential best practice and emerging best practice at the middle and secondary level. Recent studies have shown that peer tutoring is very effective for teaching reading comprehension strategies in remedial reading classes, in English classes at the middle and secondary levels, in high school world history classes, in middle school social studies classes, and in high school chemistry classes (Mastropieni, Scruggs, and Graetz, 2003).

Information methods. Teaching students strategies for note-taking, highlighting, outlining and memorization for the purposes of clarifying and organizing their thoughts as well as consolidating information. Robinson, Katayama, Beth, Odom, Hsieh and Vanderveen (2006) stated that "taking notes while listening to a lecture or reading a textbook is necessary for optimal test performance" (p. 103). DiVesta and Gray (1972) also emphasized that note-taking serves two functions: encoding and external storage. Honnert and Bozan (2005) claimed that note-taking and summarization skills are

extremely important to success of students of all ages. They are the abilities to be able to select and restate main ideas in students' own words, discuss them, and ultimately use them. Note-taking allows students to "record a reworked version of the text in a form appropriate for the criterion task" (Anderson and Armbruster, 1984, p. 666). Highlighting or underlining is the most used in older students (Devine, 1991). When a word or phrase is printed in a different color or type from others on a list, viewers/students tend to remember it better than other items (Devine, 1991). Marginal comments and personal coding systems are strongly recommended by Devine (1991) as well.

Textbook study methods. Guiding students through a series of textbook activities such as outlining, concept mapping, guided reading, skimming, and textbook reading activities such as SQ3R. Kruger (2000) suggested several comprehension strategies for English language learners (ELL): skimming material for essential information and underlining it; organizing ideas by category and labeling them or diagramming them; reading by phrases and clauses to increase comprehension; summarizing; identifying themes, sequences, and main ideas. Directed Reading-Thinking Activity (DRTA) is a predicting strategy for helping LD (Learning Disabilities) students understand content area text. It was "developed to help students refine their purpose for reading and apply prior knowledge to understand text" (Haager and Klingner, 2005, p. 365). Haager and Klingner (2005) suggested that students should first "survey" the chapter they will be reading by "looking at the title, subtitle, headings, illustrations, and diagrams, and skimming the text" (p. 365). The next step in DRTA is for students to "make predictions about what they will learn and write down questions that come to mind while sampling the text" (Haager and Klingner, 2005, p. 365).

Advanced reading-study patterns. Teaching students the text patterns of compare-contrast, cause-effect, and problem-solution. "To successfully master the general education curriculum at the secondary level, students must have advanced thinking skills, such as sequencing, comparing and contrasting, categorizing, determining cause and effect, and problem solving" (Minskoff and Allsopp, 2003, p. 278). Minskoff and Allsopp (2003) stated that the importance of problem-solving skills has long been recognized in special education across academic content area. They also argued that one of the major ways of organizing information is by identifying similarities and differences

between ideas.

Conference and coaching. Conferencing with each student to gain an understanding of their learning problems and coaching them with methods for solving those learning problems. Graves (1983) noted that conferences benefit teachers and students and provide a way for teachers to hear directly from students about their reading and their lives. Akmal (2002) proposed that "conferences serve as an excellent vehicle for monitoring the students' academic, social, and personal growth" (p. 157). Akmal (2002) mentioned further that with a sense of control over their learning experience and with teacher support, middle school students are more likely to put full effort into their work. Calkins (2001) mentioned that "during the reading workshop, teachers confer with students individually, in their partnerships, or in small groups" (p. 43). It is very important that teachers encourage students to take the responsibilities for their own learning by having a conference with the student and discussing the results of their learning works (Minskoff and Allsopp, 2003).

Curriculum-referenced tests. Using tests designed around important subject area concepts or standards to measure students' subject matter knowledge. "Standardized testing remains a powerful force in today's public schools" (Hewitt & Homan, 2004, p.1). The U.S. government has used political high-stakes tests to ensure that what is on a test is what should be taught (Popham, 1987). Bracey (1987) argued that curriculum-referenced tests make teachers teach to the test. The No Child Left Behind Act of 2001 (Public Law 107-110) (NCLB), is a United States federal law that reauthorizes a number of federal programs that aim to improve the performance of US's primary and secondary schools by increasing the standards of accountability for states, school districts and schools, as well as providing parents more flexibility in choosing which schools their children will attend. Many educators use tests designed around important subject area concepts or standards to measure students' subject matter knowledge. Santman (2002) believed that "as important as it is been to teach my kids how to take the test, it has become even more important to help them understand the injustices of standardized testing" (p. 210). She mentioned further that "In order to learn to negotiate the format of the test or avoid its tricks it is important to use material that closely resembles the test your kids actually take" (p. 208).

Independent reading approaches. Using methods and programs such as sustained

silent reading or Accelerated Reader in order to provide reading practice and help build positive attitudes toward reading. Many research studies examined the effectiveness of voluntary or independent reading programs when classrooms were filled with high quality trade books, and reported success in overall reading comprehension as well as improved attitudes towards reading (Fielding, Wilson, and Anderson, in press; Ingham, 1981). Nagy, Campenni, and Shaw (2002) described sustained silent reading (SSR) as "students in reading self-selected material for an extended period" (p.1). There are a variety of names for SSR such as DEAR (drop everything and read), SQUIRT (silent, quiet, uninterrupted individualized reading time), and USSR (uninterrupted sustained silent reading).

Accelerated Reader (AR) is a daily progress monitoring software assessment in wide use by primary and secondary schools for monitoring the practice of reading, and it was created by Renaissance Learning, Inc. in 1986. Currently, there are two versions: a desktop version and a web-based version in Renaissance Place. AR and its ancillary materials include computerized reading diagnostic tests and over 50,000 primarily literal-level quizzes; computer-based record-keeping systems for both students and teachers; and STAR reading program, a computerized, multiple choice, literacy skills objectives testing system (Renaissance Learning, Inc, Software Technology, 2006).

Many researchers emphasize the importance of using scaffolding, a term associated with Vygotsky's (1978) notion of the Zone of Proximal Development (ZPD), to teach. Clark and Graves (2005) stated that scaffolding is a very effective way to help students learn to read. The purpose of scaffolding is to guide a student in solving a problem, not to solve the problem for them. Farstrup and Samuels (2002) stated that transactional strategy instruction provides students with explicit explanations of strategic mental processes used in reading. Here, the emphasis is on the interactive exchange between learners in the classroom. The strategy offers scaffolded supports in which teachers gradually withdraw the amount of assistance they offer to students. Other strategies have been considered effective to help teachers scaffold students' reading abilities.

Cowen (2003) argued that educators should not only use one or just a few reading strategies to teach. Instead, Cowen supported a balanced reading approach in which

teachers help students with many different aspects of learning such as decoding, vocabulary, reading comprehension, motivation, and sociocultural acquisition. The purpose of the balanced reading approach is to help students learn to read for meaning, understanding, and joy.

The ultimate goal of strategies falling under this category is to help students apply information to build communication and problem-solving skills such as project-based learning. Taylor and Nesheim (2001) advocated readers' workshops in which workshop students are encouraged to understand their own experiences and others' experiences as readers. During workshop activities, students share and reflect on their early childhood literacy experiences by recalling favorite books. Students work and discuss together to apply what they learned before and gain new ideas through their elaboration of discussion.

Summary

In this chapter, the researcher has summarized studies and writing which provide platform support for this study. The foundational areas for this study include the middle school, the field of English language learning, the field of learning disabilities, and, reading programming needed for the middle school. Previous research on the COBRA model has been done at the middle school level at Kansas, the high school level in Kansas and the middle school level in New Mexico. A fund of research experience has been developed for the COBRA model. In this chapter, the researcher has explained a reduction in the number of COBRA goals from seven to five. This is an experimental change aimed at ELL and LD teachers as specialist teachers. Here the researcher assumed that these specialists would augment and support the regular classroom instruction and would not instructionally articulate a complete reading curriculum. Ultimately, the five goals of the COBRA model included: Background knowledge, experiential learning, vocabulary, comprehension, and, study and application. The fifth goal, study and application, reflect a combination of three of the seven original COBRA goals: study, application, and school wide reading instruction. The researcher also did an intensive, two-part literature review for each of the five COBRA goals. In the first part for each of the five goals, literature was reported that reflected the goal and supported the goal. In the second part of the literature review for each goal, the researcher stated the language of the

methods included on the final survey and reviewed additional research that supported each of the survey methods items developed to reflect the goal. The intent in doing this was to bring the COBRA goals and COBRA items into close relationship to the literature. Notably, the additional methodological work was done to fully develop the survey in terms of validity and reliability and this is reported in chapter 3. Moreover, it is emphasized that the language of the survey items was tied to the literature in this chapter and this is a necessary part of the survey development and validation process.

CHAPTER 3 - Research Methods

The main problem to be studied stemmed from the findings of a study conducted by Al-Fadda (2004). Her survey results indicated that middle school teachers viewed adaptive reading instruction for ELL students in Kansas to be of average importance for helping students learn to read. However, scores for the single survey item did not tell us about the nature of the reading instruction these teachers provided for ELL learners. Further, Al-Fadda drew her sample from all middle schools in Kansas, many of which have low ELL student enrollments. Finally, Al-Fadda did not address reading instruction for LD (learning disabled) students in her survey. The researcher concluded that a modified replication of Al-Fadda's study should include a revised survey intended for ELL and LD teachers.

The literature summarized in chapter 2 suggested that there might be, or should be, similarities in the reading methods employed by teachers of ELL students and those of LD students. Research has revealed that both of these types of teachers care about teaching pace and the consistency of organization of textbook chapters, and consider tutoring to be an effective way to help students. Although the research literature describes a wealth of reading methods used by teachers of ELL students and those of LD students, not much is presented about the similarity or differences in their views of reading instruction methods. The researcher also defined the research problem in broader contexts. Both middle school English language learners (ELL) and students identified with learning disabilities (LD) are required to take state reading assessments according to the No Child Left Behind mandate. In order to gain a better understanding of how ELL teachers employ reading strategies and discover if their use of reading strategies differs from those of LD teachers, the researcher conducted a survey that asked teachers of students with learning disabilities (LD) and teachers of English language learners (ELL) to rate how important they consider 44 selected reading methods to be for teaching their students how to read.

The researcher used a cross-sectional research design because the researcher wanted to study the two teacher groups at the same time. The researcher surveyed ELL

teachers and LD teachers in middle/junior high schools in Kansas, New Mexico, Oklahoma and Texas, and compared their perceptions of the importance of 44 selected reading strategies.

Population and Sample

The researcher's population was ELL teachers who teach English language learners (ELLs) and LD teachers who teach students with learning disabilities (LD) in public middle schools or junior high schools in Kansas, New Mexico, Oklahoma, and Texas. The researcher began by looking for the following demographic information about the middle/junior high schools in each of the four states: school enrollment, ELL student enrollment, and low-income student enrollment. The researcher first examined the website for the National Center for Education Statistics (NCES). The site provided summary data for each state as a whole, but not for individual schools. Next, the researcher called or emailed the Department of Education in each of the four states to ask for the individual middle/ junior high schools' demographic information. The Department of Education in each of the four states provided the researcher with the names of each of the middle/ junior high schools, the overall school enrollment number in each of the middle/ junior high schools, the ELL student enrollment in each of the middle/ junior high schools, and the low-income student enrollment of each of the middle/ junior high schools. Next, the researcher searched the website of each state's Department of Education and found the average ELL student enrollment in each state.

The list of middle schools in the four states was extensive. Therefore, the researcher limited the sample to schools by applying five selection criteria. First, in order to ensure that schools in the population had a large ELL enrollment, the researcher limited the sample by drawing from only those public schools whose percentage of Limited English Proficiency (LEP) students was equal to or greater than that state's mean or average percentage of LEP students in grades K-12 in public schools for the 2006 school year. The intent of this criterion was to build a population and sample which would have percentages of LEP students greater than that of LD students. Here the researcher reasoned that special education programming could be used to absorb ELL students in schools where the percentage of ELL student enrollment was low. Thus, by

creating a population with larger ELL enrollments the results would be more robust in terms of there being more ELL teachers to respond to the survey. For Kansas, middle schools were included if they had 6% or greater ELL enrollments. For Oklahoma, middle schools were included if they had 5% or greater ELL enrollments. For Texas, middle schools were included if they had 16% or greater ELL enrollments. For New Mexico, middle schools were included if they had 17% or greater ELL enrollments. The researcher included a second criterion which was to include middle schools in the selection process only if they had an enrollment of at least 200 students. This was done because the researcher sought middle schools housed in buildings separate from elementary and high schools. The researcher reasoned that separated schools would necessarily have greater enrollments to warrant a separate building and middle school designation. Therefore, the researcher followed Al-Fadda (2004) by drawing the study sample from only those public middle schools with an enrollment of 200 or more students. There were 368 middle schools identified with higher than average ELL enrollments and with 200 or more students and these were distributed by the four states as follows: Kansas, 36; New Mexico, 84; Oklahoma, 47; Texas, 201.

Third, the researcher further limited the sample by excluding schools from the following large urban areas: Johnson county, Kansas; Wichita, Kansas; Topeka, Kansas; Albuquerque, New Mexico; Oklahoma City, Oklahoma; Tulsa, Oklahoma; Dallas, Texas; Fort Worth, Texas; Austin, Texas; Houston, Texas. These metropolitan areas were eliminated from the sample because Al-Fadda (2004) and Linn (2004) found that large metropolitan areas require researchers to file a research proposal with the district. Fourth, Texas accounted for over half the schools; thus, the researcher removed several Texas schools using a table of random numbers in order to maintain population proportionality among the four states.

The fifth criterion was that the researcher had accurate contact information for the school. The researcher attempted to access each individual school's website to get the name of its principal and its mailing address. The researcher found that some schools did not have a website and that some schools with websites did not appear to be listing current information. Therefore, the researcher decided to call all of the schools to get the name of the principal and the mailing address. Phone numbers for the schools were

obtained by searching Google for the name of the school, the name of the school's city, and the state. Most of the phone numbers were accurate, but several along the Texas/Mexico border were not. By applying criteria three through five, the group of 368 schools that met the first two criteria was reduced to a total of 120 public middle/junior high schools. The distribution of schools by state was as follows: Kansas, 31; New Mexico, 27; Oklahoma, 27; Texas, 35.

To investigate the comparability between the 368 schools that met the first two selection criteria and the sampled 120 schools, the researcher compared the characteristics of the 368 schools to those of the 120 schools and discovered that the two sets were very similar. Table 3.1 shows the characteristics of the 368 schools that met the first two criteria. Table 3.2 shows the characteristics of the 120 schools in the final sample. The average enrollment for the 368 schools that met the first two criteria was 765.21 and for the final sample of 120 was 628.59. The average percentage of LD students for the 368 schools was 9.40 and for the 120 schools was 9.22. The average percentage of ELL students in the group of 368 schools was 26.84 and for the group of 120 schools was 27.65. The average percentage for low-income students in the group of 368 schools was 76.22 and for the final sample of 120 schools was 70.98.

Table 3.1 Demographic information for the schools that met the first two criteria (N=368)

	N	minimum	maximum	mean	s.d.
Enrollment size	368	206	2172	765.21	320.24
% LD	368	0.70%	29.63%	09.40%	03.48%
% ELL	368	05.10%	91.80%	26.84%	16.14%
% low-income	368	10.00%	100.00%	76.22%	18.64%

Table 3.2 Demographic information for the included schools (N=120)

	N	minimum	maximum	mean	s.d.
Enrollment size	120	206	1542	628.59	307.52
% LD	120	03.58%	19.22%	09.22 %	03.38%
% ELL	120	07.15%	83.80%	27.65 %	17.70%
% low-income	120	29.42%	100.00%	70.98%	16.58%

Table 3.3 summarizes the mean and standard deviation (s.d.) values for the 120 schools included in the final sample. The mean percentage of LD students was 9.09. The individual states mean percentage of LD students ranged from 8.63 to 10.02. The small range of these means reflects the limitations on the number of students that can be identified as, "learning disabled." The mean value for the 120 schools on the percentage of ELL students was 28.82. Of the four states in the sample, New Mexico had the largest percentage of English language learners (46.83%). For percentage of low-income students, the values for Oklahoma, New Mexico, and Kansas were nested in a tight range of 63.12 to 68.57. However, the same measure for Texas was 81.57. The mean percentage of low-income students in the total group of 120 schools was 75.68.

Table 3.3 Mean and standard deviation (s.d.) for percentages of LD, ELL, and low-income students in sampled schools (N=120)

State	Sample size	Percentage of LD students		Percentage of ELL students		Percentage of low-income students	
		mean	s.d.	mean	s.d.	mean	s.d.
TX	35	09.57	3.96	27.71	11.92	81.57	15.94
OK	27	10.02	2.91	15.99	08.78	63.12	12.34
NM	27	08.67	2.98	46.83	21.92	68.57	15.51
KS	31	08.63	3.32	21.03	09.97	67.98	16.17
Total	120	09.22	3.38	27.65	17.70	70.98	16.58

Final Sampled Population

After limiting this set of 368 schools by removing schools that met the three additional criteria mentioned above, the distribution of schools in the final sample by state was as follows: Kansas, 31; New Mexico, 27; Oklahoma, 27; Texas, 35. Each of the schools in the final sample had a percentage of LEP students at or above the mean percentage of LEP students in grades K-12 in that state's public schools.

Demographic information for the schools in the final sample is reported in Tables 3.4 to 3.7. The researcher learned several interesting facts from this data. First, the schools had a narrow range in the percentage of students they evaluate as learning disabled (see Table 3.4). Second, the schools in Texas and New Mexico had higher concentrations of English language learners (see Table 3.5). Third, the schools in the four states had similarly high percentages of low-income students, ranging from 63.12 to 81.57 (see Table 3.6).

Table 3.4 Mean, standard deviation (s.d.) and range for percentage of LD students in sampled schools (N=120)

State	Sample size	Percentage of LD students			
		mean	s.d.	minimum	maximum
TX	35	09.57	3.96	3.58	19.22
OK	27	10.02	2.91	4.77	16.70
NM	27	08.67	2.98	4.10	14.60
KS	31	08.63	3.53	4.74	17.54
Total	120	09.22	3.38	3.58	19.22

Table 3.5 Mean, standard deviation (s.d.) and range for percentage of ELL students in sampled schools (N=120)

State	Sample size	Percentage of ELL students			
		mean	s.d.	minimum	maximum
TX	35	27.71	11.92	16.37	66.73
OK	27	15.99	08.78	07.15	40.31
NM	27	46.83	21.92	17.40	83.80
KS	31	21.03	09.97	07.68	44.91
Total	120	27.65	17.70	07.15	83.80

Table 3.6 Mean, standard deviation (s.d.) and range for percentage of low-income students in sampled schools (N=120)

State	Sample size	Percentage of low-income students			
		mean	s.d.	minimum	maximum
TX	35	81.57	15.94	42.27	100
OK	27	63.12	12.34	29.42	90.15
NM	27	68.57	15.51	36.00	98.00
KS	31	67.98	16.17	39.32	91.75
Total	120	70.98	16.58	29.42	100.00

Table 3.7 Mean, standard deviation (s.d.) and range for number of student enrollment in sampled schools (N=120)

State	Sample size	Student enrollment			
		mean	s.d.	minimum	maximum
TX	35	912.31	284.12	289	15.42
OK	27	491.93	275.45	206	1194
NM	27	567.33	260.08	219	1424
KS	31	480.65	150.09	206	803
Total	120	628.59	307.52	206	1542

Survey Development

Validity

The researcher began by utilizing the following five COBRA goals for organizing the survey method items: 1) Background knowledge; 2) Experiential learning; 3) Word study and verbal concept formation; 4) Reading comprehension; 5) Study and application. The last of these goals was obtained by combining the following three of Al Fadda's (2004) seven COBRA goals into a single concept: goal 5, Study and practice; goal 6, Application of subject matter information; and, goal 7, School wide reading and study interventions. From the start, the researcher made the assumption that ELL teachers and LD teachers would use reading methods unique to their respective learners. This presented the challenge of identifying a critical mass of reading methods for which comparisons could be made. Thus, consolidation of goals five, six, and seven into a single concept allowed the researcher to develop more survey methods items for five goals while avoiding making the survey too long. The researcher believed that ELL teachers and LD teachers would focus their efforts on the immediate reading success of students in the five goals and subject matter teachers would extend this immediate success to additional applications of subject matter reading instruction. The researcher also believed that ELL teachers and LD teachers would embrace a school wide concept of reading instruction, but would restrict their methodologies to the unique needs of their learners.

Second, the researcher reviewed many journal articles, books, websites, and dissertations, and found an initial set of 148 important reading methods that suggest reading strategies for students with learning disabilities (LD) or English language learners (ELL). The researcher arranged these methods into five COBRA areas/categories: background knowledge, experiential learning, vocabulary, comprehension, and study and application. These areas correspond to different domains of strategies used to teach reading. Next, the researcher reviewed Al-Fadda's (2004) items and revised and combined several of them before selecting 17 for the current survey. Then the researcher crafted some additional items for ELL teachers and LD teachers. Chapter 2 included the literature review of each of the 44 selected reading methods in the final survey.

Next, the researcher used content-related evidence to assess whether or not the survey was measuring the proper subject matter. The researcher submitted the survey to a professional panel of experts in teaching reading strategies and asked them to look at it to make sure the researcher included all the pertinent strategies. The panel was comprised of one regular educator, three reading language arts educators, two ELL instructors and two LD educators. The researcher made several changes based on the feedback received from these professionals. Three of these experts worked closely with the researcher to revise the survey. Based on their advice, the researcher dropped several items (e.g., the reading items related to behavior management and paraprofessionals). The researcher then consolidated the remaining reading methods into 50 items (see Appendix B).

Finally, after reviewing the feedback from the pilot study, the researcher shortened the survey to 44 items by removing the six items with the lowest reliability scores. Of these 44 items, seven (Item 1 to item 7) were in the "background knowledge" category, six (Item 8 to Item 13) were in the "experiential learning" category, 10 (Item14 to Item 23) were in the "vocabulary" category, nine (Item 24 to Item 32) were in the "comprehension" category, and 12 (Item 33 to Item 44) were in the "study and application" category. The researcher also changed the names of the five categories to background knowledge, experiential learning, vocabulary, comprehension, and study and application.

In addition, the researcher made a few wording changes to several items based on comments provided by the pilot study's participants. Finally, the researcher added a few additional questions. Some required participants to respond to demographic-related questions such as teaching responsibility, school enrollment, years of teaching experience, and current level of teacher education. One asked participants to list and rate other reading strategies they use. The final survey instrument (see Appendix C) was 44 selected reading methods and focused on two types of teachers: teachers of English language learners and teachers of students with learning disabilities.

In conclusion, 17 (38.64 %) of the 44 items on the final survey were developed by revising or combining items on Al-Fadda's (2004) survey instrument, and 27 (61.36 %) of the items were new. The revised items from Al-Fadda's original instrument were concise explanations (item #2), word association brainstorming (item #3), experiential

writing (item #11), experiential engagement and reporting (item #12), list and define vocabulary instruction (item #17), word study (item #18), morphemic analysis (item #20), software-Internet use (item #23), skills instruction (item #25), basic reading patterns (item #27), hierarchy pattern (item #30), paired or group practice (item #36), tutoring (item #38), curriculum-referenced tests (item #43), and independent reading approaches (item #44).

The researcher's survey instrument was substantially different from Al-Fadda's. The reading methods in this current survey focused on teaching English language learners and students with learning disabilities whereas Al-Fadda's survey did not focus on special populations of learners and the teachers of these special populations.

Reliability

To show evidence of reliability, the researcher conducted a pilot study with 30 subjects: seven middle and high school teachers from Kansas who had ELL or LD students, 10 instructors of education from Kansas State University (one was still a doctoral student), six professors of special education from the University of Kansas, two professors of special education from the University of Texas, four ESL professors from the University of Florida, and one ESL instructor from the University of Missouri. The researcher used Split-half and Cronbach's Alpha scores to assess whether or not the survey consistently measured what it said it was measuring. Cronbach's Alpha was based on internal consistency: the correlation of items with all other items. Split-half was based on correlations between the first and second halves of the questionnaire. Since the researcher had five categories, each containing several questions, the researcher checked to make sure that these questions were consistent. When the researcher obtained the results of the pilot study, the researcher calculated reliability.

Table 3.8 reports the item ranks for the 50 survey items rated by the pilot group of 30 subjects. Mean and standard deviation (s.d.) scores are also reported for each survey item. Table 3.9 reports the mean, standard deviation (s.d.) and ranks for each of the five COBRA goals. Table 3.10 shows the Split-half (r=0.88) and Cronbach Alpha (0.89) reliability values for this study. Reliabilities from the Al-Fadda study (2004) and the Linn (2005) study showed very slightly different, but comparable values.

Table 3.8 Mean and standard deviation (s.d.) scores for the pilot survey (N=30)

Rank	Reading item	Reading method	Mean	s.d.	N
1	28	Oral paraphrase	4.40	0.72	30
1	29	Skills instruction	4.40	0.80	30
2	01	Visualization	4.38	0.90	30
2	02	Conversation	4.38	0.90	30
3	03	Concise explanation	4.27	0.90	30
4	17	Phonemic/ Phonological/ Awareness	4.07	1.00	30
4	24	Morphemic analysis	4.07	1.00	30
4	43	Information methods	4.07	0.90	30
5	07	Pre-reading questioning	4.03	0.80	30
6	26	Vocabulary graphic organizers	4.00	0.90	30
7	19	Inference-prediction	3.93	0.90	30
7	25	Relational methods	3.93	0.90	30
7	32	Think-alouds	3.93	1.20	30
7	33	Material graphic organization	3.93	1.10	30
7	47	Conferencing and coaching	3.93	1.20	30
8	21	Basic word study	3.90	0.90	30
9	08	Structured overview	3.87	1.00	30
9	23	Refining word associations	3.87	0.80	30
9	44	Textbook study methods	3.87	0.80	30
10	46	Advanced reading	3.83	1.10	30

Table 3.8 (continued)

Rank	Reading item	Reading method	mean	s.d.	N
11	41	Writing to learn	3.80	0.90	30
12	12	Multi-sensory approaches	3.77	1.10	30
12	30	Story grammar	3.77	1.10	30
12	31	Basic reading patterns	3.77	1.00	30
13	06	Think-pair-share	3.73	0.90	30
13	40	Paired or group practice	3.73	0.90	30
14	38	Reading fluency	3.67	1.12	30
14	39	Mnemonics	3.67	1.21	30
14	49	Independent reading approaches	3.67	1.15	30
15	09	Building experience and language	3.63	1.30	30
15	22	Concept of definition	3.63	0.96	30
16	04	Word association brainstorming	3.60	1.13	30
16	11	Experiential engagement and reporting	3.60	0.97	30
16	20	List and define vocabulary instruction	3.60	1.07	30
17	42	Tutoring	3.57	1.25	30
18	37	Providing basic supports	3.53	1.38	30
19	05	Use of multi-media	3.50	1.17	30
20	10	Experiential writing	3.47	1.14	30
20	18	Homophones and homographs	3.47	1.04	30
21	48	Curriculum-referenced tests	3.43	1.17	30
22	34	Hierarchy pattern	3.43	0.97	30

Table 3.8 (continued)

Rank	Reading item	Reading method	mean	s.d.	N
23	35	Reading guides	3.33	0.92	30
24	27	Software-Internet use	3.17	1.21	30
25	15	Double-entry learning logs	3.10	1.16	30
25	36	Electronic texts	3.10	1.12	30
26	13	Language experience with dictated stories	3.03	1.13	30
27	14	Listening-writing	3.00	1.14	30
28	50	Readiness testing	2.87	1.28	30
29	16	RAFT (role-audience-format-topic)	2.77	1.01	30
29	45	Study websites	2.77	1.04	30

Table 3.9 Mean and standard deviation (s.d.) scores of each category/goal for the pilot survey

Rank	COBRA goals	mean	s.d.
1	Goal three: Vocabulary	4.04	1.01
2	Goal one: Background knowledge	3.97	1.00
3	Goal four: Comprehension	3.78	1.01
4	Goal five: Study and application	3.60	1.21
5	Goal two: Experiential learning	3.43	1.00

Table 3.10 Reliabilities for several COBRA-based surveys

Study	Date	Sample size (N)	Spearman Brown Split-Half	Cronbach Alpha
Current study	2007	120	0.88	0.89
Current pilot study	2007	30	0.91	0.95
Linn's study	2005	205	0.80	0.90
Al-Fadda's study	2004	205	0.87	0.89
Al-Fadda's pilot study	2003	90	0.86	0.92

Survey Implementation

Survey Mode

The researcher conducted a self-administered mail survey. This was preferable to interviews because it would be too time consuming to interview these ELL and LD teachers in person, telephone interviews would be too expensive, and e-mail would be too easily ignored.

Number and Types of Contacts

First, the researcher mailed a cover letter (see Appendix F) with two packages to the principals of the 120 schools in the sample. The letter asked the principals of the 120 schools to distribute a package containing a survey (see Appendix C), a consent form (see Appendix E), a cover letter (see Appendix G) and a stamped envelope to one of their school's ELL teachers and one of their school's LD teachers. It also explained the purpose of the researcher's study and the benefits it would provide for teachers. The cover letter for teachers explained why the researcher needed ELL and LD teachers to fill out the survey. A week later, the researcher sent a post-card (see Appendix H) to the principal of each school to thank the principal and the four teachers for responding and to remind those who have not yet done so to complete the questionnaire soon. One week after that, the researcher mailed principals a replacement questionnaire (identical to the original survey) for each teacher who had not yet returned the survey. Two weeks later the researcher sent a letter (see Appendix I) via priority mail to the principals whose teachers had still not returned their survey. This letter provided personal information and explained again how valuable the teachers' responses were to the researcher.

Research Question and Data Analysis

The following comparisons were made to analyze the survey data obtained from the study:

Research Question1. What was the total distribution of responses (ELL and LD teachers) to each of the reading methods survey items? The researcher displayed the mean and standard deviation (s.d.) scores for ELL and LD teachers as a combined group to reveal the most important methods as reported by these two groups of teachers.

Research Question 2. What was the distribution of responses to each of the reading methods survey items as reported separately for ELL and LD teachers? The researcher displayed the mean and standard deviation (s.d.) scores for the two groups (ELL and LD) of teachers separately to provide an observational basis for differences between the two groups' ratings of the reading methods survey items.

Research Question 3. What significant differences existed between the ratings of ELL and LD teachers for each of the reading methods survey items? Here the researcher used the ANOVA method for making direct comparisons of group responses to each of the reading methods survey items in order to determine if the two groups of teachers had significantly different perceptions of each reading survey method.

Research Question 4. What significant differences existed between the ratings of ELL teachers and LD teachers for the group of reading methods survey items that reflected each of the respective instructional goals? Here the researcher summed mean scores for the methods ratings for each of the instructional goals and made ANOVA comparisons by teacher group in order to determine if these two groups of teachers had significantly different perceptions of the reading instructional goals.

The researcher used a coding system for the surveys which allowed identification and sorting of schools' responses by: 1) percentage of ELL enrollments for each school (higher versus lower), 2) percentage of low-income enrollments (higher versus lower), and, 3) school size (larger versus smaller). The survey also included requested teacher information on: 4) teacher education level (top 50% versus bottom 50%), and, 5) teacher experience level (top 50% versus bottom 50%). The researcher received an adequate number of responses in order to provide some follow-up insight into the relationship

between teacher variables and perceived importance of the five COBRA goals. These teacher variables included ELL enrollment, low-income enrollment, school size, level of education, and years of experience. These are the five variables explained above. This follow-up analysis produced five additional research questions explained below.

Research Question 5. What significant differences exist between the ratings of ELL teachers from schools with a higher percentage of ELL students and from schools with a lower percentage of ELL students and LD teachers from schools with a higher percentage of ELL students and from schools with a lower percentage of ELL students for the group of reading methods survey items that reflect each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals.

Research Question 6. What significant differences exist between the ratings of ELL teachers from schools with a higher percentage of low-income students and from schools with a lower percentage of low-income students and LD teachers from schools with a higher percentage of low-income students and from schools with a lower percentage of low-income students for the group of reading methods survey items that reflect each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals

Research Question 7. What significant differences exist between the ratings of ELL teachers from schools with larger enrollments and from schools with lower enrollments and LD teachers from schools with larger enrollments and from schools with smaller enrollments that reflect each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals

Research Question 8. What significant differences existed between the ratings of ELL teachers from the top 50% of the ELL teachers based on educational attainment and from the bottom 50% of the ELL teachers based on educational attainment and LD teachers from the top 50% of the LD teachers based on educational attainment and from the bottom 50% of the LD teachers based on educational attainment for the group of reading methods survey items that reflected each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals.

Research Question 9. What significant differences existed between the ratings of ELL teachers from the top 50% of the ELL teachers based on years of experience and from the bottom 50% of the ELL teachers based on years of experience and LD teachers from the top 50% of the LD teachers based on years of experience and from the bottom 50% of the LD teachers based on years of experience for the group of reading methods survey items that reflected each of the five COBRA goals? Here the researcher reported findings from the GLM MANOVA statistic as the first comparison of the four groups and then reported significant ANOVA comparisons by pairs of teacher groups in order to determine if these four groups of teachers had significantly different perceptions of the five reading goals.

Protection of Human Rights and Confidentiality

In August 2006, the researcher petitioned the Committee for Research Involving Human Subjects (IRB) (See Appendix D) at Kansas State University for exemption from review. In this survey research, every effort was made to insure confidentiality of the respondents including names of individuals and schools. For example, the self-addressed envelope, which was used to mail survey instrument did not have the school name or address for the returned survey. Further, the completed surveys were separated from the informed consent form (See Appendix E) and stored in a different location.

CHAPTER 4 - Data Analysis

Survey Follow-ups and Return Rates

Table 4.1 summarizes the mail out dates for the survey and follow up activities for increasing the total survey return rate. Data collection required a ten-week period which was about four weeks longer than anticipated. In addition to the first mailing of the survey, the researcher sent out a reminder post card, three additional mailings of the survey and ended the process with an email reminder. A main challenge in managing the survey return process was that surveys were requested from both ELL and LD teachers. Thus, it required constant effort and multiple reminders to make sure both teacher groups from the schools returned their surveys.

Table 4.1 Dates for survey mail-outs and follow-up activities

Activity	Dates
First survey mail out	October 04, 2006
Postcard reminder mail out	October 17, 2006
Second mailing of surveys	October 30, 2006
Third mailing of surveys	November 10, 2006
Fourth mailing of surveys	November 24, 2006
E-mail reminders	December 01, 2006
Data collection terminated	December 18, 2006

Table 4.2 reports the return rates for the schools by the states and for the total. The total of 56.67% returned surveys falls within the acceptable range. New Mexico schools (70.37%) had the highest return rate, Kansas schools (67.74%) had the second highest return rate, and Oklahoma schools (55.56%) had the third highest return rate.

The Texas schools (37.14%) had the lowest return rate and it was below 50%. As explained in chapter 3, the researcher selected schools for this study with ELL enrollments at or above the mean ELL enrollment for the four states in this study. Many of the Texas schools were located along the Texas-Mexico border (Laredo, El Paso, Brownsville, etc) where second language student enrollment is very high, in some cases 100%. The return rate was extremely low from the border schools in that they returned only a few surveys and they were resistant to follow up requests regardless of the mode of the request (repeated mailings, post-card reminders, and e-mail requests). It is possible that schools with very high ELL enrollments along this border area had significantly different perceptions of the communications curriculum and the English language reading curriculum was embedded in a Spanish-English dual language curriculum. This may partially explain a low return rate from the Texas-Mexico border schools.

Table 4.2 Summary of schools that returned surveys by state and by total (sample= 120 schools)

State	Schools sample n	Schools return (n)	Schools return %
Kansas	31	21	67.74
Oklahoma	27	15	55.56
New Mexico	27	19	70.37
Texas	35	13	37.14
Totals/averages	120	68	56.67

Table 4.3 shows the survey return rates for ELL and LD teachers, separately for each state and overall. The return rates varied greatly by state. The returns from Oklahoma (40.74% ELL and 70.37% LD) and Texas (31.43% ELL and 20% LD) showed large percentage differences. The researcher completed data analysis on the total groups of teachers (66 ELL, 66 LD and132 total). Thus, differences between the return rates for the two teacher groups from each state were not a concern. As mentioned earlier, the researcher sent multiple reminders to make sure both teacher groups from the schools returned their surveys.

Table 4.3 Surveys returned by ELL and LD teachers by each state and by the total survey return (targeted teachers= 120 ELL and 120 LD)

State	n teacher surveys sought	n teacher surveys returned	% teacher surveys returned
Kansas			
ELL teachers	31	24	77.42
LD teachers	31	21	67.74
Oklahoma			
ELL teachers	27	11	40.74
LD teachers	27	19	70.37
New Mexico			
ELL teachers	27	20	74.07
LD teachers	27	19	70.37
Texas			
ELL teachers	35	11	31.43
LD teachers	35	07	20.00
Totals/average	240	132	55.00

Table 4.4 shows the mean enrollment, ELL mean enrollment, and low-income mean enrollment for the 68 schools from which surveys were received, and the mean years of teachers' teaching experience for the 132 participants from which surveys were received. The overall mean enrollment for the 68 schools was 722.57 with a standard deviation of 382.57. The ELL mean enrollment for the 68 schools was 181.00 with a standard deviation of 190.00. The low-income mean enrollment for the 68 schools was 428.00 with a standard deviation of 280.44. The overall mean years of teachers' teaching experience for the 132 participants was 14.80 with a standard deviation of 10.33.

Table 4.4 School enrollment, ELL enrollment, low-income enrollment and years of teaching experience (mean and standard deviation)

Variable	N	mean	s.d.
School enrollment	68 schools	722.57	382.57
ELL enrollment	68 schools	181.00	190.00
Low-income enrollment	68 schools	428.00	280.44
Years of teaching experience	132 teachers	14.80	10.33

Table 4.5 shows the distribution of education levels for responding teachers. Eighteen (13.64%) teachers had bachelor's degrees. Forty-eight (36.36%) teachers had bachelor's degrees +hours. Twenty-eight (21.21%) teachers had master's degrees. Thirty-seven (28.03%) teachers had master's degrees +hours. One (0.76%) teacher had a doctorate degree. Overall, teachers with bachelor's degrees +hours were the largest group.

Table 4.5 Distribution of education levels for responding teachers (N= 132)

Category	n teachers	% teachers
Bachelor's degree	18	13.64
Bachelor's degree + hours	48	36.36
Master's degree	28	21.21
Master's degree + hours	37	28.03
Doctorate	01	00.76
Totals	132	100.00

Table 4.6 summarizes the mean and standard deviation scores for each survey item rated by the ELL and LD teachers as a combined group (N=132). The survey items are reported in ranked order (high to low) based on the mean score for each. In reporting this table, the researcher viewed the surveyed teachers as specialists in their respective fields rather than mainstream or subject matter teachers and interpreted the results in that context.

First, the researcher notes a fairly tight range (1.15) for the minimum (mean=3.34) and the maximum (mean=4.49) mean scores. In the first group of eight items rated 4.49 through 4.27, the researcher found three items (concise explanations=4.39, conferencing and coaching=4.36, and tutoring=4.33) that support an interventionist perspective of specialized teachers. A second trend seen in this group of highest rated survey items are communicative and process emphases. The conversation item (mean=4.34) and the oral paraphrase and summary item (mean=4.27) reflect a communicative perspective, while visualization (mean=4.43) and information methods (mean=4.30) reflect the process perspective. The highest rated item for the survey results (skills instruction=4.49) reflects a conventional view of reading comprehension.

The next group of reading methods (means=4.02-4.24) included a large group of 18 methods. The item for providing supports (mean=4.22) stood alone as an interventionist method. There was a second group of five methods which may be characterized as communicative in nature: reading fluency (mean=4.24), paired or group practice (mean=4.21), multi-sensory approaches (mean=4.15), think-alouds (mean=4.13), and, use of multi-media (mean=4.12). Finally, there was a group of 12 methods which may be characterized as standard reading methods: structured overview (mean=4.22), material graphic organization (mean=4.21), vocabulary graphic organizers (mean=4.20), writing-to-learn methods (mean=4.16), morphemic analysis (mean =4.12), pre-reading questioning (mean=4.07), inference-prediction (mean=4.06), story grammar (mean=4.05), refining word associations (mean=4.05), textbook study methods (mean=4.03), advanced reading-study patterns (mean=4.19), and independent reading approaches (mean=4.02).

A third pool of survey items fell in a mean score range of 3.88 to 3.99. Four items reflected conventional reading methods of a basic nature: basic reading patterns

(mean=3.99), word study (mean=3.95), list and define vocabulary instruction (mean=3.93), and, phonemic and phonological awareness (mean=3.90). There were three additional items which were communicative in nature and reflected integrations of language with experience: word association and brainstorming (mean=3.89), experiential writing (mean=3.93), and concept of definition (mean=3.91).

Below the score of 3.88 there were 10 remaining methods. The two lowest rated methods were software-Internet use (mean=3.57) and electronic texts (mean=3.34). A previously reported mean rating of 4.12 for use of multi-media shows that these specialists view software use, Internet use, and electronic and interactive electronic texts as substantially less important than the concept of multi-media. There are five methods in this lowest rated group of 10 items that could be characterized as methods more appropriately used by the mainstream teacher: curriculum-referenced tests (mean=3.86), relational methods (mean=3.85), homophones and homographs (mean=3.70), hierarchy pattern (mean=3.69), and reading guides (mean=3.66). Three methods in this bottom pool of methods could be characterized as communicative: building experience and language (mean=3.86), Think-pair-share (mean=3.86,) and experiential engagement and reporting (mean=3.86). Finally, the mean for use of mnemonics (mean=3.85) suggests that this memory process is of lesser importance than communicative processes and conventional reading methods.

Table 4.6 Summary of teachers' responses (ELL and LD combined) to the 44 survey items with rank order of mean scores, high to low

Rank	Item	Reading method	N	mean	s.d.
1	25	Skills instruction. Teaching the reading comprehension skills of retelling, inference-prediction, sequence, main idea, fact versus opinion, and drawing conclusions.	132	4.45	0.77
2	08	Visualization. Using visual prompts or asking students to visualize and imagine elements of the information they are reading and learning.	132	4.44	0.82
3	02	Concise explanations. Identifying core concepts and presenting them to students in brief but concise explanations in order to establish a base of student background knowledge.	132	4.41	0.75
4	42	Conferencing and coaching. Conferencing with each student to gain an understanding of their learning problems and coaching them with methods for solving those learning problems.	132	4.35	0.86
5	01	Conversation. Establishing a conversational setting and coaching students to discuss personal experiences or opinions that relate to the topic of an upcoming reading assignment.	132	4.34	0.84
6	38	Tutoring. Having students engage in additional reading, learning and study development with the help of peer, cross-age, or paraprofessional tutors who are in the classroom.	132	4.32	0.78
7	39	Information methods. Teaching students strategies for note-taking, highlighting, outlining and memorization for the purposes of clarifying and organizing their thoughts as well as consolidating information.	132	4.35	0.86
8	34	Reading fluency. Having students re-read materials to develop the ability to read quickly and accurately.	132	4.25	0.87
9	24	Oral paraphrase and summary. Teaching students how to orally paraphrase or orally summarize the content of a reading passage.	132	4.24	0.81
10	07	Structured overview. When introducing a reading or story, presenting a			

Table 4.6 (continued)

Rank	Item	Reading method	N	mean	s.d.
		vocabulary web to familiarize students with its keywords and main points.	132	4.22	0.80
11	33	Providing supports. Taking notes for students, reading information to them, reading test items to them during an exam, or listening to their oral reading.	132	4.22	0.91
12	29	Material graphic organization. Teaching students to use charts, diagrams, or graphic organizers to help them better understand the organization of reading material.	132	4.20	0.83
13	36	Paired or group practice. Having students work in pairs or groups to study the spelling and meaning of words from passages they have read, and having them practice asking and answering each other's questions over these passages to reinforce comprehension.	132	4.20	0.82
14	22	Vocabulary graphic organizers. Using graphic organizers with students such as concept maps, semantic maps, spider maps, and cognitive maps in order to reinforce word relationships and establish the main idea.	132	4.17	0.86
15	41	Advanced reading-study patterns. Teaching students the text patterns of compare-contrast, cause-effect, and problem-solution.	132	4.17	0.86
16	37	Writing to learn. Having students write short answers, paragraphs, and essays to demonstrate their knowledge and application of subject matter information.	132	4.14	0.88
17	13	Multi-sensory approaches. Using tracing, hearing, writing, and seeing as a means of integrating basic experiences with language development.	132	4.13	1.06
18	28	Think-alouds. Demonstrating effective reading comprehension applications to students orally and probing students to respond about how they completed their reading.	132	4.12	0.90
19	04	Use of multi-media. Providing students with multimedia on the topic,			

Table 4.6 (continued)

Rank	Item	Reading method	N	mean	s.d.
including video, so that they will have a meaningful context for reading and learning.			132	4.11	0.92
20	20	Morphemic analysis. Teaching students the meanings of common prefixes, suffixes, and root words to help them pronounce and decode unfamiliar words and to refine their meanings.	132	4.10	0.88
21	06	Pre-reading questioning. Asking students to formulate questions about their reading, including listing what they know about the topic and what they don't know or need to learn.	132	4.08	0.90
22	16	Inference-prediction. Using sentences and passages with missing words to teach students to predict a word or idea based on its position in a sentence or passage.	132	4.08	0.93
23	26	Story grammar. Asking students to fill out a worksheet that has prompts for setting, plot, character, goals, events and outcomes when they read fiction or biographies.	132	4.07	0.96
24	19	Refining word associations. Teaching students to recognize and use antonyms, synonyms and multiple meanings of words.	132	4.05	0.84
25	40	Textbook study methods. Guiding students through a series of textbook activities such as outlining, concept mapping, guided reading, skimming, and textbook reading activities such as SQ3R.	132	4.02	0.95
26	44	Independent reading approaches. Using methods and programs such as sustained silent reading or Accelerated Reader in order to provide reading practice and help build positive attitudes toward reading.	132	4.02	1.03
27	27	Basic reading patterns. Teaching comprehension patterns of definition, description, sequence, and question-answer relationships (QARs).	132	3.98	0.88
28	18	Word study. Teaching students to engage in word study by sounding out word			

Table 4.6 (continued)

Rank	Item	Reading method	N	mean	s.d.
parts, using context clues, and studying the dictionary for word pronunciation and word definition.			132	3.95	1.07
29	03	Word association brainstorming. Prior to assigning a reading, asking students about its main topic by providing a stimulus word such as "China," then asking them to list vocabulary that they associate with the word.	132	3.94	1.04
30	11	Experiential writing. Having students write brief explanations, captions, or labels for cartoons, pictures, maps, charts, graphs, drawings, etc.	132	3.93	0.95
31	17	List and define vocabulary instruction. Making use of direct instruction in which the teacher: 1) says the word, 2) displays the word, 3) uses the word in a sentence, 4) asks students to write an original sentence using the word, and, 5) gives a precise definition for the word.	132	3.92	1.15
32	10	Concept of definition. Asking students to make multiple associations when studying subject matter words by responding to prompts such as: How is the word pronounced? What is it? What does it look like? Can you give an example of it? What would you compare this to?	132	3.91	0.99
33	14	Phonemic and phonological awareness. Teaching students how to blend phonemes, decode new words, segment words into the phonemes, and to be aware of phonemes and larger spoken units such as syllables, onsets, and rhymes.	132	3.91	1.08
34	09	Building experience and language. Using role-playing and discussion of the experience so that students will convert their experiences into words and verbal concepts.	132	3.89	0.94
35	05	Think-pair-share. Asking students to list what they know about a topic before they read and then having them work with another to share and consolidate this background information.	132	3.87	1.00

Table 4.6 (continued)

Rank	Item	Reading method	N	mean	s.d.
36	12	Experiential engagement and reporting. Teaching students to engage in an experience through watching and listening, and then report the experience through telling or writing.	132	3.87	0.94
37	35	Mnemonics. Teaching students to use devices such as acronyms to help them remember what they have learned.	132	3.86	1.03
38	43	Curriculum-referenced tests. Using tests designed around important subject area concepts or standards to measure students' subject matter knowledge.	132	3.86	1.01
39	21	Relational methods. Teaching categorization, classification, list-group-label, and word sorts as vocabulary methods aimed at getting students to form basic information concepts.	132	3.85	1.02
40	15	Homophones and homographs. Asking students to generate homophone pairs and homograph pairs to help them identify the differences between words with the same pronunciation or words with the same spelling.	132	3.73	1.08
41	30	Hierarchy pattern. Teaching students about hierarchical organization patterns through tasks of sequence, categorization, classification, and concept mapping.	132	3.65	0.94
42	31	Reading guides. Having students respond in writing to teacher-written prompts as they read assigned text.	132	3.64	1.04
43	23	Software-Internet use. Using vocabulary software or Internet resources for vocabulary practice, possibly including the use of second language translations.	132	3.55	1.14
44	32	Electronic texts. Teaching students to use online text comprehension features such as interactive prompts, sound, animation, and video.	132	3.33	1.16

Table 4.7 reports the mean scores for the teachers' responses to the 44 survey items with reporting separated by the two teacher groups. The items are listed in ranked order by the mean scores for the ELL teacher group. Table 4.8 reports the results of the ANOVA used to compare the variance in the responses of the ELL teachers to the variance in responses of the LD teachers for each of the 44 survey items. Eight survey item differences were found and these are indicated in Table 4.7, Table 4.8 and summarized in Table 4.9.

Eight items had between-group F scores that met the researcher's criterion for significance ($p<.05$): Items 1, 9, 11, 12, 21, 31, 33, and 44. ELL teachers rated item 1, conversation, (mean=4.48) as more important than did LD teachers (mean=4.20) ($p=.048$). As shown in Table 4.7, this item was the second most important for ELL teachers and the tenth most important for LD teachers. This was the only item for goal one for which the responses by ELL and LD teachers were significantly different. ELL teachers rated item 9, building experience and language, (mean=4.06) as more important than did LD teachers (mean=3.71) ($p=.032$). As shown in Table 4.7, this item was the twenty-fifth most important for ELL teachers and the thirty-seventh most important for LD teachers. ELL teachers rated item 11, experiential writing, (mean=4.11) as more important than did LD teachers (mean=3.76) ($p=.035$). As shown in Table 4.7, this item was the twenty-third most important for ELL teachers and the thirty-sixth most important for LD teachers. ELL teachers rated item 12, experiential engagement and reporting, (mean=4.14) as more important than did LD teachers (mean=3.61) ($p=.001$). As shown in Table 4.7, this item was the twenty-first most important for ELL teachers and the thirty-ninth most important for LD teachers. These were the only three items for goal two for which the responses by ELL and LD teachers were significantly different. ELL teachers rated item 21, relational methods, (mean=4.05) as more important than did LD teachers (mean=3.65) ($p=.026$). As shown in Table 4.7, this item was the twenty-ninth most important for ELL teachers and the thirty-eighth most important for LD teachers. This was the only item for goal three for which the responses by ELL and LD teachers were significantly different. ELL teachers rated item 31, reading guides, (mean=3.85) as more important than did LD teachers (mean=3.42) ($p=.018$). As shown in Table 4.7, this item was the fortieth most important for ELL teachers and the forty-second most important for

LD teachers. This was the only item for goal four for which the responses by ELL and LD teachers were significantly different. LD teachers rated item 33, providing supports, (mean=4.41) as more important than did ELL teachers (mean=4.03) (p=.016). As shown in Table 4.7, this item was the thirty-first most important for ELL teachers and the third most important for LD teachers. ELL teachers rated item 44, independent reading approaches, (mean=4.21) as more important than did LD teachers (mean=3.83) (p=.034). As shown in Table 4.7, this item was the sixteenth most important for ELL teachers and the thirty-fourth most important for LD teachers. These were the only two items for goal five for which the responses by ELL and LD teachers were significantly different.

Table 4.7 Summary of teachers' responses to the 44 survey items reported separately for ELL teachers and LD teachers with rank order of mean scores for ELL teachers, and summary listing of significant differences from ANOVA comparisons

ELL rank	Item	LD Rank	Reading method	ELL teachers mean	ELL teachers s.d.	LD teachers mean	LD teachers s.d	Sig.
1	08	8	Visualization	4.52	0.77	4.36	0.78	No
2	01	10	Conversation	4.48	0.75	4.20	0.90	Yes
3	02	4	Concise explanations	4.42	0.82	4.39	0.68	No
4	38	7	Tutoring	4.38	0.78	4.26	0.79	No
5	25	1	Skills instruction	4.33	0.73	4.58	0.79	No
6	29	17	Material graphic organization	4.30	0.84	4.09	0.82	No
7	22	18	Vocabulary graphic organizers	4.27	0.83	4.08	0.88	No
8	34	9	Reading fluency	4.27	0.87	4.23	0.87	No
9	24	8	Oral paraphrase and summary	4.26	0.83	4.23	0.80	No
10	39	6	Information methods	4.26	0.85	4.33	0.83	No
11	42	2	Conferencing and coaching	4.26	0.93	4.44	0.77	No
12	07	11	Structured overview	4.24	0.88	4.20	0.73	No
13	36	14	Paired or group practice	4.24	0.88	4.15	0.77	No
14	28	21	Think-alouds	4.23	0.82	4.02	0.97	No
15	37	20	Writing to learn	4.23	0.91	4.05	0.85	No
16	44	34	Independent reading approaches	4.21	0.89	3.83	1.13	Yes
17	20	23	Morphemic analysis	4.20	0.79	4.00	0.96	No
18	16	22	Inference-prediction	4.17	0.94	4.00	0.93	No
19	19	28	Refining word associations	4.17	0.83	3.94	0.84	No
20	41	13	Advanced reading-study patterns	4.17	0.94	4.18	0.78	No

Table 4.7 (continued)

ELL rank	Item	LD rank	Reading method	ELL teachers mean	ELL teachers s.d.	LD teachers mean	LD teachers s.d	Sig.
21	12	39	Experiential engagement and reporting	4.14	0.84	3.61	0.96	Yes
22	13	15	Multi-sensory approaches	4.12	1.06	4.14	1.07	No
23	11	36	Experiential writing	4.11	0.86	3.76	1.01	Yes
24	26	19	Story grammar	4.09	0.97	4.05	0.95	No
25	09	37	Building experience and language	4.06	0.94	3.71	0.91	Yes
26	40	25	Textbook study methods	4.06	0.94	3.98	0.97	No
27	04	12	Use of multi-media	4.05	0.97	4.18	0.88	No
28	06	16	Pre-reading questioning	4.05	0.88	4.11	0.91	No
29	21	38	Relational methods	4.05	1.03	3.65	0.98	Yes
30	18	29	Word study	4.03	1.07	3.88	1.07	No
31	33	3	Providing supports	4.03	1.07	4.41	0.68	Yes
32	10	33	Concept of definition	3.98	1.00	3.83	0.99	No
33	17	32	List and define vocabulary instruction	3.98	1.12	3.85	1.18	No
34	27	26	Basic reading patterns	3.98	0.94	3.97	0.82	No
35	14	31	Phonemic and phonological awareness	3.97	1.02	3.85	1.14	No
36	43	35	Curriculum-referenced tests	3.95	1.00	3.77	1.02	No
37	03	24	Word association brainstorming	3.89	1.07	3.98	1.02	No
38	05	30	Think-pair-share	3.89	1.02	3.85	0.98	No
39	15	40	Homophones and homographs	3.85	1.14	3.61	1.01	No
40	31	42	Reading guides	3.85	1.03	3.42	1.01	Yes

Table 4.7 (continued)

ELL rank	Item	LD rank	Reading method	ELL teachers mean	ELL teachers s.d.	LD teachers mean	LD teachers s.d	Sig.
41	30	41	Hierarchy pattern	3.79	0.97	3.52	0.90	No
42	23	43	Software-Internet use	3.74	1.10	3.36	1.16	No
43	35	27	Mnemonics	3.74	1.10	3.97	0.94	No
44	32	44	Electronic texts	3.42	1.18	3.23	1.15	No

Table 4.8 Summary of one-way ANOVA comparisons of mean survey response scores for ELL teachers to mean survey response scores for LD teachers for each of the 44 survey items

Item	Reading method	ELL mean	LD mean	F	P
01	Conversation	4.48	4.20	4.00	0.05*
02	Concise explanations	4.42	4.39	0.05	0.82
03	Word association brainstorming	3.89	3.98	0.25	0.62
04	Use of multi-media	4.05	4.18	0.72	0.40
05	Think-pair-share	3.89	3.85	0.07	0.80
06	Pre-reading questioning	4.05	4.11	0.15	0.70
07	Structured overview	4.24	4.20	0.11	0.75
08	Visualization	4.52	4.36	1.12	0.29
09	Building experience and language	4.06	3.71	4.68	0.03*
10	Concept of definition	3.98	3.83	0.77	0.38
11	Experiential writing	4.11	3.76	4.56	0.04*
12	Experiential engagement and reporting	4.14	3.61	11.43	0.01*
13	Multi-sensory approaches	4.12	4.14	0.01	0.94
14	Phonemic and phonological awareness	3.97	3.85	0.41	0.52
15	Homophones and homographs	3.85	3.61	1.68	0.20
16	Inference-prediction	4.17	4.00	1.05	0.31
17	List and define vocabulary instruction	3.98	3.85	0.47	0.50
18	Word study	4.03	3.88	0.66	0.42
19	Refining word associations	4.17	3.94	2.44	0.12
20	Morphemic analysis	4.20	4.00	1.66	0.20
21	Relational methods	4.05	3.65	5.05	0.03*
22	Vocabulary graphic organizers	4.27	4.08	1.74	0.19
23	Software-Internet use	3.74	3.36	3.71	0.06
24	Oral paraphrase and summary	4.26	4.23	0.05	0.83

Table 4.8 (continued)

Item	Reading method	ELL mean	LD mean	F	p
25	Skills instruction	4.33	4.58	3.37	0.07
26	Story grammar	4.09	4.05	0.07	0.79
27	Basic reading patterns	3.98	3.97	0.01	0.92
28	Think-alouds	4.23	4.02	1.85	0.18
29	Material graphic organization	4.30	4.09	2.16	0.14
30	Hierarchy pattern	3.79	3.52	2.81	0.10
31	Reading guides	3.85	3.42	5.74	0.02*
32	Electronic texts	3.42	3.23	0.95	0.33
33	Providing supports	4.03	4.41	5.93	0.02*
34	Reading fluency	4.27	4.23	0.09	0.77
35	Mnemonics	3.74	3.97	1.62	0.21
36	Paired or group practice	4.24	4.15	0.40	0.53
37	Writing to learn	4.23	4.05	1.41	0.24
38	Tutoring	4.38	4.26	0.79	0.38
39	Information methods	4.26	4.33	0.27	0.60
40	Textbook study methods	4.06	3.98	0.21	0.65
41	Advanced reading-study patterns	4.17	4.18	0.01	0.92
42	Conferencing and coaching	4.26	4.44	1.50	0.22
43	Curriculum-referenced tests	3.95	3.77	1.07	0.30
44	Independent reading approaches	4.21	3.83	4.59	0.03*

*p=Significantly different.

Table 4.9 Survey items for which the group comparison in Table 4.8 was significantly different along with the group scoring higher for that item

Item	Group with higher mean score
01. Conversation	ELL teachers
09. Building experience and language	ELL teachers
11. Experiential writing	ELL teachers
12. Experiential engagement and reporting	ELL teachers
21. Relational methods	ELL teachers
31. Reading guides	ELL teachers
33. Providing supports	LD teachers
44. Independent reading approaches	ELL teachers

Table 4.10 reports the mean scores for ELL and LD teachers' ratings of the five COBRA goals. Table 4.11 reports the results of the ANOVA used to compare the variance in the responses of the ELL teacher group to the variance in the responses of the LD teacher group to the five COBRA goals. ELL teachers rated goal two, experiential learning, (mean=4.16) significantly more important (p=0.33) in comparison to LD teachers ratings of this goal (mean=3.89). ELL teachers rated goal three, vocabulary instruction, (mean=4.04) significantly more important (p=.049) in comparison to LD teachers' ratings of this goal (mean=3.83). ANOVA comparisons for the two teacher groups on the goals of background knowledge, comprehension, and, study and application showed no significant differences. Table 4.12 reports the mean scores for the two teacher groups' ratings for the total of the 44 survey items. The mean rating for the 44 survey items for the ELL teacher group was 4.10 (s.d.=0.21) and the mean rating for the LD teacher group was 3.98 (s.d.=0.28). In addition, the 44 mean scores for the ELL teacher group were correlated to the 44 corresponding mean scores for the LD teacher group. The Pearson coefficient results (r=0.77, p=0.01) showed the correlation for the means of the two teacher groups for the 44 survey items to be significant and to be in the range of moderately-high correlations.

Table 4.10 Mean scores for the five COBRA goals (n=66 ELL teachers, n=66 LD teachers)

COBRA goals	ELL teachers mean	LD teachers mean
1. Background knowledge	4.13	4.12
2. *Experiential learning	4.16	3.89
3. **Vocabulary	4.04	3.83
4. Comprehension	4.05	3.93
5. Study and application	4.15	4.14

*p=.033

**p=.049

Table 4.11 ANOVA results comparing responses from ELL teachers to those from LD teachers

Five COBRA goals	MS	SS	F	p
1. Background knowledge	0.01	0.00	0.03	0.87
2. Experiential learning	2.10	4.43	4.67	0.03
3. Vocabulary	1.62	2.61	3.95	0.05
4. Comprehension	0.56	0.31	1.57	0.21
5. Study and application	0.01	0.00	0.03	0.85

Table 4.12 Mean scores for the total survey responses (44 survey items) for ELL and LD teachers, standard deviations, correlation (r)* of means (44 survey items) and the coefficient of determination (r^2)*

Group	N teachers	N survey items	mean	s.d.
ELL	66	44	4.10	0.21
LD	66	44	3.98	0.28

*Pearson correlation for ELL teacher and LD teacher mean scores, r=0.77, p=0.01, r^2=59%.

Interpretation of Tables 4.7 to 4.14

Table 4.12 shows that the Pearson Correlation score for the correlation between ELL means and LD means for the 44 items was 0.77. This score was statistically significant ($p = 0.01$). This score reveals that the two sets of means were significantly positively correlated. In addition, the mean rating given by the 66 ELL teachers was 4.10 (s.d.=0.21) and the mean rating given by the 66 LD teachers was 3.98 (s.d.=0.28). When looking at the ANOVA results comparing responses from ELL teachers to those from LD teachers in Table 4.11, we see that the responses of the two types of teachers were significantly different for two of the five COBRA goals: goal two, experiential learning ($p<.033$) and goal three, vocabulary ($p<.049$). The mean scores of goal two and goal three from ELL teachers (experiential learning, mean=4.16; vocabulary, mean=4.04) were significantly higher than those from LD teachers (experiential learning, mean=3.89; vocabulary, mean=3.83). It is noteworthy that ELL teachers placed much higher emphasis on communicative learning and vocabulary development than did LD teachers. This is probably because English language learners (ELLs) lack sufficient language and culture background to understand what they read and ELL teachers believe that by helping them experience language and learn more vocabulary, they will improve their ability to comprehend what they read. These two types of teachers placed similar importance on goal one, background knowledge, (ELL teachers, mean=4.13; LD teachers, mean=4.12). Activating students' prior knowledge is the foundation of learning, especially for English language learners (ELLs) and learning disabled (LD) students. It is also noteworthy that these two types of teachers weighed goal four, comprehension, (ELL teachers, mean=4.05; LD teachers, mean=3.93) as similarly important. LD teachers work with regular teachers to support students' learning of subject matter information as do ELL teachers. Thus, it is logical that scores on the comprehension goal would not differ significantly. ELL teachers and LD teachers placed strong emphasis on goal five, study and application, (ELL teachers, mean=4.15; LD teachers, mean=4.14). Again, a main task for ELL teachers and LD teachers is helping their students enter the mainstream classroom. In order to read and study independently, ELL students and LD students need to have the ability to apply reading strategies they have learned to what they are reading.

Table 4.7 reveals that eight of the 44 items were rated significantly different by ELL and LD teachers. For seven of the eight items, ELL teachers rendered significantly higher ratings in comparison to LD teachers. The only item for which LD teachers provided higher ratings than ELL teachers was *providing supports*. Looking at the nature of the seven items that ELL teachers rated higher than LD teachers, the researcher sees that ELL teachers placed higher value on experience and language connections. This includes methods of role-playing, discussion of role-playing experiences, observation and explanation of what is observed, and writing about experiential representations such as captioning or labeling cartoons, pictures, maps, charts, graphs, and drawings. In the goal area of vocabulary instruction, ELL teachers placed significantly higher value on morphemic analysis (prefixes, suffixes and root words) and on categorization, classification, grouping and labeling words. ELL teachers gave significantly higher ratings to use of reading guides. However, as shown in the next section, both groups placed use of reading guides in the group of lowest rated items.

In order to more fully interpret the similarities and differences between ELL and LD teachers' perceptions of reading methods, the researcher listed in Table 4.13 the ten highest-rated items for each of the two teacher groups. The table also indicates which of those items were rated significantly different by the two groups. There were eight items that were present in both teacher groups' ten highest-rated items:

08. Visualization
01. Conversation
02. Concise explanation
38. Tutoring
25. Skills instruction
34. Reading fluency
24. Oral paraphrase and summarization
39. Information study methods

Of these eight items, only item 1, conversation, was rated significantly different between the two groups of teachers. ELL teachers rated it significantly higher than did the LD teachers. The two items that were present in the ELL teachers' ten highest-rated items but not in the LD teachers' ten highest-rated items were:

29. Materials graphic organization

22. Vocabulary graphic organizers

The two items that were present in the LD teachers' ten highest-rated items but not in the ELL teachers' ten highest-rated items were:

42. Conferencing and coaching

33. Providing supports

The eight methods that were common to both groups' top ten rated items can be considered a "common core" of items. Both teacher groups deploy visualization instruction asking students to form images of the information. This is reinforced with the practice of establishing core background concepts with abbreviated concise explanations. For reading comprehension, the two teacher groups stress basic skills instruction (retelling, inference-prediction, sequence, main idea, fact versus opinion and drawing conclusions). This model of reading comprehension is extended through oral paraphrase and summarization of reading materials. ELL and LD teachers provide reading practice with oral reading to promote speed and fluency and reinforcement of reading skills by involving students in tutorials. Extension of comprehension skill is achieved through application of study methods through note-taking, highlighting and memorization.

While the two teacher groups share a core of eight highest-rated methods, ELL teachers augment this core with two additional highest-rated methods which are different from those of LD teachers. In addition, there is one item in the common core that is rated significantly higher by ELL teachers than by LD teachers: item 1, conversation. With this method, students are asked to engage in conversation about a reading topic and to explain personal experiences or opinions about the topic. ELL teachers also view materials structural methods as important in terms of material graphic organization and vocabulary graphic organizers. Materials graphic organization involves the use of charts and diagrams to organize information, while vocabulary organizers reflect the use of specifically named tools such as concept maps, semantic maps, spider maps, and cognitive maps. By using these tools, ELL teachers seek to build word relationships. ELL teachers also tend to emphasize the importance of students' immersing in language and practicing in language (Sturtevant, 1998; Vaughn and Bryant, 2002; Zhang and Schumm, 2000).

In contrast, LD teachers tend to emphasize the importance of how speech-language pathologists work with educators and parents to teach and model language activities that promote success (American Speech-Language-Hearing Association, 2007; Adult Literacy Reading, 2007). Two items were in LD teachers' top ten rated items but not in ELL teachers' top ten rated items: *conferencing and coaching* and *providing supports*. This is in line with the law, the Individuals with Disabilities Education Act (IDEA, 2004), which requires LD teachers to focus on providing accommodations and supports. Providing supports reflects compensatory methods such as LD teachers' efforts to compensate for students' limits by taking notes for students and reading test items to them during an examination. LD teachers rated this method significantly higher than did ELL teachers. Also, through conferencing and coaching, LD teachers seek to troubleshoot learning problems for students.

Table 4.14 shows the eight lowest-rated items for the two groups. There were four items that were present in both teacher groups' eight lowest-rated items:

32. Electronic texts
23. Software-Internet use
31. Reading guides
15. Homophones and homographs

As previously noted, even though ELL teachers rated *reading guides* significantly higher than did LD teachers, the item was in both groups' eight lowest-rated items. Writing is a form of communication and ELL teachers seem to emphasize the importance of practice with communication more than do LD teachers. *Think-pair-share*, *word association and brainstorming* and *curriculum-referenced tests* were among ELL teachers' eight lowest-rated methods. These three did not fall into the low group for LD teachers. Finally, four items were present in the LD teachers' eight lowest-rated items but not in the ELL teachers' eight lowest-rated items. They were:

30. Hierarchy pattern
12. Experiential engagement and reporting
21. Relational methods
09. Building experience and language

All except the hierarchy pattern were rated significantly higher by the ELL group of teachers. This shows again that ELL teachers placed much more emphasis on experiential learning and vocabulary development than did LD teachers.

Table 4.13 ELL and LD teachers' ten highest rated survey items

ELL teachers	mean	Rank	LD teachers	mean
08. Visualization	4.52	1	25. Skills instruction	4.58
01. [a]Conversation	4.48	2	42. Conferencing and Coaching	4.44
02. Concise explanation	4.42	3	33. [a]Providing supports	4.41
38. Tutoring	4.38	4	02. Concise explanation	4.39
25. Skills instruction	4.33	5	08. Visualization	4.36
29. Materials graphic organization	4.30	6	39. Information study methods	4.33
22. Vocabulary graphic organizers	4.27	7	38. Tutoring	4.26
34. Reading fluency	4.27	8	34. Reading fluency	4.23
24. Oral paraphrase and summarization	4.26	9	24. Oral paraphrase and summarization	4.23
39. Information study method	4.26	10	01. Conversation	4.20

[a] Item rated significantly higher when identical items between teacher groups were compared

Table 4.14 ELL and LD teachers' eight lowest rated survey items

Reading item	ELL mean	Reading item	LD mean
32. Electronic texts	3.42	32. Electronic texts	3.23
35. Mnemonics	3.74	23. Software-Internet use	3.36
23. Software-Internet use	3.74	31. *Reading guides	3.42
31. *Reading guides	3.85	30. Hierarchy pattern	3.52
15. Homophones and homographs	3.85	15. Homophones and homographs	3.61
05. Think-pair-share	3.89	12. *Experiential engagement/reporting	3.61
		*(ELL mean)	4.14
03. Word association Brainstorming	3.89	21. *Relational methods	3.65
		* (ELL mean)	4.05
43. Curriculum-referenced tests	3.95	09. *Building experience and language	3.71
		*(ELL mean)	4.06

Note. The items are listed in order with lowest-rated at the top.

*Rated significantly different in comparisons of identical items.

Subgroup Reporting and Comparisons

As explained in chapters 1 and 3, through survey coding and subject self-reporting, the researcher was able to gather school and teacher information necessary to subdivide the ELL and LD teacher groups into two groups based on each of five subgroup variables. The five variables were: the school's proportion of ELL enrollment (larger percentage of ELL enrollment versus smaller percentage of ELL enrollment), the school's proportion of low-income enrollment (larger percentage of low-income enrollment versus smaller percentage of low-income enrollment), the size of the school's enrollment (larger enrollment versus smaller enrollment schools), teachers' level of education (top 50% of the teachers based on educational attainment versus bottom 50% of the teachers based on educational attainment), and, teachers' level of experience (top 50% of the teachers based on years of experience versus bottom 50% of the teachers based on years of experience). The comparisons of the five variable subgroups were performed on the mean COBRA goal scores for the four teacher groups within each variable. The primary analysis for each variable was through the two by two factorial design with the GLM MANOVA statistic. Follow up analyses were done through ANOVA comparisons to identify significant subgroup differences.

ELL Enrollment Variable

Table 4.15 reports the mean percentage ELL enrollments for the four teacher groups. Table 4.15 shows that thirty-three ELL teachers were from higher ELL enrollment schools. The mean percent ELL enrollment for these schools was 38.17% with a standard deviation of 15.49%. Thirty-three ELL teachers were from lower ELL enrollment schools. The mean percent ELL enrollment for these schools was 17.43% with a standard deviation of 5.46%. The mean percent ELL enrollment for all of the sixty-six ELL teachers' schools was 27.80% with a standard deviation of 15.56%. In addition, thirty-three LD teachers were from higher ELL enrollment schools. The mean percent ELL enrollment for these schools was 43.09% with a standard deviation of 16.38%. Thirty-three LD teachers were from lower ELL enrollment schools. The mean percent ELL enrollment for these schools was 14.01% with a standard deviation of 5.54%. The mean percent ELL enrollment for all of the sixty-six LD teachers' schools

was 28.55% with a standard deviation of 18.89%. Using a one-way ANOVA procedure, the researcher compared frequency distributions of ELL enrollments in the higher ELL enrollment schools (ELL versus LD teacher groups) and found no significant differences ($p=0.29$) in the distribution of ELL enrollments. The same procedure was followed for lower ELL enrollment schools. The comparison of ELL enrollments in the lower ELL enrollment groups (ELL versus LD teacher groups) showed no significant differences ($p=0.12$) in the distribution of ELL enrollments.

Table 4.15 Mean percentages and standard deviations for ELL enrollment for numbers of teachers in schools with higher ELL enrollment and numbers of teachers in schools with lower ELL enrollments (ELL and LD teachers)

School group	ELL teachers			LD teachers			
	n	m% ELL	s.d.	n	m% ELL	s.d.	p
Higher % ELL enrollment							
	33	38.17	15.49	33	43.09	16.38	0.29
Lower % ELL enrollment							
	33	17.43	5.46	33	14.01	5.54	0.12
Totals/averages							
	66	27.80	15.56	66	28.55	18.89	0.28

m%ELL= The percentage of ELL student enrollment for each school group

Table 4.16 reports the mean and standard deviation scores for responses to the five COBRA goals by ELL teachers (higher vs. lower ELL enrollment schools) and by LD teachers (higher vs. lower ELL enrollment schools). Tables 4.16 and 4.17 report the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals. There were significant differences ($p<.03$) among the four teacher groups for goal two, experiential learning. Table 4.18 reports the follow up ANOVA comparisons used to identify specific subgroup differences. Only significant differences are reported in Table 4.18. The significant group differences ($p<.05$) were shown to be between higher ELL school enrollment ELL teachers (mean=4.18, s.d.=0.65) and lower ELL school enrollment LD teachers (mean=3.86, s.d.=0.80) on the experiential learning goal. Table 4.16 and Table 4.17 also show significant differences ($p<.05$) among the four teacher groups for goal three, vocabulary instruction. Table 4.18 reveals that the significant group differences ($p<.05$) were between lower ELL school enrollment ELL teachers (mean=4.05, s.d.=0.60) and lower ELL school enrollment LD teachers (mean=3.78, s.d.=0.74) on the vocabulary variable.

The ELL enrollment factor in terms of larger versus smaller percentage of ELL student enrollment did not produce a distinct effect in this subgroup analysis. The differences were limited to the COBRA goals for experiential learning and for vocabulary instruction. LD teachers from schools with a lower percentage of ELL students did show a significant difference from the ELL teacher groups, however, LD teachers from schools with a lower percentage of ELL students did not differ from the LD teachers from schools with higher percentage of ELL students. The average percentage of the ELL enrollments in all four group conditions did exceed 10% (range=14.01% to 43.09%), thus, it may be important to include a small ELL enrollment school (0-9%) group in future research.

Table 4.16 Mean and standard deviation for the five COBRA goals by teacher type (ELL vs. LD) and percent of students who are English language learners (higher vs. lower)

	ELL teachers				LD teachers			
	Higher ELL		Lower ELL		Higher ELL		Lower ELL	
COBRA goals	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Background knowledge	4.12	0.67	4.17	0.62	4.06	0.47	4.20	0.56
*Experiential learning	4.18	0.65	4.13	0.64	3.94	0.59	3.86	0.80
**Vocabulary	4.04	0.72	4.05	0.60	3.86	0.48	3.78	0.74
Comprehension	4.13	0.62	3.93	0.62	3.91	0.52	3.89	0.62
Study and application	4.13	0.57	4.17	0.51	4.11	0.33	4.16	0.59

Higher ELL= Higher percentage of ELL student enrollment

Lower ELL= Lower percentage of ELL student enrollment

*Goal two ($p<.03$)

**Goal three ($p<.05$)

Table 4.17 Significant findings from the 2 X 2 factorial analysis (GLM MANOVA statistic) comparing teacher (ELL X LD) responses from higher ELL enrollment schools and lower ELL enrollment schools for the five COBRA goals

COBRA goals	F	p
Background knowledge	0.41	0.75
Experiential learning	4.61	0.03
Vocabulary	3.90	0.05
Comprehension	1.10	0.35
Study and application	0.08	0.97

Table 4.18 Means, standard deviations and p scores for significant ANOVA subgroup comparisons for responses to specific COBRA goals by teachers from higher ELL enrollment schools and by teachers from lower ELL enrollment schools (ELL and LD teachers)

COBRA goals/comparison groups	mean	s.d.	p
Experiential learning			
ELL teachers from higher ELL enrollment schools	4.18	0.65	
LD teachers from lower LD enrollment schools	3.86	0.80	0.05
Vocabulary			
ELL teachers from lower ELL enrollment schools	4.05	0.60	
LD teachers from lower LD enrollment schools	3.78	0.74	0.05

Low-income Student Enrollment Variable

Table 4.19 shows that thirty-three ELL teachers were from schools with higher percentages of low-income student enrollment. The mean percent of low-income enrollment for these schools was 80.72% with a standard deviation of 9.69%. Thirty-three ELL teachers were from schools with lower percentage of low-income student enrollment. The mean percent low-income enrollment for these schools was 55.25% with a standard deviation of 7.57%. The mean percent of low-income student enrollment for all of the sixty-six ELL teachers' schools was 66.98% with a standard deviation of 15.46%. In addition, thirty-three LD teachers were from schools with higher percentage of low-income student enrollment. The mean percent of low-income student enrollment for these schools was 81.29% with a standard deviation of 9.41%. Thirty-three LD teachers were from schools with lower percentage of low-income student enrollment. The mean percent of low-income student enrollment for these schools was 51.14% with a standard deviation of 9.63%. The mean percent of low-income enrollment for all of the sixty-six LD teachers' schools was 66.22% with a standard deviation of 17.89%. Using a one-way ANOVA procedure, the researcher compared frequency distributions of lower low-income student enrollments in the higher low-income student enrollment schools (ELL versus LD teacher groups) and found no significant differences ($p=0.18$) in the distribution of low-income student enrollments. The same procedure was followed for lower low-income student enrollment schools. The comparison of low-income student enrollments in the lower low-income student enrollment groups (ELL versus LD teacher groups) showed no significant differences ($p=0.08$) in the distribution of low-income student enrollments.

Table 4.19 Mean percentages and standard deviations for low-income student enrollment for numbers of teachers in higher low-income enrollment schools and numbers of teachers in lower low-income enrollment schools (ELL and LD teachers)

School group	ELL teachers			LD teachers			
	n	m % LI*	s.d.	N	m % LI*	s.d.	p
Higher % low-income enrollment							
	33	80.72	9.69	33	81.29	9.41	0.18
Lower % low-income enrollment							
	33	55.25	7.57	33	51.14	9.63	0.08
Totals/averages							
	66	67.98	15.46	66	66.22	17.89	0.21

* m%LI =% low-income student enrollment for each school group.

Table 4.20 reports the means and standard deviations for responses to the five COBRA goals by ELL teachers (higher versus lower percentages of low-income student enrollment) and by LD teachers (higher versus lower percentages of low-income student enrollment). Tables 4.20 and 4.21 report the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals. There were significant differences ($p<.03$) among the four teacher groups for goal two, experiential learning. Table 4.22 reports the follow up ANOVA comparisons used to identify specific subgroup differences. There was one significant group difference ($p<.05$). It was between ELL teachers in higher percentage low-income enrollment schools (mean=4.18, s.d.=0.62) and LD teachers in lower percentage low-income enrollment schools (mean=3.87, s.d.=0.66) on the experiential learning goal. Tables 4.20 and 4.21 also report significant differences ($p<.05$) among the four teacher groups for goal three, vocabulary instruction. Table 4.22 reports the follow up ANOVA comparisons used to identify specific subgroup differences. There were two significant group differences. ELL teachers from schools with a lower percentage of low-income students (mean=4.05, s.d.=0.66) differed significantly ($p<.03$) from LD teachers from schools with a lower percentage of low-income students (mean=3.71, s.d.=0.66). Secondly, ELL teachers with a higher percentage of low-income students (mean=4.04, s.d.=0.67) differed significantly ($p<.04$) from LD teachers with a lower percentage of low-income students (mean=3.71, s.d.=0.66).

As with the previous variable, ELL enrollment, the effect of the low-income student enrollment variable (higher versus lower) was limited to the COBRA goals for experiential learning and vocabulary instruction. For experiential learning, the single significant difference (lower, low-income enrollment LD teachers versus higher, low-income enrollment ELL teachers), did not represent a distinct effect. However, for the COBRA goal on vocabulary instruction, the lower low-income LD teacher group produced significantly lower mean scores on vocabulary instruction in comparison to both ELL teacher groups (higher low-income student enrollment, and lower low-income student enrollment). Finally, it should be emphasized that future research on this topic should also include teacher groups in settings with a low percentage of low-income enrollment such as 25%.

Table 4.20 Means and standard deviations for the five COBRA goal ratings by teacher type (ELL vs. LD) and percent of students who are low-income status (higher vs. lower)

	ELL teachers				LD teachers			
	H%LI		L%LI		H%LI		L%LI	
COBRA goals	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Background knowledge	4.07	0.64	4.23	0.65	4.06	0.53	4.20	0.50
*Experiential learning	4.18	0.62	4.13	0.67	3.93	0.75	3.87	0.66
**Vocabulary	4.04	0.67	4.05	0.66	3.93	0.56	3.71	0.66
Comprehension	4.08	0.57	3.98	0.67	3.95	0.69	3.84	0.42
Study and application	4.08	0.53	4.22	0.55	4.15	0.48	4.11	0.48

H%LI=Higher % of low-income student enrollment

L%LI=Lower % of low-income student enrollment

*Goal two ($p<.05$)

**Goal three ($p<.05$)

Table 4.21 Significant findings from the 2 X 2 factorial analysis (GLM MANOVA statistic) comparing teacher (ELL X LD) responses from schools based on percent of low-income students (high vs. low) for the five COBRA goals

COBRA goals	F	p
Background knowledge	0.69	0.56
Experiential learning	4.61	0.03
Vocabulary	3.95	0.05
Comprehension	0.86	0.47
Study and application	0.42	0.74

Table 4.22 Means, standard deviations and p scores for significant ANOVA subgroup comparisons for responses to specific COBRA goals by teachers from schools with a higher percentage of low-income students and by teachers from schools with a lower percentage of low-income students (ELL and LD teachers)

COBRA goals/comparison groups	mean	s.d.	p
Experiential learning			
ELL teachers from schools with a higher percentage of low-income students	4.18	0.62	
LD teachers from schools with a lower percentage of low-income students	3.87	0.66	0.05
Vocabulary			
ELL teachers from schools with a lower percentage of low-income students	4.05	0.66	
LD teachers from schools with a lower percentage of low-income students	3.71	0.66	0.03
ELL teachers from schools with a higher percentage of low-income students	4.04	0.67	
LD teachers from schools with a lower percentage of low-income students	3.71	0.66	0.04

School Size Variable

Table 4.23 reports the mean school enrollment for the four teacher groups. It also shows that thirty-three ELL teachers from the larger school enrollment schools. The mean school enrollment for these schools was 1031.55 (s.d.=376.05). Thirty-three LD teachers were from the larger school enrollment schools. The mean school enrollment for these schools was 999.85 (s.d.=276.05). Thirty-three ELL teachers were from smaller school enrollment schools. The mean school enrollment for these schools was 403.03 (s.d.=102.99). For the thirty-three LD teachers in the smaller school enrollment schools, the mean school enrollment was 455.85 (s.d.=120.63). The mean enrollment for the sixty-six ELL teachers' schools was 717.29 (s.d.=418.47). The mean enrollment for the sixty-six LD teachers' schools was 727.85 (s.d.=346.12). Using a one-way ANOVA procedure, the researcher compared frequency distributions of school enrollment in the larger school enrollment schools (ELL versus LD teacher groups) and found no significant differences ($p=0.18$) in the distribution of school enrollments. The same procedure was followed for smaller school enrollment schools. The comparison of school enrollments in the smaller school enrollment groups (ELL versus LD teacher groups) showed no significant differences ($p=0.17$) in the distribution of school enrollments.

Table 4.23 Mean and standard deviation for school enrollment in schools with a larger school enrollment and in schools with a smaller school enrollment (ELL and LD teachers)

	ELL teachers			LD teachers			
School group	n	m school*	s.d.	n	m school*	s.d.	p
Schools with a larger school enrollment							
	33	1031.55	376.05	33	999.85	276.05	0.18
Schools with a smaller school enrollment							
	33	403.03	102.99	33	455.85	120.63	0.17
Totals/averages							
	66	717.29	418.47	66	727.85	346.12	0.22

*m school= The average school enrollment in the schools for each group of teachers.

Table 4.24 reports the mean and standard deviation scores for responses to the five COBRA goals by ELL teachers (larger vs. smaller school enrollment schools) and by LD teachers (larger vs. smaller school enrollment schools). Tables 4.24 and 4.25 report the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals. There were significant differences ($p<.05$) among the four teacher groups for goal two, experiential learning, and ($p<.05$) among the four teacher groups for goal three, vocabulary. Table 4.26 reports the follow up ANOVA comparisons used to identify specific subgroup differences. Only significant differences are reported in Table 4.26. There were two significant group differences on the experiential learning goal. The first ($p<.05$) was between ELL teachers from schools with smaller enrollments (mean=4.16, s.d.=0.69) and LD teachers from schools with smaller enrollments (mean=3.79, s.d.=0.72). The second ($p<.05$) was between ELL teachers from schools with larger school enrollments (mean=4.15, s.d.=0.60) and LD teachers from schools with smaller enrollments (mean=3.79, s.d.=0.72). Tables 4.24 and 4.25 also show significant differences ($p<.05$) among the four teacher groups for goal three, vocabulary instruction. Table 4.26 reveals that the significant group difference ($p<.05$) was between ELL teachers from schools with larger enrollments (mean=4.10, s.d.=0.62) and LD teachers from schools with smaller enrollments (mean=3.77, s.d.=0.71).

The school enrollment factor in terms of larger versus smaller school student enrollments did not produce a distinct effect in this subgroup analysis. The differences were limited to the COBRA goals for experiential learning and for vocabulary instruction. LD teachers from schools with smaller enrollments did show a significant difference from the ELL teacher groups, however, LD teachers from schools with smaller enrollments did not differ from LD teachers from schools with larger enrollments. The average size of the school enrollments in all four group conditions did exceed 400 (range=403.03 to 1031.55), thus, it may be important to include a small school enrollment school (about 200) group in future research.

Table 4.24 Mean and standard deviation for the five COBRA goals by teachers (ELL and LD) and by school enrollment (larger vs. smaller)

	ELL teachers				LD teachers			
	LSE		SSE		LSE		SSE	
COBRA goals	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Background knowledge	4.11	0.65	4.19	0.64	4.16	0.54	4.10	0.49
*Experiential learning	4.15	0.60	4.16	0.69	4.01	0.67	3.79	0.72
**Vocabulary	4.10	0.62	3.98	0.70	3.88	0.51	3.77	0.71
Comprehension	4.06	0.59	4.00	0.65	3.93	0.62	3.87	0.51
Study and application	4.16	0.57	4.14	0.52	4.12	0.52	4.15	0.44

LSE=Larger school enrollment

SSE=Smaller school enrollment

*Goal two ($p<.05$)

**Goal three ($p<.05$)

Table 4.25 Significant findings from the 2 X 2 factorial analysis (GLM MANOVA statistic) comparing (ELL X LD) responses by teachers from schools with larger school enrollment and by teachers from schools with smaller school enrollment for the five COBRA goals

COBRA goals	F	p
Background knowledge	0.18	0.91
Experiential learning	4.67	0.03
Vocabulary	3.92	0.04
Comprehension	0.63	0.56
Study and application	0.03	0.99

Table 4.26 Means, standard deviations and significant ANOVA subgroup comparisons for responses to specific COBRA goals by teachers (ELL and LD) from schools with larger school enrollment and from schools with smaller school enrollment

COBRA goals/comparison groups	mean	s.d.	p
Experiential learning			
ELL teachers from smaller school enrollment schools	4.16	0.69	
LD teachers from smaller school enrollment schools	3.79	0.72	0.03
ELL teachers from larger school enrollment schools	4.15	0.60	
LD teachers from smaller school enrollment schools	3.79	0.72	0.03
Vocabulary			
ELL teachers from larger school enrollment schools	4.10	0.62	
LD teachers from smaller school enrollment schools	3.77	0.71	0.04

Level of Teacher Education Variable

Table 4.27 reports the mean teacher education level for the four teacher groups. There were 33 ELL teachers were from the top 50% of the ELL teachers based on educational attainment. The mean teacher education level for these teachers was 3.42 (s.d.=0.67). Table 4.5 showed that this average falls between the education level of master's and master's + hours. There were 33 LD teachers from the top 50% of the LD teachers based on educational attainment. The mean teacher education level for these teachers was 3.67 (s.d.=0.54). Table 4.5 showed that this average falls between the education level of master's and master's + hours. There were 33 ELL teachers from the bottom 50% of the ELL teachers based on educational attainment. The mean education level for these teachers was 1.67 (s.d.=0.48). Table 4.5 showed that this average falls between the education level of bachelor's and bachelor's + hours. There were 33 LD teachers from the bottom 50% of the LD teachers based on educational attainment. The mean teacher education level for these teachers was 1.88 (s.d.=0.55). Table 4.5 showed that this average falls between the education level of bachelor's and bachelor's + hours. The mean education level for all 66 ELL teachers was 2.55 with a standard deviation of 1.06. Table 4.5 showed that this average falls between the education level of bachelor's + hours and master's. The mean education level for all 66 LD teachers was 2.77 with a standard deviation of 1.05. Table 4.5 showed that this average falls between the education level of bachelor's + hours and master's. Using a one-way ANOVA procedure, the researcher compared frequency distributions of educational attainment level in the top 50% of the teachers based on educational attainment (ELL versus LD teacher groups) and found no significant differences (p=0.21) in the distribution of educational attainment level. The same procedure was followed for the bottom 50% of the teachers based on educational attainment. The comparison of educational attainment in the bottom 50% of the teachers based on educational attainment (ELL versus LD teacher groups) showed no significant differences (p=0.24) in the distribution of educational attainment level.

Table 4.27 Mean and standard deviation for education level from the top 50% and the bottom 50% of the teachers based on educational attainment (ELL and LD teachers)

	ELL teachers			LD teachers			
Teacher groups	n	mean*	s.d.	N	mean*	s.d.	p
The top 50% of the teachers based on educational attainment							
	33	3.42	0.67	33	3.67	0.54	0.21
The bottom 50% of the teachers based on educational attainment							
	33	1.67	0.48	33	1.88	0.55	0.24
Totals/averages							
	66	2.55	1.06	66	2.77	1.05	0.24

*mean= Mean education attainment for teacher subgroup.

Table 4.28 reports the mean and standard deviation scores for responses to the five COBRA goals by ELL teachers (top 50% vs. bottom 50% of the teachers based on educational attainment) and by LD teachers (top 50% vs. bottom 50% of the teachers based on educational attainment). Tables 4.28 and 4.29 report the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals. There were significant differences ($p<.05$) among the four teacher groups for goal two, experiential learning, and ($p<.04$) among the four teacher groups for goal three, vocabulary. Table 4.30 reports the follow up ANOVA comparisons used to identify specific subgroup differences. Two significant differences are reported in Table 4.30. One significant group difference ($p=0.01$) was between the responses by ELL teachers from the bottom 50% of the ELL teachers based on educational attainment (mean=4.21, s.d.=0.57) and the responses by the LD teachers from the top 50% of the LD teachers based on educational attainment (mean=3.77, s.d.=0.73). The other significant group difference ($p=0.05$) was between ELL teachers from the top 50% of the ELL teachers based on educational attainment (mean=4.10, s.d.=0.71) and by the LD teachers from the top 50% of the LD teachers based on educational attainment (mean=3.77, s.d.=0.73). Table 4.30 shows that three sub-group comparisons were significant for goal three, vocabulary. The first ($p=0.01$) was between responses by ELL teachers from the bottom 50% of the ELL teachers based on educational attainment (mean=4.18, s.d.=0.63) and responses by the LD teachers from the top 50% of the LD teachers based on educational attainment (mean=3.66, s.d.=0.71). The second ($p=0.03$) was between responses by ELL teachers from the top 50% of the ELL teachers based on educational attainment (mean=4.01, s.d.=0.69) and responses by the LD teachers from the top 50% of the LD teachers based on educational attainment (mean=3.66, s.d.=0.71). The third ($p=0.04$) was between responses by LD teachers from the bottom 50% of the LD teachers based on educational attainment (mean=3.98, s.d.=0.47) and responses by the LD teachers from the top 50% of the LD teachers based on educational attainment (mean=4.01, s.d.=0.69).

Significant effects for level of educational attainment (top 50% versus bottom 50%) were limited to the COBRA goals for experiential learning and vocabulary. For experiential learning, the two significant differences (top 50% of the LD teachers versus the top 50% and the bottom 50% of ELL teachers) did not represent a distinct effect. It

seems likely that as LD teachers gained more education, they focused less on experiential learning than did ELL teachers. For vocabulary instruction, LD teachers from the top 50% of the LD teachers based on educational attainment did show a significant difference from ELL teachers from the top 50% and the bottom 50% of the ELL teachers based on educational attainment and from LD teachers from the bottom 50% of the LD teachers based on educational attainment. It is likely that as LD teachers gained more education, they placed less emphasis on vocabulary than did ELL teachers and LD teachers with less education.

Table 4.28 Mean and standard deviation for the five COBRA goals by teacher type (ELL vs. LD) and by educational attainment (top 50% vs. bottom 50%)

	ELL teachers				LD teachers			
	HEA		LEA		HEA		LEA	
COBRA goals	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Background knowledge	4.15	0.60	4.14	0.69	3.97	0.51	4.29	0.47
*Experiential learning	4.10	0.71	4.21	0.57	3.77	0.73	4.03	0.66
**Vocabulary	4.01	0.69	4.08	0.63	3.66	0.71	3.98	0.47
Comprehension	3.98	0.63	4.08	0.62	3.82	0.58	3.98	0.55
Study and application	4.10	0.56	4.20	0.52	4.09	0.44	4.18	0.51

HEA=Top 50% educational attainment

LEA=Bottom 50% educational attainment

*Goal two ($p<.05$)

*Goal three ($p<.04$)

Table 4.29 Significant findings from the 2 X 2 factorial analysis (GLM MANOVA statistic) comparing teacher (ELL X LD) responses from the top 50% and the bottom 50% of the teachers based on educational attainment for the five COBRA goals

COBRA goals	F	P
Background knowledge	1.82	0.15
Experiential learning	2.75	0.05
Vocabulary	2.83	0.04
Comprehension	1.07	0.37
Study and application	0.45	0.72

Table 4.30 Means, standard deviations and significant ANOVA subgroup comparisons for teacher responses to specific COBRA goals. The subgroups are the top 50% and the bottom 50% of the teachers based on educational attainment (ELL and LD teachers)

COBRA goals/comparison groups	mean	s.d.	p
Experiential learning			
ELL teachers from the bottom 50% of the ELL teachers based on educational attainment	4.21	0.57	
LD teachers from the top 50% of the LD teachers based on educational attainment	3.77	0.73	0.01
ELL teachers from the top 50% of the ELL teachers based on educational attainment	4.10	0.71	
LD teachers from the top 50% of the LD teachers based on educational attainment	3.77	0.73	0.05
Vocabulary			
ELL teachers from the bottom 50% of the ELL teachers based on educational attainment	4.08	0.63	
LD teachers from the top 50% of the LD teachers based on educational attainment	3.66	0.71	0.01
ELL teachers from the top 50% of the ELL teachers based on educational attainment	4.01	0.69	

Table 4.30 (continued)

COBRA goals/comparison groups	mean	s.d.	p
Vocabulary			
LD teachers from the top 50% of the LD teachers based on educational attainment	3.66	0.71	0.03
LD teachers from the bottom 50% of the LD teachers based on educational attainment	3.98	0.47	
LD teachers from the top 50% of the LD teachers based on educational attainment	3.66	0.71	0.04

Level of Teacher Experience Variable

Table 4.31 reports the mean level of teacher experience for the four teacher groups. This table shows that thirty-three ELL teachers were from the top 50% of the ELL teachers based on years of experience. The mean years of experience for these teachers was 22.48 with a standard deviation of 6.79. Thirty-three LD teachers were from the top 50% of the LD teachers based on years of experience. The mean years of experience for these teachers was 25.06 with a standard deviation of 5.33. Thirty-three ELL teachers were from the bottom 50% of the ELL teachers based on years of experience. The mean years of experience for these teachers was 6.21with a standard deviation of 3.87. Thirty-three LD teachers were from the bottom 50% of the LD teachers based on years of experience. The mean years of experience for these teachers was 5.44 with a standard deviation of 3.42. The mean years of experience for all 66 ELL teachers was 14.35 with a standard deviation of 9.86. The mean years of experience for all 66 LD teachers was 15.25 with a standard deviation of 10.84. Using a one-way ANOVA procedure, the researcher compared frequency distributions of teaching experience in the top 50% of the teachers based on years of experience (ELL versus LD teacher groups) and found no significant differences ($p=0.12$) in the distribution of teaching experience. The same procedure was followed for bottom 50% of the teachers based on years of experiences. The comparison of teaching experience in the bottom 50% of the teachers based on years of experience groups (ELL versus LD teacher groups) showed no significant differences ($p=0.16$) in the distribution of teaching experience.

Table 4.31 Mean and standard deviation for teaching experience for the top 50% and the bottom 50% of the teachers based on years of experience (ELL and LD teachers)

Teacher groups	ELL teachers			LD teachers			
	n	mean*	s.d.	n	Mean*	s.d.	p
Top 50% of the teachers based on years of experience							
	33	22.48	06.79	33	25.06	05.33	0.12
Bottom 50% of the teachers based on years of experience							
	33	06.21	03.87	33	05.44	03.42	0.16
Totals/averages							
	66	14.35	09.86	66	15.25	10.84	0.10

*mean=Mean number of years of experience.

Table 4.32 reports the mean and standard deviation scores for responses to the five COBRA goals by ELL teachers (top 50% vs. bottom 50% of teaching experience) and by LD teachers (top 50% vs. bottom 50% of teaching experience). Tables 4.32 and 4.33 report the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals. There were significant differences ($p<.05$) among the four teacher groups for goal two, experiential learning, and ($p<.05$) among the four teacher groups for goal three, vocabulary. Table 4.34 reports the follow up ANOVA comparisons used to identify specific subgroup differences. Three of the sub-group comparisons were significant for goal two, experiential learning. The first significant difference ($p<.05$) was between responses by ELL teachers from the bottom 50% of the ELL teachers based on years of experience (mean=4.17, s.d.=0.53) and responses by the LD teachers from the bottom 50% of the LD teachers based on years of experience (mean=3.73, s.d.=0.75). The second significant difference ($p<.05$) was between responses by ELL teachers from the top 50% of the ELL teachers based on years of experience (mean=4.14, s.d.=0.74) and responses by the LD teachers from the bottom 50% of the LD teachers based on years of experience (mean=3.73, s.d.=0.75). The third significant difference ($p<.05$) was between responses by LD teachers from the bottom 50% of the LD teachers based on years of experience (mean=3.73, s.d.=0.75) and responses by the LD teachers from the top 50% of the LD teachers based on years of experience (mean=4.08, s.d.=0.61). Three of the sub-group comparisons were significant for goal three, vocabulary. The first significant difference ($p<.05$) was between responses by ELL teachers from the bottom 50% of the ELL teachers based on years of experience (mean=3.97, s.d.=0.67) and responses by the LD teachers from the bottom 50% of the LD teachers based on years of experience (mean=3.65, s.d.=0.53). The second significant difference ($p<.05$) was between responses by ELL teachers from the top 50% of the ELL teachers based on years of experience (mean=4.11, s.d.=0.65) and responses by the LD teachers from the bottom 50% of the LD teachers based on years of experience (mean=3.65, s.d.=0.53). The third significant difference ($p<.05$) was between responses by LD teachers from the bottom 50% of the LD teachers based on years of experience (mean=3.65, s.d.=0.53) and responses by the LD teachers from the top 50% of the LD teachers based on years of experience (mean=4.00, s.d.=0.66).

The significant differences were limited to the COBRA goals for experiential learning and for vocabulary instruction. LD teachers from the bottom 50% of the LD teachers based on years of experience viewed experiential learning methods as less important than did both the ELL teacher groups and the LD teachers from the top 50% of the LD teachers based on years of experience. The exact same pattern was observed for goal three, vocabulary instruction. The average number of years of experience for all four groups of teachers was greater than 5 (range=5.44-25.06), thus it may be important to include groups with even less experience in future research.

Table 4.32 Mean and standard deviation for the five COBRA goals by type of teacher (ELL vs. LD) and by years of experience (top 50% vs. bottom 50%)

	ELL teachers				LD teachers			
	HE		LE		HE		LE	
COBRA goals	mean	s.d.	mean	s.d.	mean	s.d.	mean	s.d.
Background knowledge	4.19	0.64	4.11	0.65	4.14	0.52	4.12	0.52
*Experiential learning	4.14	0.74	4.17	0.53	4.08	0.61	3.73	0.75
**Vocabulary	4.11	0.65	3.97	0.67	3.40	0.66	3.65	0.53
Comprehension	4.11	0.62	3.95	0.62	4.04	0.56	3.75	0.54
Study and application	4.15	0.55	4.15	0.54	4.27	0.43	3.40	0.49

HE=Top 50% experience teacher group

LE=Bottom 50% experience teacher group

*Goal two ($p<.03$)

**Goal three ($p<.02$)

Table 4.33 Significant findings from the 2 X 2 factorial analysis (GLM MANOVA statistic) comparing teacher (ELL X LD) responses from the top 50% of the ELL teachers and the bottom 50% of the ELL teachers based on years of experience for the five COBRA goals

COBRA goals	F	P
Background knowledge	0.12	0.95
Experiential learning	3.11	0.03
Vocabulary	3.34	0.02
Comprehension	2.28	0.08
Study and application	1.63	0.19

Table 4.34 Means, standard deviations and p scores for significant ANOVA subgroup comparisons for teacher responses to specific COBRA goals. The subgroups are the top 50% and the bottom 50% of the teachers based on years of experience (ELL and LD teachers)

COBRA goals/comparison groups	mean	s.d.	p
Experiential learning			
ELL teachers from the bottom 50% of the ELL teachers based on years of experience	4.17	0.53	
LD teachers from the bottom 50% of the LD teachers based on years of experience	3.73	0.75	0.01
ELL teachers from the top 50% of the ELL teachers based on years of experience	4.14	0.74	
LD teachers from the bottom 50% of the LD teachers based on years of experience	3.73	0.75	0.01
LD teachers from the top 50% of the LD teachers based on years of experience	4.08	0.61	
LD teachers from the bottom 50% of the LD teachers based on years of experience	3.73	0.75	0.04
Vocabulary			
ELL teachers from the bottom 50% of the ELL teachers based on years of experience	3.97	0.67	

Table 4.34 (continued)

COBRA goals/comparison groups	mean	s.d.	p
Vocabulary			
LD teachers from the bottom 50% of the LD teachers based on years of experience	3.65	0.53	0.04
ELL teachers from the top 50% of the ELL teachers based on years of experience	4.11	0.65	
LD teachers from the bottom 50% of the LD teachers based on years of experience	3.65	0.53	0.01
LD teachers from the top 50% of the LD teachers based on years of experience	4.00	0.66	
LD teachers from the bottom 50% of the LD teachers based on years of experience	3.65	0.53	0.03

Interpretation of Subgroup Comparisons

Table 4.35 summarizes the significant ANOVA follow-up subgroup comparisons of five teacher variables (percentage of ELL students, percentage of low-income students, school enrollment, levels of teacher education, and levels of teacher experience) with the five COBRA goals (background knowledge, experiential learning, vocabulary, comprehension, and study and application). The values in the table were mean scores for the teacher subgroups and mean scores were reported only for significant subgroup differences. The data were taken from Tables 4.18, 4.22, 4.26, 4.30 and 4.34. As shown in these five tables and in Table 4.35, two COBRA goals (experiential learning and vocabulary instruction) produced significant subgroup differences. Three COBRA goals (background knowledge, comprehension, and study and application) produced no significant subgroup differences.

The teacher variable of higher versus lower ELL enrollments had one significant difference in the experiential goal and one significant difference in the vocabulary goal. Similarly, the teacher variable of higher versus lower low-income enrollments had one significant difference in the experiential learning goal and two significant differences in the vocabulary goal. Similarly, the teacher variable of larger versus smaller school enrollment produced two significant differences in the experiential learning goal and one significant difference in the vocabulary goal. A trend among the eight significantly different comparisons among these three teacher variables was that for each comparison the group with the significantly smaller score was the LD teacher group with lower ELL enrollments, lower low-income enrollments, or smaller school enrollments.

The remaining two teacher variables teacher education (top 50% vs. bottom 50%) and years of experience (top 50% vs. bottom 50%) produced eleven significant differences in subgroup comparisons. Thus, teacher education and teacher experience were the most active of the five teacher variables. Seven of the eleven comparisons involved the LD teacher group with lower levels of education and experience. In six of these seven comparisons, they scored significantly lower. For the teacher education variable, both ELL teacher groups rated the experiential learning goal and the vocabulary goal significantly higher than did LD teachers from the top 50% of LD teachers based on

educational attainment. Of interest is that LD teachers from the top 50% of LD teachers based on educational attainment rated the vocabulary goal significantly lower than did LD teachers with lesser levels of education. For the teacher experience variable, both ELL teacher groups and the LD teacher group from the top 50% of LD teachers based on educational attainment rated the experiential learning goal and the vocabulary goal significantly higher than did the LD teacher group from the bottom 50% of LD teachers based on years of experience.

In sum, the teacher variables of percentage of ELL students, percentage of low-income students and size of school enrollment proved to be the least active variables. The teacher variables of teachers' education levels and teachers' experience levels were more active. ELL teacher groups somewhat separated themselves from LD teacher groups, however, significant differences between the two LD teacher groups showed mixed results.

Table 4.35 Summary of significant ANOVA follow-up subgroup comparisons of five subgroup variables and top 50% versus bottom 50% ELL and LD teacher subgroups (mean scores)

	Experiential learning				Vocabulary instruction			
Teacher groups	ELL		LD		ELL		LD	
Subgroup variables	1	2	1	2	1	2	1	2
ELL enrollment	4.18	-	-	3.86	-	4.05	-	3.78
Low-income enrollment	4.18	-	-	3.87	-	4.05	-	3.71
	-	-	-	-	4.04	-	-	3.71
School enrollment size	-	4.16	-	3.79	4.10	-	-	3.77
	4.15	-	-	3.79	-	-	-	-
Teachers' education levels	-	4.21	3.77	-	-	4.08	3.66	-
	4.10	-	3.77	-	4.01	-	3.66	-
	-	-	-	-	-	-	3.66	3.98
Teachers' experience levels	-	4.17	-	3.73	-	3.97	-	3.65
	4.14	-	-	3.73	4.11	-	-	3.65
	-	-	4.08	3.73	-	-	4.00	3.65

1= higher ELL enrollments, higher low-income enrollments, larger school enrollments, Greater levels of teacher education, greater levels of teacher experience

2= lower ELL enrollments, lower low-income enrollments, smaller school enrollments, lesser levels of teacher education, lesser levels of teacher experience

CHAPTER 5 - Summary, Conclusions and Recommendations

Summary of the Study

This study aimed to follow-up Al-Fadda's (2004) study by providing specific information about ELL and LD teachers' perceptions of the importance of reading methods. In order to focus the entire body of reading methods to methods specific to these two special groups (ELL and LD), the researcher combined seven COBRA goals into five, revised and combined items on Al-Fadda's (2004) survey instrument, and created several new items based on research literature addressing theory and practice specific to ELL and LD learners. The change to the five COBRA goals was made on the belief that ELL and LD teachers are special teachers who do not fully embrace a school wide reading program, but instead adapt reading methods to meet the specific needs of their respective student populations. Beyond this, the study sought to determine if teachers of ELL students in middle schools and teachers of LD students in middle schools have similar views of the importance of reading methods. The researcher speculated that the findings of the study would help both types of teacher groups gain important teaching ideas and important reading methods to teach both types of students. The researcher sent surveys to ELL teachers and LD teachers in public middle schools in Kansas, New Mexico, Oklahoma, and Texas.

Demographic information obtained on the survey population allowed the researcher to complete a follow-up analysis on the variables of ELL student enrollment (higher versus lower), low-income student enrollment (higher versus lower), size of enrollment (larger versus smaller enrollment middle schools), extent of teacher education (top 50% versus bottom 50%), and extent of teacher experience (top 50% versus bottom 50%). The researcher reported the frequency of importance ratings of 44 specific reading methods for the combined specialist teacher groups of ELL and LD teachers. In addition, the researcher compared ELL teachers' reading methods ratings to those of LD teachers for the 44 reading methods and the five COBRA goals.

Finally, the researcher made GLM MANOVA comparisons on the five demographic teacher variables for the five COBRA goals. For these comparisons, the researcher

divided ELL teachers and LD teachers into two groups: those scoring in the top 50% on the demographic variable and those scoring in the bottom 50% on the demographic variable. The researcher then used ANOVAs to test whether the distribution of the each demographic variable was similar for the two top 50% and the two bottom 50% groups. The results of these ANOVAs indicated that the groups were equivalent on the demographic variables. These teacher subgroup comparisons were deemed fortuitous since the researcher did not have control over selection and assignment of the teachers to the groups.

Conclusions

The conclusions subsection is organized around the research questions that were presented in chapters 1 and 3. Here the researcher reiterates interpretations for each of the research questions and draws conclusions. The overarching research question is stated last, allowing the researcher to summarize all of the conclusions.

Research Sub-question 1

What was the total distribution of responses (ELL and LD teachers) to each of the reading methods survey items?

There was a relatively small range for the minimum and the maximum mean score (see Table 4.6). None of the items had a mean rating under 3.00, suggesting that every item was perceived by the overall sample as at least somewhat important. The ten highest rated items provided insight into how ELL and LD teachers as specialists perceive the relative importance of reading methods:

1. Skills instruction
2. Visualization
3. Concise explanations
4. Conferencing and coaching
5. Conversation
6. Tutoring
7. Information methods
8. Reading fluency
9. Oral paraphrase and summarization

10. Structured overview

As stated in chapter 4, these teachers deploy a combination of interventionist perspectives, communications and process perspectives, and conventional reading methods. This reflects a componentized or specialist teacher view of reading instruction.

This is further supported by the relatively lower ratings of three items that could be viewed as tools in a broader view of school reading instruction:

23. Story grammar

26. Independent reading approaches

31. Reading guides

In other words, when reading methods were more or less self-contained and not dependent on a larger reading program, then these specialist teachers gave them relatively higher ratings. For this research question, the researcher concluded that there was justification for the belief that ELL and LD teachers should be considered specialist teachers when it comes to rating the relative importance of reading methods. They appear not to have embraced a broad view of reading methods, rather they had an interventionist perspective that componentized reading methods roughly along the lines of conventional, communicative and process groups of methods.

Research Sub-question 2

What is the distribution of responses to each of the reading methods survey items as reported separately for ELL and LD teachers?

There were important observable trends in the distribution of responses to the 44 survey items by ELL and LD teachers when the results were reported separately for the two teacher groups. Thirty-four of the items were given higher ratings by the ELL teacher group and ten were given higher ratings by the LD teacher group. LD teachers gave higher ratings to skills instruction, conferencing and coaching, advanced reading-study patterns, multi-sensory approaches, use of multi-media, pre-reading questions, providing supports, word association and brainstorming, and mnemonics. LD teachers appear to have preferred providing compensatory supports, individualization, specific skills processes, specific study-information processes including advanced text patterns, and memory processes. For ELL teachers, the researcher saw higher ratings given to items

related to oral language processes, integration of language and experience, and vocabulary methods including concept formation.

At the same time, the researcher recognized that several items had very similar means. Both groups gave high ratings to items related to communication between teachers and students. Teaching with technology received relatively low ratings. The item with the lowest rating for both types of teachers was electronic texts. The highest rated item (visualization) for ELL teachers reveals an experiential view of retrieving background knowledge. The highest rated item (skills instruction) for LD teachers reveals a conventional view of reading comprehension. An important observation to reiterate is that ELL teachers rated survey items related to vocabulary, language, and experiential learning higher than did LD teachers. Importantly, LD teachers rated compensatory methods in the name of providing learning supports higher than did ELL teachers.

Conclusions from this research question are made tentatively. ELL teachers appear to trend toward language, experience, and vocabulary methods. LD teachers appear to trend toward interventionist cognition with conferencing, coaching, compensatory methods, specific skills development and memory processes. At the same time, the researcher noted a large number of methods with small mean differences, which suggests a broad spectrum of agreement between the two teacher groups. Findings from statistical comparisons are summarized and firmer conclusions are reached in discussion of the next two research questions.

Research Sub-question 3

What significant differences exist between the ratings of ELL and LD teachers for each of the reading methods survey items?

There were eight survey items that were rated significantly different by ELL teachers and LD teachers (see Tables 4.7 and 4.8). Seven of the eight items were rated higher by ELL teachers than by LD teachers (see Table 4.9). ELL teachers gave significantly higher ratings to conversation, building experience and language, experiential writing, experiential engagement and reporting, relational methods, reading guides, and independent reading approaches. Providing supports was the only item rated significantly higher by LD teachers than by ELL teachers. Seven of the eight significant

survey items rated by ELL teachers had mean ratings over 4.00 on the five-point scale, suggesting that these items were perceived by ELL teachers as quite important. Conversation and providing supports were the only two of the eight significant survey items rated by LD teachers with mean ratings over 4.00 on the five-point scale, suggesting that these items were perceived by LD teachers as very important. Since both types of teachers rated item 1, conversation, among the top ten most important reading methods, it is clear that both types of teachers placed great emphasis on human relationship and oral conversation. Reading guides was among both types of teachers lowest-rated items. However, since the mean rating was approximately 3.50, it is clear that even this method was perceived by both types of teachers as at least somewhat important.

In conclusion, the nature of the seven survey items that ELL teachers rated significantly higher than LD teachers reveals that ELL teachers placed higher value on experiential learning and vocabulary instruction. The barriers of language and culture were probably the main factors that influenced ELL teachers to place so much emphasis on human relationships and experiential learning. LD teachers placed much more focus on individual learning and compensatory supports than did ELL teachers. These results confirm the assumptions derived from answering research question 2.

Research Sub-question 4

What significant differences exist between the ratings of ELL teachers and LD teachers for the group of reading methods survey items that reflect each of the respective instructional goals?

The mean ratings given by the 66 ELL teachers and those given by the 66 LD teachers were somewhat similar (see Table 4.10) for the five COBRA goals. The ELL means and the LD means for the 44 items were significantly positively correlated (see Table 4.12). Among the five COBRA goals, ELL teachers rated goal two, experiential learning, and goal three, vocabulary, as significantly more important in comparison to LD teachers' ratings of these two goals (see Tables 4.10 and 4.11). A likely explanation for this result is that English language learners (ELL) lack sufficient language ability and cultural knowledge to understand what they read and ELL teachers believe that by

experiencing more language and enhancing their vocabulary, students will improve their reading abilities.

Both types of teachers had similar perceptions of the importance of goal one, background knowledge, goal four, comprehension, and goal five, study and application. Activating and extending background knowledge is the foundation of learning, especially for ELL students and LD students. A main job of ELL teachers and LD teachers is to work with regular teachers to support students' learning of subject matter information. This is likely the reason that both types of teachers gave similar ratings of the importance of goal four. The ultimate goal for both types of teachers is to help their students enter the mainstream classroom. In order to help their students read and study independently, both types of teachers focused on the importance of goal five, study and application.

The mean scores of each of the five COBRA goals rated by ELL teachers were above 4.00 on the five-point scale, suggesting that these five COBRA goals were perceived by ELL teachers as quite important. The mean scores of each of the five COBRA goals rated by LD teachers were above 3.83 on the five-point scale, suggesting that these five COBRA goals were perceived by LD teachers as important. In conclusion, testing of the observable trends in research question two reveals that ELL teachers viewed experiential learning and vocabulary as more important than did LD teachers.

Research Sub-question 5

What significant differences exist between the ratings of ELL teachers from schools with a higher percentage of ELL students and from schools with a lower percentage of ELL students and LD teachers from schools with a higher percentage of ELL students and from schools with a lower percentage of ELL students for the group of reading methods survey items that reflect each of the five COBRA goals?

The significant differences in this demographic variable were limited to the COBRA goals for experiential learning and for vocabulary instruction. For the experiential learning goal, ELL teachers from schools with a higher percentage of ELL students gave significantly higher ratings than did LD teachers from schools with a lower percentage of ELL students. For the vocabulary instruction goal, ELL teachers from

schools with a lower percentage of ELL students gave significantly higher ratings than did LD teachers from schools with a lower percentage of ELL students.

In conclusion, this demographic variable for percentage of ELL students produced minimal effects on ratings for the COBRA goals. Ratings for three of the COBRA goals were not significantly impacted by percentage of ELL students. For the two COBRA goals (experiential learning and vocabulary instruction) whose ratings did vary by percentage of ELL students, the activity was confined to comparison with LD teachers from schools with a lower percentage of ELL students. These findings did not support the researcher's expectation that the variable of percentage of ELL students would produce many significant differences among the four teacher groups. The researcher speculates that it may be important to include a small percentage of ELL students school group in future studies.

Research Sub-question 6

What significant differences exist between the ratings of ELL teachers from schools with a higher percentage of low-income students and from schools with a lower percentage of low-income students and LD teachers from schools with a higher percentage of low-income students and from schools with a lower percentage of low-income students for the group of reading methods survey items that reflect each of the five COBRA goals?

The significant differences in this demographic variable for percentage of low-income students were limited to the COBRA goals for experiential learning and for vocabulary instruction. There were three significant differences from the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals for this teacher demographic variable (see Tables 4.20, 4.21 and 4.22). There was one significant group difference for the experiential learning goal. ELL teachers from schools with a higher percentage of low-income students rated this goal higher than did LD teachers with a lower percentage of low-income students. There were two significant group differences for the vocabulary goal. The first was that ELL teachers from schools with a lower percentage of low-income students rated this goal significantly higher than did LD teachers from schools with a lower percentage of low-income students. The

second was that ELL teachers from schools with a higher percentage of low-income students rated this goal significantly higher than did LD teachers from schools with a lower percentage of low-income students. LD teachers from schools with a higher percentage of low-income enrollment students and both groups of ELL teachers viewed the vocabulary goal as similarly important.

In conclusion, this demographic variable produced minimal effects on ratings for the COBRA goals. Ratings for three of the COBRA goals were not significantly impacted by percentage of low-income enrollment. For the two COBRA goals (experiential learning and vocabulary instruction) whose ratings did vary by percentage of low-income enrollment, the activity was confined to comparison with LD teachers from schools with a lower percentage of low-income students. The researcher speculates that it may be important to include a school with even lower percentages of low-income students in future studies.

Research Sub-question 7

What significant differences exist between the ratings of ELL teachers from schools with larger enrollments and from schools with lower enrollments and LD teachers from schools with larger enrollments and from schools with smaller enrollments that reflect each of the five COBRA goals?

The significant differences for the demographic variable of school enrollment were limited to the COBRA goals for experiential learning and for vocabulary instruction. There were three significant differences from the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals for this teacher demographic variable (see Tables 4.24, 4.25 and 4.26). There were two significant group differences for the experiential learning goal. The first was that ELL teachers from schools with smaller enrollments rated this goal significantly higher than did LD teachers from schools with smaller enrollments. The second was that ELL teachers from schools with larger enrollments rated this goal significantly higher than did LD teachers from schools with smaller enrollments. For the vocabulary instruction goal, there was only one significant difference: ELL teachers from schools with larger

enrollments rated the goal significantly higher than did LD teachers from schools with smaller enrollments.

In conclusion, this demographic variable produced minimal effects on ratings for the COBRA goals. Ratings for three of the COBRA goals were not significantly impacted by school enrollment. For the two COBRA goals (experiential learning and vocabulary instruction) whose ratings did vary by school enrollment, the activity was confined to comparison with LD teachers from schools with smaller school enrollments.

Research Sub-question 8

What significant differences exist between the ratings of ELL teachers from the top 50% of the ELL teachers based on educational attainment and from the bottom 50% of the ELL teachers based on educational attainment and LD teachers from the top 50% of the LD teachers based on educational attainment and from the bottom 50% of the LD teachers based on educational attainment for the group of reading methods survey items that reflect each of the five COBRA goals?

The significant differences for the demographic variable of level of teacher education were limited to the COBRA goals for experiential learning and for vocabulary instruction. Level of teacher education had the second most activity of the five teacher variables. Whereas the demographic variables of percentage of ELL students, percentage of low-income students and school enrollment produced only two to three significant differences apiece, the variable of level of teacher education produced five. There were two significant group differences for the experiential learning goal. The first was that ELL teachers from the bottom 50% of the ELL teachers based on educational attainment rated this goal significantly higher than did LD teachers from the top 50% of the LD teachers based on educational attainment. The other significant difference was that ELL teachers from the top 50% of the ELL teachers based on educational attainment rated the goal significantly higher than did LD teachers from the top 50% of the LD teachers based on educational attainment. It seems likely that LD teachers with more education had very different curricula and reading methods to teach their students to read. Three significant group differences were found for the vocabulary goal. The first two were that ELL teachers from the top 50% and the bottom 50% of the ELL teachers based on educational

attainment rated the vocabulary goal significantly higher than did LD teachers from the top 50% of LD teachers based on educational attainment. The third significant difference was that LD teachers from the bottom 50% of the LD teachers based on educational attainment rated this goal significantly higher than did LD teachers from the top 50% of the LD teachers based on educational attainment.

In conclusion, the two significant group differences for the experiential learning goal suggest that LD teachers with greater educational attainment may have very different curricula and reading methods for teaching their students to read. The three significant group differences for the vocabulary goal suggest that as LD teachers gained more educational attainment, they developed different curricula and reading strategies to help their students read and decreased their focus on experiential learning and vocabulary instruction.

Research Sub-question 9

What significant differences exist between the ratings of ELL teachers from the top 50% of the ELL teachers based on years of experience and from the bottom 50% of the ELL teachers based on years of experience and LD teachers from the top 50% of the LD teachers based on years of experience and from the bottom 50% of the LD teachers based on years of experience for the group of reading methods survey items that reflect each of the five COBRA goals?

The significant differences for this demographic variable of extent of teacher experience were limited to the COBRA goals for experiential learning and for vocabulary instruction. Compared to the other demographic teacher variables, the level of teaching experience had the most activity of the five teacher variables. There were six significant differences from the results of the GLM MANOVA comparing the four teacher groups across the five COBRA goals for this teacher demographic variable (see Tables 4.32, 4.33 and 4.34). Three significant group differences were on the experiential learning goal and three were on the vocabulary instruction goal. For both goals, LD teachers from the bottom 50% of the LD teachers based on years of experience gave significantly lower ratings than did each of the other three teacher groups.

In conclusion, ELL teachers and LD teachers with greater levels of experience had a similar perception of the importance of goal two, experiential learning, and goal three, vocabulary instruction. The pattern above reveals that as LD teachers gained more teaching experience, they tended to focus on the importance of experiential learning and vocabulary instruction to a similar degree as both groups of ELL teachers.

Primary Research Question

What are ELL and LD teachers' perceptions of the importance of specific reading strategies for their respective types of students?

A first observation point for this question is the degrees of agreement regarding the survey items and the five COBRA goals. The Pearson correlation coefficient and the coefficient of determination ($r=0.77$, $p=0.01$, $r^2=59\%$) showed a 59% agreement rate (common variance) and a 41% difference rate (separate variance). The Pearson correlation coefficient results showed that correlation of the 44 mean scores of the two teacher groups was significant and was in the range of moderately high. There was a 60% agreement rate between the two teacher groups (no significant differences) for three of the COBRA goals (background knowledge, comprehension, and study and application) and a 40% difference rate between the two teacher groups (significant differences) for two of the COBRA goals (experiential learning and vocabulary). For the 44 survey items, there was an agreement rate of 82.82% (i.e., 36 survey items had no significant differences), and a difference rate of 17.18% (i.e., 8 survey items had significant differences). The researcher concludes that there were more similarities than differences between ELL teachers' and LD teachers' perceptions of the importance of the surveyed reading methods, however, there were also real differences.

ELL teachers gave higher mean ratings than LD teachers for 77.27% of the survey items. Conversely, LD teachers gave higher mean ratings than ELL teachers for 22.73% of the survey items. The researcher found justification for the belief that ELL and LD teachers should be considered specialist teachers when it comes to rating the relative importance of reading methods. They seem not to have a broad view of reading methods, but an interventionist perspective regarding intensive reading enhancement. When the results were reported separately for the two teacher groups, the distribution of responses

to the 44 survey items by ELL and LD teachers reveals that ELL teachers appear to be inclined to use reading methods related to language, experience, and vocabulary methods. It also reveals that LD teachers appear to be inclined to use reading methods related to intervention strategies with conferencing, coaching, compensatory methods, specific skills development and memory processes. In addition, the researcher noted a large number of methods with small mean differences, showing the certain levels of agreement between the two teacher groups.

There were eight survey items that were rated significantly different by ELL teachers and LD teachers and seven of these eight items were rated significantly higher by ELL teachers than by LD teachers. The nature of the seven survey items reveals that ELL teachers placed higher value on experiential learning and vocabulary instruction. A lack of language and culture background was probably the main factor that influenced ELL teachers to focus so much on human relationships and experiential learning. Conversely, LD teachers placed much more focus on individual learning and compensatory supports.

Among the five COBRA goals, ELL teachers rated goal two, experiential learning, and goal three, vocabulary, as significantly more important in comparison to LD teachers' ratings of the same goals. It seems likely that ELL teachers believe that by experiencing more language and strengthening their vocabulary, students will improve their reading abilities to make up for their insufficient language abilities and their lack of cultural knowledge. Both types of teachers had similar perceptions of the importance of goal one: background knowledge, goal four: comprehension, and goal five: study and application.

In terms of the five teacher variables, percentage of ELL students, percentage of low-income students and school enrollment proved to be the least active variables but the teacher variables of teachers' education levels and teachers' experience levels were more active. There is an important observable trend that LD teachers from schools with a lower percentage of ELL students, a lower percentage of low-income students, or a smaller enrollment placed less emphasis on experiential learning and vocabulary. These three demographic variables (percentage of ELL students, percentage of low-income students and school enrollment) did produce minimal effects on ratings for the COBRA goals. In

contrast, two of the five demographic variables (teacher educational attainment and teaching experience) produced the most active impacts on ratings for the COBRA goals. There is a possible trend that as LD teachers gained more education knowledge and professional training, they tended to use a different curriculum and teaching strategies to help their students read. In addition, LD teachers with lower levels of teaching experience may have a different curriculum and reading strategies to help their students read than did ELL teachers at both levels of teaching experience and LD teachers with greater levels of teaching experience. There is an assumption that as LD teachers gained more years of experience, they tended to use a curriculum and teaching strategies to help their students read that were similar to those employed by ELL teachers. Lastly, the significant differences in the five demographic variables were limited to the two COBRA goals: experiential learning and vocabulary instruction.

In conclusion, these two types of teachers viewed certain reading methods differently. ELL teachers rated goal two (experiential learning) and goal three (vocabulary) as significantly more important than did LD teachers. ELL teachers gave ratings on reading methods related to experiential learning, language and English practice, vocabulary learning, interaction between teachers and students, and independent reading that were significantly higher than those given by LD teachers. In contrast, LD teachers focused on reading methods related to individual learning, conferencing and coaching, and extra supports. Both types of teachers viewed oral speaking/conversation, interaction between teachers and students, tutoring, and conventional study skills as quite important. They also placed the least emphasis on Internet/computer use.

Recommendations for Further Research

The researcher has some recommendations for further research related to this topic:

1. This study shows that the fixed goals of the COBRA research design are productive and should continue to be used in reading methods studies of ELL and LD teachers. For ELL and LD teachers, the five-goal model proved to be valid as their ratings of the reading methods reflected specialist views of reading instruction.

2. The researcher sought to determine if a school's percentage of ELL students would affect the importance ratings of the COBRA goals. This was a main concern of this study. The findings from this study did not support the idea that when the percentage of ELL students is larger, then teachers rate reading methods significantly higher. However, future studies on this topic should consider middle schools with ELL enrollments in the range of 1-9 percent as one demographic group and ELL enrollments in the range of 10-20 percent as a second demographic group.

3. The researcher had low returns from middle schools with a very high percentage of ELL students. The researcher speculates that schools with very high percentages of ELL students along the Mexican-Texas border area had significantly different perceptions of the communications curriculum and their English language reading curriculum was embedded in a Spanish-English dual language curriculum. While the substance of the 44 reading methods survey items will be useful in future studies of middle school ELL and LD teachers, the survey methodology for the middle schools with very high percentages of ELL students proved less productive. Future studies of the middle schools with very high percentages of ELL students should consider research methods other than the survey.

4. In this study, the educational level factor and the years of experience factor did produce distinct effects in subgroup analyses for the COBRA goals. The researcher suggests that a follow-up study be conducted to investigate why these differences exist.

5. The results from this study addressed what reading methods teachers viewed as important. The researcher had an assumption that these teachers use these reading methods when they teach their students. However, this assumption may not be valid. To test its validity, the researcher suggests a follow-up study to see if there is a relationship between how often they use the methods and how important they said they are.

6. Given the fact that both types of teachers rated all 44 survey items above the mid-point of the scale, it seems reasonable to conclude that these 44 reading methods would be rated as important by teachers who simultaneously teach these two types of students. The researcher suggests a specific study to explore whether such teachers do rate the 44 reading survey items similarly to the teachers surveyed in this study. It would

be interesting to examine whether their mean ratings are similar to ELL teachers' ratings or LD teachers' ratings, or fall somewhere in between.

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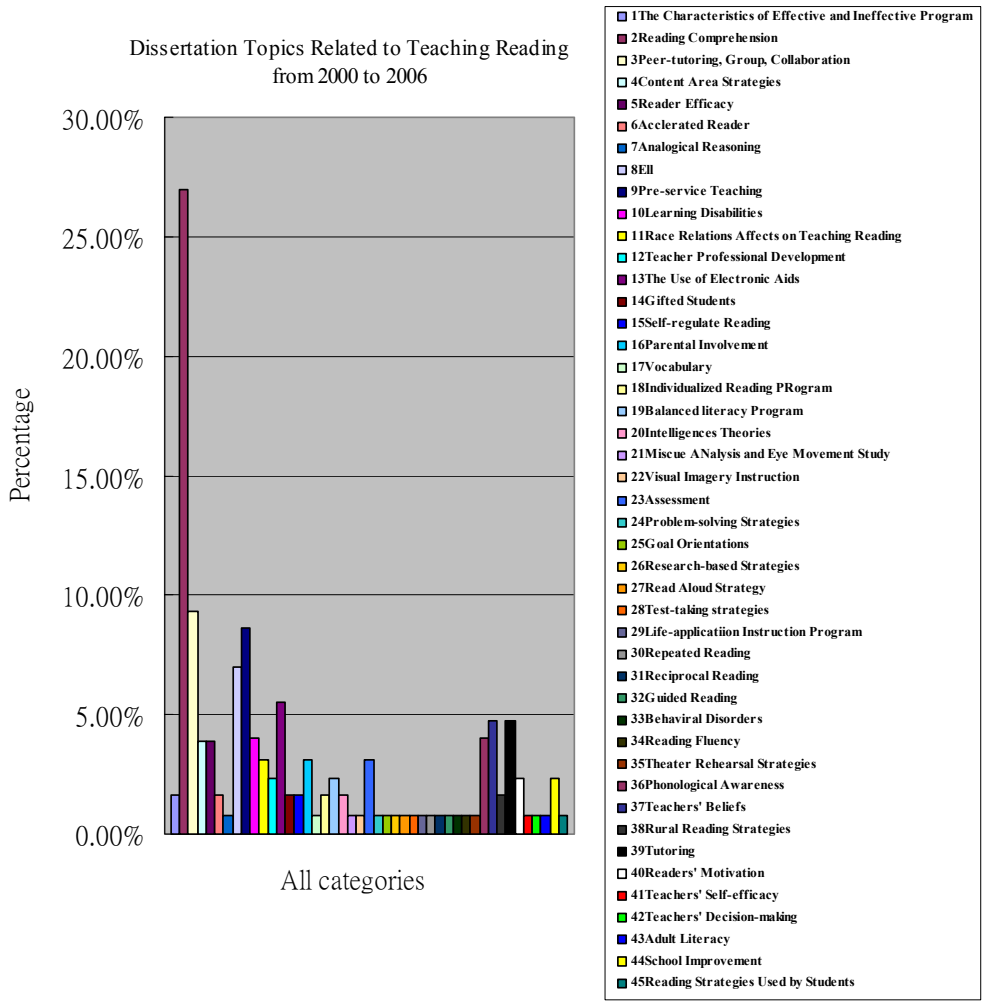
Appendix A - Dissertation Topics Related to Teaching Reading from 2000 to 2006



Appendix B - Pilot Study Survey

Pilot Survey-Questionnaire
A Survey of Middle School ELL and LD Teachers' Perceptions of the Importance of Reading Methods

Methods Survey Items: For each strategy below, write the number in the blank that indicates how important it is to you for teaching ELL or LD students how to read:

Very Important 5 4 3 2 1 Not at all Important

___ 1. Visualization. Using visual prompts, or asking students to visualize and imagine aspects of the information they are going to read in order to activate their background knowledge.

___ 2. Conversation. Establishing a conversational setting and coaching students to discuss personal experiences or opinions that relate to the topic of an upcoming reading assignment.

___ 3. Concise explanations. Identifying core concepts and presenting them to students in brief but concise explanations in order to establish a fund of student background knowledge.

___ 4. Word association brainstorming. Prior to assigning a reading, asking students about its main topic by providing a stimulus word such as "China," then asking them to list vocabulary that they associate with the word.

___ 5. Use of multi-media. Providing students with multimedia on the topic, including video, so that they will have a meaningful context for reading and learning.

___ 6. Think-pair-share. Asking students to list what they know about a topic before they read and then work with another to share and consolidate this background information.

___ 7. Pre-reading questioning. Asking students to formulate questions about their reading including listing what they know about the topic and what they don't know or need to learn.

___ 8. Structured overview. When introducing a reading or story, presenting a vocabulary web to familiarize students with its keywords and main points of the information.

Methods Survey Items: For each strategy below, write the number in the blank that indicates how important it is to you for teaching ELL or LD students how to read:

Very Important 5 4 3 2 1 Not at all Important

___ 9. Building experience and language. Using role-playing and discussion of the experience so that students can learn to convert their experiences into words and verbal concepts.

___ 10. Experiential writing. Having students write brief explanations, captions, or labels for cartoons, pictures, maps, charts, graphs, drawings, etc.

___ 11. Experiential engagement and reporting. Teaching students to engage in an experience through watching and listening, and then report the experience through telling or writing.

___ 12. Multi-sensory approaches. Using tracing, hearing, writing, and seeing as a means of integrating basic experiences with language development.

___ 13. Language experience with dictated stories. Asking a student to dictate an experience to a second student who writes the account. The student who dictated practices reading the transcription aloud.

___ 14. Listening-writing. Reading basic information to students 2-3 times as they listen and list main point vocabulary items. After the final reading and listing of terms, giving students a few minutes to write their understanding of the information from their lists of terms.

___ 15. Double-entry learning logs. Teaching students to divide their notebook pages in half with a vertical line so that they can put their experiences with drawings, diagrams, math problems, etc., in the left column and their written notes for these graphic representations in the right hand column.

___ 16. RAFT (role-audience-format-topic). Asking students to write from the point of view of an object or significant person as a means of turning experiential learning into verbal concepts.

___ 17. Phonemic and phonological awareness. Teaching students how to blend phonemes decode new words, segment words into the phonemes, and to be aware of phonemes and larger spoken units such as syllables, onsets, and rhymes.

___ 18. Homophones and homographs. Asking students to generate homophone pairs and homograph pairs to help them identify the differences between the same word pronunciation and the same word spelling.

Methods Survey Items: For each strategy below, write the number in the blank that indicates how important it is to you for teaching ELL or LD students how to read:

Very Important 5 4 3 2 1 Not at all Important

___ 19. Inference-prediction. Using sentences and passages with missing words to teach students to predict a word or idea based on its position in a sentence or passage.

___ 20. List and define vocabulary instruction. Making use of direct instruction in which the teacher: 1) says the word, 2) displays the word, 3) uses the word in a sentence, 4) asks students to write an original sentence using the word, and, 5) gives a precise definition for the word.

___ 21. Basic word study. Teaching students to engage in word study by sounding out word parts, using context clues, and studying the dictionary for word pronunciation and word definition.

___ 22. Concept of definition. Asking students to make multiple associations when studying subject matter words by responding to prompts such as: How is the word pronounced? What is it? What does it look like? Can you give an example of it? What would you compare this to?

___ 23. Refining word associations. Teaching students to recognize and to produce antonyms, synonyms and multiple meanings of words.

___ 24. Morphemic analysis. Teaching students the meanings of common prefixes, suffixes, and root words to help them pronounce and decode unfamiliar words and to refine their meanings.

___ 25. Relational methods. Teaching categorization, classification, list-group-label, and word sorts as vocabulary methods aimed at getting students to form basic information concepts.

___ 26. Vocabulary graphic organizers. Using graphic organizers with students such as concept maps, semantic maps, spider maps, and, cognitive maps in order to reinforce word relationships and establish the main idea.

___ 27. Software-Internet use. Using vocabulary software or Internet resources for vocabulary practice, possibly including the use of second language translations.

___ 28. Oral paraphrase and summarize. Teaching students how to orally paraphrase or orally summarize the content of a reading passage.

___ 29. Skills instruction. Teaching the basic reading comprehension skills of retelling, inference-prediction, sequence, main idea, fact versus opinion, and drawing conclusions.

___ 30. Story grammar. When students read fiction or biographies, asking them to fill out a worksheet that has prompts for setting, plot, character, goals, events and outcomes.

Methods Survey Items: For each strategy below, write the number in the blank that indicates how important it is to you for teaching ELL or LD students how to read:

Very Important 5 4 3 2 1 Not at all Important

___ 31. Basic reading patterns. Teaching comprehension patterns of definition, description sequence, and question-answer relationships (QARs).

___ 32. Think-alouds. Demonstrating effective reading comprehension applications to students orally and probing students to respond about how they completed their reading.

___ 33. Material graphic organization. Teaching students to use charts, diagrams, or graphic organizers to help them better understand the organization of reading material.

___ 34. Hierarchy pattern. Teaching students to learn the hierarchy pattern through tasks of sequence, categorization, classification, and concept mapping.

___ 35. Reading guides. Having students respond in writing to teacher-written prompts as they read assigned text.

___ 36. Electronic texts. Teaching students to use online text comprehension features such as interactive prompts, sound, animation, and video.

___ 37. Providing basic supports. Taking notes for students, reading information to them, reading test items to them during an exam, or listening to their oral reading.

___ 38. Reading fluency. Having students re-read materials to develop the ability to read quickly and accurately.

___ 39. Mnemonics. Teaching students to use devices such as acronyms to help them remember what they have learned.

___ 40. Paired or group practice. Having students work in pairs or groups to study the spelling and meaning of words from passages they have read, as well practice asking and answering each other's questions over these passages to reinforce comprehension.

___ 41. Writing to learn. Having students write short answers, paragraphs, and essays to demonstrate their knowledge and application of subject matter information.

___ 42. Tutoring. Having students engage in additional reading, learning and study development with the help of peer, cross-age, or paraprofessional tutors who are in the classroom.

___ 43. Information methods. Teaching students strategies for note-taking, highlighting, outlining and memorization for the purposes of clarifying and organizing their thoughts as well as consolidating information.

Methods Survey Items: For each strategy below, write the number in the blank that indicates how important it is to you for teaching ELL or LD students how to read:

Very Important 5 4 3 2 1 Not at all Important

___ 44.Textbook study methods. Guiding students through a series of textbook activities such as outlining, concept mapping, guided reading, skimming, and textbook reading activities such as SQ3R.

___ 45. Study websites. Teaching study processes using informational websites or websites which provide resources for homework completion.

___ 46. Advanced reading-study patterns. Teaching students the text patterns of compare-contrast, cause-effect, and problem-solution.

___ 47. Conferencing and coaching. Conferencing with each student to gain an understanding of their learning problems and coaching them with methods for solving those learning problems.

___ 48. Curriculum-referenced tests. Using tests designed around important subject area concepts or standards to measure students' subject matter knowledge.

___ 49. Independent reading approaches. Using methods and programs such as sustained silent reading or Accelerated Reader in order to provide reading practice and help build positive attitudes toward reading.

___ 50. Readiness testing. Having students complete informal subject matter and reading tests and using the scores from these tests to determine their readiness to take the actual subject or reading test.

Thank you very much for your cooperation and help!

Appendix C - Final Study Survey

A Survey of the Importance of Different Reading Methods

Demographic Information

1. Please check one of the following as your main area of training and teaching responsibility (check only one):

____ Teacher of students who are learning English as a Second Language (ESL)
____ Teacher of students who have Learning Disabilities (LD)

2. Please record the total number of students enrolled in your building: ____

3. How many years have you been a teacher? ____

4. Please check one of the following as the highest college degree you currently hold:
___ Bachelor's ___ Bachelor's+hours ___ Master's ___ Master's+hours ___Doctorate

Survey Items

The following survey items represent several reading strategies. Please rate the relative importance of each strategy to your teaching by darkening the appropriate circle on the five point rating scale.

Rating Scale Unimportant ① ② ③ ④ ⑤ Very Important

Background Knowledge

① ② ③ ④ ⑤ 1. Conversation. Establishing a conversational setting and coaching students to discuss personal experiences or opinions that relate to the topic of an upcoming reading assignment.

① ② ③ ④ ⑤ 2. Concise explanations. Identifying core concepts and presenting them to students in brief but concise explanations in order to establish a base of student background knowledge.

① ② ③ ④ ⑤ 3. Word association brainstorming. Prior to assigning a reading, asking students about its main topic by providing a stimulus word such as "China," then asking them to list vocabulary that they associate with the word.

① ② ③ ④ ⑤ 4. Use of multi-media. Providing students with multimedia on the topic, including video, so that they will have a meaningful context for reading and learning.

① ② ③ ④ ⑤ 5. Think-pair-share. Asking students to list what they know about a topic before they read and then having them work with another to share and consolidate this background information.

① ② ③ ④ ⑤ 6. Pre-reading questioning. Asking students to formulate questions about their reading, including listing what they know about the topic and what they don't know or need to learn.

① ② ③ ④ ⑤ 7. Structured overview. When introducing a reading or story, presenting a vocabulary web to familiarize students with its keywords and main points.

Experience and Language

① ② ③ ④ ⑤ 8. Visualization. Using visual prompts or asking students to visualize and imagine elements of the information they are reading and learning.

Survey Items

The following survey items represent several reading strategies. Please rate the relative importance of each strategy to your teaching by darkening the appropriate circle on the five point rating scale.

Rating Scale Unimportant ① ② ③ ④ ⑤ Very Important

① ② ③ ④ ⑤ 9. Building experience and language. Using role-playing and discussion of the experience so that students will convert their experiences into words and verbal concepts.

① ② ③ ④ ⑤ 10. Concept of definition. Asking students to make multiple associations when studying subject matter words by responding to prompts such as: How is the word pronounced? What is it? What does it look like? Can you give an example of it? What would you compare this to?

① ② ③ ④ ⑤ 11. Experiential writing. Having students write brief explanations, captions, or labels for cartoons, pictures, maps, charts, graphs, drawings, etc.

① ② ③ ④ ⑤ 12. Experiential engagement and reporting. Teaching students to engage in an experience through
watching and listening, and then report the experience through telling or writing.

① ② ③ ④ ⑤ 13. Multi-sensory approaches. Using tracing, hearing, writing, and seeing as a means of integrating basic experiences with language development.

Language and Vocabulary

① ② ③ ④ ⑤ 14. Phonemic and phonological awareness. Teaching students how to blend phonemes, decode new words, segment words into the phonemes, and to be aware of phonemes and larger spoken units such as syllables, onsets, and rhymes.

① ② ③ ④ ⑤ 15. Homophones and homographs. Asking students to generate homophone pairs and homograph pairs to help them identify the differences between words with the same pronunciation or words with the same spelling.

① ② ③ ④ ⑤ 16. Inference-prediction. Using sentences and passages with missing words to teach students to predict a word or idea based on its position in a sentence or passage.

① ② ③ ④ ⑤ 17. List and define vocabulary instruction. Making use of direct instruction in which the teacher: 1) says the word, 2) displays the word, 3) uses the word in a sentence, 4) asks students to write an original sentence using the word, and, 5) gives a precise definition for the word.

① ② ③ ④ ⑤ 18. Word study. Teaching students to engage in word study by sounding out word parts, using context clues, and studying the dictionary for word pronunciation and word definition.

① ② ③ ④ ⑤ 19. Refining word associations. Teaching students to recognize and use antonyms synonyms and multiple meanings of words.

① ② ③ ④ ⑤ 20. Morphemic analysis. Teaching students the meanings of common prefixes, suffixes, and root words to help them pronounce and decode unfamiliar words and to refine their meanings.

Survey Items

The following survey items represent several reading strategies. Please rate the relative importance of each strategy to your teaching by darkening the appropriate circle on the five point rating scale.

Rating Scale **Unimportant** ① ② ③ ④ ⑤ **Very Important**

① ② ③ ④ ⑤ 21. Relational methods. Teaching categorization, classification, list-group-label, and word sorts as vocabulary methods aimed at getting students to form basic information concepts.

① ② ③ ④ ⑤ 22. Vocabulary graphic organizers. Using graphic organizers with students such as concept maps, semantic maps, spider maps, and cognitive maps in order to reinforce word relationships and establish the main idea.

① ② ③ ④ ⑤ 23. Software-Internet use. Using vocabulary software or Internet resources for vocabulary practice, possibly including the use of second language translations.

Comprehension

① ② ③ ④ ⑤ 24. Oral paraphrase and summary. Teaching students how to orally paraphrase or orally summarize the content of a reading passage.

① ② ③ ④ ⑤ 25. Skills instruction. Teaching the reading comprehension skills of retelling, inference-prediction, sequence, main idea, fact versus opinion, and drawing conclusions.

① ② ③ ④ ⑤ 26. Story grammar. Asking students to fill out a worksheet that has prompts for setting, plot, character, goals, events and outcomes when they read fiction or biographies.

① ② ③ ④ ⑤ 27. Basic reading patterns. Teaching comprehension patterns of definition, description, sequence, and question-answer relationships (QARs).

① ② ③ ④ ⑤ 28. Think-alouds. Demonstrating effective reading comprehension applications to students orally and probing students to respond about how they completed their reading.

① ② ③ ④ ⑤ 29. Material graphic organization. Teaching students to use charts, diagrams, or graphic organizers to help them better understand the organization of reading material.

① ② ③ ④ ⑤ 30. Hierarchy pattern. Teaching students about hierarchical organization patterns through tasks of sequence, categorization, classification, and concept mapping.

① ② ③ ④ ⑤ 31. Reading guides. Having students respond in writing to teacher-written prompts as they read assigned text.

① ② ③ ④ ⑤ 32. Electronic texts. Teaching students to use online text comprehension features such as interactive prompts, sound, animation, and video.

Study Application

① ② ③ ④ ⑤ 33. Providing supports. Taking notes for students, reading information to them, reading test items to them during an exam, or listening to their oral reading.

① ② ③ ④ ⑤ 34. Reading fluency. Having students re-read materials to develop the ability to read quickly and accurately.

Survey Items

The following survey items represent several reading strategies. Please rate the relative importance of each strategy to your teaching by darkening the appropriate circle on the five point rating scale.

Rating Scale **Unimportant** ① ② ③ ④ ⑤ **Very Important**

① ② ③ ④ ⑤ 35. Mnemonics. Teaching students to use devices such as acronyms to help them remember what they have learned.

① ② ③ ④ ⑤ 36. Paired or group practice. Having students work in pairs or groups to study the spelling and meaning of words from passages they have read, and having them practice asking and answering each other's questions over these passages to reinforce comprehension.

① ② ③ ④ ⑤ 37. Writing to learn. Having students write short answers, paragraphs, and essays to demonstrate their knowledge and application of subject matter information.

① ② ③ ④ ⑤ 38. Tutoring. Having students engage in additional reading, learning and study development with the help of peer, cross-age, or paraprofessional tutors who are in the classroom.

① ② ③ ④ ⑤ 39. Information methods. Teaching students strategies for note-taking, highlighting, outlining and memorization for the purposes of clarifying and organizing their thoughts as well as consolidating information.

① ② ③ ④ ⑤ 40.Textbook study methods. Guiding students through a series of textbook activities such as outlining, concept mapping, guided reading, skimming, and textbook reading activities such as SQ3R.

① ② ③ ④ ⑤ 41. Advanced reading-study patterns. Teaching students the text patterns of compare-contrast, cause-effect, and problem-solution.

① ② ③ ④ ⑤ 42. Conferencing and coaching. Conferencing with each student to gain an understanding of their
learning problems and coaching them with methods for solving those learning problems.

① ② ③ ④ ⑤ 43. Curriculum-referenced tests. Using tests designed around important subject area concepts or standards to measure students' subject matter knowledge.

① ② ③ ④ ⑤ 44. Independent reading approaches. Using methods and programs such as sustained silent reading or Accelerated Reader in order to provide reading practice and help build positive attitudes toward reading.

Please list and rate any other reading strategies you use:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Appendix D - IRB Approval Form

K-STATE
Kansas State University

University Research
Compliance Office
203 Fairchild Hall
Lower Mezzanine
Manhattan, KS 66506-1103
785-532-3224
Fax: 785-532-3278
http://www.ksu.edu/research/comply

TO: Charles Heerman
Secondary Education
223 Bluemont Hall

Proposal Number: 4000

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: August 28, 2006

RE: Proposal Entitled, "A survey of middle school ELL and LD teachers' perceptions of the importance of reading methods"

The Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is exempt from further review.

This exemption applies only to the proposal currently on file with the IRB. Any change affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Exemption from review does not release the investigator from statutory responsibility for obtaining the informed consent of subjects or their authorized representatives, as appropriate, either orally or in writing, prior to involving the subjects in research. The general requirements for informed consent and for its documentation are set forth in the Federal Policy for the Protection of Human Subjects, 45 CFR 46.116-117, copies of which are available in the University Research Compliance Office and online at http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm#46.116. In cases of remote oral data collection, as in telephone interviews, oral consent is sufficient and the researcher is required to provide the respondent with a copy of the consent statement only if the respondent requests one. The researcher must, however, ask the respondent whether he or she wishes to have a copy. The initiative in requesting a copy must not be left to the respondent. Regardless of whether the informed consent is written or oral, the investigator must keep a written record of the informed consent statement, not merely of the fact that it was presented, and must save this documentation for 3 years after completing the research.

The identification of a human subject in any publication constitutes an invasion of privacy and requires a separate informed consent.

Injuries or any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Appendix E - Consent Form

Informed Consent

Title of Research: A Survey of Middle School ELL and LD Teachers' Perceptions of the Importance of Reading Methods

Investigator: Dr. Charles E Heerman, 785-532-6675, heerman@ksu.edu, Secondary Education, 223 Bluemont, Kansas State University, Manhattan, KS, 66506

Co-Investigator: Pei-Yi Lee, 785-317-4171, bettyaaa@ksu.edu, Secondary Education, 2215 College Ave Apt 110, Manhattan, KS, 66502

Before agreeing to participate in this research study, it is important that you read the following explanation of this study. This statement describes the purpose, procedures, benefits, risks, discomforts, and precautions of the study. Also described are the alternative procedures available to you, as well as your right to withdraw from the study at any time. No guarantees or assurances can be made as to the results of the study.

Explanation of Procedures

You are being asked to participate in a research project to determine whether teachers of ELL students have similar or different preferences for reading methods than do teachers of LD students. The study uses one survey, which should take about 10 minutes for you to complete. If you agree to participate in this study, please sign this consent form and then complete the survey. Then place the consent form and the survey in the enclosed, stamped envelope and mail them back to the researchers. The survey will be read over only by the researchers, Dr. Charles E. Heerman and Pei-Yi Lee. These two persons will review the answers and will not know who answered the questions.

Risks and Discomforts

You will not be at physical or psychological risk and should experience no discomfort resulting from answering the survey.

Benefits

The findings of this study will help middle/junior high school educators better understand which reading strategies are most commonly practiced with ELL and LD students.

Participant's initials: _____

Confidentiality

All information gathered from the study will remain confidential. Your identity as a participant will not be disclosed to any unauthorized persons; only the researchers will have access to the research materials, which will be kept in a locked drawer. Any references to your identity that would compromise your anonymity will be removed or disguised prior to the preparation of the research reports and publications.

Withdrawal Without Prejudice

Participation in this study is voluntary; refusal to participate will involve no penalty. You are free to withdraw consent and discontinue participation in this project at any time.

Costs and/or Payments for Participation in this Study

There will be no costs for participating in the research. Also, you will not be paid to participate in this research project.

Questions

If you have any questions concerning the research project you can call Dr. Charles E. Heerman, 785-532-6675, or e-mail him at: heerman@ksu.edu

Questions regarding your rights as a participant in this research project should be directed to name Dr. Rick Scheidt, Chair, Committee on Research Involving Human subject, 1 Fairchild Hall, Kansas State University, Manhattan, KS 66506, 785-532-3224

Agreement

This agreement states that you have received a copy of this informed consent. Your signature below indicates that you agree to participate in this study.

Signature of Subject _____ Date _____

Subject name (printed) _____

Signature of Researcher _____ Date _____

Appendix F - Cover Letter to Principals

Department of Secondary Education
College of Education
364 Bluemont Hall
1100 Mid-Campus Drive
Manhattan, KS 66506 -5333
785-532-5904
Fax: 785-532-7304

September 28, 2006

Khris Thexton, Principal
500 N. Western
Liberal, KS 67901

Dear Principal Thexton,

I am writing to invite ESL teachers and LD (special education) teachers in your school to participate in completing and mailing the surveys that I have included in this envelope. This survey research is aimed at comparing ESL and LD teachers' views of the importance of 44 reading methods. My aim is to identify a core of reading methods that these two groups of (ESL and LD) teachers view as equally important.

With this dissertation study, I am completing the requirements for earning the Ph. D. in the College of Education at Kansas State University.

I ask that you give one of the surveys to ESL teachers and one of the surveys to LD teachers in your building. The survey is the same for both teachers. I have clipped a stamped return envelope to each survey as well as a page explaining the teachers' rights in this study.

Results from the survey will be kept confidential. Your teachers will not be identified, nor will your school. Teachers will mark whether they are an ESL teacher or an LD teacher. They will report school enrollment size, years of experience and educational level. When surveys are returned, the school will be deleted from the mailing list.

Your ESL and LD teachers' participation in this study is strictly voluntary. I feel that my research question is important. Middle and junior high schools were chosen from Kansas, New Mexico, Oklahoma and Texas. Schools were selected on the basis of having total enrollments of more than 200 students and English language learner enrollments above average for the state in which the school is located.

If you have questions about the study or are interested in the findings from this study, you may contact me at the mailing address, cell phone number, or email address listed below my signature.

Respectfully,

Pei-Yi Lee
2215 College Avenue, Apt. 110
Manhattan, KS 66502
785-317-4189
bettyaaa@ksu.edu

Appendix G - Cover Letter to Teachers

K-STATE
Kansas State University
Department of Secondary Education
College of Education
364 Bluemont Hall
1100 Mid-Campus Drive
Manhattan, KS 66506 -5333
785-532-5904
Fax: 785-532-7304

September 08, 2006

Dear Colleague:

Thank you for agreeing to participate in my dissertation study. The attached survey has basic background information to be completed. The survey items represent 44 reading strategies that you are asked to rate on a scale of 1-5. When completed, please return it to me in the addressed and stamped envelope.

This survey is aimed at comparing ESL and LD teachers' views of the importance of the 44 reading methods. My aim is to identify a core of reading methods that these two groups of teachers (ESL and LD) view as equally important. With this dissertation study, I am completing the requirements for earning the Ph. D. in the College of Education at Kansas State University.

Results from the study are kept confidential. You are not identified, nor is your school. You mark whether you are an ESL teacher or an LD teacher. You are asked to estimate your school's total enrollment. Finally, you report your years of teaching experience and your level of education. To complete the survey, you rate the importance of the 44 reading strategies.

Your participation in this study is strictly voluntary. You are not required to participate and you will not be penalized if you do not participate.

If you have additional questions, these may be directed to either Rick Scheidt or Charles Heerman. Their contact information is listed at the bottom of this letter.

Respectfully,

Pei-Yi Lee
2215 College Ave Apt 110
Manhattan, KS, 66502
785-317-4171
bettyaaa@ksu.edu

Additional contacts if needed

Charles Heerman, Bluemont Hall 223, Department of Secondary Education, Kansas State University, Manhattan, KS 66506, 785-532-5934 (Faculty advisor for this study) heerman@ksu.edu.

Rick Scheidt, Chair on Research Involving Human Subjects, 1 Fairchild Hall, Kansas State University, Manhattan, KS 66506, 785-532-3224.

Appendix H - Follow-up Postcard Reminder to Principals

November 07, 2006

Dear Colleague,

About a week ago I sent you a survey to you for measuring ESL and LD teacher's ratings of 44 reading methods. I would be grateful if you reminded at least one ___ (ELL/LD) teacher to fill the survey out and send it back.

If you did not receive a survey package, or if it was misplaced, please call me at (785-317-4171) or e-mail me (bettyaaa@ksu.edu) and I will mail another to you immediately.

Respectfully,

Pei-Yi Lee
2215 College Avenue, Apt. 110
Manhattan, KS 66502